5.13 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the City of Industry General Plan Update to result in transportation and traffic impacts in the City and its Sphere of Influence (SOI) (together referred to as the City). The analysis in this section is based in part on the following technical report(s):

- *Traffic Impact Analysis, Industry General Plan Update EIR*, Linscott, Law, & Greenspan Engineers (LLG), November 16, 2011

A complete copy of this study is included in Appendix G of this DEIR.

5.13.1 Environmental Setting

Traffic Analysis Methodology

The work scope for the traffic study, including the base assumptions, technical methodologies, and geographic coverage, was developed in conjunction with City staff, and is in accordance with the Congestion Management Program (CMP) for Los Angeles County and California Department of Transportation (Caltrans) traffic impact analysis guidelines.

To address Caltrans study requirements, all freeway on/off-ramp intersections with arterials were evaluated by applying the 2000 Highway Capacity Manual (HCM) methodology for calculating levels of service at signalized and unsignalized freeway on/off-ramp intersections with arterials.

Trip forecasting, explicit traffic distribution and assignment on the street network, and detailed level of service analyses were conducted using the TRAFFIX 8.0 computer program.

Significant Traffic Impact Criteria

In order to provide a quantitative basis for determining the significant traffic impact at a specific location, it was necessary to establish the criteria to be used in the traffic impact analysis (TIA). As outlined in the TIA, an intersection or roadway segment is considered to have an area-wide deficiency or impact if the following criteria are met:

- **For non-CMP Signalized Intersections**: the Intersection Capacity Utilization (ICU) value under “with project” conditions is 0.901 or greater (LOS E or F).
- **For CMP Signalized Intersections**: the ICU value or Intersection Capacity Utilization Value (V/C) under “with project” conditions is 1.001 or greater (LOS F).
- **For Freeway Ramp Intersections** (analyzed per Caltrans-required HCM methodology): the Intersection Average Delay under “with project” conditions is greater than 55 seconds per vehicle (LOS E or F).
- **For CMP Freeway Mainline Segments**: the demand-to-capacity (D/C) ratio under “with project” conditions is greater than 1.00 (LOS F), and the D/C increase attributable to the project is 0.02 or greater.

Intersection Level of Service

Level of Service (LOS) qualitatively measures the operating conditions within a traffic system and how drivers and passengers perceive these conditions. Level of service ranges from LOS A to LOS F, with A representing the best traffic-flow conditions and F representing poor conditions. LOS A indicates free-flowing traffic and LOS F indicates substantial congestion with stop-and-go traffic and long delays at intersections. LOS D is typically recognized as the minimum satisfactory service level in urban areas. According to the CMP traffic impact analysis guidelines, LOS E is the minimum acceptable service level at CMP intersections.

The ICU methodology was used to determine the volume-to-capacity relationship for signalized intersections within the City (based on the individual volume-to-capacity ratios for key conflicting traffic movements), and corresponding level of service. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing. LOS definitions for signalized intersections are summarized in Table 5.13-1.

Table 5.13-1
Level of Service Criteria for Signalized Intersections (ICU)

Level of Service	*Intersection Capacity Utilization Value (V/C)*	*Level of Service Description*
A	0.000–0.600	**Excellent.** No vehicle waits longer than one red light, and no approach phase is fully used.
B	> 0.600–0.700	**Very Good.** An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	> 0.700–0.800	**Good.** Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	> 0.800–0.900	**Fair.** Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	> 0.900–1.000	**Poor.** Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	**Failure.** Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

Based on Caltrans guidelines, the HCM methodology was used to determine the LOS for the 24 existing freeway on/off-ramp study area intersections. Based on the HCM method of analysis, LOS for signalized intersections is defined in terms of average control delay per vehicle, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The HCM LOS criteria for signalized on/off-ramp intersections are shown in Table 5.13-2.

The HCM methodology was also applied in the analysis of unsignalized study area intersections. The HCM stop-control methodology determines the delay and level of service of each approach separately. Whereas the ICU methodology for signalized intersections uses capacity to describe total intersection operation, the HCM method for unsignalized intersections yields a delay value for each intersection approach. The vehicle

total delay on any approach is primarily a function of the volume on the subject approach, and secondarily a function of the volume on the opposing and conflicting approaches. Level of service definitions for unsignalized intersections per the HCM are described in Table 5.13-3.

Table 5.13-2
Level of Service Criteria for Signalized Intersections (HCM)

Level of Service	Control Delay Per Vehicle (seconds/vehicle)	Level of Service Description
A	$\leq$ 10.0	This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10.0 and $\leq$ 20.0	This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.
C	> 20.0 and $\leq$ 35.0	Average traffic delays. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	> 35.0 and $\leq$ 55.0	Long traffic delays At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high *v/c* ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55.0 and $\leq$ 80.0	Very long traffic delays This level is considered by many agencies (i.e. SANBAG) to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high *v/c* ratios. Individual cycle failures are frequent occurrences.
F	$\geq$ 80.0	Severe congestion This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high *v/c* ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

Table 5.13-3
Level of Service Criteria for Unsignalized Intersections (HCM)

Level of Service (LOS)	Highway Capacity Manual Delay Value (seconds/vehicle)	Level of Service Description
A	< 10.0	Little or no delay
B	> 10.0 and < 15.0	Short traffic delays
C	> 15.0 and < 25.0	Average traffic delays
D	> 25.0 and < 35.0	Long traffic delays
E	> 35.0 and < 50.0	Very long traffic delays
F	> 50.0	Severe congestion

Analysis Scenarios

The following scenarios were analyzed as part of the Traffic Impact Analysis (TIA):

- ***Existing (Year 2010) Without Project Condition.*** The analysis under this scenario is intended to provide a base of analysis for the remainder of the traffic impact analysis. The Existing Year 2010 Condition Without Project analysis includes an assessment of the streets in the area, current traffic volumes, and operating conditions.

- ***Existing (Year 2010) With Project Condition.*** The analysis under this scenario adds project-generated traffic forecasts to existing conditions. This scenario is included to address the recent court ruling that invalidated the City of Sunnyvale EIR's use of postapproval "future" baseline for the analysis of project impacts.

- ***Post-2035 General Plan Buildout Condition Without Programmed Improvements.*** The analysis under this scenario projects future traffic growth and operating conditions at buildout of the general plan without the addition of programmed transportation improvements.

- ***Post-2035 General Plan Buildout Condition With Programmed Improvements.*** The analysis under this phase projects future traffic growth and operating conditions at buildout of the general plan with the addition of programmed transportation improvements.

For clarification, year 2035 is not the actual buildout year for the City, but was selected as a land planning horizon year for purposes of the traffic analysis.

Study Area Intersections and Roadway Segments

As shown in Figure 5.13-1, *Study Area Intersections and Roadway Segments*, a total of 46 study area intersections were selected for detailed peak hour traffic counts (including truck classification counts) and traffic impact/level of service analyses. Of the 46 study area intersections, 20 are existing City roadway intersections (Azusa Avenue at Colima Road is also a CMP monitoring location) and 26 (24 existing and 2 future) are freeway ramp intersections within Caltrans's jurisdiction.

The intersection analysis is focused on assessing potential traffic impacts during the morning and evening commute peak hours (7:00 AM to 9:00 AM, and 4:00 PM to 6:00 PM, respectively) on a typical weekday. The peak hours during the weekday commute time periods typically correspond to the busiest traffic conditions.

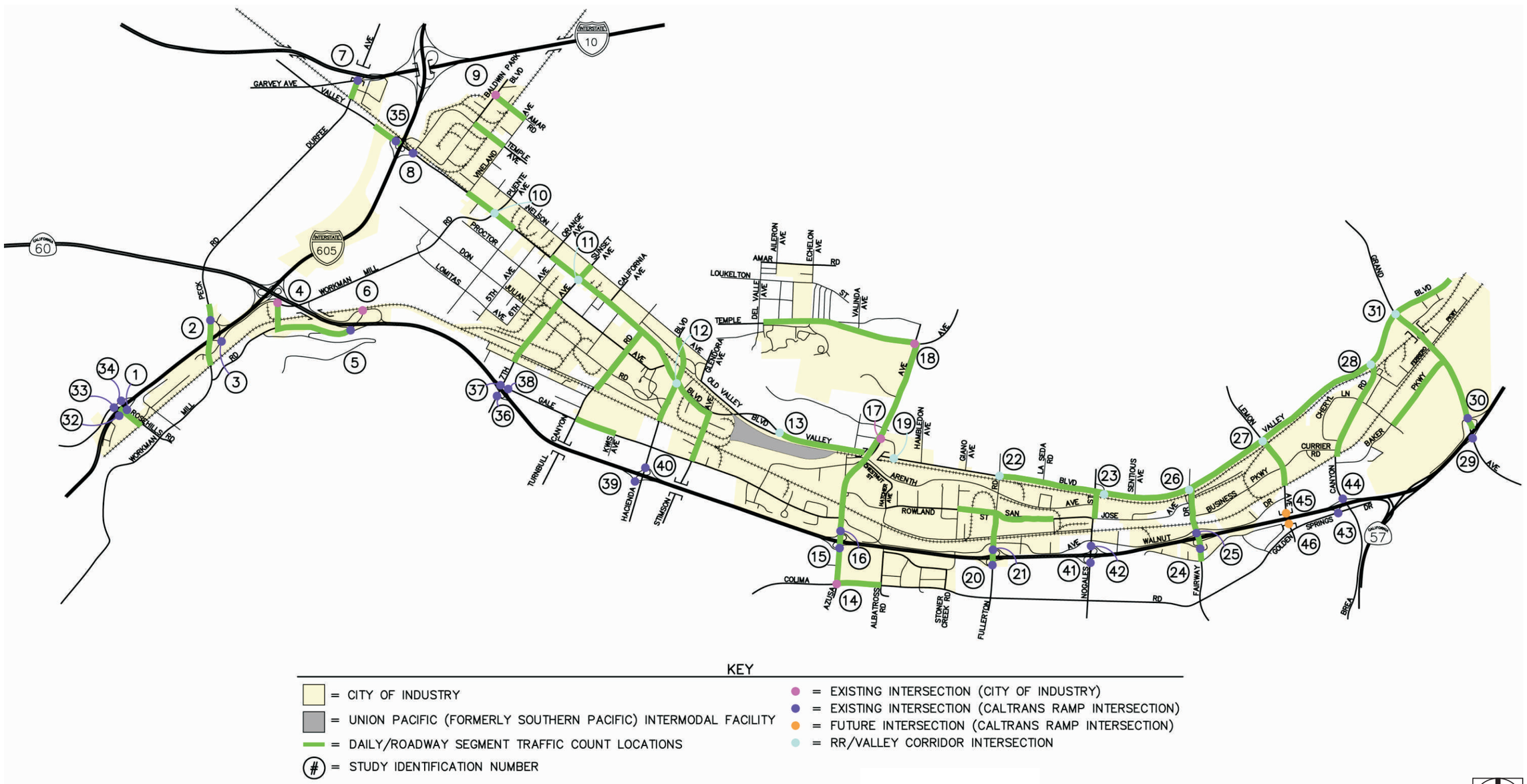
As shown in Figure 5.13-1, a total of 50 roadway segments were selected for conducting daily/24-hour traffic counts, including truck classification counts.

Per the CMP traffic impact analysis criteria, a freeway analysis must be conducted at "mainline freeway-monitoring stations where the project will add 150 or more trips, in either direction, during the AM or PM weekday peak hours." Per this criterion, a total of 21 CMP freeway mainline monitoring stations were evaluated as a part of the TIA.

Existing Transportation Network and Traffic Conditions

Following is an assessment of existing transportation network conditions, which includes an inventory of the street system, truck traffic, transit and rail system, bicycle facilities, traffic volumes (passenger cars and trucks), and traffic operating conditions at analyzed locations.

Study Area Intersections and Roadway Segments



Source: Linscott Law & Greenspan Engineers 2011

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Existing (Year 2010) Street Network

The major portion of the City is bordered by Valley Boulevard on the north and the Pomona Freeway (SR-60) on the south, creating a narrow contour with a one- to two-mile width spanning approximately 13 miles from the San Gabriel River Freeway (I-605) on the west to just northeast of Grand Avenue on the east (see Figure 5.13-1, *Study Area Intersections and Roadway Segments*).

As illustrated on Figure 5.13-1, while the circulation network serving the City is essentially a grid system of roadways generally oriented in the north-south and east-west directions, Valley Boulevard and SR-60 are the only continuous roadways that span the entire length of the City, which makes them primary carriers of regional traffic and the most heavily travelled corridors in the City. They provide connections to adjoining jurisdictions, which include portions of Los Angeles County (i.e., Hacienda Heights, Avocado Heights, Valinda, South San Jose Hills, and Rowland Heights), and the Cities of Pico Rivera, South El Monte, El Monte, Baldwin Park, La Puente, West Covina, Walnut, Diamond Bar, and Pomona.

The City's north-south arterial system links the two major corridors (i.e., Valley Boulevard and SR-60), and, in conjunction with the east-west roadways, extend local access to neighboring jurisdictions, the San Bernardino Freeway (I-10) to the north, and the San Gabriel River Freeway (I-605) to the west. Within the project study area, there are four arterials (7th Avenue-Sunset Avenue, Hacienda Boulevard-Vincent Avenue, Azusa Avenue, and Grand Avenue) that provide direct connections between SR-60/57 and I-10, making them preferred routes for trips not only generated within the City, but also regional traffic with origins and destinations located outside of the City. Other City streets that carry relatively high traffic volumes include Nogales Street, Colima Road, and Gale Avenue. In addition to serving dense commercial frontage, the latter two roadways are considered to be popular alternate routes to SR-60 during periods of congestion/traffic incidents on this freeway.

Regional Facilities

Regional facilities such as SR-60, I-10, SR-57, I-605, and Colima Road-Azusa Avenue (County Route N8) exist within or in the vicinity of the City.

Located in the southern portion of the study area, SR-60 runs east-west and provides eight to ten travel lanes. The western terminus of this regional facility lies in the City of Los Angeles, where it merges with I-10. To the east, SR-60 connects the City to Riverside County and the desert areas, where it merges with I-10 at its eastern terminus. Within the project study area, grade-separated interchanges exist at I-605, Crossroads Parkway South and North, 7th Avenue, Hacienda Boulevard, Azusa Avenue, Fullerton Road, Nogales Street, Fairway Drive, Brea Canyon Road, and Grand Avenue.

North of SR-60, I-10 also runs east-west and provides eight to ten travel lanes. It terminates in the City of Santa Monica to the west, connecting the City of Industry to the Pacific Ocean coastal communities, Los Angeles, and San Gabriel Valley. I-10 provides access to San Bernardino County and Riverside County to the east. A major interchange serving I-10 and I-605 provides direct regional access to and from the City.

In the eastern portion of the City, SR-57 merges with SR-60 and diverges from it further to the northeast. SR-57 runs north-south and provides eight to ten travel lanes, connecting the City to Orange County in the south, and terminates at the Foothill Freeway (I-210) in the north. A grade-separated interchange exists at Grand Avenue within the project study area.

I-605 runs north-south and provides eight travel lanes within the study area. Similar to SR-57, I-605 provides access to Orange County in the south, and also terminates at I-210 in the north. Within the study area, grade-separated interchanges exist at Valley Boulevard, Peck Road, and Rose Hills Road.

Colima Road and Azusa Road have been designated County Route N8, and provide a major arterial connection between Whittier Boulevard in the south and Arrow Highway in the north.

Signalized Intersections and Roadway Physical Characteristics

A comprehensive inventory of the street system within the project study area was undertaken as a part of the TIA to develop a detailed description of existing traffic conditions. Figure 5.13-2, *Existing (Year 2010) Signalized Intersections*, illustrates where the existing traffic signals are located within the City. Figure 5.13-3, *Existing (Year 2010) Roadway Physical Characteristics*, illustrates number of travel lanes, posted speed limits, median types, and on-street parking. Table 1 (Existing Roadway Physical Characteristics) of the TIA provides a more detailed and refined breakdown of the existing roadway characteristics inventoried at key locations.

Roadway Functional Classifications

Roadways are classified according to their respective functions based on the type of service they provide. The designations, which include freeways, major highways, secondary highways, limited secondary highways, and collector streets, have different corresponding roadway capacities. Figure 5.13-4, *Roadway Functional Classifications*, illustrates the functional classifications of the roadways serving the City.

Local streets, which are not shown in Figure 5.13-4 and typically consist of two-lane facilities, are all other streets in the circulation system that provide access to adjoining land use and connections to collector streets. They distribute traffic within a localized area, and are not intended for use as through streets or links between higher capacity facilities such as arterial roadways.

Existing (Year 2010) Truck Traffic

Because the City is primarily composed of industrial and commercial uses, its central location relative to Los Angeles County, Orange County, and the Inland Empire, and proximity to the Ports of Los Angeles and Long Beach, trucking/goods movement are integral to the City's economy. More than 50 major trucking lines are franchised to serve the project area, as well as freight forwarders and transportation/warehousing/distribution facilities. Overnight delivery from the City can be made to all major California cities, as well as Phoenix, Arizona, and Las Vegas, Nevada. To service regional demands for goods, these facilities generate a high volume of truck traffic on City streets.

Based on truck classification counts conducted as part of the TIA, approximately 19 percent of total daily traffic volumes in the City are trucks (17 percent are two-axle trucks and 2 percent are trucks with three or more axles). Approximately 5 percent of the AM and PM peak hour volumes are trucks.

Unlike jurisdictions that have designated truck routes (and enforce their use) on roadways designed to accommodate larger vehicles (i.e., wider lanes/curb returns/intersections and greater pavement integrity), there are no formalized truck routes in the City because trucks are allowed to use any roadway in the City. This is consistent with state law which allows trucks to use any arterial for business purposes on that roadway. Unlike other cities with prominent residential districts, the City is primarily industrial/commercial in nature, and this helps avoid truck intrusion into residential neighborhoods.

Existing (Year 2010) Transit and Rail System

The City is served by numerous bus lines operated by Foothill Transit and Metro, in addition to commuter rail service provided by the Metrolink Riverside Line, Metrolink San Bernardino Line, and Amtrak. Freight service is provided by Union Pacific, with a major intermodal facility/rail hub located in the heart of the City.

Existing Bus Service and Park-and-Ride Lots

Figure 5.13-5, *Public Transit Plan*, illustrates the bus lines currently operating in the project study area. As shown in this figure, Foothill Transit and Metro are the primary operators, and provide bus service to the Industry park-and-ride lot, Puente Hills Mall TransCenter, El Monte Transit Center, El Monte Metrolink Station/park-and-ride lot, and Diamond Bar park-and-ride lot.

The Industry park-and-ride lot located on Hacienda Avenue and Stafford Street (see Figure 5.13-5) is served by Foothill Transit Lines 185 and 497. It provides 200 parking spaces. The Industry Metrolink Station/park-and-ride lot is located in the eastern end of the City at 600 Brea Canyon Road (see Figure 5.13-5). Approximately 1,200 parking spaces are provided, with no weekend parking allowed. The station was previously served by Foothill Line 482, and Metro has yet to determine the exact details for connecting transit service.

The Puente Hills Mall TransCenter is located on Azusa Avenue north of Colima Boulevard (see Figure 5.13-5). This transit center serves Foothill transit lines 178, 185, 280, 281, 282, 285, 482, and 493. Approximately 120 park-and-ride spaces are provided.

The El Monte Transit Center is a large regional transport hub on the corner of Santa Anita Avenue and Ramona Boulevard in the City of El Monte (see Figure 5.13-5). On a daily basis, 22,000 passengers and 1,200 buses use this facility. It serves Foothill Transit Lines 178, 269, 481,482, 486, 488, 492, and 494, Silver Streak; Metro Lines 70, 76, 176, 190, 194, 267, 268, 270, 287, 487, and 577X; and Metro Rapid 770. It is being expanded to double its current size and is expected to be completed in July 2012. The current facility has been demolished and will be replaced with a new two-level station. Bus operations have been temporarily relocated to a 20-bay temporary bus terminal near the intersection of Santa Anita Avenue and Ramona Boulevard. A total of approximately 7,700 park-and-ride spaces will be provided.

The El Monte Metrolink Station/park-and-ride lot is located in the City of El Monte at 10925 Railroad Street north of Valley Boulevard (not show in Figure 5.13-6), and is served by Metro Line 268 and the City of El Monte commuter shuttles and trolley. Approximately 238 parking spaces are provided. The Diamond Bar park-and-ride lot is located in the City Diamond Bar at 100 and 101 Diamond Bar Boulevard, just west of Industry (see Figure 5.13-6). This lot is served by Foothill Lines 286, 482, 493, and 854 and Orange County Transit Authority (OCTA) Lines 757 and 758. Approximately 376 spaces are provided.

Existing Rail Service

As shown in Figure 5.13-6, *Rail Service Plan*, there are two Union Pacific Railroad (UPRR) alignments spanning the entire length of the City: (1) the UPRR Alhambra Subdivision rail line that runs parallel to Valley Boulevard, and (2) the UPRR Los Angeles Subdivision railroad, which runs closer to SR-60. These rail lines carry UPRR freight and serve Metrolink and Amtrak.

The commuter transit service is provided by the Metrolink Riverside Line and Metrolink San Bernardino Line, and interstate passenger service is provided by Amtrak. Metrolink stations and corresponding park-and-ride lots are located in the City of Industry and in the City of El Monte to the west (see Figure 5.13-6).

The Metrolink Riverside Line stops at the Metrolink Industry Station at 600 Brea Canyon Road, and operates 10 trains per weekday, 2 trains during the AM peak commute period, and 1 train during the PM peak commute period. Amtrak's Texas Eagle and Sunset Limited trains pass through on Wednesdays, Fridays, and Sundays, but do not stop at this station. The Metrolink San Bernardino Line stops at the El Monte Station, and operates 22 trains per weekday, 4 trains during the AM peak commute period, and 2 trains during the PM peak commute period.

Union Pacific operates an intermodal facility located south of Valley Boulevard between Stimson Avenue and Azusa Avenue (see Figure 5.13-6). It serves as a mainline switching yard, which cuts delivery and transit times substantially and also opens up the City to a 41-mile rail bypass that connects to the Ports of Los Angeles and Long Beach.

Along the UPRR Alhambra Subdivision rail line, there are eight at-grade crossings in the City: Temple Avenue, Vineland Avenue, Puente Avenue, California Avenue, Fullerton Road, Fairway Drive, Lemon Avenue, and Brea Canyon Road. Along the UPRR Los Angeles Subdivision railroad, at-grade crossings in the City include locations: Rose Hills Road, Mission Mills Road, Workman Mill Road, Turnbull Canyon Road, Stimson Avenue, Bixby Drive, Fullerton Road, Nogales Street, Fairway Drive, and Lemon Avenue.

Improvements have been completed at all existing at-grade locations outlined above, as implemented by the Alameda Corridor-East (ACE) Construction Authority. This single purpose construction authority was created by the San Gabriel Valley Council of Governments in 1998 to mitigate the impacts of significant increases in rail traffic over 70 miles of mainline railroad in the San Gabriel Valley. It is projected that train traffic through the valley will increase by as much as 160 percent by the Year 2020.

ACE "Jump-Start" improvements are designed to increase safety and reduce congestion at grade crossings. Construction of new medians to prevent motorists from driving around safety gates, new sidewalks, installation of railroad and traffic signal measures, and pedestrian safety and road restriping improvements have been completed at all of the ACE project grade crossings in the City. A detailed summary of the improvements completed under the ACE project are provided in the TIA (see Appendix G).

Existing Bicycle and Pedestrian Facilities

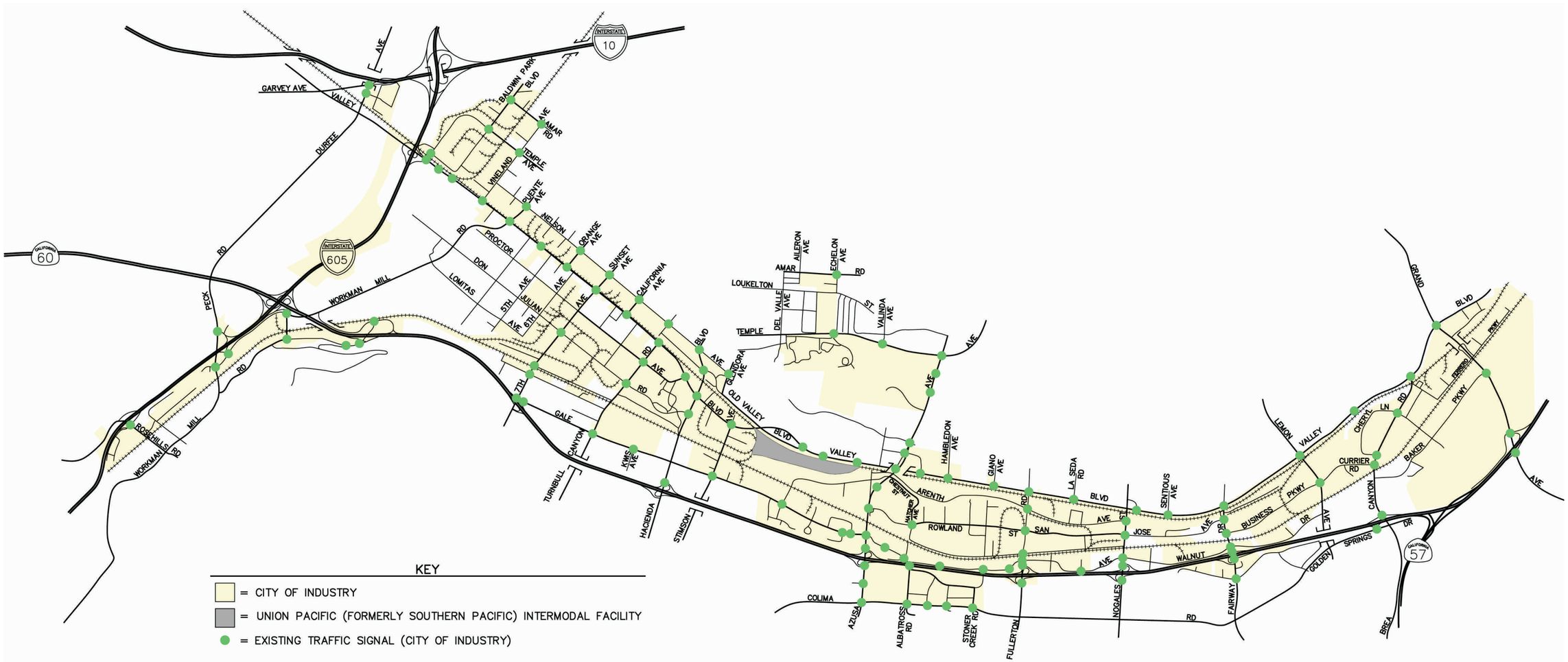
The City currently accommodates bicycle and pedestrian travel on the following systems, as shown in Figure 5.13-7, *Bicycle and Pedestrian Plan*:

- ***Multipurpose Sidewalks.*** All sidewalks in the City accommodate both pedestrian and bicycle travel.
- ***Multipurpose Trails (Class I).*** Paved facilities designated for pedestrian and bicycle use that are physically separated from roadways.
- ***Bike Lanes (Class II).*** Lanes on the outside edge of roadways reserved for the exclusive use of bicycles and designated with special signing and pavement markings.
- ***Bike Routes (Class III).*** Bicycle travel that is accommodated on the street and designated with signs in areas of limited vehicular and truck traffic and constrained sidewalks in order to provide a link in a system.

Of the various forms of nonmotorized transportation outlined above, multipurpose sidewalks are the primary paths of pedestrian and bicycle travel in the City. Additionally, there are segments of the County of Los Angeles regional trails existing within the City, including the San Gabriel River Trail; San Jose Creek Trail, which exists between the San Gabriel River and 7th Street; and the Schabarum-Skyline Trail, which is partially completed near Ajax Avenue and crossing under Workman Mill Road (see Figure 5.13-7).

Furthermore, as shown in Figure 5.13-7, the City identifies a conceptual route for a proposed multipurpose corridor that could accommodate multiple users, including a truck-bypass and multipurpose trails along the existing channelized San Jose Creek, in addition to the existing creek. This classification indicates the conceptual location for the corridor and indicates the City's acknowledgement of plans proposed by others.

Existing (Year 2010) Signalized Intersections



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Existing (Year 2010) Roadway Physical Characteristics

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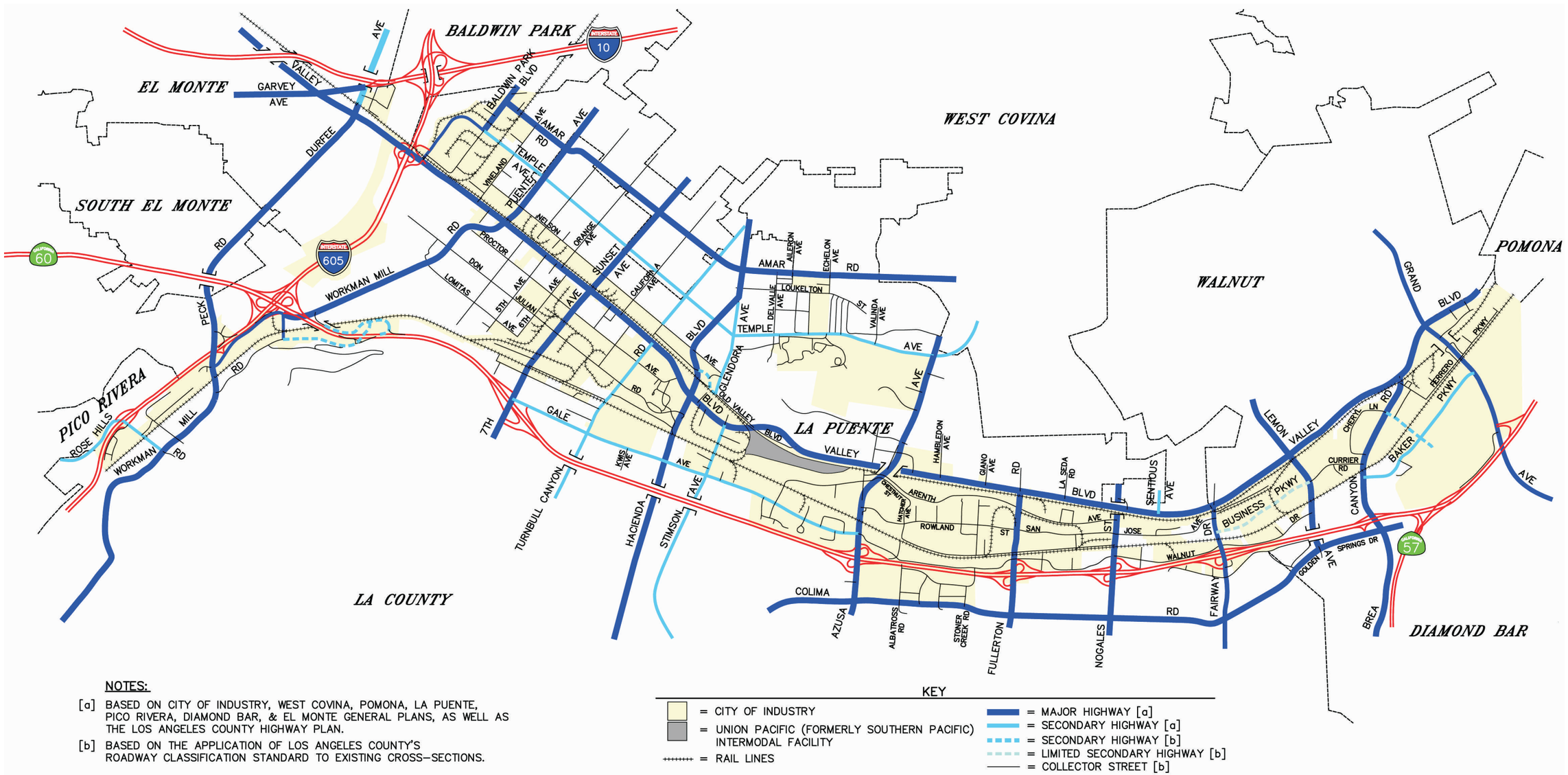
Roadway Functional Characteristics



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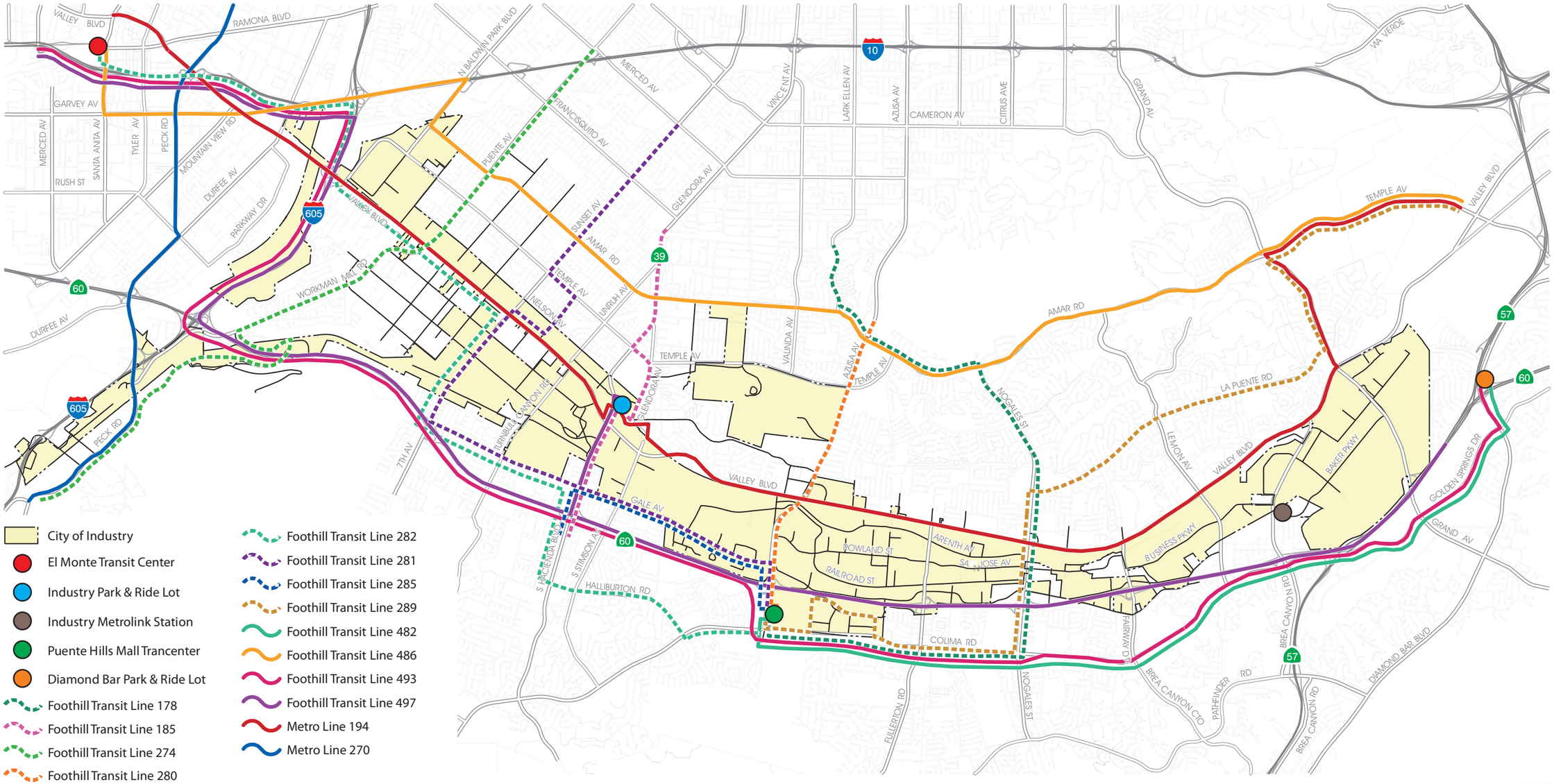
Public Transit Plan



Notes: 1) Bus routes extend beyond the limits shown.
2) Please see the Rail Service Plan for more information.

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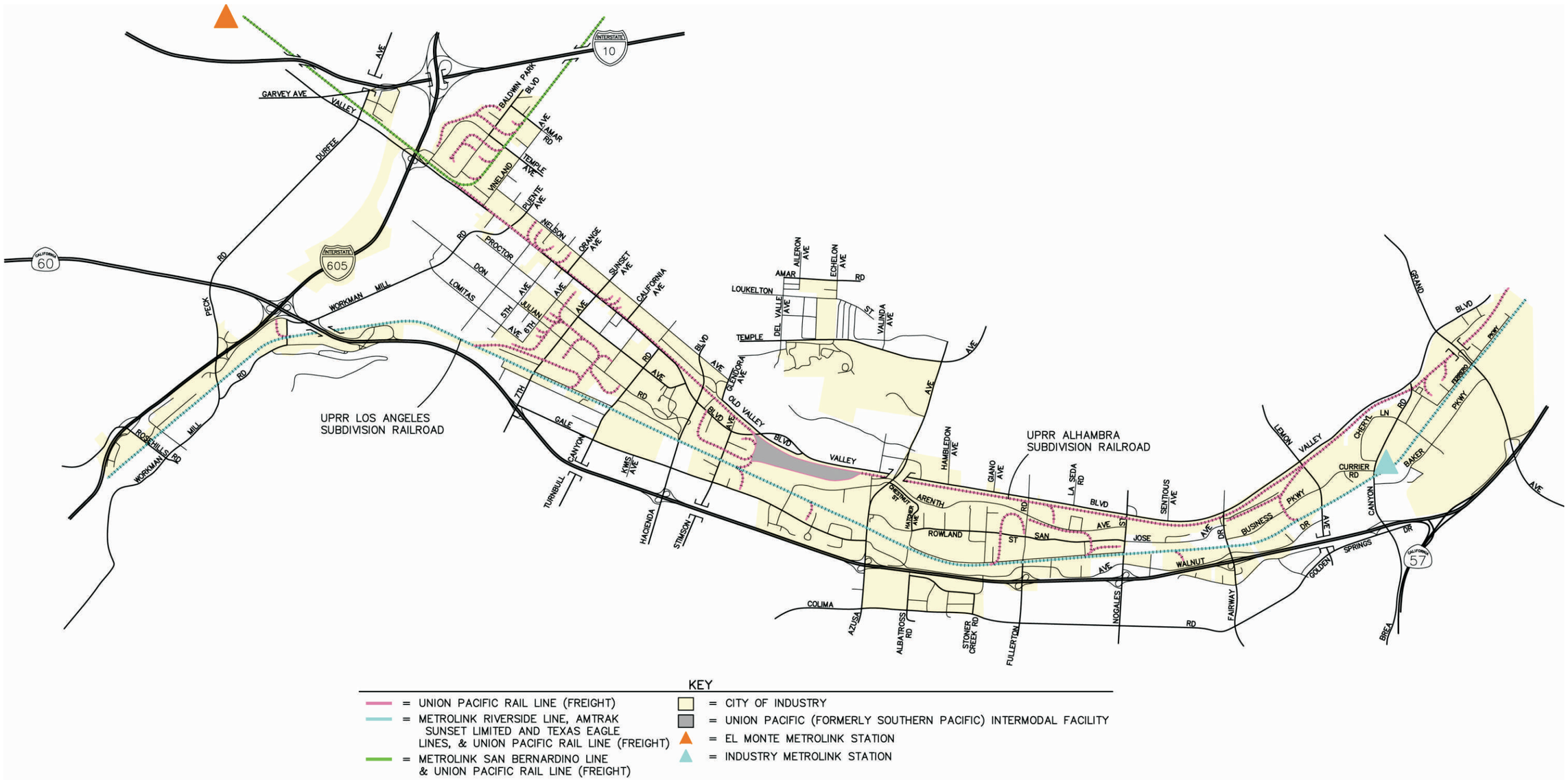
Rail Service Plan



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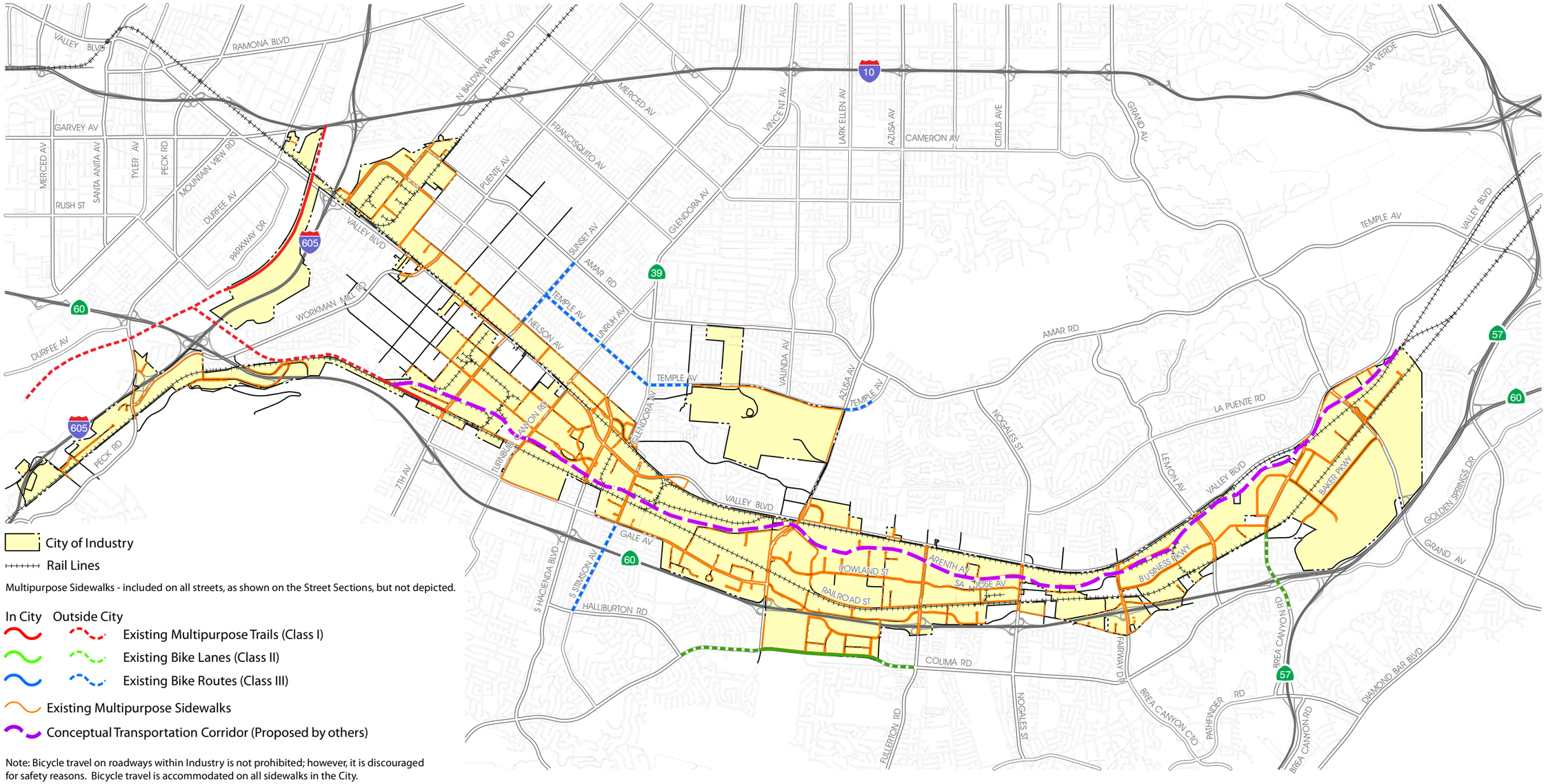
Bicycle and Pedestrian Plan



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Existing (Year 2010) Traffic Volumes

Weekday AM and PM peak period traffic counts were collected at the 44 existing study area intersections in 2008 through 2010 as a part of the TIA. Figures A-1 through A-4 of the TIA appendices provide the breakdown between autos and trucks at each study area intersection during the AM and PM peak hours.

Based on the truck classification counts that were collected at the intersections during the AM and PM peak periods, and the application of a Passenger Car Equivalent (PCE) factor of 2.0 for each truck, the PCE traffic volumes were calculated for each study area intersection. Figures 9A through 10B of the TIA illustrate the existing weekday AM and PM peak hour PCE traffic volumes, respectively.

In addition to intersection peak period traffic counts, daily/24-hour traffic counts, including truck classification counts, were conducted in 2010 at 50 roadway segments identified previously in Figure 5.13-1, *Study Area Intersections and Roadway Segments*. Figure 11 of the TIA presents the existing roadway segment daily traffic volumes, categorized between autos and trucks.

Valley Boulevard is the only arterial that spans the entire length of the City, which makes it a primary carrier of regional traffic, and the most heavily travelled east-west corridor in the City (in addition to SR-60). It provides connections to adjoining jurisdictions, and is a preferred route for trips not only generated within the City, but also regional traffic with origins and destinations located outside of the City. It is also a popular alternative to SR-60 during periods of congestion/traffic incidents on the freeway.

As far as other east-west streets in the City, traffic along Colima Road is very concentrated based on the counts collected, with a slightly higher percentage of trucks on the average compared to Valley Boulevard. The traffic counts indicate that the third busiest east-west roadway in the City is Gale Avenue. This is to be expected because it serves adjoining commercial uses, and is a convenient alternate route to SR-60. As in the case of Valley Boulevard, this diverted traffic is regional in nature and not directly attributable to the City.

The City's north-south arterial system links the two major corridors (i.e., Valley Boulevard and SR-60), and, in conjunction with the east-west roadways, extend local access to neighboring jurisdictions, I-10 to the north, and I-605 to the west. Within the study area, there are four arterials (7th Avenue-Sunset Avenue, Hacienda Boulevard-Vincent Avenue, Azusa Avenue, and Grand Avenue) that provide direct connections between SR-60/57 and I-10, making them preferred routes for regional traffic, not necessarily trips generated by the City. Azusa Avenue is the busiest north-south street, carrying the greatest number of trucks on the average for the entire City. Hacienda Boulevard is second, and Grand Avenue is the third most heavily travelled north-south roadway in the City.

Based on the Southern California Association of Government's (SCAG) existing VMT (vehicle miles traveled) estimates for the City, only approximately 3 percent of the total VMT is attributable to trips that start and end in the City. In other words, based on the SCAG data, the City currently generates a relatively small portion of the total existing traffic volume baseline on City streets and intersections. This finding seems reasonable by considering traffic characteristics inherent in the City's narrow contour and existing street network serving it, as discussed above.

Existing (Year 2010) Without Project Condition Peak Hour Level of Service

Based on the LOS methodologies described in the *Intersection Level of Service* section above, the existing peak hour traffic volumes presented in Figures 9A through 10B of the TIA were used in conjunction with existing lane configurations to determine the current traffic operating conditions at the 44 existing study area intersections.

Table 5.13-4 summarizes the Existing (Year 2010) Without Project Condition peak hour LOS at the 44 existing study area intersections during the weekday AM and PM peak hours. As shown in this table, 37 of the 44 existing intersections currently operate at satisfactory levels of service (i.e., LOS D or better) during the weekday AM and PM peak hours, and 7 intersections currently operate at deficient levels of service (LOS E or F) during one or both of the peak hours.

Table 5.13-4
Existing (Year 2010) Without Project Condition Peak Hour Level of Service

#	Study Area Intersection	Time Period	ICU	Delay	LOS	Poor LOS?
1	Rose Hills Road at Shepherd Street (Caltrans)	AM	—	18.7	B	No
		PM	—	19.6	B	No
2	Peck Road at Rooks Road (Caltrans)	AM	—	15.1	B	No
		PM	—	12.2	B	No
3	I-605 Northbound Ramp at Pellessier Place (Caltrans)	AM	—	26.7	C	No
		PM	—	26.9	C	No
4	Workman Mill Road at Pellessier Place	AM	0.564	—	A	No
		PM	0.726	—	C	No
5	Crossroad Parkway South at SR-60 Eastbound Ramp (Caltrans)	AM	—	19.4	B	No
		PM	—	21.3	C	No
6	Crossroad Parkway South at Crossroad Parkway North	AM	0.445	—	A	No
		PM	0.439	—	A	No
7	Durfee Avenue at Garvey Avenue (Caltrans)	AM	—	36.3	D	No
		PM	—	34.2	C	No
8	I-605 Northbound Ramp/Temple Avenue at Valley Boulevard (Caltrans) (RR/Valley Corridor)	AM	—	**69.2**	**E**	**Yes**
		PM	—	39.3	D	No
9	Baldwin Park Boulevard at Amar Road	AM	0.724	—	C	No
		PM	0.766	—	C	No
10	Workman Mill Road at Valley Boulevard (RR/Valley Corridor)	AM	**0.940**	—	**E**	**Yes**
		PM	**1.122**	—	**F**	**Yes**
11	7th Avenue/Sunset Avenue at Valley Boulevard (RR/Valley Corridor)	AM	0.696	—	B	No
		PM	0.854	—	D	No
12	Hacienda Boulevard at Valley Boulevard (RR/Valley Corridor)	AM	0.888	—	D	No
		PM	**0.972**	—	**E**	**Yes**

Table 5.13-4
Existing (Year 2010) Without Project Condition Peak Hour Level of Service

#	Study Area Intersection	Time Period	ICU	Delay	LOS	Poor LOS?
13	Valley Boulevard at Old Valley Boulevard (RR/Valley Corridor)	AM	0.512	—	A	No
		PM	0.618	—	B	No
14	Azusa Avenue at Colima Road (CMP)[1]	AM	0.796	—	C	No
		PM	0.926	—	E	No
15	Azusa Avenue at SR-60 Eastbound Ramp (Caltrans)	AM	—	16.1	B	No
		PM	—	14.1	B	No
16	Azusa Avenue at SR-60 Westbound Ramp(Caltrans)	AM	—	13.7	B	No
		PM	—	15.9	B	No
17	Azusa Avenue at Hurley Street	AM	0.715	—	C	No
		PM	0.823	—	D	No
18	Azusa Avenue at Temple Avenue	AM	**0.990**	—	**E**	**Yes**
		PM	0.748	—	C	No
19	Hurley Avenue at Valley Boulevard (RR/Valley Corridor)	AM	0.646	—	B	No
		PM	0.535	—	A	No
20	Fullerton Road at SR-60 Eastbound Ramp (Caltrans)	AM	—	19.0	B	No
		PM	—	21.6	C	No
21	Fullerton Road at SR-60 Westbound Ramp (Caltrans)	AM	—	14.6	B	No
		PM	—	13.8	B	No
22	Fullerton Road at Valley Boulevard (RR/Valley Corridor)	AM	0.820	—	D	No
		PM	**0.905**	—	**E**	**Yes**
23	Nogales Street at Valley Boulevard (RR/Valley Corridor)	AM	0.677	—	B	No
		PM	0.555	—	A	No
24	Fairway Drive at SR-60 Eastbound Ramp (Caltrans)	AM	—	17.8	B	No
		PM	—	13.5	B	No
25	Fairway Drive at SR-60 Westbound Ramp (Caltrans)	AM	—	23.4	C	No
		PM	—	25.4	C	No
26	Fairway Drive at Valley Boulevard (RR/Valley Corridor)	AM	0.743	—	C	No
		PM	0.806	—	D	No
27	Lemon Avenue at Valley Boulevard (RR/Valley Corridor)	AM	0.816	—	D	No
		PM	0.748	—	C	No
28	Brea Canyon Road at Valley Boulevard (RR/Valley Corridor)	AM	0.635	—	B	No
		PM	0.635	—	B	No
29	Grand Avenue at SR-60 Eastbound Ramp (Caltrans)	AM	—	24.0	C	No
		PM	—	17.1	B	No
30	Grand Avenue at SR-60 Westbound Ramp (Caltrans)	AM	—	26.6	C	No
		PM	—	23.6	C	No

Table 5.13-4
Existing (Year 2010) Without Project Condition Peak Hour Level of Service

#	Study Area Intersection	Time Period	ICU	Delay	LOS	Poor LOS?
31	Grand Avenue at Valley Boulevard (RR/Valley Corridor)	AM	0.658	—	B	No
		PM	0.741	—	C	No
32	Shepherd Street at I-605 Northbound Ramp (Caltrans)[2]	AM	—	13.0	B	No
		PM	—	10.3	B	No
33	San Gabriel River Parkway at I-605 Southbound Ramp (Caltrans)[2]	AM	—	13.0	B	No
		PM	—	12.2	B	No
34	I-605 Southbound Ramp at Rose Hills Road (Caltrans)[2]	AM	—	13.8	B	No
		PM	—	12.8	B	No
35	I-605 SB Ramp at Valley Boulevard (Caltrans) (RR/Valley Corridor)[2]	AM	—	1.3	A	No
		PM	—	12.2	B	No
36	7th Avenue at SR-60 Eastbound Ramp (Caltrans)	AM	—	9.5	A	No
		PM	—	8.4	A	No
37	7th Avenue at SR-60 Westbound Ramp (Caltrans)	AM	—	25.0	C	No
		PM	—	22.9	C	No
38	SR-60 Westbound Ramp at Gale Avenue (Caltrans)	AM	—	5.3	A	No
		PM	—	15.9	B	No
39	SR-60 Eastbound Ramp at Three Palms Street (Caltrans)[2]	AM	—	**266.0**	**F**	**Yes**
		PM	—	**5449.8**	**F**	**Yes**
40	Hacienda Boulevard at SR-60 Westbound Ramp (Caltrans)	AM	—	12.8	B	No
		PM	—	**67.3**	**E**	**Yes**
41	Nogales Street at SR-60 Eastbound Ramp (Caltrans)	AM	—	16.6	B	No
		PM	—	16.3	B	No
42	Nogales Street at SR-60 Westbound Ramp (Caltrans)	AM	—	20.3	C	No
		PM	—	20.6	C	No
43	SR-60 Eastbound Ramp at Golden Springs Drive (Caltrans)	AM	—	28.0	C	No
		PM	—	25.2	C	No
44	Brea Canyon Road at SR-60 Westbound Ramp (Caltrans)	AM	—	22.9	C	No
		PM	—	22.2	C	No

Notes: ICU = Intersection Capacity Utilization; LOS = Level of Service
(Caltrans) = This is a freeway ramp intersection and was analyzed using the HCM Operations LOS Methodology per Caltrans traffic study guidelines.
(RR/Valley Corridor) = This intersection is located along the Valley Boulevard corridor that adjoins the existing railroad and at-grade railroad crossings.
(CMP) = This intersection is a Los Angeles County CMP monitoring station.
Grey shading indicates poor level of service.
[1] LOS E is considered acceptable per CMP level of service standards.
[2] This intersection is currently unsignalized, and was analyzed using the HCM Unsignalized Methodology. The level of service reported is based on the average delay for the intersection.

Regulatory Setting

State and local laws, regulations, plans or guidelines that are potentially applicable to the proposed project are summarized below.

State

The California Complete Streets Act (Assembly Bill 1358)

On September 30, 2008, Assembly Bill 1358 (AB 1358), the California Complete Streets Act, was signed into law. AB 1358 states: "In order to fulfill the commitment to reduce greenhouse gas emissions, make the most efficient use of urban land and transportation infrastructure, and improve public health by encouraging physical activity, transportation planners must find innovative ways to reduce vehicle miles traveled (VMT) and to shift from short trips in the automobile to biking, walking and use of public transit."

The legislation impacts local general plans by adding the following language to California Government Code Section 65302(b)(2)(A) and (B):

(A) Commencing January 1, 2011, upon any substantial revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of the streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.

(B) For the purposes of this paragraph, "users of streets, roads, and highways" means bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.

AB 1358 places the planning, designing, and building of complete streets into the larger planning framework of the general plan by requiring jurisdictions to amend their circulation elements to plan for multimodal transportation networks. These networks should allow all users to effectively travel by motor vehicle, foot, bicycle, and transit to reach key destinations within their community and the larger region.

AB 1358 also requires the Governor's Office of Planning and Research (OPR) to amend the *2003 General Plan Guidelines* to assist city and counties in integrating multimodal transportation network policies. In December 2010, OPR published its *Update to the General Plan Guidelines: Complete Streets and the Circulation Element*, in accordance with AB 1358. OPR recommends that local jurisdictions use the *Update* in conjunction with the *2003 General Plan Guidelines* when they are updating their general plan circulation elements. In addition, OPR recommends that local jurisdictions view all transportation projects, new or retrofit, as opportunities to improve safety, access, and mobility for all travelers and recognize pedestrian, bicycle, and transit modes as integral elements of their transportation system (OPR 2010).

Local

City of Industry Municipal Code

The City of Industry Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the City's General Plan and proposed development projects. The following provisions from the City's Municipal Code help minimize traffic, circulation, and parking impacts associated with new development projects and are relevant to the proposed project.

- **Title 17 (Zoning), Chapter 17.36 (Design Review), Section 17.36.040 (Contents of Development Plan).** Requires that project applicants submit a development plan for review that has a site plan showing, among other things, off-street parking and loading: location, number of spaces; dimensions of parking area and loading facilities; internal circulation pattern; access and circulation; pedestrian, vehicular, service; points of ingress and egress.

- **Title 17 (Zoning), Chapter 17.68 (Congestion Management Program), Section 17.68.030 (Transportation Demand and Trip Reduction Measures).** States that prior to approval of any nonresidential development project, the applicant shall make provision for, as a minimum, applicable transportation demand management and trip reduction measures detailed in this section. Such measure include, but are not limited to:

    - Provision of a bulletin board, display case, or kiosk displaying information to employees regarding the availability of public and alternative modes of transportation (e.g., transit, ridesharing, vanpool, bicycle).
    - Preferential parking and reservation of a certain percentage of onsite parking spaces for carpool/vanpool vehicles.
    - Provision of bicycle racks or other secure bicycle parking facility.
    - Provision of sidewalks or other designated pathways to the external pedestrian circulation system.
    - Provision of bus stop improvements if determined necessary by the City to mitigate the project impact.

5.13.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project could:

T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-5 Result in inadequate emergency access.

T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: T-3. This impact will not be addressed in the following analysis.

5.13.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.13-1: ***FUTURE DEVELOPMENT THAT WOULD BE ACCOMODATED BY THE GENERAL PLAN UPDATE WOULD CONFLICT WITH AN APPLICABLE PLAN, ORDINANCE, OR POLICY ESTABLISHING MEASURES OF EFFECTIVENESS FOR THE PERFORMANCE OF THE CIRCULATION SYSTEM AND WOULD CONFLICT WITH AN APPLICABLE CONGESTION MANAGEMENT PLAN PROGRAM. [THRESHOLDS T-1 AND T-2]***

Impact Analysis: For the purpose of the following analysis, it is important to note that, based on the requirements of CEQA, this analysis is based on a comparison to existing land uses and does not address the differences that would result from a comparison with the existing General Plan land use map, from which there is little variation when compared to the proposed General Plan land use map.

It is also important to note that the General Plan Update is a regulatory document that sets forth the framework for future growth and development and does not directly result in development in and of itself. Before any development can occur in the City, all such development is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and state requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

In order to identify potential traffic and circulation deficiencies in the future year scenario (Post-2035), traffic that could be generated by the proposed project (i.e., incremental growth that would be accommodated by the City's General Plan Update), future baseline volumes due to ambient traffic, and traffic shifts due to programmed transportation improvements were estimated as a part of the TIA and are discussed below.

Project Traffic Forecasts

As a part of the TIA, a multistep process was undertaken to develop project-related traffic forecasts. The first step of the forecasting involved developing project-related traffic generation, which estimates the total arriving and departing traffic for each traffic analysis zone (TAZ) on a daily and peak hour basis. The second step of the forecasting process involved developing project traffic distribution, which involves the development of a geographic trip distribution pattern that identifies the origins/destinations of project traffic. The third step involved the development of project traffic assignment, by which project-generated trips are allocated on the street system.

TAZs were developed for the TIA by first obtaining and reviewing SCAG's general TAZ map for the City of Industry. The larger general zones per SCAG were disaggregated for a more focused application and direct correspondence to the City's GIS-based parcel data. Figure 5.13-8, *Traffic Analysis Zones*, illustrates the resulting TAZ map, showing that 121 TAZs have been identified in the City for the purposes of the project-related traffic analysis, and that industrial and mixed-use zones would continue to be the predominant land use designations in the future based on General Plan Update buildout (Post-2035 scenario) assumptions.

Project Trip Generation

Generation factors and equations used in the traffic forecasting procedure were based on the 8th edition of Trip Generation, published by the Institute of Transportation Engineers (ITE). Table 5.13-5 summarizes the trip generation rates for the various land use categories in the City.

Table 5.13-5
Project Trip Generation Rates

ITE Code: Land Use	Daily (Two-Way)	AM Peak Hour			PM Peak Hour		
		In%	Out%	Total	In%	Out%	Total
030: Truck Terminal (trips per acre)	81.90	41	59	7.28	43	57	6.55
093: Light Rail Transit Station w/ Parking (trips per space)	2.51	80	20	1.07	58	42	1.24
110: General Light Industrial (trips per KSF)	6.97	88	12	0.92	12	88	0.97
140: Manufacturing (trips per KSF)	3.82	78	22	0.73	36	64	0.73
150: Warehouse (trips per KSF)	3.56	79	21	0.30	25	75	0.32
210: Single-Family Detached Housing (trips per DU)	9.57	25	75	0.75	63	37	1.01
230: Condominium/Townhouse (trips per DU)	5.81	17	83	0.44	67	33	0.52
310: Hotel (trips per room)	8.17	61	39	0.56	53	47	0.59
320: Motel (trips per room)	5.63	36	64	0.45	54	46	0.47
411: City Park (trips per acre)	50.00	50	50	6.50	50	50	4.50
430: Golf Course (trips per hole)	35.74	79	21	2.23	45	55	2.78
435: Multipurpose Recreational Facility (trips per KSF)	1.99	—	—	—	35	65	0.17
440: Adult Cabaret (trips per KSF)	386.70	—	—	—	64	36	38.67
495: Recreational Community Center (trips per KSF)	22.88	61	39	1.62	37	63	1.45
522: Middle School (trips per KSF)	13.78	55	45	4.35	52	48	1.19
530: High School (trips per KSF)	12.89	71	29	3.06	54	46	0.97
540: Junior College (trips per KSF)	27.49	74	26	2.99	58	42	2.54
560: Church (trips per KSF)	9.11	62	38	0.56	48	52	0.55
610: Hospital (trips per KSF)	16.50	59	41	1.12	42	58	1.14
620: Nursing Home (trips per KSF)	7.58	71	29	0.55	52	48	0.74
710: General Office Building (trips per KSF)[1]	11.01	88	12	1.55	17	83	1.49
733: Government Office Complex (trips per KSF)	27.92	89	11	2.21	31	69	2.85
813: Free-Standing Discount Superstore (trips per KSF)	53.13	56	44	1.67	49	51	4.61
820: Shopping Center (trips per KSF)[2]	42.94	61	39	1.00	49	51	3.73
841: New Car Sales (trips per KSF)	33.34	74	26	2.03	39	61	2.59

Notes: KSF = 1,000 square feet; DU = dwelling unit; Ln = natural logarithm; T = two-way volume of traffic (total trip ends); X = area in 1,000 gross square feet of leasable area

[1] Trip generation for general office building was calculated using the following equations for uses larger than 100 KSF:
Weekday Daily: $Ln(T) = 0.77Ln(X) + 3.65$
Weekday AM Peak Hour: $Ln(T) = 0.80Ln(X) + 1.55$
Weekday PM Peak Hour: $T = 1.12(X) + 78.81$

[2] Trip generation for shopping centers was calculated using the following equations for uses larger than 100 KSF:
Weekday Daily: $Ln(T) = 0.65Ln(X) + 5.83$
Weekday AM Peak Hour: $Ln(T) = 0.59Ln(X) + 2.32$
Weekday PM Peak Hour: $Ln(T) = 0.67Ln(X) + 3.37$

Traffic Analysis Zones

Source: Linscott Law & Greenspan Engineers 2011

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The City's GIS-based parcel data provided the existing square footage for each parcel, existing land use types by parcel, and future land use designations for each parcel as contemplated in the General Plan Update. The anticipated total growth of 13,715,300 square feet attributable to the General Plan Update buildout was divided into specific land use categories (i.e., employment, commercial, IBC), and further allocated by TAZ based on each TAZ's proportionate share (as identified explicitly in the 2004 IBC EIR, the General Plan Update, or estimated based on existing square footage by land use). The trip generation rates presented in Table 5.13-5 were applied to the existing and future square footage for each land use by TAZ.

As a part of the TIA, it was necessary to account for the "internal" tripmaking characteristics among the various land uses within the City. The ITE trip generation rates and equations were derived from single-use, stand-alone sites, and do not reflect the potential for interaction among uses within an expansive study area. Since internal trips are not made on the external street system, it was necessary to apply internal trip reductions to the gross trip generation for the proposed project. The methodology used in estimating internal trips for the proposed project is documented in the 2nd edition of ITE's Trip Generation Handbook. Additionally, the City has existing and future multimodal facilities that result in trip reductions due to transit use and travel demand management (TDM) strategies. As a result, an overall, area-wide trip reduction factor of 15 percent was applied to gross project-generated trips to account for internal trip, transit, and TDM tripmaking characteristics inherent to the City.

Further, because of the retail and restaurant zones located throughout the City, "pass-by" reductions were applied to the adjusted project-generated trips (after application of the 15 percent internal/transit/TDM trip reduction factor) for corresponding uses. This is typically done to account for instances when the total number of trips generated by a retail development is different from the amount of new traffic added to the external street system serving the project. Retail-oriented sites attract a portion of their trips from traffic passing by the site on the way from an origin to an ultimate destination. These retail trips do not add new traffic to the surrounding street system. The methodology used in estimating pass-by trips for the proposed project is also contained in the 2nd edition of ITE's Trip Generation Handbook.

For the industrial zones, it was presumed that 19 percent of the daily trips and 5 percent of the peak hour trips generated would be trucks (based on truck classification counts conducted as a part of the TIA at key locations). A passenger car equivalent (PCE) factor of 2.0 was then applied to the resultant truck trips.

Table 5.13-6 presents a summary of the existing (Year 2010) net PCE trip generation estimates for the City, corresponding to 654,858 daily trips on a typical weekday, 47,015 AM peak hour trips, and 62,696 PM peak hour trips. Table B-1 in Appendix B of the TIA provides a more refined and detailed breakdown of trips generated by land use type in each TAZ.

Table 5.13-6
Existing (Year 2010) Trip Generation Estimates

Traffic Analysis Zones[1,2,3]	Daily (2-Way)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
TAZ 1 - 10	13,305	1,074	316	1,390	299	1,004	1,303
TAZ 11 - 20	52,267	5,362	1,249	6,611	1,691	5,013	6,704
TAZ 21 - 40	102,865	7,420	1,562	8,982	2,446	7,680	10,126
TAZ 41 - 60	122,241	7,101	1,705	8,806	3,225	8,014	11,239
TAZ 61 - 70	41,332	3,747	743	4,490	991	3,703	4,694
TAZ 71 - 80	131,709	2,692	1,141	3,833	5,115	6,338	11,453
TAZ 81 - 90	55,423	2,473	634	3,107	1,637	3,289	4,926
TAZ 91 - 100	31,593	2,250	466	2,716	714	2,368	3,082
TAZ 101 - 114	45,029	2,884	731	3,615	905	2,904	3,809
TAZ 115 - 121	59,094	2,640	825	3,465	2,125	3,235	5,360
TOTAL (92,344,195 SF)[4]	**654,858**	**37,643**	**9,372**	**47,015**	**19,148**	**43,548**	**62,696**

1 An internal trip reduction of 15 percent was applied to account for internal trips, transit use, and TDM strategies.
2 Of the total trip generation for light industrial, heavy manufacturing, manufacturing and assembly, and warehousing and distribution, 19/5/5 percent were presumed to be truck trips during the daily/AM peak hour/PM peak hour, respectively. A PCE factor of 2.0 was applied to truck trips.
3 Retail pass-by trips consist of 10/10/34 percent for the daily/AM peak hour/PM peak hour, respectively, except when the square footage exceeded 100,000, in which case the PM peak hour rate was calculated using the following equation: $\ln(t) = -0.29*\ln(x) + 5.0$.
4 Existing square footage total reported excludes residential land uses, park/open space, transportation/communication/utilities, vacant land, roads, railroads, and water/water facilities.

To forecast future traffic generation under Post-2035 conditions, the existing trips per TAZ were maintained, and each TAZ's proportionate share of the anticipated total growth of 13,715,300 SF attributable to the General Plan buildout was then added to existing trips. As described above, the proportionate share allocated to each TAZ was derived from the 2004 IBC EIR, the General Plan Update, or in cases where growth/change is not anticipated, estimated based on existing square footage by land use.

Table 5.13-7 summarizes the Post-2035 net PCE trip generation, which would total 800,235 daily trips on a typical weekday, 57,421 AM peak hour trips, and 77,634 PM peak hour trips. Table B-2 in Appendix B of the TIA provides a more refined and detailed breakdown of trips generated by land use type in each TAZ.

Table 5.13-7 indicates that, based on a comparison of Post-2035 trips against the existing (Year 2010) trips, the net increase in trips attributable to the General Plan buildout corresponds to 145,377 daily trips on a typical weekday, 10,406 AM peak hour trips, and 14,938 PM peak hour trips. These incremental trip increases were assigned to the surrounding street system and evaluated for potential traffic impacts during the AM and PM peak hours.

Based on Post-2035 General Plan Update buildout land use assumptions, the TAZs expected to generate the most number of trips are TAZs 117 and 119 (IBC parcels west and east of Grand Avenue, as shown in Figure 5.13-8), TAZs 77 and 83 (commercial zones located south of SR-60 between Azusa Avenue and Fullerton Road, as shown in Figure 5.13-8), and TAZ 92 (mixed-use zone located north of SR-60 between Fullerton Road and Nogales Street, as shown in Figure 5.13-8).

Table 5.13-7
Post-2035 General Plan Buildout Trip Generation Estimates by TAZ

Traffic Analysis Zones[1,2,3]	Daily (2-Way)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
TAZ 1–10	14,021	1,126	330	1,456	316	1,060	1,376
GPB minus Existing	716	52	14	66	17	53	70
TAZ 11–20	55,552	5,669	1,312	6,981	1,761	5,308	7,069
GPB minus Existing	3,285	307	63	370	70	297	367
TAZ 21–40	104,502	7,876	1,630	9,506	2,465	8,062	10,527
GPB minus Existing	1,637	456	71	527	19	380	399
TAZ 41–60	126,390	7,650	1,804	9,454	3,292	8,499	11,791
GPB minus Existing	4,149	549	102	651	67	488	555
TAZ 61–70	44,278	3,996	799	4,795	1,057	3,955	5,012
GPB minus Existing	2,946	249	57	306	66	252	318
TAZ 71–80	161,542	3,538	1,485	5,023	6,350	7,953	14,303
GPB minus Existing	29,833	846	349	1,195	1,235	1,616	2,851
TAZ 81–90	71,873	2,876	801	3,677	2,202	4,029	6,231
GPB minus Existing	16,450	403	166	569	565	737	1,302
TAZ 91–100	38,775	2,506	546	3,052	928	2,726	3,654
GPB minus Existing	7,182	256	80	336	214	358	572
TAZ 101–114	49,223	3,241	800	4,041	1,006	3,258	4,264
GPB minus Existing	4,194	357	70	427	101	350	451
TAZ 115–121	134,079	7,439	1,997	9,436	4,737	8,670	13,407
GPB minus Existing	74,985	4,799	1,172	5,971	2,612	5,434	8,046
Existing Total (92,344,195 SF)[5]	**(654,858)**	**(37,643)**	**(9,372)**	**(47,015)**	**(19,148)**	**(43,548)**	**(62,696)**
General Plan Buildout (106,059,564 SF)[4]	**800,235**	**45,917**	**11,504**	**57,421**	**24,114**	**53,520**	**77,634**
Net Increase Due to GPB (GPB minus Existing) (13,715,369 SF of growth)	**145,377**	**8,274**	**2,132**	**10,406**	**4,966**	**9,972**	**14,938**

Notes: GPB= General Plan Buildout; SF = square feet

1 An internal trip reduction of 15 percent was applied to account for internal trips, transit use, and TDM strategies.

2 Of the total trip generation for light industrial, heavy manufacturing, manufacturing and assembly, and warehousing and distribution, 19/5/5 percent were presumed to be truck trips during the daily/AM peak hour/PM peak hour, respectively. A PCE factor of 2.0 was applied to truck trips.

3 Retail pass-by trips consist of 10/10/34 percent for daily/AM peak hour/PM peak hour, respectively, except when the square-footage exceeded 100,000, in which case the PM peak hour rate was calculated using the following equation: $\ln(t) = -0.29*\ln(x) + 5.0$.

4 Total future square footage reported includes 104,723,546 SF of GPB-designated land use, plus existing uses assumed to remain.

5 Existing square footage total reported excludes residential land uses, park/open space, transportation/communication/utilities, vacant land, roads, railroads, and water/water facilities.

Project Trip Distribution and Assignment

The geographic distribution of traffic generated by buildout of the General Plan Update is dependent on the following factors:

- The project's market/service area.
- Location of site access points in relation to the surrounding street system.
- Location of parking areas, and ingress/egress availability at the parking areas.
- The site's proximity to major traffic carriers and regional access routes.
- The physical characteristics of the circulation system, such as lane channelization and presence of traffic signals that affect travel patterns.
- The presence of traffic congestion in the surrounding vicinity.

Based on these considerations, on information contained in the 2010 CMP for Regional Statistical Area 26 (West Covina), and on previous traffic studies completed in the project study area, an overall traffic distribution pattern was developed for the proposed project's TIA as follows:

- **Regional:** North, 15%; South, 10%; East, 10%; West, 15%
- **Local:** North, 10%; South, 10%; East, 15%; West, 15%

The traffic expected to be generated by the proposed project was assigned to the local street network using the net trip generation estimates summarized in Table 5.13-7 and the area-wide distribution pattern described above.

Programmed Transportation Improvements

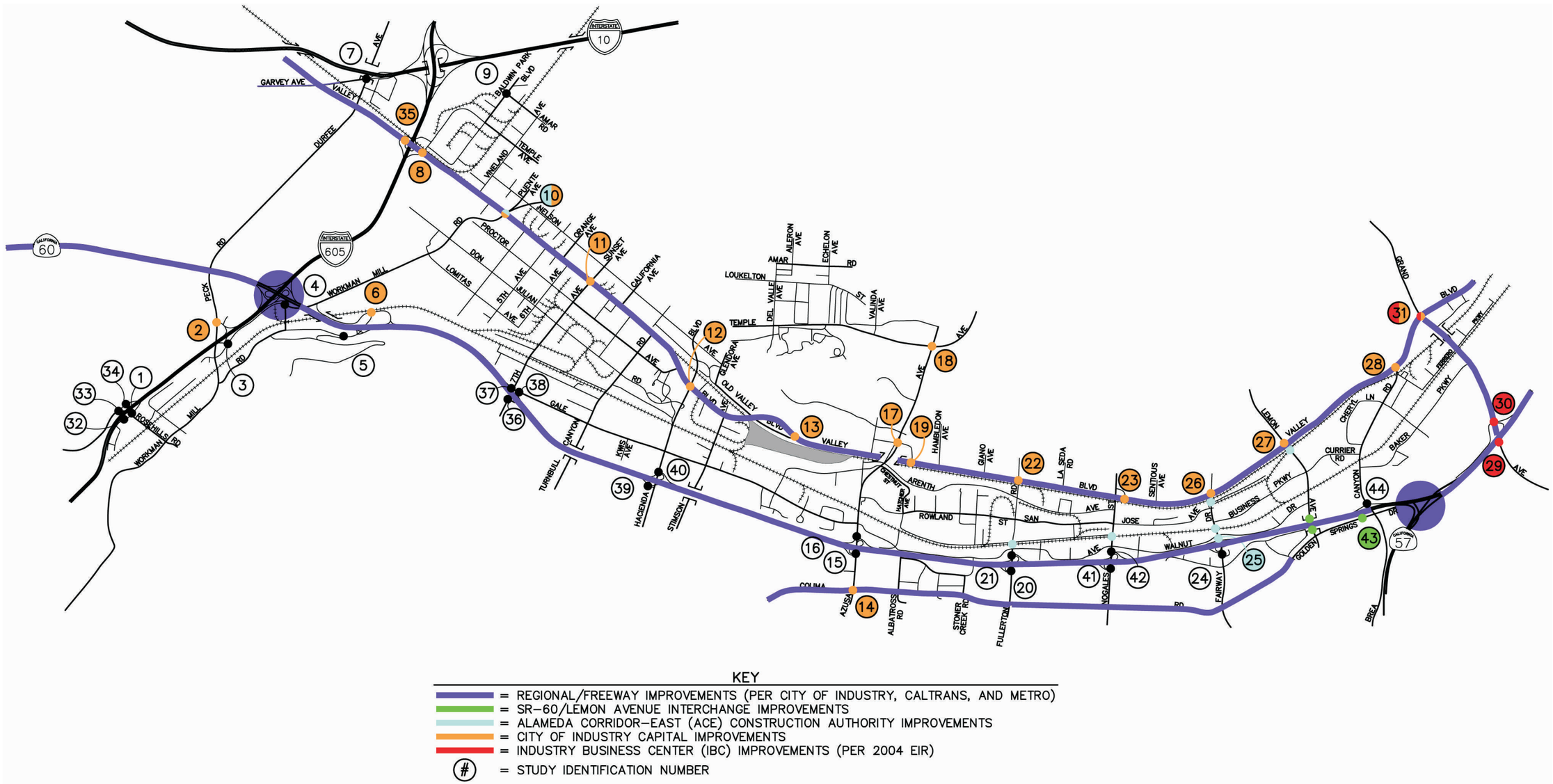
The Post-2035 General Plan Buildout Condition Without Programmed Improvements scenario evaluates potential impacts of the project-generated trips on the surrounding street system presuming existing intersection and roadway physical characteristics (i.e., existing infrastructure without programmed improvements), while the Post-2035 General Plan Buildout Condition With Programmed Improvements scenario evaluates potential impacts of the project-generated trips on the surrounding street system presuming completion of programmed transportation improvements.

The transportation improvements that are programmed and planned to be constructed by the Post-2035 General Plan Buildout Condition With Programmed Improvements scenario include:

- Grand Avenue Widening Project
- SR-57/SR-60 Confluence Project
- Industry East (now known as Grand Crossing Development) Mitigation
- Industry Business Center (IBC) 2004 Plan of Development Mitigation
- SR-60/Lemon Avenue Interchange
- Alameda Corridor East (ACE) and Puente Hills Intermodal Facility (PHIMF) Projects
- City of Industry Capital Improvement Projects
- Other Regional Improvements/Freeway Improvements
- Transit Improvements

Figure 5.13-9, *Programmed Transportation Improvements*, shows the general location of future background improvements and affected study area intersections and roadway segments within the City. Figures 5.13-10a through 5.13-10d illustrate the detailed lane configurations and geometry for the background improvements assumed in this traffic scenario. Refer to the TIA in Appendix G for a detailed discussion of the programmed background improvements listed above.

Programmed Transportation Improvements



Source: Linscott Law & Greenspan Engineers 2011

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Intersection Lane Geometry (Intersections 1–12)

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	PROGRAMMED IMPROVEMENTS	ADDITIONAL IMPROVEMENTS TO PROGRAMMED IMPROVEMENTS
1 SHEPHERD ST @ ROSE HILLS RD	3 PHASE SIGNAL	N/A	N/A	N/A
2 PECK RD @ ROOKS RD	2 PHASE SIGNAL	N/A	2 PHASE SIGNAL	N/A
3 PELLISSIER PL @ I–605 NB RAMPS	6 PHASE SIGNAL	N/A	N/A	N/A
4 WORKMAN MILL RD @ PELLISSIER PL	3 PHASE SIGNAL	N/A	N/A	N/A
5 CROSSROAD PKWY S @ SR–60 EB RAMPS	3 PHASE SIGNAL	N/A	N/A	N/A
6 CROSSROAD PKWY S @ CROSSROAD PKWY N	2 PHASE SIGNAL	N/A	3 PHASE SIGNAL	N/A

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	PROGRAMMED IMPROVEMENTS	ADDITIONAL IMPROVEMENTS TO PROGRAMMED IMPROVEMENTS
7 DURFEE AVE @ GARVEY AVE	8 PHASE SIGNAL	N/A	N/A	N/A
8 I–605 NB RAMPS/ TEMPLE AVE @ VALLEY BLVD	6 PHASE SIGNAL	6 PHASE SIGNAL [b]	6 PHASE SIGNAL [b]	6 PHASE SIGNAL [b]
9 BALDWIN PARK AVE @ AMAR RD	3 PHASE SIGNAL	N/A	N/A	N/A
10 (EXISTING) 10a&10b (FUTURE) WORKMAN MILL RD @ VALLEY BLVD	8 PHASE SIGNAL	8 PHASE SIGNAL [b]	3 PHASE SIGNAL 5 PHASE SIGNAL [b]	N/A
11 7TH AVE/ SUNSET AVE @ VALLEY BLVD	8 PHASE SIGNAL	8 PHASE SIGNAL [b]	8 PHASE SIGNAL [b]	8 PHASE SIGNAL [b]
12 HACIENDA BLVD @ VALLEY BLVD	8 PHASE SIGNAL	8 PHASE SIGNAL [b]	8 PHASE SIGNAL [b]	8 PHASE SIGNAL [b]

KEY

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= ADDITIONAL IMPROVEMENT
● = TRAFFIC SIGNAL
F = FREE RIGHT
OL = OVERLAP
[a] = INCLUDES INDUSTRY BUSINESS CENTER (IBC) IM AND MITIGATION PER 2004 IBC EIR
[b] = INCLUDES IMPLEMENTATION OF A SIGNAL COORI PROGRAM ALONG THE VALLEY BOULEVARD COR

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Source: Linscott Law & Greenspan Engineers 2011

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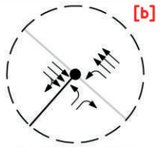
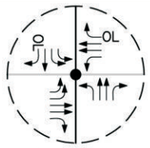
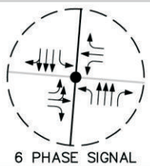
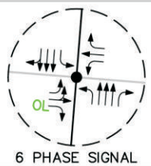
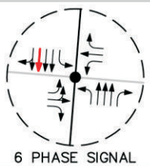
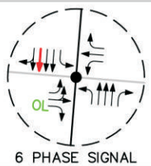
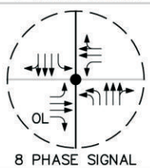
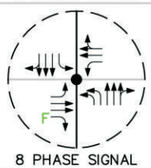
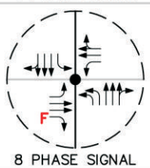
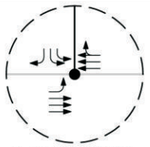
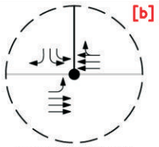
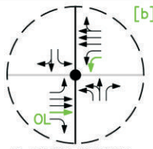
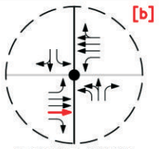
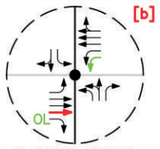
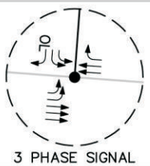
Intersection Lane Geometry (Intersections 13–24)

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	PROGRAMMED IMPROVEMENTS	ADDITIONAL IMPROVEMENTS TO PROGRAMMED IMPROVEMENTS
13 VALLEY BLVD @ OLD VALLEY BLVD	3 PHASE SIGNAL	N/A	[b]  3 PHASE SIGNAL	N/A
14 AZUSA AVE @ COLIMA RD	 8 PHASE SIGNAL	8 PHASE SIGNAL	8 PHASE SIGNAL	8 PHASE SIGNAL
15 AZUSA AVE @ SR-60 EB RAMPS	2 PHASE SIGNAL	N/A	N/A	N/A
16 AZUSA AVE @ SR-60 WB RAMPS	2 PHASE SIGNAL	N/A	N/A	N/A
17 AZUSA AVE @ HURLEY ST	 6 PHASE SIGNAL	 6 PHASE SIGNAL	 6 PHASE SIGNAL	 6 PHASE SIGNAL
18 AZUSA AVE @ TEMPLE AVE	 8 PHASE SIGNAL	 8 PHASE SIGNAL	 8 PHASE SIGNAL	N/A

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	PROGRAMMED IMPROVEMENTS	ADDITIONAL IMPROVEMENTS TO PROGRAMMED IMPROVEMENTS
19 HURLEY ST @ VALLEY BLVD	 2 PHASE SIGNAL	N/A	[b]  2 PHASE SIGNAL	N/A
20 FULLERTON ROAD @ SR-60 EB RAMPS	4 PHASE SIGNAL	N/A	N/A	N/A
21 FULLERTON RD @ SR-60 WB RAMPS	2 PHASE SIGNAL	N/A	N/A	N/A
22 FULLERTON RD @ VALLEY BLVD	6 PHASE SIGNAL	[b]  6 PHASE SIGNAL	[b]  6 PHASE SIGNAL	[b]  6 PHASE SIGNAL
23 NOGALES ST @ VALLEY BLVD	 3 PHASE SIGNAL	N/A	[b] 3 PHASE SIGNAL	N/A
24 FAIRWAY DR @ SR-60 EB RAMPS	2 PHASE SIGNAL	N/A	N/A	N/A

KEY

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- [a] = INCLUDES INDUSTRY BUSINESS CENTER (IBC) IM AND MITIGATION PER 2004 IBC EIR
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Source: Linscott Law & Greenspan Engineers 2011

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Intersection Lane Geometry (Intersections 25–36)

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	PROGRAMMED IMPROVEMENTS	ADDITIONAL IMPROVEMENTS TO PROGRAMMED IMPROVEMENTS
25 FAIRWAY DR @ SR–60 WB RAMPS	3 PHASE SIGNAL	N/A	3 PHASE SIGNAL	N/A
26 FAIRWAY DR @ VALLEY BLVD	6 PHASE SIGNAL	[b] 6 PHASE SIGNAL	[b] 6 PHASE SIGNAL	N/A
27 LEMON AVE @ VALLEY BLVD	5 PHASE SIGNAL	[b] 5 PHASE SIGNAL	[b] 5 PHASE SIGNAL	[b] 5 PHASE SIGNAL
28 BREA CANYON RD @ VALLEY BLVD	3 PHASE SIGNAL	[b] 3 PHASE SIGNAL	[b] 3 PHASE SIGNAL	N/A
29 GRAND AVE @ SR–60 EB RAMPS	3 PHASE SIGNAL	3 PHASE SIGNAL	2 PHASE SIGNAL	N/A
30 GRAND AVE @ SR–60 WB RAMPS	6 PHASE SIGNAL	6 PHASE SIGNAL	4 PHASE SIGNAL	N/A

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	PROGRAMMED IMPROVEMENTS	ADDITIONAL IMPROVEMENTS TO PROGRAMMED IMPROVEMENTS
31 GRAND AVE @ VALLEY BLVD	8 PHASE SIGNAL	[b] 8 PHASE SIGNAL	[a] [b] 8 PHASE SIGNAL	[b] 8 PHASE SIGNAL
32 SHEPHERD ST @ I–605 NB OFF–RAMP	3–WAY STOP	N/A	N/A	N/A
33 SAN GABRIEL RIVER PKWY @ I–605 SB ON–RAMP	1–WAY STOP	N/A	N/A	N/A
34 I–605 SB RAMP @ ROSE HILLS RD	ALL–WAY STOP	N/A	N/A	N/A
35 I–605 SB OFF–RAMP @ VALLEY BLVD	1–WAY STOP	1–WAY STOP	1–WAY STOP	N/A
36 7TH AVE @ SR–60 EB RAMP		N/A	N/A	N/A

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Source: Linscott Law & Greenspan Engineers 2011

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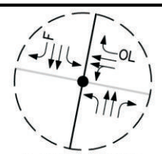
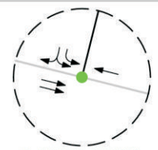
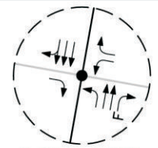
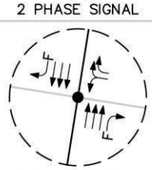
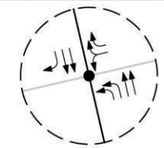
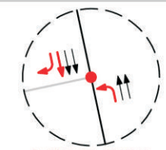
Intersection Lane Geometry (Intersections 37–46)

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	PROGRAMMED IMPROVEMENTS	ADDITIONAL IMPROVEMENTS TO PROGRAMMED IMPROVEMENTS
37 7TH AVE @ SR-60 WB ON-RAMP	 3 PHASE SIGNAL	N/A	N/A	N/A
38 SR-60 WB OFF-RAMP @ GALE AVE	 2 PHASE SIGNAL	N/A	N/A	N/A
39 SR-60 EB OFF-RAMP @ THREE PALMS DR	 2-WAY STOP	 2 PHASE SIGNAL	N/A	N/A
40 HACIENDA BLVD @ SR-60 WB OFF-RAMP	 2 PHASE SIGNAL	 3 PHASE SIGNAL	N/A	N/A
41 NOGALES ST @ SR-60 WB RAMPS	 2 PHASE SIGNAL	N/A	N/A	N/A
42 NOGALES ST @ SR-60 WB RAMPS	 2 PHASE SIGNAL	N/A	N/A	N/A

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	PROGRAMMED IMPROVEMENTS	ADDITIONAL IMPROVEMENTS TO PROGRAMMED IMPROVEMENTS
43 SR-60 EB RAMPS @ GOLDEN SPRINGS DR	 6 PHASE SIGNAL	N/A	TO BE REMOVED	N/A
44 BREA CANYON RD @ SR-60 WB RAMPS	 3 PHASE SIGNAL	N/A	N/A	N/A
45 LEMON AVE @ SR-60 WB ON-RAMP	DOES NOT EXIST	DOES NOT EXIST	 2 PHASE SIGNAL	N/A
46 LEMON AVE @ SR-60 EB RAMPS	DOES NOT EXIST	DOES NOT EXIST	 3 PHASE SIGNAL	N/A

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Project-Related Traffic Volume Increase at Study Area Intersections

Existing (Year 2010) With Project Condition

Table 5.13-8 presents a summary of the project-related increase at each study area intersection in the Existing (Year 2010) With Project Condition. As demonstrated in the table, project-related trips correspond to mostly less than half of Existing (Year 2010) Without Project Condition PCE traffic volumes during the AM and PM peak hours.

Table 5.13-8
Project Related Increase in Existing (Year 2010) With Project Condition

#	Study Area Intersection	Project Only Traffic	Existing Plus Project Traffic	Net Project Percent Increase
1	Rose Hills Road at Shepherd Street (Caltrans)	4	2,176	0%
2	Peck Road at Rooks Road (Caltrans)	139	4,862	3%
3	I-605 Northbound Ramp at Pellessier Place (Caltrans)	209	4,506	5%
4	Workman Mill Road at Pellessier Place	164	4,779	3%
5	Crossroad Parkway South at SR-60 Eastbound Ramp (Caltrans)	75	3,170	2%
6	Crossroad Parkway South at Crossroad Parkway North	382	2,913	13%
7	Durfee Avenue at Garvey Avenue (Caltrans)	91	6,309	1%
8	I-605 Northbound Ramp/Temple Avenue at Valley Boulevard (Caltrans) (RR/Valley Corridor)[1]	2,386	13,001	18%
9	Baldwin Park Boulevard at Amar Road	148	4,639	3%
10	Workman Mill Road at Valley Boulevard (RR/Valley Corridor)[1]	2,495	13,410	18%
11	7th Avenue/Sunset Avenue at Valley Boulevard (RR/Valley Corridor)[1]	2,637	11,009	24%
12	Hacienda Boulevard at Valley Boulevard (RR/Valley Corridor)[1]	2,045	14,262	14%
13	Valley Boulevard at Old Valley Boulevard (RR/Valley Corridor)	1,956	7,931	25%
14	Azusa Avenue at Colima Road (CMP)[1]	1,787	10,785	17%
15	Azusa Avenue at SR-60 Eastbound Ramp (Caltrans)	570	10,167	6%
16	Azusa Avenue at SR-60 Westbound Ramp(Caltrans)	501	10,286	5%
17	Azusa Avenue at Hurley Street	674	8,103	8%
18	Azusa Avenue at Temple Avenue[1]	500	9,865	5%

Table 5.13-8
Project Related Increase in Existing (Year 2010) With Project Condition

#	Study Area Intersection	Project Only Traffic	Existing Plus Project Traffic	Net Project Percent Increase
19	Hurley Avenue at Valley Boulevard (RR/Valley Corridor)	2,311	9,542	24%
20	Fullerton Road at SR-60 Eastbound Ramp (Caltrans)	1,693	8,308	20%
21	Fullerton Road at SR-60 Westbound Ramp (Caltrans)	2,094	8,517	25%
22	Fullerton Road at Valley Boulevard (RR/Valley Corridor) [1]	2,613	10,720	24%
23	Nogales Street at Valley Boulevard (RR/Valley Corridor)	2,233	8,184	27%
24	Fairway Drive at SR-60 Eastbound Ramp (Caltrans)	171	5,566	3%
25	Fairway Drive at SR-60 Westbound Ramp (Caltrans)	305	6,190	5%
26	Fairway Drive at Valley Boulevard (RR/Valley Corridor) [1]	2,318	9,500	24%
27	Lemon Avenue at Valley Boulevard (RR/Valley Corridor) [1]	2,910	10,464	28%
28	Brea Canyon Road at Valley Boulevard (RR/Valley Corridor) [1]	3,496	10,195	34%
29	Grand Avenue at SR-60 Eastbound Ramp (Caltrans) [1]	4,858	12,025	40%
30	Grand Avenue at SR-60 Westbound Ramp (Caltrans) [1]	5,209	12,260	42%
31	Grand Avenue at Valley Boulevard (RR/Valley Corridor) [1]	6,093	15,947	38%
32	Shepherd Street at I-605 Northbound Ramp (Caltrans)	1	737	0%
33	San Gabriel River Parkway at I-605 Southbound Ramp (Caltrans)	4	1,839	0%
34	I-605 Southbound Ramp at Rose Hills Road (Caltrans)	9	2,103	0%
35	I-605 Southbound Ramp at Valley Boulevard (Caltrans) (RR/Valley Corridor)	1,565	8,930	18%
36	7th Avenue at SR-60 Eastbound Ramp (Caltrans)	322	4,351	7%
37	7th Avenue at SR-60 Westbound Ramp (Caltrans)	563	6,844	8%
38	SR-60 Westbound Ramp at Gale Avenue (Caltrans)	99	3,302	3%
39	SR-60 Eastbound Ramp at Three Palms Street (Caltrans) [1]	28	2,859	1%
40	Hacienda Boulevard at SR-60 Westbound Ramp (Caltrans) [1]	93	9,454	1%
41	Nogales Street at SR-60 Eastbound Ramp (Caltrans)	986	7,788	13%

Table 5.13-8
Project Related Increase in Existing (Year 2010) With Project Condition

#	Study Area Intersection	Project Only Traffic	Existing Plus Project Traffic	Net Project Percent Increase
42	Nogales Street at SR-60 Westbound Ramp (Caltrans)	1,116	8,496	13%
43	SR-60 Eastbound Ramp at Golden Springs Drive (Caltrans)	1,267	7,232	18%
44	Brea Canyon Road at SR-60 Westbound Ramp (Caltrans)	2,846	5,953	48%
	Total	**61,966**	**339,479**	**18%**

[1] Poor level of service under Existing (Year 2010) With Project Condition.

Post-2035 General Plan Buildout Condition

Table 5.13-9 presents a summary of the project-related increase at each study area intersection in the Post-2035 General Plan Buildout Condition. As demonstrated in the table, project-related trips correspond to mostly less than half of Post-2035 General Plan Buildout Condition PCE traffic volumes during the AM and PM peak hours.

Table 5.13-9
Project Related Increase in Post-2035 General Plan Buildout Condition

#	Study Area Intersection	Project Only Traffic	Existing Plus Project Traffic	Net Project Percent Increase
1	Rose Hills Road at Shepherd Street (Caltrans)	4	2,450	0%
2	Peck Road at Rooks Road (Caltrans)	139	5,454	3%
3	I-605 Northbound Ramp at Pellessier Place (Caltrans)	209	5,045	4%
4	Workman Mill Road at Pellessier Place	164	5,356	3%
5	Crossroad Parkway South at SR-60 Eastbound Ramp (Caltrans)	75	3,558	2%
6	Crossroad Parkway South at Crossroad Parkway North	382	3,230	12%
7	Durfee Avenue at Garvey Avenue (Caltrans)	91	7,086	1%
8	I-605 Northbound Ramp/Temple Avenue at Valley Boulevard (Caltrans) (RR/Valley Corridor)[1]	2,386	14,330	17%
9	Baldwin Park Boulevard at Amar Road	148	5,202	3%
10a	3rd Avenue at Valley Boulevard (RR/Valley Corridor)[1]	2,378	10,885	22%
10b	Workman Mill Road at Valley Boulevard (RR/Valley Corridor)[1]	347	7,342	5%

Table 5.13-9
Project Related Increase in Post-2035 General Plan Buildout Condition

#	Study Area Intersection	Project Only Traffic	Existing Plus Project Traffic	Net Project Percent Increase
11	7th Avenue/Sunset Avenue at Valley Boulevard (RR/Valley Corridor)[2]	2,637	12,057	22%
12	Hacienda Boulevard at Valley Boulevard (RR/Valley Corridor)[2]	2,045	15,790	13%
13	Valley Boulevard at Old Valley Boulevard (RR/Valley Corridor)	1,956	8,679	23%
14	Azusa Avenue at Colima Road (CMP)[2]	1,787	11,913	15%
15	Azusa Avenue at SR-60 Eastbound Ramp (Caltrans)	570	11,367	5%
16	Azusa Avenue at SR-60 Westbound Ramp(Caltrans)	501	11,510	4%
17	Azusa Avenue at Hurley Street[1]	674	9,034	7%
18	Azusa Avenue at Temple Avenue	500	11,035	5%
19	Hurley Avenue at Valley Boulevard (RR/Valley Corridor)	2,311	10,448	22%
20	Fullerton Road at SR-60 Eastbound Ramp (Caltrans)	1,693	9,136	19%
21	Fullerton Road at SR-60 Westbound Ramp (Caltrans)	2,094	9,320	22%
22	Fullerton Road at Valley Boulevard (RR/Valley Corridor)[2]	2,613	11,735	22%
23	Nogales Street at Valley Boulevard (RR/Valley Corridor)	2,233	8,929	25%
24	Fairway Drive at SR-60 Eastbound Ramp (Caltrans)	171	6,242	3%
25	Fairway Drive at SR-60 Westbound Ramp (Caltrans)	305	3,925	4%
26	Fairway Drive at Valley Boulevard (RR/Valley Corridor)	2,318	10,400	22%
27	Lemon Avenue at Valley Boulevard (RR/Valley Corridor)[2]	2,925	11,859	25%
28	Brea Canyon Road at Valley Boulevard (RR/Valley Corridor)	3,486	10,635	33%
29	Grand Avenue at SR-60 Eastbound Ramp (Caltrans)	4,858	12,921	38%
30	Grand Avenue at SR-60 Westbound Ramp (Caltrans)	5,209	13,144	40%
31	Grand Avenue at Valley Boulevard (RR/Valley Corridor)[2]	6,093	17,180	35%
32	Shepherd Street at I-605 Northbound Ramp (Caltrans)	1	830	0%
33	San Gabriel River Parkway at I-605 Southbound Ramp (Caltrans)	4	2,070	0%

Table 5.13-9
Project Related Increase in Post-2035 General Plan Buildout Condition

#	Study Area Intersection	Project Only Traffic	Existing Plus Project Traffic	Net Project Percent Increase
34	I-605 Southbound Ramp at Rose Hills Road (Caltrans)	9	2,364	0%
35	I-605 Southbound Ramp at Valley Boulevard (Caltrans) (RR/Valley Corridor)	1,565	9,850	16%
36	7th Avenue at SR-60 Eastbound Ramp (Caltrans)	322	4,855	7%
37	7th Avenue at SR-60 Westbound Ramp (Caltrans)	563	7,631	7%
38	SR-60 Westbound Ramp at Gale Avenue (Caltrans)	99	3,703	3%
39	SR-60 Eastbound Ramp at Three Palms Street (Caltrans)[2]	28	3,218	1%
40	Hacienda Boulevard at SR-60 Westbound Ramp (Caltrans)[2]	93	10,634	1%
41	Nogales Street at SR-60 Eastbound Ramp (Caltrans)	986	8,639	11%
42	Nogales Street at SR-60 Westbound Ramp (Caltrans)	1,116	9,421	12%
44	Brea Canyon Road at SR-60 Westbound Ramp (Caltrans)	2,826	5,842	48%
45	Lemon Avenue at SR-60 Westbound On-Ramp	132	4,409	3%
46	Lemon Avenue at SR-60 Eastbound Ramp	1,145	7,206	16%
	Total	**62,191**	**385,042**	**16%**

Notes: In conjunction with the construction of the programmed SR-60/Lemon Avenue interchange improvement, the existing SR-60 eastbound on- and off-ramps at Brea Canyon Road (Intersection 43) will be removed by Year 2035 and are therefore not included in this table.
[1] This programmed intersection improvement is planned to be grade separated by Year 2035, resulting in two future intersections (10a and 10b).
[2] Poor level of service under Post-2035 General Plan Buildout Condition.

Level of Service Impact at Study Area Intersections

Existing (Year 2010) With Project Condition Peak Hour Level of Service

Table 5.13-10 summarizes the Existing (Year 2010) With Project Condition peak hour LOS at the 44 existing study area intersections during the weekday AM and PM peak hours. As shown in this table, 29 of the 44 existing intersections would operate at satisfactory levels of service (LOS D or better) during the weekday AM and PM peak hours, and 15 intersections are expected to operate at deficient levels of service (LOS E or F) during one or both of the peak hours without additional improvements (improvements above and beyond programed improvements). Figure 5.13-11, *Deficient Intersections under Existing (Year 2010) With Project Condition*, illustrates the 15 deficient intersections under the Existing (Year 2010) With Project Condition.

Of the 15 study area intersections expected to operate at poor levels of service, 7 intersections (8, 10, 12, 18, 22, 39 and 40) are already deficient under the Existing (Year 2010) Without Project Condition, as shown in Table 5.13-4. It is also worth noting that 9 of the deficient intersections are located along the Valley

Boulevard/railroad corridor (highlighted in green in Figure 5.13-11). Due to the high influence of railroad and truck/heavy vehicle operations along this corridor, periods of congestion during peak commute periods are expected at the various intersections along this corridor.

The poor levels of service at another 6 intersections (not located along the Valley Boulevard/railroad corridor; highlighted in orange in Figure 5.13-11) would be adverse under the Existing (Year 2010) With Project Condition, but the areawide deficiency is not considered to be primarily due to the proposed project since General Plan Update buildout-generated trips comprise only 25 percent or less of the total intersection peak hour trips (as summarized in Table 5.13-8).

Table 5.13-10
Existing (Year 2010) With Project Condition Intersection Peak Hour Level of Service

#	Study Intersection	Time Period	(1) Existing (Year 2010) Without Project				Existing (Year 2010) With Project: (2) Without Additional Improvements					Existing (Year 2010) With Project: (3) With Additional Improvements				
			ICU	Delay	LOS	Def?	ICU	Delay	LOS	ICU or Delay Change (2) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (3) - (1)	Residual Def?
1	Rose Hills Road at	AM	—	18.7	B	No	—	18.7	B	0.0	No	—	—	—	—	—
	Shepherd Street (Caltrans)	PM	—	19.6	B	No	—	19.6	B	0.0	No	—	—	—	—	—
2	Peck Road at	AM	—	15.1	B	No	—	15.3	B	0.2	No	—	—	—	—	—
	Rooks Road (Caltrans)	PM	—	12.2	B	No	—	12.1	B	-0.1	No	—	—	—	—	—
3	I-605 Northbound Ramp at	AM	—	26.7	C	No	—	28.9	C	2.2	No	—	—	—	—	—
	Pellessier Place (Caltrans)	PM	—	26.9	C	No	—	28.4	C	1.5	No	—	—	—	—	—
4	Workman Mill Road at	AM	0.564	—	A	No	0.573	—	A	0.009	No	—	—	—	—	—
	Pellessier Place	PM	0.726	—	C	No	0.747	—	C	0.021	No	—	—	—	—	—
5	Crossroad Parkway South at	AM	—	19.4	B	No	—	19.6	B	0.2	No	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	21.3	C	No	—	21.4	C	0.1	No	—	—	—	—	—
6	Crossroad Parkway South at	AM	0.445	—	A	No	0.481	—	A	0.036	No	—	—	—	—	—
	Crossroad Parkway North	PM	0.439	—	A	No	0.555	—	A	0.116	No	—	—	—	—	—
7	Durfee Avenue at	AM	—	36.3	D	No	—	36.2	D	-0.1	No	—	—	—	—	—
	Garvey Avenue (Caltrans)	PM	—	34.2	C	No	—	34.5	C	0.3	No	—	—	—	—	—
8	I-605 Northbound Ramp/Temple Avenue at	AM	—	69.2	E	Yes	—	81.0	F	11.8	Yes[1]	—	56.0	E	-13.2	No
	Valley Boulevard (Caltrans)(RR/Valley Corridor)	PM	—	39.3	D	No	—	59.9	E	20.6	Yes[1]	—	34.9	C	-4.4	No
9	Baldwin Park Boulevard at	AM	0.724	—	C	No	0.740	—	C	0.016	No	—	—	—	—	—
	Amar Road	PM	0.766	—	C	No	0.793	—	C	0.027	No	—	—	—	—	—

Table 5.13-10
Existing (Year 2010) With Project Condition Intersection Peak Hour Level of Service

#	Study Intersection	Time Period	(1) Existing (Year 2010) Without Project				Existing (Year 2010) With Project: (2) Without Additional Improvements					Existing (Year 2010) With Project: (3) With Additional Improvements				
			ICU	Delay	LOS	Def?	ICU	Delay	LOS	ICU or Delay Change (2) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (3) - (1)	Residual Def?
10	Workman Mill Road at	AM	0.940	—	E	Yes	0.998	—	E	0.058	Yes[1]	0.898	—	D	-0.042	No
	Valley Boulevard (RR/Valley Corridor)	PM	1.122	—	F	Yes	1.325	—	F	0.203	Yes[1]	1.051	—	F	-0.071	No
11	7th Avenue/Sunset Avenue at	AM	0.696	—	B	No	0.767	—	C	0.071	No	0.667	—	B	-0.029	No
	Valley Boulevard (RR/Valley Corridor)	PM	0.854		D	No	1.064	—	F	0.210	Yes[1]	0.850	—	D	-0.004	No
12	Hacienda Boulevard at	AM	0.888	—	D	No	0.975	—	E	0.087	Yes[1]	0.875	—	D	-0.013	No
	Valley Boulevard (RR/Valley Corridor)	PM	0.972	—	E	Yes	1.147	—	F	0.175	Yes[1]	0.968	—	E	-0.004	No
13	Valley Boulevard at	AM	0.512	—	A	No	0.596	—	A	0.084	No	—	—	—	—	—
	Old Valley Boulevard (RR/Valley Corridor)	PM	0.618	—	B	No	0.713	—	C	0.095	No	—	—	—	—	—
14	Azusa Avenue at	AM	0.796	—	C	No	0.862	—	D	0.066	No	0.843	—	D	0.047	No
	Colima Road (CMP)[2]	PM	0.926	—	E	No	1.187	—	F	0.261	Yes[1]	0.982	—	E	0.056	No
15	Azusa Avenue at	AM	—	16.1	B	No	—	16.3	B	0.2	No	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	14.1	B	No	—	15.1	B	1.0	No	—	—	—	—	—
16	Azusa Avenue at	AM	—	13.7	B	No	—	13.9	B	0.2	No	—	—	—	—	—
	SR-60 Westbound Ramp(Caltrans)	PM	—	15.9	B	No	—	16.1	B	0.2	No	—	—	—	—	—
17	Azusa Avenue at	AM	0.715	—	C	No	0.789	—	C	0.074	No	0.789	—	C	0.074	No
	Hurley Street	PM	0.823	—	D	No	0.837	—	D	0.014	No	0.837	—	D	0.014	No
18	Azusa Avenue at	AM	0.990	—	E	Yes	1.031	—	F	0.041	Yes [1]	0.854	—	D	-0.136	No
	Temple Avenue	PM	0.748	—	C	No	0.791	—	C	0.043	No	0.777	—	C	0.029	No

Table 5.13-10
Existing (Year 2010) With Project Condition Intersection Peak Hour Level of Service

#	Study Intersection	Time Period	(1) Existing (Year 2010) Without Project				Existing (Year 2010) With Project: (2) Without Additional Improvements					Existing (Year 2010) With Project: (3) With Additional Improvements				
			ICU	Delay	LOS	Def?	ICU	Delay	LOS	ICU or Delay Change (2) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (3) - (1)	Residual Def?
19	Hurley Avenue at	AM	0.646	—	B	No	0.738	—	C	0.092	No	—	—	—	—	—
	Valley Boulevard (RR/Valley Corridor)	PM	0.535	—	A	No	0.725	—	C	0.190	No	—	—	—	—	—
20	Fullerton Road at	AM	—	19.0	B	No	—	20.3	C	1.3	No	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	21.6	C	No	—	23.6	C	2.0	No	—	—	—	—	—
21	Fullerton Road at	AM	—	14.6	B	No	—	15.4	B	0.8	No	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	13.8	B	No	—	15.0	B	1.2	No	—	—	—	—	—
22	Fullerton Road at	AM	0.820	—	D	No	0.989	—	E	0.169	Yes[1]	0.728	—	C	-0.092	No
	Valley Boulevard (RR/Valley Corridor)	PM	0.905	—	E	Yes	1.155	—	F	0.250	Yes[1]	0.885	—	D	-0.020	No
23	Nogales Street at	AM	0.677	—	B	No	0.802	—	D	0.125	No	—	—	—	—	—
	Valley Boulevard (RR/Valley Corridor)	PM	0.555	—	A	No	0.758	—	C	0.203	No	—	—	—	—	—
24	Fairway Drive at	AM	—	17.8	B	No	—	18.2	B	0.4	No	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	13.5	B	No	—	14.4	B	0.9	No	—	—	—	—	—
25	Fairway Drive at	AM	—	23.4	C	No	—	23.5	C	0.1	No	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	25.4	C	No	—	26.0	C	0.6	No	—	—	—	—	—
26	Fairway Drive at	AM	0.743	—	C	No	0.871	—	D	0.128	No	0.771	—	C	0.028	No
	Valley Boulevard (RR/Valley Corridor)	PM	0.806	—	D	No	1.037	—	F	0.231	Yes[1]	0.746	—	C	-0.060	No
27	Lemon Avenue at	AM	0.816	—	D	No	0.999	—	E	0.183	Yes[1]	0.726	—	C	-0.090	No
	Valley Boulevard (RR/Valley Corridor)	PM	0.748	—	C	No	1.087	—	F	0.339	Yes[1]	0.864	—	D	0.116	No

Table 5.13-10
Existing (Year 2010) With Project Condition Intersection Peak Hour Level of Service

#	Study Intersection	Time Period	(1) Existing (Year 2010) Without Project				Existing (Year 2010) With Project: (2) Without Additional Improvements					Existing (Year 2010) With Project: (3) With Additional Improvements				
			ICU	Delay	LOS	Def?	ICU	Delay	LOS	ICU or Delay Change (2) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (3) - (1)	Residual Def?
28	Brea Canyon Road at	AM	0.635	—	B	No	0.782	—	C	0.147	No	0.682	—	B	0.047	No
	Valley Boulevard (RR/Valley Corridor)	PM	0.635	—	B	No	1.008	—	F	0.373	Yes[1]	0.820	—	D	0.185	No
29	Grand Avenue at	AM	—	24.0	C	No	—	146.6	F	122.6	Yes	—	50.5	D	26.5	No
	SR-60 Eastbound Ramp (Caltrans)	PM	—	17.1	B	No	—	57.8	E	40.7	Yes	—	34.5	C	17.4	No
30	Grand Avenue at	AM	—	26.6	C	No	—	66.9	E	40.3	Yes	—	41.3	D	14.7	No
	SR-60 Westbound Ramp (Caltrans)	PM	—	23.6	C	No	—	217.2	F	193.6	Yes	—	47.5	D	23.9	No
31	Grand Avenue at	AM	0.658	—	B	No	0.908	—	E	0.250	Yes[1]	0.742	—	C	0.084	No
	Valley Boulevard (RR/Valley Corridor)	PM	0.741	—	C	No	1.138	—	F	0.397	Yes[1]	0.891	—	D	0.150	No
32	Shepherd Street at	AM	—	13.0	B	No	—	13.0	B	0.0	No	—	—	—	—	—
	I-605 Northbound Ramp (Caltrans)[3]	PM	—	10.3	B	No	—	10.3	B	0.0	No	—	—	—	—	—
33	San Gabriel River Parkway at	AM	—	13.0	B	No	—	13.0	B	0.0	No	—	—	—	—	—
	I-605 Southbound Ramp (Caltrans)[3]	PM	—	12.2	B	No	—	12.2	B	0.0	No	—	—	—	—	—
34	I-605 Southbound Ramp at	AM	—	13.8	B	No	—	13.9	B	0.1	No	—	—	—	—	—
	Rose Hills Road (Caltrans)[3]	PM	—	12.8	B	No	—	12.9	B	0.1	No	—	—	—	—	—
35	I-605 Southbound Ramp at	AM	—	1.3	A	No	—	3.2	A	1.9	No	—	—	—	—	—
	Valley Boulevard (Caltrans)(RR/Valley Corridor)[3]	PM	—	12.2	B	No	—	28.5	D	16.3	No	—	—	—	—	—
36	7th Avenue at	AM	—	9.5	A	No	—	9.7	A	0.2	No	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	8.4	A	No	—	8.7	A	0.3	No	—	—	—	—	—

Table 5.13-10
Existing (Year 2010) With Project Condition Intersection Peak Hour Level of Service

#	Study Intersection	Time Period	(1) Existing (Year 2010) Without Project				Existing (Year 2010) With Project: (2) Without Additional Improvements					Existing (Year 2010) With Project: (3) With Additional Improvements				
			ICU	Delay	LOS	Def?	ICU	Delay	LOS	ICU or Delay Change (2) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (3) - (1)	Residual Def?
37	7th Avenue at	AM	—	25.0	C	No	—	24.9	C	-0.1	No	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	22.9	C	No	—	23.0	C	0.1	No	—	—	—	—	—
38	SR-60 Westbound Ramp at	AM	—	5.3	A	No	—	7.7	A	2.4	No	—	—	—	—	—
	Gale Avenue (Caltrans)	PM	—	15.9	B	No	—	16.2	B	0.3	No	—	—	—	—	—
39	SR-60 Eastbound Ramp at	AM	—	266.0	F	Yes	—	299.6	F	33.6	Yes [1]	—	8.4	A	-257.6	No
	Three Palms Street (Caltrans)[3]	PM	—	5449.8	F	Yes	—	3998.0	F	-1451.8	No	—	7.9	A	-5441.9	No
40	Hacienda Boulevard at	AM	—	12.8	B	No	—	14.9	B	2.1	No	—	17.9	B	5.1	No
	SR-60 Westbound Ramp (Caltrans)	PM	—	67.3	E	Yes	—	65.8	E	-1.5	Yes[1]	—	21.0	C	-46.3	No
41	Nogales Street at	AM	—	16.6	B	No	—	16.7	B	0.1	No	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	16.3	B	No	—	16.2	B	-0.1	No	—	—	—	—	—
42	Nogales Street at	AM	—	20.3	C	No	—	20.6	C	0.3	No	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	20.6	C	No	—	21.2	C	0.6	No	—	—	—	—	—
43	SR-60 Eastbound Ramp at	AM	—	28.0	C	No	—	33.7	C	5.7	No	—	—	—	—	—
	Golden Springs Drive (Caltrans)	PM	—	25.2	C	No	—	26.5	C	1.3	No	—	—	—	—	—
44	Brea Canyon Road at	AM	—	22.9	C	No	—	23.8	C	0.9	No	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	22.2	C	No	—	19.0	B	-3.2	No	—	—	—	—	—

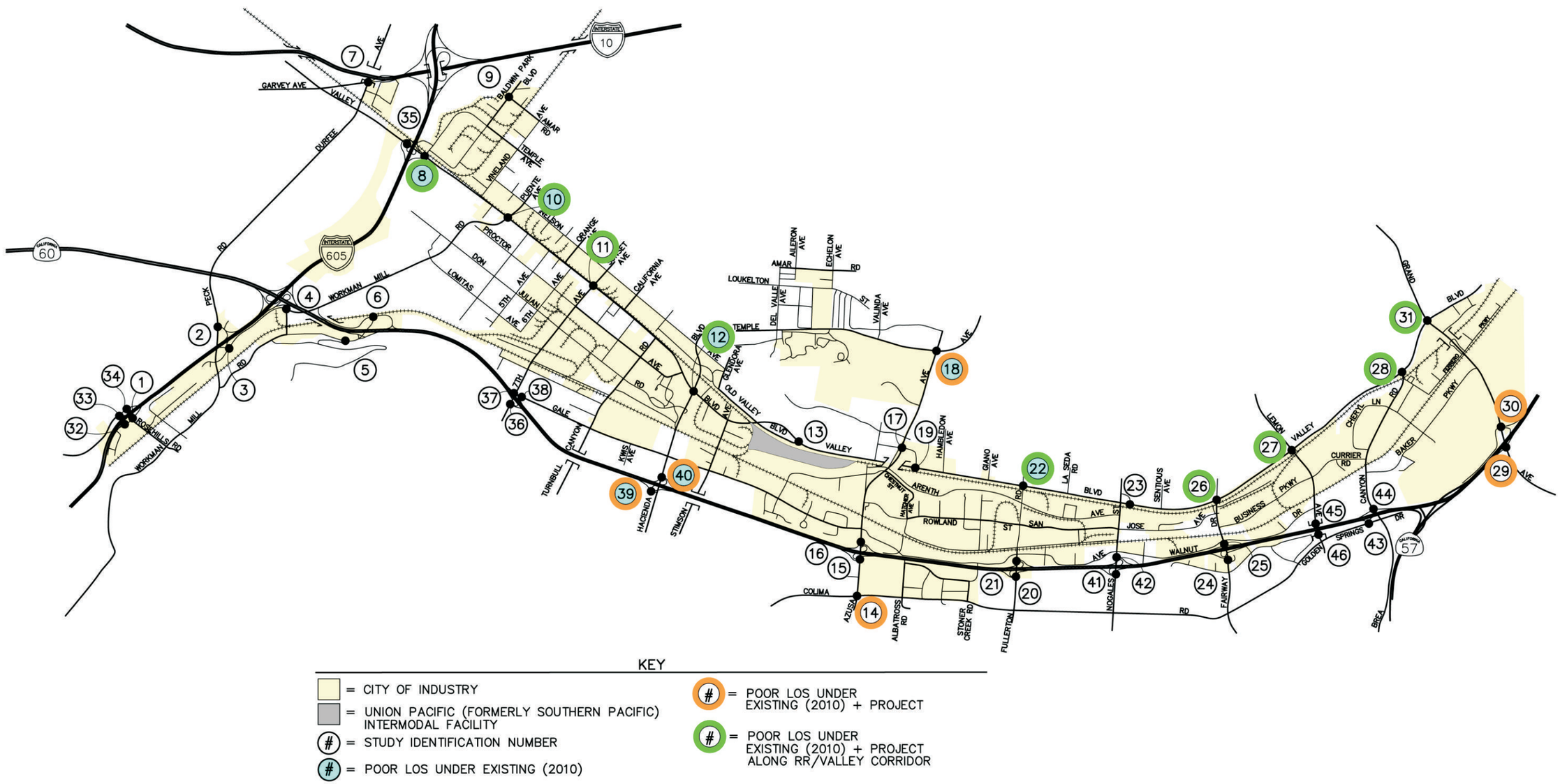
Notes: Def = Deficient; ICU = Intersection Capacity Utilization; LOS = Level of Service
(Caltrans) = This is a freeway ramp intersection and was analyzed using the HCM Operations LOS Methodology per Caltrans traffic study guidelines.
(RR/Valley Corridor) = This intersection is located along the Valley Boulevard corridor that adjoins the existing railroad and at-grade railroad crossings.
(CMP) = This intersection is a Los Angeles County CMP monitoring station.
Grey shading indicates poor level of service.

Table 5.13-10
Existing (Year 2010) With Project Condition Intersection Peak Hour Level of Service

			(1) Existing (Year 2010) Without Project				Existing (Year 2010) With Project									
							(2) Without Additional Improvements					(3) With Additional Improvements				
#	Study Intersection	Time Period	ICU	Delay	LOS	Def?	ICU	Delay	LOS	ICU or Delay Change (2) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (3) - (1)	Residual Def?

[1] Existing (Year 2010) With Project Condition at this intersection may be adverse, but is considered an area-wide deficiency, and not primarily caused by the General Plan Update buildout trips (i.e., General Plan Update buildout-generated trips correspond to only 28 percent or less of total Existing (Year 2010) With Project Condition volumes at the intersection; Intersections 28 and 31 are 34 percent and 38 percent, respectively). In addition, if the intersection is located within the influence of railroad and truck/heavy vehicle operations along the Valley Boulevard corridor, periods of congestion during peak commute periods are expected.
[2] LOS E is considered acceptable per CMP level of service standards.
[3] This intersection is currently unsignalized and was analyzed using the HCM Unsignalized Methodology. The level of service reported is based on the average delay for the intersection.

Deficient Intersections under Existing (Year 2010) With Project Condition



Source: Linscott Law & Greenspan Engineers 2011

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Post-2035 General Plan Buildout Condition Without Programmed Improvements Peak Hour Level of Service

The projected Post-2035 General Plan Buildout Condition Without Programmed Improvements PCE peak hour traffic volumes (shown in Figures 17A through 18B of the TIA) and intersection lane configurations (shown in Figures 10a through 10d of this section) were analyzed to determine the level of service for each of the 46 study area intersections (44 existing and 2 future) under this scenario. Detailed level of service worksheets are provided in Appendix C of the TIA.

Table 5.13-11 summarizes the Post-2035 General Plan Buildout Condition Without Programmed Improvements peak hour LOS at the 46 study area intersections during the weekday AM and PM peak hours. As shown in this table, 29 of the 46 intersections are projected to operate at LOS D or better (LOS E or better at CMP intersections) during the weekday AM and PM peak hours, and 17 intersections are expected to operate at deficient levels of service (LOS E or F) during one or both of the peak hours. Figure 5.13-12, *Deficient Intersections under Post-2035 General Plan Buildout Condition Without Programmed Improvements*, illustrates the 17 deficient intersections under this scenario.

However, of the 17 study area intersections expected to operate at poor levels of service, 7 intersections (8, 10, 12, 18, 22, 39 and 40) are already deficient under the Existing (Year 2010) Without Project Condition, as shown in Table 5.13-4. It is also worth noting that 10 of the deficient intersections are located along the Valley Boulevard/railroad corridor (highlighted in green in Figure 5.13-12). Due to the high influence of railroad and truck/heavy vehicle operations along this corridor, periods of congestion during peak commute periods are expected at the various intersections along this corridor.

The poor levels of service at another 5 intersections (not located along the Valley Boulevard/railroad corridor; highlighted in orange in Figure 5.13-12) would be adverse under the Post-2035 General Plan Buildout Condition Without Programmed Improvements, but the area-wide deficiency is not considered to be primarily due to the proposed project since General Plan Update buildout-generated trips comprise only 25 percent or less of the total intersection peak hour trips (as summarized in Table 5.13-8).

Post-2035 General Plan Buildout Condition With Programmed Improvements Peak Hour Level of Service

The projected Post-2035 General Plan Buildout Condition With Programmed Improvements PCE peak hour traffic volumes (shown in Figures 19A through 20B of the TIA) and intersection lane configurations (shown in Figures 10a through 10d of this section) were analyzed to determine the level of service for each of the 46 study area intersections. Detailed level of service worksheets are provided in Appendix C of the TIA.

To account for the planned implementation of a traffic signal coordination program along the Valley Boulevard corridor, a 0.10 reduction in ICU and 25-second reduction in delay were applied in the level of service calculations. These reductions are based on Los Angeles County guidelines.

Table 5.13-11 summarizes the Post-2035 General Plan Buildout Condition With Programmed Improvements peak hour LOS at the 46 study area intersections during the weekday AM and PM peak hours. As shown in this table, 38 of the 46 intersections are projected to operate at LOS D or better (LOS E or better at CMP intersections) during the weekday AM and PM peak hours, and 8 intersections are expected to operate at deficient levels of service (LOS E or F) during one or both of the peak hours. Figure 5.13-13, *Deficient Intersections under Post-2035 General Plan Buildout Condition With Programmed Improvements*, illustrates the 8 deficient intersections under this scenario presuming the completion of programmed transportation improvements.

However, of the 8 study area intersections expected to operate at poor levels of service, 5 intersections (8, 10, 12, 18, and 22) are already deficient under the Existing (Year 2010) Without Project Condition, as shown in Table 5.13-4. It is also worth noting that 6 of the deficient intersections are located along the Valley Boulevard/railroad corridor (highlighted in green in Figure 5.13-13). Due to the high influence of railroad and truck/heavy vehicle operations along this corridor, periods of congestion during peak commute periods are expected at the various intersections along this corridor.

The poor levels of service at another 4 intersections (not located along the Valley Boulevard/railroad corridor; highlighted in orange in Figure 5.13-13) would be adverse under the Post-2035 General Plan Buildout Condition With Programmed Improvements, but the area-wide deficiency is not considered to be primarily due to the proposed project since General Plan Update buildout-generated trips comprise only 25 percent or less of the total intersection peak hour trips (as summarized in Table 5.13-8).

Valley Boulevard/Railroad Corridor

As discussed above, the majority of deficient intersections under Post-2035 General Plan Buildout conditions are located along the Valley Boulevard/railroad corridor. Although poor levels of service are expected at various intersections along this corridor, for the most part, the area-wide deficiencies at these intersections result from rail operations at adjoining or nearby at-grade railroad crossings along Valley Boulevard, in addition to cumulative traffic growth to/from other jurisdictions (i.e., the area-wide deficiency may be adverse, but is not considered to be primarily due to the proposed project since General Plan Update buildout-generated trips comprise only 25 percent or less of the total intersection peak hour trips, as shown in Table 5.13-8).

Valley Boulevard is a regionally significant roadway arterial, spanning the entire length of the City. It is therefore reasonable to see that, under existing (Year 2010) and future (Post-2035) conditions, Valley Boulevard is the most heavily used corridor by trucks in the region, serving approximately 80 percent of truck volumes travelling in the east-west direction. Because of the significant presence of truck/heavy vehicle operations along this corridor, periods of congestion during peak commute periods are expected at the various intersections along this corridor. Additionally, the constrained operations along this truck route are exacerbated by rail operations on the UPRR Alhambra Subdivision alignment paralleling Valley Boulevard.

According to the ACE Phase II Grade Separation Traffic Study and Concept Plans (dated August 5, 2010), a combined total of 117 freight trains are projected for the UPRR Alhambra and Los Angeles Subdivisions in both directions on a peak day by year 2025. Additionally, based on the Southern California Regional Rail Authority Strategic Assessment (dated January 26, 2007), there is a forecast that future growth could warrant 46 passenger train trips per weekday between Riverside and Los Angeles, 36 of which could be routed through UPRR's Los Angeles Subdivision.

Furthermore, according to the PHIMF Traffic Impact Analysis (dated June 19, 2007), the UPRR Los Angeles Subdivision currently serves 49 freight and passenger trains per day. By Year 2013, it is expected to carry 61 freight and passenger trains per day. Finally, the Inland Empire Railroad Main Line Study (dated June 30, 2005) reported that along the Burlington Northern Santa Fe Line—which is heaviest between Fullerton and Los Angeles—international and domestic intermodal traffic are assumed to undergo a 77.3 and 25 percent growth between year 2010 and 2025, respectively. Unit oil, white bulk, and coal movements, and all other train carload traffic are assumed to undergo a 16.1 percent growth between year 2010 and 2025.

Table 5.13-11
Post-2035 General Plan Buildout Condition Intersection Peak Hour Level of Service

#	Study Area Intersection	Time Period	(1) Existing (Year 2010)				Post-2035 Volumes Without Programmed Improvements: (2) Without Additional Improvements					Post-2035 Volumes Without Programmed Improvements: (3) With Additional Improvements					Post-2035 Volumes With Programmed Improvements: (4) Without Additional Improvements					Post-2035 Volumes With Programmed Improvements: (5) With Additional Improvements				
			ICU	Delay	LOS	Def?	ICU	Delay	LOS	ICU or Delay Change (2) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (3) - (1)	Residual Def?	ICU	Delay	LOS	ICU or Delay Change (4) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (5) - (1)	Residual Def?
1	Rose Hills Road at	AM	—	18.7	B	No	—	19.0	B	0.3	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	Shepherd Street (Caltrans)	PM	—	19.6	B	No	—	20.0	B	0.4	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
2	Peck Road at	AM	—	15.1	B	No	—	15.8	B	0.7	No	—	—	—	—	—	—	16.9	B	1.8	No	—	—	—	—	—
	Rooks Road (Caltrans)	PM	—	12.2	B	No	—	12.3	B	0.1	No	—	—	—	—	—	—	12.8	B	0.6	No	—	—	—	—	—
3	I-605 Northbound Ramps at	AM	—	26.7	C	No	—	34.7	C	8.0	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	Pellessier Place (Caltrans)	PM	—	26.9	C	No	—	30.3	C	3.4	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
4	Workman Mill Road at	AM	0.564	—	A	No	0.631	—	B	0.067	No	—	—	—	—	—	[1]	—	[1]	—	—	—	—	—	—	—
	Pellessier Place	PM	0.726	—	C	No	0.825	—	D	0.099	No	—	—	—	—	—	[1]	—	[1]	—	—	—	—	—	—	—
5	Crossroad Parkway South at	AM	—	19.4	B	No	—	19.8	B	0.4	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	21.3	C	No	—	21.7	C	0.4	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
6	Crossroad Parkway South at	AM	0.445	—	A	No	0.524	—	A	0.079	No	—	—	—	—	—	0.515	—	A	0.070	No	—	—	—	—	—
	Crossroad Parkway North	PM	0.439	—	A	No	0.597	—	A	0.158	No	—	—	—	—	—	0.560	—	A	0.121	No	—	—	—	—	—
7	Durfee Avenue at	AM	—	36.3	D	No	—	41.1	D	4.8	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	Garvey Avenue (Caltrans)	PM	—	34.2	C	No	—	38.5	D	4.3	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
8	I-605 Northbound Ramp/Temple Avenue at	AM	—	**69.2**	**E**	**Yes**	—	**120.2**	**F**	**51.0**	**Yes[2]**	—	21.8	C	-47.4	No	—	**80.0**	**E**	**10.8**	**Yes[2]**	—	21.8	C	-47.4	No
	Valley Boulevard (Caltrans) (RR/Valley Corridor)	PM	—	39.3	D	No	—	**85.6**	**F**	**46.3**	**Yes[2]**	—	24.9	C	-14.4	No	—	**80.0**	**E**	**40.7**	**Yes[2]**	—	24.9	C	-14.4	No
9	Baldwin Park Boulevard at	AM	0.724	—	C	No	0.818	—	D	0.094	No	—	—	—	—	—	[1]	—	[1]	—	—	—	—	—	—	—
	Amar Road	PM	0.766	—	C	No	0.876	—	D	0.110	No	—	—	—	—	—	[1]	—	[1]	—	—	—	—	—	—	—
10	Workman Mill Road at	AM	**0.940**	—	**E**	**Yes**	**1.110**	—	**F**	**0.170**	**Yes[2]**	0.936	—	E	-0.004	No	[3]									
	Valley Boulevard (RR/Valley Corridor)	PM	**1.122**	—	**F**	**Yes**	**1.452**	—	**F**	**0.330**	**Yes[2]**	1.045	—	F	-0.077	No										
10a	3rd Avenue at	AM	[3]														0.794	—	C	—	No	—	—	—	—	—
	Valley Boulevard (RR/Valley Corridor)	PM															0.837	—	D	—	No	—	—	—	—	—
10b	Workman Mill Road at	AM	[3]														0.885	—	D	—	No	—	—	—	—	—
	3rd Avenue (RR/Valley Corridor)	PM															0.804	—	D	—	No	—	—	—	—	—
11	7th Avenue/Sunset Avenue at	AM	0.696	—	B	No	0.841	—	D	0.145	No	0.720	—	C	0.024	No	0.741	—	C	0.045	No	0.720	—	C	0.024	No
	Valley Boulevard (RR/Valley Corridor)	PM	0.854	—	D	No	**1.158**	—	**F**	**0.304**	**Yes[2]**	0.877	—	D	0.023	No	**1.058**	—	**F**	**0.204**	**Yes[2]**	0.877	—	D	0.023	No
12	Hacienda Boulevard at	AM	0.888	—	D	No	**1.074**	—	**F**	**0.186**	**Yes[2]**	0.880	—	D	-0.008	No	**0.974**	—	**E**	**0.086**	**Yes[2]**	0.880	—	D	-0.008	No
	Valley Boulevard (RR/Valley Corridor)	PM	**0.972**	—	**E**	**Yes**	**1.256**	—	**F**	**0.284**	**Yes[2]**	0.907	—	E	-0.065	No	**1.156**	—	**F**	**0.184**	**Yes[2]**	0.907	—	E	-0.065	No
13	Valley Boulevard at	AM	0.512	—	A	No	0.647	—	B	0.135	No	—	—	—	—	—	0.548	—	A	0.036	No	—	—	—	—	—
	Old Valley Boulevard (RR/Valley Corridor)	PM	0.618	—	B	No	0.777	—	C	0.159	No	—	—	—	—	—	0.678	—	B	0.060	No	—	—	—	—	—

Table 5.13-11
Post-2035 General Plan Buildout Condition Intersection Peak Hour Level of Service

							Post-2035 Volumes Without Programmed Improvements										Post-2035 Volumes With Programmed Improvements									
			(1) Existing (Year 2010)				(2) Without Additional Improvements					(3) With Additional Improvements					(4) Without Additional Improvements					(5) With Additional Improvements				
#	Study Area Intersection	Time Period	ICU	Delay	LOS	Def?	ICU	Delay	LOS	ICU or Delay Change (2) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (3) - (1)	Residual Def?	ICU	Delay	LOS	ICU or Delay Change (4) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (5) - (1)	Residual Def?
14	Azusa Avenue at	AM	0.796	—	C	No	0.943	—	E	0.147	No	0.812	—	D	0.016	No	0.830	—	D	0.034	No	0.812	—	D	0.016	No
	Colima Road (CMP)[4]	PM	0.926	—	E	No	**1.285**	—	**F**	**0.359**	**Yes[2]**	0.971	—	E	0.045	No	**1.285**	—	**F**	**0.359**	**Yes[2]**	0.972	—	E	0.046	No
15	Azusa Avenue at	AM	—	16.1	B	No	—	17.0	B	0.9	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	14.1	B	No	—	15.8	B	1.7	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
16	Azusa Avenue at	AM	—	13.7	B	No	—	14.5	B	0.8	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	15.9	B	No	—	17.0	B	1.1	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
17	Azusa Avenue at	AM	0.715	—	C	No	0.860	—	D	0.145	No	0.792	—	C	0.077	No	0.764	—	C	0.049	No	0.697	—	B	-0.018	No
	Hurley Street	PM	0.823	—	D	No	**0.927**	—	**E**	**0.104**	**Yes[2]**	0.885	—	D	0.062	No	**0.928**	—	**E**	**0.105**	**Yes[2]**	0.886	—	D	0.063	No
18	Azusa Avenue at	AM	**0.990**	—	**E**	**Yes**	**1.142**	—	**F**	**0.152**	**Yes[2]**	0.943	—	E	-0.047	No	0.943	—	E	-0.047	No	—	—	—	—	—
	Temple Avenue	PM	0.748	—	C	No	0.873	—	D	0.125	No	0.856	—	D	0.108	No	0.856	—	D	0.108	No	—	—	—	—	—
19	Hurley Avenue at	AM	0.646	—	B	No	0.806	—	D	0.160	No	—	—	—	—	—	0.706	—	C	0.060	No	—	—	—	—	—
	Valley Boulevard (RR/Valley Corridor)	PM	0.535	—	A	No	0.780	—	C	0.245	No	—	—	—	—	—	0.680	—	B	0.145	No	—	—	—	—	—
20	Fullerton Road at	AM	—	19.0	B	No	—	21.7	C	2.7	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	21.6	C	No	—	27.2	C	5.6	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
21	Fullerton Road at	AM	—	14.6	B	No	—	16.2	B	1.6	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	13.8	B	No	—	16.0	B	2.2	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
22	Fullerton Road at	AM	0.820	—	D	No	**1.079**	—	**F**	**0.259**	**Yes[2]**	0.761	—	C	-0.059	No	**0.979**	—	**E**	**0.159**	**Yes[2]**	0.761	—	C	-0.059	No
	Valley Boulevard (RR/Valley Corridor)	PM	**0.905**	—	**E**	**Yes**	**1.256**	—	**F**	**0.351**	**Yes[2]**	0.885	—	D	-0.020	No	**1.041**	—	**F**	**0.136**	**Yes[2]**	0.885	—	D	-0.020	No
23	Nogales Street at	AM	0.677	—	B	No	0.874	—	D	0.197	No	—	—	—	—	—	0.576	—	A	-0.101	No	—	—	—	—	—
	Valley Boulevard (RR/Valley Corridor)	PM	0.555	—	A	No	0.815	—	D	0.260	No	—	—	—	—	—	0.545	—	A	-0.010	No	—	—	—	—	—
24	Fairway Drive at	AM	—	17.8	B	No	—	19.0	B	1.2	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	13.5	B	No	—	15.0	B	1.5	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
25	Fairway Drive at	AM	—	23.4	C	No	—	25.1	C	1.7	No	—	—	—	—	—	—	25.0	C	1.6	No	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	25.4	C	No	—	31.1	C	5.7	No	—	—	—	—	—	—	27.2	C	1.8	No	—	—	—	—	—
26	Fairway Drive at	AM	0.743	—	C	No	**0.952**	—	**E**	**0.209**	**Yes[2]**	0.852	—	D	0.109	No	0.662	—	B	-0.081	No	—	—	—	—	—
	Valley Boulevard (RR/Valley Corridor)	PM	0.806	—	D	No	**1.126**	—	**F**	**0.320**	**Yes[2]**	0.820	—	D	0.014	No	0.821	—	D	0.015	No	—	—	—	—	—
27	Lemon Avenue at	AM	0.816	—	D	No	**1.083**	—	**F**	**0.267**	**Yes[2]**	0.771	—	C	-0.045	No	0.814	—	D	-0.002	No	0.792	—	C	-0.024	No
	Valley Boulevard (RR/Valley Corridor)	PM	0.748	—	C	No	**1.168**	—	**F**	**0.420**	**Yes[2]**	0.888	—	D	0.140	No	**0.963**	—	**E**	**0.215**	**Yes[2]**	0.871	—	D	0.123	No
28	Brea Canyon Road at	AM	0.635	—	B	No	0.849	—	D	0.214	No	0.749	—	C	0.114	No	0.619	—	B	-0.016	No	—	—	—	—	—
	Valley Boulevard (RR/Valley Corridor)	PM	0.635	—	B	No	**1.075**	—	**F**	**0.440**	**Yes[2]**	0.882	—	D	0.247	No	0.900	—	D	0.265	No	—	—	—	—	—

Table 5.13-11
Post-2035 General Plan Buildout Condition Intersection Peak Hour Level of Service

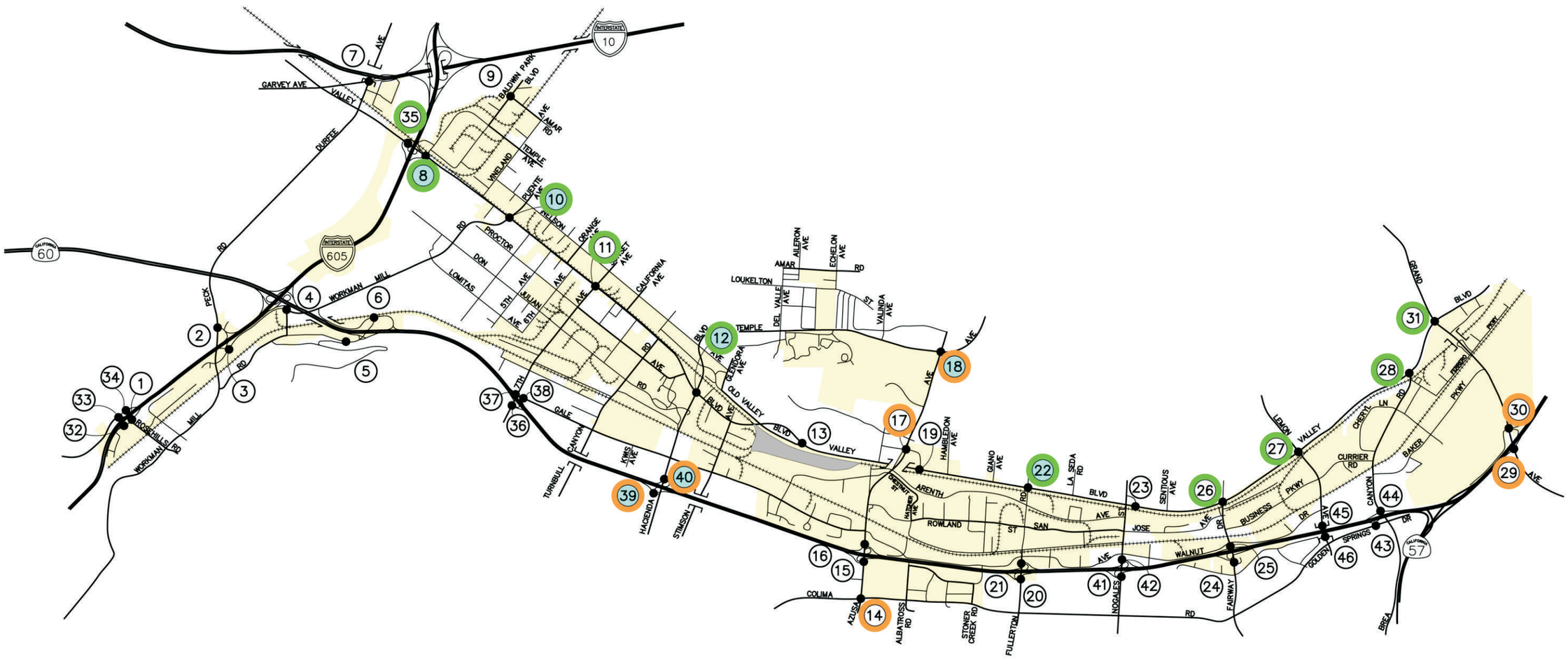
							Post-2035 Volumes Without Programmed Improvements										Post-2035 Volumes With Programmed Improvements									
			(1) Existing (Year 2010)				(2) Without Additional Improvements					(3) With Additional Improvements					(4) Without Additional Improvements					(5) With Additional Improvements				
#	Study Area Intersection	Time Period	ICU	Delay	LOS	Def?	ICU	Delay	LOS	ICU or Delay Change (2) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (3) - (1)	Residual Def?	ICU	Delay	LOS	ICU or Delay Change (4) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (5) - (1)	Residual Def?
29	Grand Avenue at	AM	—	24.0	C	No	—	**173.7**	**F**	**149.7**	**Yes**	—	36.6	D	12.6	No	—	15.0	B	-9.0	No	—	—	—	—	—
	SR-60 Eastbound Ramps (Caltrans)	PM	—	17.1	B	No	—	**72.8**	**E**	**55.7**	**Yes**	—	26.7	C	9.6	No	—	9.0	A	-8.1	No	—	—	—	—	—
30	Grand Avenue at	AM	—	26.6	C	No	—	**83.0**	**F**	**56.4**	**Yes**	—	51.5	D	24.9	No	—	24.1	C	-2.5	No	—	—	—	—	—
	SR-60 Westbound Ramps (Caltrans)	PM	—	23.6	C	No	—	**242.0**	**F**	**218.4**	**Yes**	—	53.1	D	29.5	No	—	50.3	D	26.7	No	—	—	—	—	—
31	Grand Avenue at	AM	0.658	—	B	No	**0.978**	—	**E**	**0.320**	**Yes[2]**	0.721	—	C	0.063	No	0.683	—	B	0.025	No	0.683	—	B	0.025	No
	Valley Boulevard (RR/Valley Corridor)	PM	0.741	—	C	No	**1.219**	—	**F**	**0.478**	**Yes[2]**	0.886	—	D	0.145	No	**0.972**	—	**E**	**0.231**	**Yes[2]**	0.883	—	D	0.142	No
32	Shepherd Street at	AM	—	13.0	B	No	—	14.7	B	1.7	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	I-605 Northbound Ramp (Caltrans)[5]	PM	—	10.3	B	No	—	10.9	B	0.6	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
33	San Gabriel River Parkway at	AM	—	13.0	B	No	—	14.4	B	1.4	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	I-605 SB Ramp (Caltrans)[5]	PM	—	12.2	B	No	—	13.2	B	1.0	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
34	I-605 Southbound Ramp at	AM	—	13.8	B	No	—	16.2	C	2.4	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	Rose Hills Road (Caltrans)[5]	PM	—	12.8	B	No	—	14.6	B	1.8	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
35	I-605 Southbound Ramp at	AM	—	1.3	A	No	—	6.6	A	5.3	No	—	2.9	A	1.6	No	—	2.9	A	1.6	No	—	—	—	—	—
	Valley Boulevard (Caltrans) (RR/Valley Corridor)[5]	PM	—	12.2	B	No	—	**55.7**	**E**	**43.5**	**Yes[2]**	—	31.6	D	19.4	No	—	31.6	D	19.4	No	—	—	—	—	—
36	7th Avenue at	AM	—	9.5	A	No	—	10.4	B	0.9	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	8.4	A	No	—	9.0	A	0.6	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
37	7th Avenue at	AM	—	25.0	C	No	—	26.3	C	1.3	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	22.9	C	No	—	24.2	C	1.3	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
38	SR-60 Westbound Ramp at	AM	—	5.3	A	No	—	7.6	A	2.3	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	Gale Avenue (Caltrans)	PM	—	15.9	B	No	—	16.6	B	0.7	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
39	SR-60 EB Ramp at	AM	—	**266.0**	**F**	**Yes**	—	**604.0**	**F**	**338.0**	**Yes[2]**	—	8.4	A	-257.6	No	—	[1]	[1]	—	—	—	[1]	[1]	—	—
	Three Palms Street (Caltrans)[5]	PM	—	**5449.8**	**F**	**Yes**	—	**OVRFL**	**F**	—	**Yes[2]**	—	8.4	A	—	No	—	[1]	[1]	—	—	—	[1]	[1]	—	—
40	Hacienda Boulevard at	AM	—	12.8	B	No	—	16.7	B	3.9	No	—	19.8	B	7.0	No	—	[1]	[1]	—	—	—	[1]	[1]	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	**67.3**	**E**	**Yes**	—	**94.7**	**F**	**27.4**	**Yes[2]**	—	28.4	C	-38.9	No	—	[1]	[1]	—	—	—	[1]	[1]	—	—
41	Nogales Street at	AM	—	16.6	B	No	—	17.3	B	0.7	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM	—	16.3	B	No	—	17.3	B	1.0	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
42	Nogales Street at	AM	—	20.3	C	No	—	22.3	C	2.0	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	20.6	C	No	—	23.5	C	2.9	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
43	SR-60 Eastbound Ramp at	AM	—	28.0	C	No	—	42.5	D	14.5	No	—	—	—	—	—	Existing Intersection to be Removed									
	Golden Springs Drive (Caltrans)	PM	—	25.2	C	No	—	29.5	C	4.3	No	—	—	—	—	—										

Table 5.13-11
Post-2035 General Plan Buildout Condition Intersection Peak Hour Level of Service

#	Study Area Intersection	Time Period	(1) Existing (Year 2010)				Post-2035 Volumes Without Programmed Improvements: (2) Without Additional Improvements					Post-2035 Volumes Without Programmed Improvements: (3) With Additional Improvements					Post-2035 Volumes With Programmed Improvements: (4) Without Additional Improvements					Post-2035 Volumes With Programmed Improvements: (5) With Additional Improvements				
			ICU	Delay	LOS	Def?	ICU	Delay	LOS	ICU or Delay Change (2) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (3) - (1)	Residual Def?	ICU	Delay	LOS	ICU or Delay Change (4) - (1)	Def?	ICU	Delay	LOS	ICU or Delay Change (5) - (1)	Residual Def?
44	Brea Canyon Road at	AM	—	22.9	C	No	—	24.7	C	1.8	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
	SR-60 Westbound Ramp (Caltrans)	PM	—	22.2	C	No	—	20.3	C	-1.9	No	—	—	—	—	—	—	[1]	[1]	—	—	—	—	—	—	—
45	Lemon Avenue at	AM	Future Intersection														—	3.1	A	—	No	—	—	—	—	—
	SR-60 Westbound On-Ramp (Caltrans)	PM															—	4.7	A	—	No	—	—	—	—	—
46	Lemon Avenue at	AM	Future Intersection														—	44.0	D	—	No	—	—	—	—	—
	SR-60 Eastbound Ramp (Caltrans)	PM															—	20.8	C	—	No	—	—	—	—	—

Notes: Def = Deficient; ICU = Intersection Capacity Utilization; LOS = Level of Service; OVRFL = Overflow
(Caltrans) = This is a freeway ramp intersection and was analyzed using the HCM Operations LOS Methodology per Caltrans traffic study guidelines.
(RR/Valley Corridor) = This intersection is located along the Valley Boulevard corridor that adjoins the existing railroad and at-grade railroad crossings.
(CMP) = This intersection is a Los Angeles County CMP monitoring station.
Grey shading indicates poor level of service
[1] No programmed improvements are planned for this intersection. ICU/Delay values and corresponding level of service are the same as in Post-2035 Volumes Without Programmed Improvements.
[2] Post-2035 condition at this intersection may be adverse, but is considered an area-wide deficiency and not primarily caused by General Plan Update buildout trips (i.e., General Plan Update buildout-generated trips correspond to only 25 percent or less of total Post-2035 volumes at the intersection; Intersections 28 and 31 are 33 and 35 percent, respectively). In addition, if the intersection is located within the influence of railroad and truck/heavy vehicle operations along the Valley Boulevard corridor, periods of congestion during peak commute periods are expected.
[3] This programmed intersection improvement is planned to be grade separated by Year 2035, resulting in two future intersections (10a and 10b).
[4] LOS E is considered acceptable per CMP level of service standards.
[5] This intersection is currently unsignalized and was analyzed using the HCM Unsignalized Methodology. The level of service reported is based on the average delay for the intersection.

Deficient Intersections under Post-2035 General Plan Buildout Condition Without Programmed Improvements



Source: Linscott Law & Greenspan Engineers 2011

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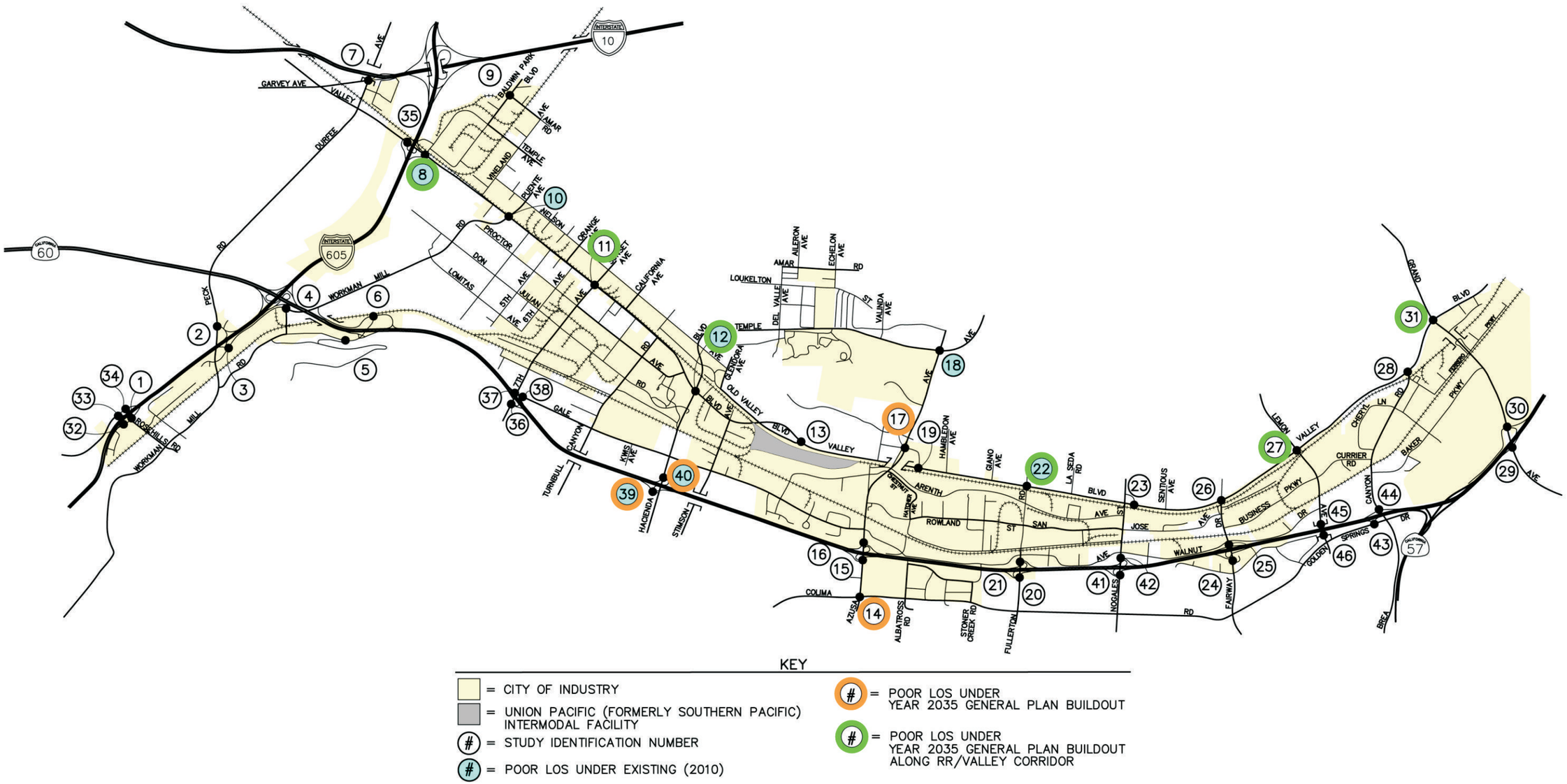
Deficient Intersections under Post-2035 General Plan Buildout Condition With Programmed Improvements



Source: Linscott Law & Greenspan Engineers 2011

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Train crossings during the peak commute periods cause vehicle queuing and traffic delay at many of the intersections along the Valley Boulevard/railroad corridor because the roadway/railroad intersections along or adjacent to this corridor are at grade. To address rail-crossing-related deficiencies, the ACE project will implement grade-crossing improvements at key intersections along this corridor (Puente Avenue, Fullerton Road, Nogales Street, Fairway Drive, and Lemon Avenue) in the near future, including grade separation, median improvements, roadway widening, restriping, rail signal improvements, traffic signal improvements, and new sidewalks.

Although beyond the scope of the TIA for the proposed project, the detailed evaluation of UPRR grade crossings along this key corridor and associated rail crossing impacts have been adequately conducted and mitigated as part of the ACE-commissioned studies. For example, the planned future grade separations of railroad crossings at Fullerton Road, Fairway Drive, and Lemon Avenue would improve the nearby intersections along Valley Boulevard, and could potentially mitigate the future deficiencies expected at those three key intersections (Intersections 22, 26, and 27).

The benefit of ACE-related programmed improvements can also be seen from the Workman Mill Road/Valley Boulevard intersection (Intersection 10), which is projected to be deficient (LOS F) without the planned grade separation (remains as an at-grade intersection). However, as shown in Table 5.13-11, this intersection is expected to operate at acceptable LOS D or better as two separate intersections after being grade-separated.

Intersection Mitigation Measures

In order to address area-wide intersection deficiencies during the weekday AM and PM peak commute hours under the Existing (Year 2010) With Project and Post-2035 General Plan Buildout Conditions, additional physical roadway improvements (improvements above and beyond programmed improvements) have been identified. The necessary physical improvements include a combination of recommended lane geometrics, signal phasing, and the installation of new traffic signals at key intersections.

To determine the need for additional traffic signals at key intersections under the Existing (Year 2010) With Project and Post-2035 General Plan Buildout Conditions, a traffic signal warrant analysis was conducted as part of the TIA. Table 5.13-12 presents the results of this analysis for both project conditions. As indicated in Table 5.13-12, a new traffic signal would be warranted under both project conditions at the SR-60 Eastbound Ramp/Three Palms Street intersection.

The recommended lane geometries, signal phasing, and installation of the new traffic signal at the impacted intersections under the Existing (Year 2010) With Project Condition are illustrated in Figures 5.13-14a through 5.13-14c. Additional improvements needed to address impacts under the Post-2035 General Plan Buildout Condition are illustrated in Figures 5.13-10a through 5.13-10d. With implementation of the additional improvements under the Existing (Year 2010) With Project and Post-2035 General Plan Buildout Conditions, all intersections would be restored to an acceptable level of service per City, Caltrans, and CMP criteria, as demonstrated in Tables 5.13-10 and 5.13-11.

It is necessary for the City to develop a prioritization and phasing program for implementing new and improved roadway facilities. In particular, Valley Boulevard should be monitored and operational improvements incorporated as appropriate to maintain mobility along this corridor. The necessary intersection improvements are ultimately subject to the review, approval, rejection, modification, and implementation of the City and any other respective jurisdiction (if applicable, to maintain design consistency across jurisdictional boundaries). Further environmental review may be required on a project-specific basis for certain intersection improvements.

Conclusion

As demonstrated above, with implementation of the additional improvements (improvements above and beyond programmed improvements), the study area intersections are expected to operate at acceptable levels of service under the Existing (Year 2010) With Project and Post-2035 General Plan Buildout Conditions.

Additionally, the City is in the process of implementing an Advanced Traffic Management System (ATMS) for Valley Boulevard. The ATMS project will improve regional traffic mobility and reduce congestion by sharing vital real-time traffic conditions along the Valley Boulevard corridor. The ATMS project includes traffic signal system upgrades, closed circuit television cameras, wireless communication systems, and a local control center. On behalf of the City, CNC Engineering has developed the necessary design-level plans, specification and performance criteria to implement the ATMS project. The City is currently soliciting bids for a construction contractor for this project.

The Industry General Plan Update is also consistent with AB 1358 because Complete Streets is one of the key components in the Circulation Element of the General Plan Update. Furthermore, under the policies of the Circulation Element, the City would also take the following actions to minimize impacts associated with future traffic volumes:

- Roadways in the City of Industry will (C1-1):
    - Comply with federal, state, and local design and safety standards
    - Meet the needs of multiple transportation modes and users
    - Reflect the context and desired character of the surrounding land uses
    - Be maintained in accordance with best practices and City standards
- Maintain a peak-hour LOS D at intersections identified on the Roadway Classification Plan (C1-2).
- Maintain and rehabilitate the circulation system as necessary and as funding is available, with a focus on identifying and improving roadways and intersections that are approaching or have reached unacceptable levels of service (C1-3).
- Ensure that the location, intensity, and timing of development are consistent with the provision of adequate transportation infrastructure (C1-4).
- Coordinate with Caltrans, SCAG, neighboring jurisdictions, and others to identify, fund, and implement needed improvements to roadways identified in the roadway classification plan (C1-5).
- Upgrade roadways as necessary to the required street section standards through the development review process or as public funding permits (C2-3).
- Encourage the use of ride sharing and public transit for persons employed in the City to reduce traffic congestion and the need for off-street parking in the City (C3-1).
- Help identify and implement feasible solutions to long-term regional transportation problems (C3-2).
- Coordinate with the railroads, Caltrans, SCAG, Metro, ACE, and other transportation agencies when necessary to design, fund, and complete regional projects (C3-3).
- Work with Caltrans, the Metro, and surrounding jurisdictions to implement the RTP, Master Plan of Arterial Highways, and CMP (C3-4).
- Continue to coordinate with the rail companies to provide for efficient rail service that minimizes impacts on the local street system (C4-2).
- Continue to pursue grade separation for railroad crossings on designated streets (C4-3).

Table 5.13-12
Traffic Signal Warrant Analysis

#	Study Area Intersections	Tim Period	Existing (Year 2010) Without Project Condition		Existing (Year 2010) With Project Condition		Post-2035 General Plan Buildout Condition Without Programmed Improvements		Post-2035 General Plan Buildout Condition With Programmed Improvements	
			Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?	Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?	Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?	Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?
32	Shepherd Street at	AM	—	No	—	No	—	No	—	No
	I-605 Northbound Ramp (Caltrans)	PM	—	No	—	No	—	No	—	No
33	San Gabriel River Parkway at	AM	No	No	No	No	No	No	No	No
	I-605 Southbound Ramp (Caltrans)	PM	No	No	No	No	No	No	No	No
34	I-605 SB Ramp at	AM	—	No	—	No	—	No	—	No
	Rose Hills Road (Caltrans)	PM	—	No	—	No	—	No	—	No
35	I-605 Southbound Ramp at	AM	No	No	No	No	No	No	No	No
	Valley Boulevard (Caltrans)	PM	No	No	No	No	No	No	No	No
39	SR-60 Eastbound Ramp at	AM	**Yes**	No	**Yes**	No	**Yes**	No	**Yes**	No
	Three Palms Street (Caltrans)	PM	No	No	No	No	No	No	No	No

Signal warrant analysis is based on Warrant 3, Part A-Peak Hours Delay Warrant and Part B-Peak Hour Volume Warrant contained in the 2010 California Manual on Uniform Traffic Control Devices for Streets and Highways.
Grey shading indicates that a traffic signal warrant is met.

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Existing (Year 2010) With Project Intersection Lane Geometry (Intersections 1–18)

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING
1 SHEPHERD ST @ ROSE HILLS RD	3 PHASE SIGNAL	N/A	7 DURFEE AVE @ GARVEY AVE	8 PHASE SIGNAL	N/A	13 VALLEY BLVD @ OLD VALLEY BLVD	3 PHASE SIGNAL	N/A
2 PECK RD @ ROOKS RD	2 PHASE SIGNAL	N/A	8 I-605 NB RAMPS/ TEMPLE AVE @ VALLEY BLVD	6 PHASE SIGNAL	6 PHASE SIGNAL [b]	14 AZUSA AVE @ COLIMA RD	8 PHASE SIGNAL	8 PHASE SIGNAL
3 PELLISSIER PL @ I-605 NB RAMPS	6 PHASE SIGNAL	N/A	9 BALDWIN PARK AVE @ AMAR RD	3 PHASE SIGNAL	N/A	15 AZUSA AVE @ SR-60 EB RAMPS	2 PHASE SIGNAL	N/A
4 WORKMAN MILL RD @ PELLISSIER PL	3 PHASE SIGNAL	N/A	10 WORKMAN MILL RD @ VALLEY BLVD	8 PHASE SIGNAL	8 PHASE SIGNAL [b]	16 AZUSA AVE @ SR-60 WB RAMPS	2 PHASE SIGNAL	N/A
5 CROSSROAD PKWY S @ SR-60 EB RAMPS	3 PHASE SIGNAL	N/A	11 7TH AVE/ SUNSET AVE @ VALLEY BLVD	8 PHASE SIGNAL	8 PHASE SIGNAL [b]	17 AZUSA AVE @ HURLEY ST	6 PHASE SIGNAL	N/A
6 CROSSROAD PKWY S @ CROSSROAD PKWY N	2 PHASE SIGNAL	N/A	12 HACIENDA BLVD @ VALLEY BLVD	8 PHASE SIGNAL	8 PHASE SIGNAL [b]	18 AZUSA AVE @ TEMPLE AVE	8 PHASE SIGNAL	8 PHASE SIGNAL

KEY

← = APPROACH LANE ASSIGNMENT
← = ADDITIONAL IMPROVEMENTS FOR EXISTING PLUS PROJECT CONDITIONS
● = TRAFFIC SIGNAL
F = FREE RIGHT
OL = OVERLAP
[b] = INCLUDES IMPLEMENTATION OF A SIGNAL COORDINATION PROGRAM ALONG THE VALLEY BOULEVARD CORRIDOR

NOT TO SCALE

Source: Linscott Law & Greenspan Engineers 2011

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Existing (Year 2010) With Project Intersection Lane Geometry (Intersections 19–36)

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING
19 HURLEY ST @ VALLEY BLVD	2 PHASE SIGNAL	N/A	25 FAIRWAY DR @ SR-60 WB RAMPS	3 PHASE SIGNAL	N/A	31 GRAND AVE @ VALLEY BLVD	8 PHASE SIGNAL	[b] 8 PHASE SIGNAL
20 FULLERTON ROAD @ SR-60 EB RAMPS	4 PHASE SIGNAL	N/A	26 FAIRWAY DR @ VALLEY BLVD	6 PHASE SIGNAL	[b] 6 PHASE SIGNAL	32 SHEPHERD ST @ I-605 NB OFF-RAMP	3-WAY STOP	N/A
21 FULLERTON RD @ SR-60 WB RAMPS	2 PHASE SIGNAL	N/A	27 LEMON AVE @ VALLEY BLVD	5 PHASE SIGNAL	[b] 5 PHASE SIGNAL	33 SAN GABRIEL RIVER PKWY @ I-605 SB ON-RAMP	1-WAY STOP	N/A
22 FULLERTON RD @ VALLEY BLVD	6 PHASE SIGNAL	[b] 6 PHASE SIGNAL	28 BREA CANYON RD @ VALLEY BLVD	3 PHASE SIGNAL	[b] 3 PHASE SIGNAL	34 I-605 SB RAMP @ ROSE HILLS RD	ALL-WAY STOP	N/A
23 NOGALES ST @ VALLEY BLVD	3 PHASE SIGNAL	N/A	29 GRAND AVE @ SR-60 EB RAMPS	3 PHASE SIGNAL	3 PHASE SIGNAL	35 I-605 SB OFF-RAMP @ VALLEY BLVD	1-WAY STOP	N/A
24 FAIRWAY DR @ SR-60 EB RAMPS	2 PHASE SIGNAL	N/A	30 GRAND AVE @ SR-60 WB RAMPS	6 PHASE SIGNAL	6 PHASE SIGNAL	36 7TH AVE @ SR-60 EB RAMP		N/A

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NOT TO SCALE

Source: Linscott Law & Greenspan Engineers 2011

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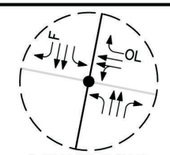
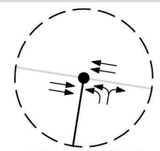
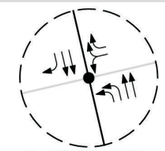
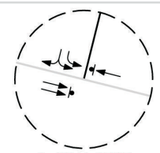
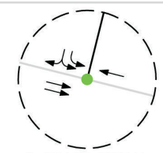
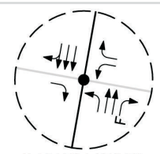
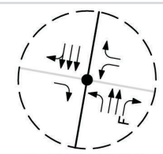
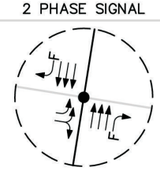
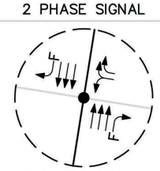
Existing (Year 2010) With Project Intersection Lane Geometry (Intersections 37–44)

INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING	INTERSECTION	EXISTING	ADDITIONAL IMPROVEMENTS TO EXISTING
37 7TH AVE @ SR–60 WB ON–RAMP	 3 PHASE SIGNAL	N/A	43 SR–60 EB RAMPS @ GOLDEN SPRINGS DR	 6 PHASE SIGNAL	N/A
38 SR–60 WB OFF–RAMP @ GALE AVE	 2 PHASE SIGNAL	N/A	44 BREA CANYON RD @ SR–60 WB RAMPS	 3 PHASE SIGNAL	N/A
39 SR–60 EB OFF–RAMP @ THREE PALMS DR	 2–WAY STOP	 2 PHASE SIGNAL			
40 HACIENDA BLVD @ SR–60 WB OFF–RAMP	 2 PHASE SIGNAL	 3 PHASE SIGNAL			
41 NOGALES ST @ SR–60 WB RAMPS	 2 PHASE SIGNAL	N/A			
42 NOGALES ST @ SR–60 WB RAMPS	 2 PHASE SIGNAL	N/A			

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◄—— = APPROACH LANE ASSIGNMENT
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● = TRAFFIC SIGNAL
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NOT TO SCALE

Source: Linscott Law & Greenspan Engineers 2011

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Level of Service Impact on Freeway Mainline Segments

Existing (Year 2010) With Project Condition and Post-2035 General Plan Buildout Condition peak hour traffic volumes were analyzed to determine the level of service for each of the CMP freeway mainline monitoring stations that met the analysis criteria set forth in the CMP. Tables 5.13-13 and 5.13-14 present the results of the freeway mainline analysis under the Existing (Year 2010) and Post-2035 conditions, respectively.

Based on the application of the significance criteria described above under the *Significant Traffic Impact Criteria* section, Table 5.13-13 indicates that the proposed project is expected to cause significant traffic impacts at 7 of the 21 freeway mainline segments under the Existing (Year 2010) With Project Condition:

B. I-10, east of Garvey Avenue (eastbound) – Project fair-share percentage: 1.1 percent

C. I-10, east of I-605 (eastbound) – Project fair-share percentage: 2.0 percent

E. SR-60, east of Peck Road (westbound) – Project fair-share percentage: 8.4 percent

I. SR-60, east of Hacienda Boulevard (westbound) – Project fair-share percentage: 14.9 percent

J. SR-60, east of Azusa Avenue (westbound) – Project fair-share percentage: 14.5 percent

P. SR-60, east of Grand Avenue (eastbound) – Project fair-share percentage: 7.0 percent

S. I-605, south of SR-60 (northbound) – Project fair-share percentage: 2.8 percent

To mitigate the City's proportionate impacts to the aforementioned freeway mainline segments under the Existing (Year 2010) With Project Condition, one additional mainline lane (in the direction specified above) would need to be added to each of the affected freeway mainline segments. The proposed project's fair-share percentage contribution toward the necessary lane improvements of each freeway mainline segment is outlined above.

Based on the application of the significance criteria described above under the *Significant Traffic Impact Criteria* section, Table 5.13-14 indicates that the proposed project is expected to cause significant traffic impacts at 15 of the 21 freeway mainline segments under the Post-2035 General Plan Buildout Condition:

B. I-10, east of Garvey Avenue (eastbound) – Project fair-share percentage: 12.0 percent

C. I-10, east of I-605 (eastbound and westbound) – Project fair-share percentage: 12.7 percent eastbound, 12.4 percent westbound

F. SR-60, east of I-605 (westbound) – Project fair-share percentage: 22.8 percent

G. SR-60, east of Crossroads Parkway (westbound) – Project fair-share percentage: 22.8 percent

I. SR-60, east of Hacienda Boulevard (eastbound and westbound) – Project fair-share percentage: 18.6 percent eastbound, 23.1 percent westbound

J. SR-60, east of Azusa Avenue (eastbound and westbound) – Project fair-share percentage: 20.7 percent eastbound, 22.8 percent westbound

K. SR-60, east of Fullerton Road (eastbound and westbound) – Project fair-share percentage: 20.5 percent eastbound, 22.7 percent westbound

L. SR-60, east of Nogales Street (eastbound and westbound) – Project fair-share percentage: 20.4 percent eastbound, 22.3 percent westbound

M. SR-60, east of Fairway Drive (eastbound and westbound) – Project fair-share percentage: 19.5 percent eastbound, 21.8 percent westbound

N. SR-60, east of Brea Canyon Road (eastbound and westbound) – Project fair-share percentage: 20.5 percent eastbound, 18.8 percent westbound

P. SR-60, east of Grand Avenue (eastbound and westbound) – Project fair-share percentage: 16.7 percent eastbound, 16.1 percent westbound

Q. I-605, south of Rose Hills Road (northbound and southbound) – Project fair-share percentage: 12.7 percent northbound, 12.3 percent southbound

R. I-605, south of Peck Road (southbound) – Project fair-share percentage: 12.3 percent

S. I-605, south of SR-60 (northbound) – Project fair-share percentage: 14.6 percent

U. I-605, south of I-10 (northbound) – Project fair-share percentage: 20.0 percent

To mitigate the City's proportionate impacts to the aforementioned freeway mainline segments under the Post-2035 General Plan Buildout Condition, one additional mainline lane (in the direction specified above) would need to be added to each of the affected freeway mainline segments, except for I-10 east of I-605 (eastbound), which requires the addition of two mainline lanes. The proposed project's fair-share percentage contribution toward the necessary lane improvements of each freeway mainline segment is outlined above.

Table 5.13-13
Freeway Mainline Segment Peak Hour Level of Service under Existing (Year 2010) Condition

	Freeway Mainline	Peak Hour	Freeway Capacity (vph)[1]		Existing (Year 2010) Without Project Condition[2]						Freeway Capacity (vph)[1]		Existing (Year 2010) With Project Condition					
					NB/EB			SB/WB					NB/EB			SB/WB		
			NB/EB	SB/WB	Existing Demand	Demand /Cap	LOS[3]	Existing Demand	Demand /Cap	LOS[3]	NB/EB	SB/WB	Future Demand	Demand /Cap	LOS[3]	Future Demand	Demand /Cap	LOS[3]
A.	I-10, east of	AM	10,000	10,000	6,172	0.617	B	7,617	0.762	C	10,000	10,000	6,388	0.639	B	7,689	0.769	C
	Valley Boulevard	PM	10,000	10,000	7,687	0.769	C	5,887	0.589	A	10,000	10,000	7,774	0.777	C	6,139	0.614	B
B.	I-10, east of	AM	8,000	10,000	6,752	0.844	D	8,333	0.833	D	8,000	10,000	6,969	0.871	D	8,409	0.841	D
	Garvey Avenue	PM	8,000	10,000	**8,409**	**1.051**	**F0**	6,440	0.644	B	8,000	10,000	**8,500**	**1.063**	**F0**	6,693	0.669	B
C.	I-10, east of	AM	8,000	10,000	7,158	0.895	D	8,833	0.883	D	8,000	10,000	7,245	0.906	E	8,974	0.897	D
	I-605	PM	8,000	10,000	**8,914**	**1.114**	**F0**	6,828	0.683	B	8,000	10,000	**9,099**	**1.137**	**F0**	6,924	0.692	B
D.	SR-57, south of	AM	12,000	12,000	2,467	0.206	A	4,112	0.343	A	12,000	12,000	2,816	0.235	A	4,182	0.349	A
	SR-60	PM	12,000	12,000	3,790	0.316	A	3,600	0.300	A	12,000	12,000	3,951	0.329	A	3,984	0.332	A
E.	SR-60, east of	AM	10,000	8,000	5,737	0.574	A	7,528	0.941	E	10,000	8,000	6,324	0.632	B	7,731	0.966	E
	Peck Road	PM	10,000	8,000	7,736	0.774	C	7,509	0.939	E	10,000	8,000	8,082	0.808	D	**8,194**	**1.024**	**F0**
F.	SR-60, east of	AM	10,000	10,000	6,039	0.604	B	7,923	0.792	C	10,000	10,000	7,180	0.718	C	8,407	0.841	D
	I-605	PM	10,000	10,000	8,143	0.814	D	7,904	0.790	C	10,000	10,000	8,788	0.879	D	9,248	0.925	E
G.	SR-60, east of	AM	10,000	10,000	6,039	0.604	B	7,923	0.792	C	10,000	10,000	7,153	0.715	C	8,437	0.844	D
	Crossroads Parkway	PM	10,000	10,000	8,143	0.814	D	7,904	0.790	C	10,000	10,000	8,849	0.885	D	9,253	0.925	E
H.	SR-60, east of	AM	10,000	10,000	5,460	0.546	A	7,164	0.716	C	10,000	10,000	6,479	0.648	B	7,730	0.773	C
	7th Avenue	PM	10,000	10,000	7,362	0.736	C	7,147	0.715	C	10,000	10,000	8,096	0.810	D	8,401	0.840	D
I.	SR-60, east of	AM	8,000	8,000	5,334	0.667	B	6,999	0.875	D	8,000	8,000	6,318	0.790	C	7,575	0.947	E
	Hacienda Boulevard	PM	8,000	8,000	7,192	0.899	D	6,982	0.873	D	8,000	8,000	7,937	0.992	E	**8,202**	**1.025**	**F0**
J.	SR-60, east of	AM	8,000	8,000	6,729	0.841	D	6,129	0.766	C	8,000	8,000	7,643	0.955	E	6,744	0.843	D
	Azusa Avenue	PM	8,000	8,000	6,518	0.815	D	6,855	0.857	D	8,000	8,000	7,271	0.909	E	**8,017**	**1.002**	**F0**
K.	SR-60, east of	AM	8,000	8,000	6,662	0.833	D	6,069	0.759	C	8,000	8,000	7,513	0.939	E	6,768	0.846	D
	Fullerton Road	PM	8,000	8,000	6,454	0.807	D	6,787	0.848	D	8,000	8,000	7,311	0.914	E	7,929	0.991	E
L.	SR-60, east of	AM	8,000	8,000	6,729	0.841	D	6,129	0.766	C	8,000	8,000	7,549	0.944	E	6,835	0.854	D
	Nogales Street	PM	8,000	8,000	6,518	0.815	D	6,855	0.857	D	8,000	8,000	7,372	0.922	E	7,966	0.996	E
M.	SR-60, east of	AM	8,000	8,000	6,807	0.851	D	6,441	0.805	D	8,000	8,000	7,560	0.945	E	7,142	0.893	D
	Fairway Drive	PM	8,000	8,000	6,916	0.865	D	6,621	0.828	D	8,000	8,000	7,728	0.966	E	7,643	0.955	E
N.	SR-60, east of	AM	8,000	8,000	6,941	0.868	D	6,567	0.821	D	8,000	8,000	7,285	0.911	E	7,266	0.908	E
	Brea Canyon Road	PM	8,000	8,000	7,052	0.882	D	6,751	0.844	D	8,000	8,000	7,985	0.998	E	7,396	0.925	E
O.	SR-60, east of	AM	14,000	16,000	11,312	0.808	D	10,704	0.669	B	14,000	16,000	11,776	0.841	D	11,245	0.703	C
	SR-57	PM	14,000	16,000	11,493	0.821	D	11,002	0.688	B	14,000	16,000	12,287	0.878	D	11,731	0.733	C
P.	SR-60, east of	AM	12,000	12,000	11,412	0.951	E	10,799	0.900	E	12,000	12,000	11,591	0.966	E	11,520	0.960	E
	Grand Avenue	PM	12,000	12,000	11,594	0.966	E	11,100	0.925	E	12,000	12,000	**12,462**	**1.039**	**F0**	11,552	0.963	E
Q.	I-605, south of	AM	10,000	10,000	7,699	0.770	C	9,446	0.945	E	10,000	10,000	8,033	0.803	D	9,584	0.958	E
	Rose Hills Road	PM	10,000	10,000	8,870	0.887	D	7,240	0.724	C	10,000	10,000	9,053	0.905	E	7,602	0.760	C
R.	I-605, south of	AM	10,000	10,000	7,546	0.755	C	9,257	0.926	E	10,000	10,000	7,881	0.788	C	9,396	0.940	E
	Peck road	PM	10,000	10,000	8,692	0.869	D	7,095	0.710	C	10,000	10,000	8,877	0.888	D	7,458	0.746	C
S.	I-605, south of	AM	8,000	10,000	7,084	0.886	D	8,689	0.869	D	8,000	10,000	7,411	0.926	E	8,875	0.888	D
	SR-60	PM	8,000	10,000	**8,161**	**1.020**	**F0**	6,660	0.666	B	8,000	10,000	**8,397**	**1.050**	**F0**	7,027	0.703	C

Table 5.13-13
Freeway Mainline Segment Peak Hour Level of Service under Existing (Year 2010) Condition

	Freeway Mainline	Peak Hour	Freeway Capacity (vph)[1]		Existing (Year 2010) Without Project Condition[2]						Freeway Capacity (vph)[1]		Existing (Year 2010) With Project Condition					
					NB/EB			SB/WB					NB/EB			SB/WB		
			NB/EB	SB/WB	Existing Demand	Demand /Cap	LOS[3]	Existing Demand	Demand /Cap	LOS[3]	NB/EB	SB/WB	Future Demand	Demand /Cap	LOS[3]	Future Demand	Demand /Cap	LOS[3]
T.	I-605, south of	AM	10,000	10,000	6,930	0.693	B	8,501	0.850	D	10,000	10,000	7,193	0.719	C	8,898	0.890	D
	Valley Boulevard	PM	10,000	10,000	7,983	0.798	C	6,516	0.652	B	10,000	10,000	8,510	0.851	D	6,812	0.681	B
U.	I-605, south of	AM	8,000	10,000	5,698	0.712	C	6,989	0.699	B	8,000	10,000	5,922	0.740	C	7,630	0.763	C
	I-10	PM	8,000	10,000	6,564	0.821	D	5,357	0.536	A	8,000	10,000	7,383	0.923	E	5,664	0.566	A

Notes: NB = northbound; SB = southbound; EB = eastbound; WB = westbound; vph = vehicles per hour
Grey shading indicates poor level of service.
[1] The capacities and level of service criteria are based on the 2010 Los Angeles County CMP Traffic Impact Study Guidelines. Freeway capacity is 2,000 vph per lane.
[2] The Year 2009 traffic volumes were adjusted by 1.0 percent to reflect Year 2010 conditions (assumes 1.0 percent annual growth rate).
[3] The level of service is based on the following D/C ratios:

LOS	D/C Ratio	LOS	D/C Ratio	LOS	D/C Ratio
A	0-0.60	D	>0.80-0.90	F1	>1.25-1.35
B	>0.60-0.70	E	>0.90-1.00	F2	>1.35-1.45
C	>0.70-0.80	F0	>1.00-1.25	F3	>1.45

Table 5.13-14
Freeway Mainline Segment Peak Hour Level of Service under Post-2035 General Plan Buildout Condition

	Freeway Mainline	Peak Hour	Freeway Capacity (vph)[1]		Existing (Year 2010) Without Project Condition[2]						Freeway Capacity (vph)[1]		Post-2035 General Plan Buildout Condition					
					NB/EB			SB/WB					NB/EB			SB/WB		
			NB/EB	SB/WB	Existing Demand	Demand /Cap	LOS[3]	Existing Demand	Demand /Cap	LOS[3]	NB/EB	SB/WB	Future Demand	Demand /Cap	LOS[3]	Future Demand	Demand /Cap	LOS[3]
A.	I-10, east of	AM	10,000	10,000	6,172	0.617	B	7,617	0.762	C	10,000	10,000	7,160	0.716	C	8,641	0.864	D
	Valley Boulevard	PM	10,000	10,000	7,687	0.769	C	5,887	0.589	A	10,000	10,000	8,735	0.874	D	6,875	0.688	B
B.	I-10, east of	AM	8,000	10,000	6,752	0.844	D	8,333	0.833	D	8,000	10,000	7,813	0.977	E	9,451	0.945	E
	Garvey Avenue	PM	8,000	10,000	**8,409**	**1.051**	**F0**	6,440	0.644	B	8,000	10,000	**9,551**	**1.194**	**F0**	7,498	0.750	C
C.	I-10, east of	AM	8,000	10,000	7,158	0.895	D	8,833	0.883	D	8,000	10,000	**8,140**	**1.018**	**F0**	**10,078**	**1.008**	**F0**
	I-605	PM	8,000	10,000	**8,914**	**1.114**	**F0**	6,828	0.683	B	8,000	10,000	**10,213**	**1.277**	**F1**	7,778	0.778	C
D.	SR-57, south of	AM	12,000	12,000	2,467	0.206	A	4,112	0.343	A	12,000	12,000	3,124	0.260	A	4,696	0.391	A
	SR-60	PM	12,000	12,000	3,790	0.316	A	3,600	0.300	A	12,000	12,000	4,425	0.369	A	4,434	0.370	A
E.	SR-60, east of	AM	10,000	8,000	5,737	0.574	A	7,528	0.941	E	12,000	10,000	7,041	0.587	A	8,672	0.867	D
	Peck Road	PM	10,000	8,000	7,736	0.774	C	7,509	0.939	E	12,000	10,000	9,049	0.754	C	9,133	0.913	E
F.	SR-60, east of	AM	10,000	10,000	6,039	0.604	B	7,923	0.792	C	10,000	10,000	7,935	0.794	C	9,397	0.940	E
	I-605	PM	10,000	10,000	8,143	0.814	D	7,904	0.790	C	10,000	10,000	9,806	0.981	E	**10,236**	**1.024**	**F0**
G.	SR-60, east of	AM	10,000	10,000	6,039	0.604	B	7,923	0.792	C	10,000	10,000	7,908	0.791	C	9,427	0.943	E
	Crossroads Parkway	PM	10,000	10,000	8,143	0.814	D	7,904	0.790	C	10,000	10,000	9,867	0.987	E	**10,241**	**1.024**	**F0**
H.	SR-60, east of	AM	10,000	10,000	5,460	0.546	A	7,164	0.716	C	10,000	10,000	7,162	0.716	C	8,626	0.863	D
	7th Avenue	PM	10,000	10,000	7,362	0.736	C	7,147	0.715	C	10,000	10,000	9,016	0.902	E	9,294	0.929	E
I.	SR-60, east of	AM	8,000	8,000	5,334	0.667	B	6,999	0.875	D	8,000	8,000	6,985	0.873	D	**8,450**	**1.056**	**F0**
	Hacienda Boulevard	PM	8,000	8,000	7,192	0.899	D	6,982	0.873	D	8,000	8,000	**8,836**	**1.105**	**F0**	**9,075**	**1.134**	**F0**
J.	SR-60, east of	AM	8,000	8,000	6,729	0.841	D	6,129	0.766	C	8,000	8,000	**8,484**	**1.061**	**F0**	7,510	0.939	E
	Azusa Avenue	PM	8,000	8,000	6,518	0.815	D	6,855	0.857	D	8,000	8,000	**8,086**	**1.011**	**F0**	**8,874**	**1.109**	**F0**
K.	SR-60, east of	AM	8,000	8,000	6,662	0.833	D	6,069	0.759	C	8,000	8,000	**8,346**	**1.043**	**F0**	7,527	0.941	E
	Fullerton Road	PM	8,000	8,000	6,454	0.807	D	6,787	0.848	D	8,000	8,000	**8,118**	**1.015**	**F0**	**8,777**	**1.097**	**F0**
L.	SR-60, east of	AM	8,000	8,000	6,729	0.841	D	6,129	0.766	C	8,000	8,000	**8,390**	**1.049**	**F0**	7,601	0.950	E
	Nogales Street	PM	8,000	8,000	6,518	0.815	D	6,855	0.857	D	8,000	8,000	**8,187**	**1.023**	**F0**	**8,823**	**1.103**	**F0**
M.	SR-60, east of	AM	8,000	8,000	6,807	0.851	D	6,441	0.805	D	8,000	8,000	**8,411**	**1.051**	**F0**	7,947	0.993	E
	Fairway Drive	PM	8,000	8,000	6,916	0.865	D	6,621	0.828	D	8,000	8,000	**8,593**	**1.074**	**F0**	**8,471**	**1.059**	**F0**
N.	SR-60, east of	AM	8,000	8,000	6,941	0.868	D	6,567	0.821	D	8,000	8,000	**8,153**	**1.019**	**F0**	**8,087**	**1.011**	**F0**
	Brea Canyon Road	PM	8,000	8,000	7,052	0.882	D	6,751	0.844	D	8,000	8,000	**8,867**	**1.108**	**F0**	**8,240**	**1.030**	**F0**
O.	SR-60, east of	AM	14,000	16,000	11,312	0.808	D	10,704	0.669	B	14,000	16,000	13,190	0.942	E	12,583	0.786	C
	SR-57	PM	14,000	16,000	11,493	0.821	D	11,002	0.688	B	14,000	16,000	13,724	0.980	E	13,106	0.819	D
P.	SR-60, east of	AM	12,000	12,000	11,412	0.951	E	10,799	0.900	E	12,000	12,000	**13,018**	**1.085**	**F0**	**12,870**	**1.073**	**F0**
	Grand Avenue	PM	12,000	12,000	11,594	0.966	E	11,100	0.925	E	12,000	12,000	**13,911**	**1.159**	**F0**	**12,940**	**1.078**	**F0**
Q.	I-605, south of	AM	10,000	10,000	7,699	0.770	C	9,446	0.945	E	10,000	10,000	8,995	0.900	D	**10,765**	**1.077**	**F0**
	Rose Hills Road	PM	10,000	10,000	8,870	0.887	D	7,240	0.724	C	10,000	10,000	**10,162**	**1.016**	**F0**	8,507	0.851	D
R.	I-605, south of	AM	10,000	10,000	7,546	0.755	C	9,257	0.926	E	10,000	10,000	8,824	0.882	D	**10,553**	**1.055**	**F0**
	Peck road	PM	10,000	10,000	8,692	0.869	D	7,095	0.710	C	10,000	10,000	9,964	0.996	E	8,345	0.835	D
S.	I-605, south of	AM	8,000	10,000	7,084	0.886	D	8,689	0.869	D	8,000	10,000	**8,297**	**1.037**	**F0**	9,961	0.996	E
	SR-60	PM	8,000	10,000	**8,161**	**1.020**	**F0**	6,660	0.666	B	8,000	10,000	**9,417**	**1.177**	**F0**	7,860	0.786	C

Table 5.13-14
Freeway Mainline Segment Peak Hour Level of Service under Post-2035 General Plan Buildout Condition

	Freeway Mainline	Peak Hour	Freeway Capacity (vph)[1]		Existing (Year 2010) Without Project Condition[2]						Freeway Capacity (vph)[1]		Post-2035 General Plan Buildout Condition					
					NB/EB			SB/WB					NB/EB			SB/WB		
			NB/EB	SB/WB	Existing Demand	Demand /Cap	LOS[3]	Existing Demand	Demand /Cap	LOS[3]	NB/EB	SB/WB	Future Demand	Demand /Cap	LOS[3]	Future Demand	Demand /Cap	LOS[3]
T.	I-605, south of	AM	10,000	10,000	6,930	0.693	B	8,501	0.850	D	10,000	10,000	8,059	0.806	D	9,961	0.996	E
	Valley Boulevard	PM	10,000	10,000	7,983	0.798	C	6,516	0.652	B	10,000	10,000	9,508	0.951	E	7,627	0.763	C
U.	I-605, south of	AM	8,000	10,000	5,698	0.712	C	6,989	0.699	B	8,000	10,000	6,634	0.829	D	8,504	0.850	D
	I-10	PM	8,000	10,000	6,564	0.821	D	5,357	0.536	A	8,000	10,000	**8,204**	**1.026**	**F0**	6,334	0.633	B

Notes: NB = northbound; SB = southbound; EB = eastbound; WB = westbound; vph = vehicles per hour
Grey shading indicates poor level of service.
[1] The capacities and level of service criteria are based on the 2010 Los Angeles County CMP Traffic Impact Study Guidelines. Freeway capacity is 2,000 vph per lane.
[2] The Year 2009 traffic volumes were adjusted by 1.0 percent to reflect Year 2010 conditions (assumes 1.0 percent annual growth rate).
[3] The level of service is based on the following D/C ratios:

LOS	D/C Ratio	LOS	D/C Ratio	LOS	D/C Ratio
A	0-0.60	D	>0.80-0.90	F1	>1.25-1.35
B	>0.60-0.70	E	>0.90-1.00	F2	>1.35-1.45
C	>0.70-0.80	F0	>1.00-1.25	F3	>1.45

IMPACT 5.13-2: ***CIRCULATION IMPROVEMENTS ASSOCIATED WITH FUTURE DEVELOPMENT THAT WOULD BE ACCOMODATED BY THE GENERAL PLAN UPDATE WOULD BE DESIGNED TO ADEQUATELY ADDRESS POTENTIALLY HAZARDOUS CONDITIONS (SHARP CURVES, ETC.), POTENTIAL CONFLICTING USES, AND EMERGENCY ACCESS. [THRESHOLDS T-4 AND T-5]***

Impact Analysis:

Access and Circulation

Buildout in accordance with the proposed Industry General Plan Update would result in some changes to the City's circulation network, but would not increase hazards or impact emergency access due to design features. The City has adopted roadway design standards (e.g., design speed, lane dimensions, turning radius, setbacks, sight distance) that preclude the construction of any unsafe design features. All future roadway system improvements associated with development and redevelopment activates under the General Plan Update would be designed in accordance with the established roadway design standards, some of which have also been incorporated into the Circulation Element of the General Plan Update.

Additionally, standard City protocol requires all engineered street plans to be reviewed and approved by the City Engineer prior to any construction occurring, thereby further preventing the construction of any unsafe design features and ensuring that emergency access is provided. The City of Industry Municipal Code also contains design and development standards that would be applicable to development and redevelopment activities associated with buildout of the General Plan Update. All future development activities would be controlled by the design and development standards outlined in the City's Municipal Code. For example, Section 17.36.040 (Contents of Development Plan) requires that project applicants submit a development plan for review, which must contain a site plan showing, among other things, internal circulation pattern; access and circulation; pedestrian, vehicular, service; and points of ingress and egress. Adherence to the design and development standards would ensure that safe and efficient movement of vehicles and pedestrians is provided throughout the various areas of the City. All future development and redevelopment projects would also be required to comply with the adopted City of Industry Standard Plan requirements for street improvements, driveways, sidewalks, pedestrian ramps, etc.

Furthermore, where applicable, future circulation and design features associated with development and redevelopment activities would be required to meet the Los Angeles County Fire Department, Union Pacific Railroad (UPRR), and County of Los Angeles design and development guidelines, as applicable, and would be subject to review by these governmental and private entities. For example, any future planned development adjacent to or near the railroad right-of-way would be coordinated with and be required to be reviewed by UPRR, and would be planned with the safety of the rail corridor in mind, including the safety of vehicles, trains, and pedestrians. Additionally, any City-proposed modifications or alterations to rail crossings would require submittal of, with the Southern California Regional Rail Authority approval, a California Public Utilities Commission General Order 88B Form (Rules for Altering Public Highway-Rail Crossings), a Form G (Report of Completed Changes at Rail Crossings), and a US Department of Transportation Crossing Inventory Information Form (see Notice of Preparation [NOP] Comment Letter from the California Public Utilities Commission in Appendix B).

Finally, the City requires new developments to provide adequate truck/oversized vehicle parking and loading/unloading facilities onsite and off City streets and regulates truck operations to minimize conflicts with adjoining land uses. Construction activities associated with future development and redevelopment projects would also be required to be performed per City and LACFD standards and codes, thereby avoiding any interference with emergency access during construction.

Under the policies of the Circulation Element, the City would also take the following actions to ensure that potentially hazardous conditions would not occur and that adequate emergency access is provided:

- Roadways in the City of Industry will (C1-1):
    - Comply with federal, state, and local design and safety standards
    - Be maintained in accordance with best practices and City standards
- Ensure that the location, intensity, and timing of development are consistent with the provision of adequate transportation infrastructure (C1-4).
- Coordinate with the railroads, Caltrans, SCAG, Metro, ACE, and other transportation agencies when necessary to design, fund, and complete regional projects (C3-3).
- Continue to coordinate with the rail companies to provide for efficient rail service that minimizes impacts on the local street system (C4-2).
- Continue to pursue grade separation for railroad crossings on designated streets (C4-3).

Therefore, no impacts to the circulation system or to emergency access are anticipated as a result of implementation of the General Plan Update.

Conflicting Land Uses

The land uses permitted under the General Plan Update land use plan (see Figure 3-6, *Proposed Land Use Plan*) would be similar in nature to the existing commercial and industrial land uses that are found throughout City (see Figure 3-5, *Existing Land Use Plan*). Due to the largely industrial character of the project area and its surroundings, implementation of the General Plan Update would not conflict or be incompatible with the existing character of the project area. Therefore, the proposed project would not create hazardous conditions as a result of land uses and improvements associated with buildout of the General Plan Update.

IMPACT 5.13-3: FUTURE DEVELOPMENT THAT WOULD BE ACCOMODATED UNDER THE GENERAL PLAN UPDATE WOULD COMPLY WITH ADOPTED POLICIES, PLANS, AND PROGRAMS FOR ALTERNATIVE TRANSPORTATION. [THRESHOLD T-6]

Impact Analysis: Future development and redevelopment in accordance with the Industry General Plan Update are not expected to generate any significant impacts to alternative transportation modes and facilities. In fact, the Circulation Element of the Industry General Plan Update would introduce and implement various strategies and approaches to accommodate, improve, enhance, and maintain multiple modes of travel throughout the City. The Circulation Element accounts for improvements and enhancements to roadways (for passenger cars, trucks, buses, and bicycles, where feasible), rail lines (for freight and passenger rail), and trails and walkways (for bicycles and pedestrians).

Transit and Rail Service

Though the development and operation of public transit services are outside the City's authority, the City actively promotes public transit through development review and cooperation with regional transportation agencies. As shown in Figure 5.13-5, *Public Transit Plan*, the City is served by numerous bus lines operated by Foothill Transit and Metro, which provide bus service to the Industry park-and-ride lot on Hacienda Avenue and Puente Hills Mall TransCenter, as well as other transit centers, and park-and-ride lots in close

proximity (e.g., El Monte Transit Center, Diamond Bar Park and Ride Lot). Additionally, as shown in Figure 5.13-6, *Rail Service Plan*, commuter transit service is provided by the Metrolink Riverside Line and Metrolink San Bernardino Line, and interstate passenger service is provided by Amtrak. The commuter transit service is provided through the Metrolink Industry Station at 600 S. Brea Canyon Road, in the eastern end of the City, in addition to other nearby Metrolink stations (e.g., El Monte Station, Montebello/Commerce Station, and Downtown Pomona Station).

Furthermore, although no bus service is currently provided to the Industry Metrolink Station, the City is coordinating with Foothill Transit to provide bus service to the station area. More specifically, Foothill Transit will be constructing a four-story parking structure that would park between 500 to 600 vehicles. The parking structure would also include a covered bus shelter at ground level. Construction of the parking structure and bus shelter are expected to begin in early 2013.Once constructed, Foothill Transit would provide bus service to the Industry Metrolink Station.

Under the policies of the Circulation Element, the City would also take the following actions to ensure that adequate modes of public transit continue to be provided and expanded, where feasible and necessary, throughout the City:

- Roadways in the City of Industry will (C1-1):
    - Meet the needs of multiple transportation modes and users
- Encourage and facilitate the use of public transportation to reduce emissions associated with the use of automobiles (C2-5).
- Maintain a proactive working partnership with Metro and Foothill Transit to ensure the continued improvement of transit services provided to the City of Industry. Encourage the extension of Metro and/or Foothill Transit service lines to provide a direct stop at the Industry Metrolink Station (C2-6).
- If dictated by Metro or Foothill Transit, require new development to provide transit facilities, such as bus shelters, transit bays, and turnouts (C2-7).
- Encourage the development and expansion of the Metro Rail Gold Line, Metrolink, and high-speed rail systems that would enhance regional mobility in Southern California and serve the City of Industry (C2-8).
- Encourage the use of ride sharing and public transit for persons employed in the City to reduce traffic congestion and the need for off-street parking in the City (C3-1).
- Coordinate with the railroads, Caltrans, SCAG, Metro, ACE, and other transportation agencies when necessary to design, fund, and complete regional projects (C3-3).
- Work with Caltrans, the Metro, and surrounding jurisdictions to implement the RTP, Master Plan of Arterial Highways, and CMP (C3-4).
- Continue to coordinate with the rail companies to provide for efficient rail service that minimizes impacts on the local street system (C4-2).
- Continue to pursue grade separation for railroad crossings on designated streets (C4-3).

Bicycle and Pedestrian Facilities

Due to the amount and type of vehicle trips (large trucks) and existing lane widths, the City considers bicycle travel on its roadways to be unsafe. While bicycle travel on roadways is not prohibited, it is discouraged for safety reasons. However, the City does have a sidewalk system that provides access to nearly all areas of the City. Section 21100(h) of the California Vehicle Code allows bicycles to ride on sidewalks and allows cities to adopt tailored rules that address bicycling on public sidewalks. Given that there is limited pedestrian traffic on the City's sidewalks and there are no areas where pedestrians dominate sidewalk traffic, conflicts between pedestrians and bicyclists are minimal. The City accommodates bicycle and pedestrian travel on the following systems, as shown in Figure 5.13-7, *Bicycle and Pedestrian Plan*:

- ***Multipurpose Sidewalks.*** All sidewalks in the City accommodate both pedestrian and bicycle travel.
- ***Multipurpose Trails (Class I).*** Paved facilities designated for pedestrian and bicycle use that are physically separated from roadways.
- ***Bike Lanes (Class II).*** Lanes on the outside edge of roadways reserved for the exclusive use of bicycles and designated with special signing and pavement markings.
- ***Bike Routes (Class III).*** Bicycle travel that is accommodated on the street and designated with signs in areas of limited vehicular and truck traffic and constrained sidewalks in order to provide a link in a system.

Of the various forms of nonmotorized transportation outlined above, multipurpose sidewalks are the primary paths of pedestrian and bicycle travel in the City.

Additionally, as shown in Figure 5.13-7, the City identifies a conceptual route for a proposed multipurpose corridor that could accommodate multiple users, including a truck-bypass and multipurpose trails along the existing channelized San Jose Creek, in addition to the existing creek. This classification indicates the conceptual location for the corridor and indicates the City's acknowledgement of plans proposed by others.

Furthermore, there are segments of the County of Los Angeles regional trails existing within the City including the San Gabriel River Trail, San Jose Creek Trail, which exists between the San Gabriel River and 7th Street, and the Schabarum-Skyline Trail, which is partially completed near Ajax Avenue and crossing under Workman Mill Road (see Figure 5.13-7).

Finally, under the policies of the Circulation Element, the City would take the following actions to ensure that adequate modes of nonmotorized transportation continue to be provided and expanded, where feasible and necessary, throughout the City:

- Maintain a multimodal system of trails that connect businesses, schools, and other key destination points (C2-1).
- Provide and designate off-street multipurpose sidewalks and trails as the primary paths of bicycle travel (C2-2).
- Explore opportunities to expand the pedestrian and bicycle networks. This includes consideration of utility easements, drainage corridors, road rights-of-way, and other potential options (C2-4).

The California Complete Streets Act (Assembly Bill 1358)

The proposed Industry General Plan Update is consistent with AB 1358 because Complete Streets is one of the key components in the Circulation Element of the General Plan Update. Section 2.4.2 (Complete Streets) of the Circulation Element states that designing roadways to accommodate a wide spectrum of mobility options (e.g., vehicular traffic, bicyclists, pedestrians and public transportation) is essential to the City's prosperity and to providing convenient access to jobs, schools, shopping, services, parks, and other key destination points. The various alternative modes of transportation associated with the General Plan Update are described above. Additionally, policies within the Circulation Element—in addition to the other elements of the General Plan Update—support the creation of a balanced, integrated, multimodal transportation system.

Conclusion

Overall, integrating the strategies and approaches to transit and nonmotorized transportation into the General Plan Update not only allows the City to continue to accommodate and expand on a wide spectrum of mobility options, but also contributes to reducing vehicle miles traveled in the City. Therefore, implementation of the General Plan Update would not interfere with or obstruct the implementation and use of alternative transportation.

Additionally, the City's Municipal Code contains design and development standards that would be applicable to development and redevelopment activities associated with buildout of the General Plan Update. All future development activities would be controlled by the design and development standards outlined in the City's Municipal Code. For example Section 17.68.030 (Transportation Demand and Trip Reduction Measures) states that prior to approval of any nonresidential development project, project applicants are required to make provision for, as a minimum, applicable transportation demand management and trip reduction measures detailed in this section. Such measures include, but are not limited to:

- Provision of a bulletin board, display case, or kiosk displaying information to employees regarding the availability of public and alternative modes of transportation (e.g., transit, ridesharing, vanpool, bicycle).
- Preferential parking and reservation of a certain percentage of onsite parking spaces for carpool/vanpool vehicles.
- Provision of bicycle racks or other secure bicycle parking facility.
- Provision of sidewalks or other designated pathways to the external pedestrian circulation system.
- Provision of bus stop improvements if determined necessary by the City to mitigate the project impact.

5.13.4 Relevant General Plan Policies

The following are relevant policies of the General Plan Update that are designed to reduce potential transportation and traffic impacts of future development and redevelopment activities associated with buildout of the General Plan Update. Policy number references are provided in parentheses.

Land Use Element

- Design new and, when necessary, retrofit existing streets and public rights-of-way to maintain a high quality, professional appearance (LU5-2).

Circulation Element

- Roadways in the City of Industry will (C1-1):
    - Comply with federal, state, and local design and safety standards
    - Meet the needs of multiple transportation modes and users
    - Reflect the context and desired character of the surrounding land uses
    - Be maintained in accordance with best practices and City standards
- Maintain a peak-hour LOS D at intersections identified on the Roadway Classification Plan (C1-2).
- Maintain and rehabilitate the circulation system as necessary and as funding is available, with a focus on identifying and improving roadways and intersections that are approaching or have reached unacceptable levels of service (C1-3).
- Ensure that the location, intensity, and timing of development are consistent with the provision of adequate transportation infrastructure (C1-4).
- Coordinate with Caltrans, SCAG, neighboring jurisdictions, and others to identify, fund, and implement needed improvements to roadways identified in the roadway classification plan (C1-5).
- Maintain a multimodal system of trails that connect businesses, schools, and other key destination points (C2-1).
- Provide and designate off-street multipurpose sidewalks and trails as the primary paths of bicycle travel (C2-2).
- Upgrade roadways as necessary to the required street section standards through the development review process or as public funding permits (C2-3).
- Explore opportunities to expand the pedestrian and bicycle networks. This includes consideration of utility easements, drainage corridors, road rights-of-way, and other potential options (C2-4).
- Encourage and facilitate the use of public transportation to reduce emissions associated with the use of automobiles (C2-5).
- Maintain a proactive working partnership with Metro and Foothill Transit to ensure the continued improvement of transit services provided to the City of Industry. Encourage the extension of Metro and/or Foothill Transit service lines to provide a direct stop at the Industry Metrolink Station (C2-6).
- If dictated by Metro or Foothill Transit, require new development to provide transit facilities, such as bus shelters, transit bays, and turnouts (C2-7).

- Encourage the development and expansion of the Metro Rail Gold Line, Metrolink, and high-speed rail systems that would enhance regional mobility in Southern California and serve the City of Industry (C2-8).

- Encourage the use of ride sharing and public transit for persons employed in the City to reduce traffic congestion and the need for off-street parking in the City (C3-1).

- Help identify and implement feasible solutions to long-term regional transportation problems (C3-2).

- Coordinate with the railroads, Caltrans, SCAG, Metro, ACE, and other transportation agencies when necessary to design, fund, and complete regional projects (C3-3).

- Work with Caltrans, the Metro, and surrounding jurisdictions to implement the RTP, Master Plan of Arterial Highways, and CMP (C3-4).

- Continue to design public roadways to accommodate trucks (C4-1).

- Continue to coordinate with the rail companies to provide for efficient rail service that minimizes impacts on the local street system (C4-2).

- Continue to pursue grade separation for railroad crossings on designated streets (C4-3).

Resource Management Element

- Collaborate with the CARB and other agencies within the South Coast Air Basin to improve regional air quality and achieve GHG reduction targets (RM2-3).

5.13.5 Existing Regulations

State

- The California Complete Streets Act (Assembly Bill 1358)

City of Industry Municipal Code

- Title 17 (Zoning), Chapter 17.36 (Design Review), Section 17.36.040 (Contents of Development Plan)
- Title 17 (Zoning), Chapter 17.68 (Congestion Management Program), Section 17.68.030 (Transportation Demand and Trip Reduction Measures)

5.13.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and compliance with the General Plan Update policies, the following impacts would be less than significant: 5.13-2 and 5.13-3.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.13-1 Trip generation of future development that would be accommodated by the General Plan Update would impact levels of service at various intersections and freeway mainline segments.

5.13.7 Mitigation Measures

Mitigation for traffic impacts has been designed to provide flexibility for the funding and/or implementation of required improvements but also to assure that the City of Industry is fully responsible for mitigation of the proposed project's direct impacts. Subheadings are provided for improvements that are required under each project development condition.

Impact 5.13-1

Existing (Year 2010) With Project and Post-2035 General Plan Buildout Conditions

13-1 To address area-wide intersection deficiencies during the weekday AM and PM peak commute hours under the Existing (Year 2010) With Project and Post-2035 General Plan Buildout Conditions, the City of Industry will develop a prioritization and phasing program to implement the necessary intersection improvements identified in Figures 5.13-14a through 5.13-14c and 5.13-10a through 5.13-10d of this DEIR. In particular, Valley Boulevard will be monitored and operational improvements incorporated as appropriate to maintain mobility along this corridor.

Existing (Year 2010) With Project Condition

13-2 To address the City of Industry's proportionate impact on freeway mainline segments under the Existing (Year 2010) With Project Condition, the City will participate in relevant and applicable programs developed and adopted by Caltrans to pay for I-10, I-605, and SR-60 freeway mainline lane improvements. Once the need for improvements has been identified by Caltrans for a particular freeway mainline segment and a program for implementing the required improvements has been developed, the City will coordinate with Caltrans, as appropriate. Contributions may be in the form of developer fees, freeway improvements, development in-lieu fees, state or federal funds or other programs, as appropriate. Contributions required of individual development projects will be determined on a project-by-project basis at the time of development application review and will be based on a traffic analysis undertaken for individual development projects.

The Existing (Year 2010) With Project Condition freeway mainline segment improvements are outlined below:

B. I-10, east of Garvey Avenue (eastbound) – Project fair-share percentage: 1.1 percent

C. I-10, east of I-605 (eastbound) – Project fair-share percentage: 2.0 percent

E. SR-60, east of Peck Road (westbound) – Project fair-share percentage: 8.4 percent

I. SR-60, east of Hacienda Boulevard (westbound) – Project fair-share percentage: 14.9 percent

J. SR-60, east of Azusa Avenue (westbound) – Project fair-share percentage: 14.5 percent

P. SR-60, east of Grand Avenue (eastbound) – Project fair-share percentage: 7.0 percent

S. I-605, south of SR-60 (northbound) – Project fair-share percentage: 2.8 percent

Post-2035 General Plan Buildout Condition

13-3 To address the City of Industry's proportionate impact on freeway mainline segments under the Post-2035 General Plan Buildout Condition, the City of Industry will participate in relevant and applicable programs developed and adopted by Caltrans to pay for I-10, I-605, and SR-60 freeway mainline lane improvements. Once the need for improvements has been identified by Caltrans for a particular freeway mainline segment and a program for implementing the required improvements has been developed, the City will coordinate with Caltrans, as appropriate. Contributions may be in the form of developer fees, freeway improvements, development lieu of fees, state or federal funds, or other programs, as appropriate. Contributions required of individual development projects will be determined on a project-by-project basis at the time of development application review and will be based on a traffic analysis undertaken for individual development projects.

The Post-2035 General Plan Buildout Condition freeway mainline segments improvements are outlined below:

B. I-10, east of Garvey Avenue (eastbound) – Project fair-share percentage: 12.0 percent

C. I-10, east of I-605 (eastbound and westbound) – Project fair-share percentage: 12.7 percent eastbound, 12.4 percent westbound

F. SR-60, east of I-605 (westbound) – Project fair-share percentage: 22.8 percent

G. SR-60, east of Crossroads Parkway (westbound) – Project fair-share percentage: 22.8 percent

I. SR-60, east of Hacienda Boulevard (eastbound and westbound) – Project fair-share percentage: 18.6 percent eastbound, 23.1 percent westbound

J. SR-60, east of Azusa Avenue (eastbound and westbound) – Project fair-share percentage: 20.7 percent eastbound, 22.8 percent westbound

K. SR-60, east of Fullerton Road (eastbound and westbound) – Project fair-share percentage: 20.5 percent eastbound, 22.7 percent westbound

L. SR-60, east of Nogales Street (eastbound and westbound) – Project fair-share percentage: 20.4 percent eastbound, 22.3 percent westbound

M. SR-60, east of Fairway Drive (eastbound and westbound) – Project fair-share percentage: 19.5 percent eastbound, 21.8 percent westbound

N. SR-60, east of Brea Canyon Road (eastbound and westbound) – Project fair-share percentage: 20.5 percent eastbound, 18.8 percent westbound

P. SR-60, east of Grand Avenue (eastbound and westbound) – Project fair-share percentage: 16.7 percent eastbound, 16.1 percent westbound

Q. I-605, south of Rose Hills Road (northbound and southbound) – Project fair-share percentage: 12.7 percent northbound, 12.3 percent southbound

R. I-605, south of Peck Road (southbound) – Project fair-share percentage: 12.3 percent

S. I-605, south of SR-60 (northbound) – Project fair-share percentage: 14.6 percent

U. I-605, south of I-10 (northbound) – Project fair-share percentage: 20.0 percent

5.13.8 Level of Significance After Mitigation

Mitigation Measures 13-2 and 13-3 require contributions toward the cost of improvements needed to mitigate direct, project-related proportionate impacts under the Existing (Year 2010) With Project and Post (Year 2010) General Plan Buildout Conditions on the freeway mainline segments outlined in these mitigation measures. However, because the improvements needed for the affected freeway mainline segments are under Caltrans's sole jurisdiction, the City itself cannot implement the freeway improvements. Therefore, a temporary or short-term impact may occur if the timing of the freeway improvements is uncertain (e.g., Caltrans does not have the total necessary funds to implement the freeway improvements at the time the City of Industry pays its fair share contributions). Consequently, impacts to freeway mainline segments as a result of implementation of the General Plan Update would be **significant and unavoidable**.