APPENDIX II-I

TRAFFIC STUDY

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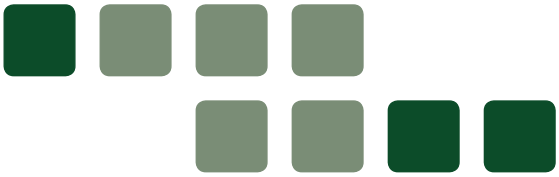
Traffic Study for the

SHELL CARSON FACILITY ETHANOL (E10) PROJECT



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FEHR & PEERS
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1. INTRODUCTION

This technical report summarizes the results of a traffic study conducted by Fehr & Peers to evaluate the potential traffic impacts of proposed Shell Carson Facility Ethanol (E10) Project, which is proposed at the Shell Oil Products US (Shell) Carson Distribution Facility in the City of Carson, California. Following is detailed description of our study approach, methodology and assumptions consistent with traffic impact study guidelines put forth by both the South Coast Air Quality Management District (SCAQMD) and the City of Carson.

PROJECT DESCRIPTION

The E10 Project will be located at the Shell Carson Distribution Facility (20945 South Wilmington Avenue) in the City of Carson. The purpose of the proposed project is to increase the facility's capacity to deliver denatured ethanol by tanker trucks to the southern California market. The increase in denatured ethanol delivery capacity is in response to an increase in the amount of ethanol required to be blended into gasoline to comply with the 2007 amendments to the California Air Resources Board (CARB) Phase 3 Reformulated Gasoline (RFG) requirements. The proposed project includes the following changes to the Carson Distribution Facility:

1. Increase the ethanol throughput at an existing two-lane tanker truck loading rack;
2. Convert up to four existing storage tanks from gasoline to ethanol service;
3. Install one new ethanol tanker truck loading lane and associated ethanol loading rack;
4. Expand the existing ethanol loading rack operations building; and
5. Install one new gasoline storage tank to replace gasoline storage capacity that will be transferred to ethanol service.

Figure 1 shows the locations of the various project components and the outline of the project site. The proposed project will not result in an increase in operational phase employment or change the level of material deliveries during operation. The increase in ethanol loading is expected to result in approximately 144 additional trucks per day delivering ethanol from the facility.

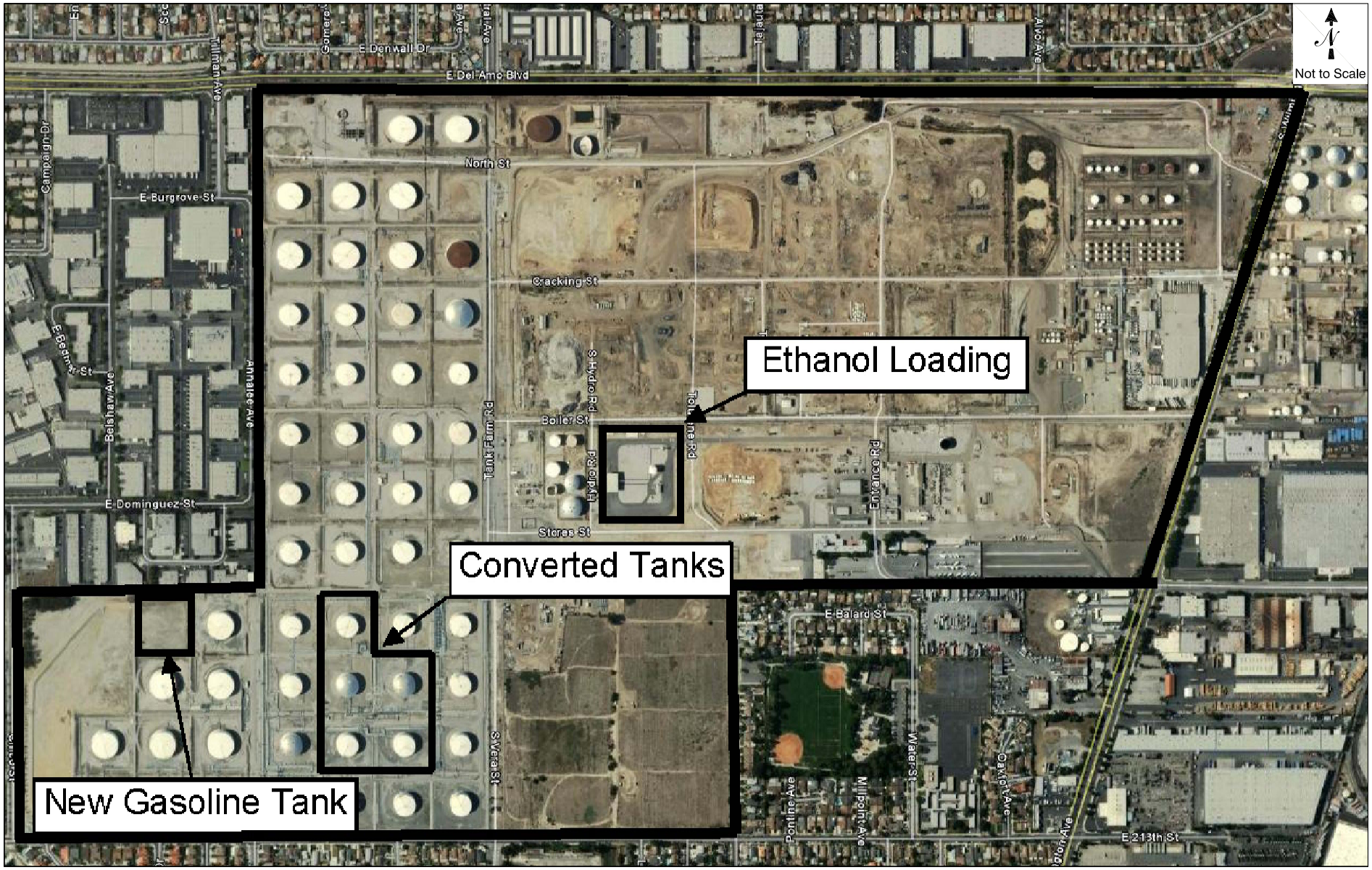
STUDY SCOPE

This study evaluates the potential for project-generated traffic impacts on the street system surrounding the project site. Peak hour traffic impacts for the project were evaluated during typical weekday morning (7:00 to 9:00 AM) and afternoon (4:00 to 6:00 PM) peak periods. The following traffic scenarios were analyzed in the study:

- Existing Conditions – This analysis of existing weekday AM and PM peak hour traffic conditions provided a basis for the assessment of future traffic conditions. The existing conditions analysis included a description of key area streets and highways, traffic volumes, and current intersection and roadway operating conditions.

- Existing plus Construction Conditions – Since construction is expected to begin in late 2010, construction traffic was added to existing conditions to determine potential temporary adverse impacts generated by the project.

- Future (Year 2012) without Project Conditions – This scenario includes the anticipated background traffic growth (0.5% per year) and traffic generated by cumulative development projects throughout the City.



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PROJECT SITE AND LOCATIONS OF PROPOSED COMPONENTS

FIGURE 1

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- Existing Plus Project Conditions – This analysis include the traffic changes caused by the project over the existing conditions. This scenario identifies the incremental impact of traffic generated by the proposed project on the study area intersections.

- Future (Year 2012) with Project Conditions – This analysis includes background traffic growth, cumulative developments in the study area, and traffic changes caused by the project. This scenario identifies the incremental impact of traffic generated by the proposed project on the study area intersections.

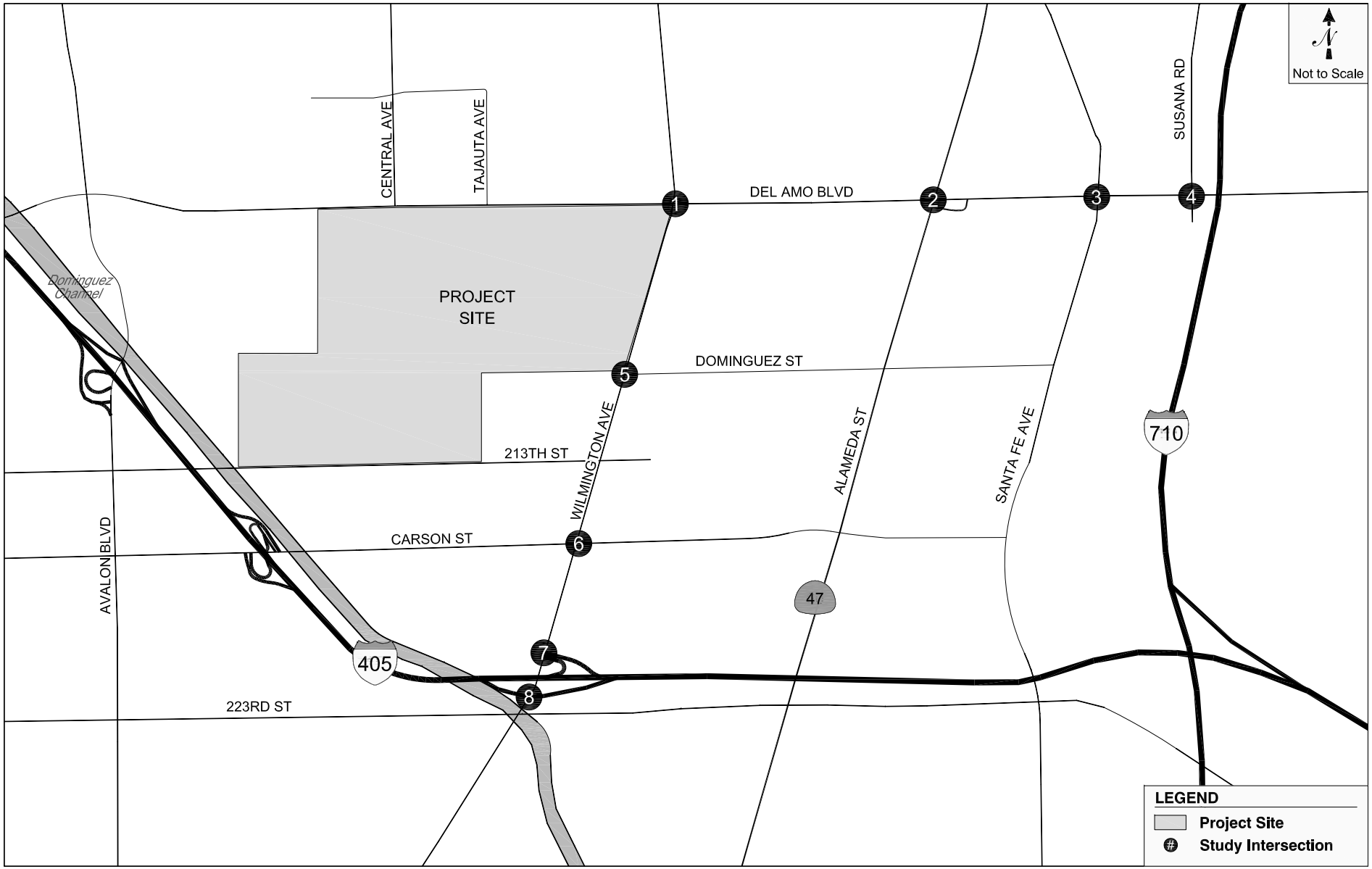
The following eight intersections were selected to be studied as part of the traffic impact analysis for the proposed Shell E10 expansion:

1. Wilmington Avenue & Del Amo Boulevard
2. Alameda Street & Del Amo Boulevard
3. Santa Fe Avenue & Del Amo Boulevard
4. Susana Road & Del Amo Boulevard
5. Wilmington Avenue & Dominguez Street
6. Wilmington Avenue & Carson Street
7. Wilmington Avenue & I-405 Northbound On-/Off-Ramps
8. Wilmington Avenue & I-405 Southbound On-/Off-Ramps

Figure 2 shows the location of the eight intersections in the study area.

ORGANIZATION OF REPORT

This report is divided into six chapters, including this introduction. Chapter 2 describes the existing traffic volumes and intersection and roadway operating conditions of the street system. Chapter 3 describes the significance criteria used for the construction and operation periods of the project. Chapter 4 describes construction period assumptions and impact analysis. Chapter 5 describes the methodologies used to develop future cumulative traffic forecasts and project traffic volumes and presents an assessment of potential project traffic impacts on intersection operations in the vicinity of the project site and the results of the Congestion Management Program (CMP) regional transportation system impact analysis for the project. Chapter 6 summarizes the conclusions of the study and the recommendations intended to address significant impacts of the proposed project.



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PROJECT SITE AND LOCATIONS OF STUDY INTERSECTIONS

FIGURE 2

2. EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following sections describe the peak hour traffic volumes, the methodology used to analyze the intersection operating conditions, and the resulting levels of service (LOS) for the selected study intersections under existing conditions.

EXISTING TRAFFIC VOLUMES

Manual intersection traffic counts with vehicle classification[1] were conducted on a typical weekday (Thursday, October 15, 2009) during the morning peak period from 7:00 to 9:00 AM and evening peak period from 4:00 to 6:00 PM. The counts are provided in Appendix A. Existing weekday morning and evening peak hour traffic volumes were derived from the count data. These existing traffic volumes are shown in Figure 3.

Field surveys were conducted in the project study area to collect data regarding intersection lane configurations and traffic controls at each of the study intersections. Lane configurations at the eight study intersection are provided in Appendix B.

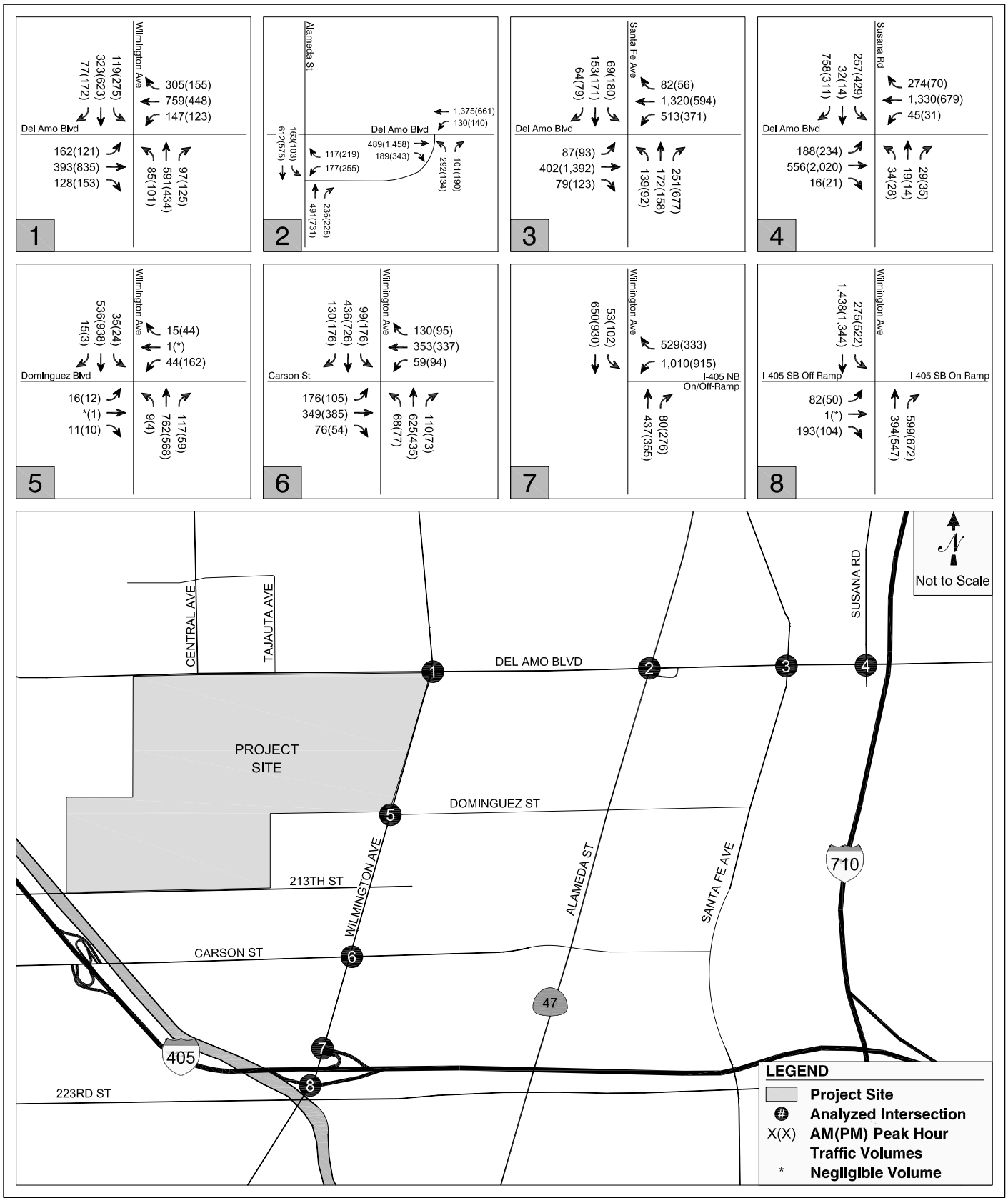
LEVEL OF SERVICE METHODOLOGY

To develop an understanding of the existing 2010 traffic conditions at the study intersections, an LOS analysis was conducted using the traffic volumes and intersection survey data. LOS is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. Intersection Capacity Utilization (ICU) methodology was used to determine the intersection volume-to-capacity (V/C) ratio and corresponding LOS for the eight signalized study intersections. LOS definitions for signalized intersections are provided in Table 1.

EXISTING LEVELS OF SERVICE

The results of the analysis of existing weekday morning and afternoon peak hour conditions at the study intersections are summarized in Table 2. Detailed LOS calculations are provided in Appendix C. Of the eight study intersections, one is operating at LOS E during the evening peak hour (Wilmington Avenue & I-405 Southbound On-/Off-Ramps). The other seven study intersections are operating at LOS D or better.

[1] Vehicles classified into passenger cars, 2-axle trucks, 3-axle, 4-axle, 5- or more axle trucks.



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EXISTING TURNING MOVEMENT VOLUMES

FIGURE 3

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TABLE 1
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Volume/Capacity Ratio	Definition
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 what 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. Tremendous delays with continuously increasing queue lengths

Source: *Highway Capacity Manual*, Special Report 209, Transportation Research Board, 1994.

TABLE 2
EXISTING INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Peak Hour	Existing (Year 2010)	
		V/C	LOS
1. Wilmington Avenue & Del Amo Boulevard	**AM**	0.627	B
	PM	0.612	B
2. Alameda Street & Del Amo Boulevard (location to the East)	**AM**	0.500	A
	PM	0.567	A
Alameda Street & Del Amo Boulevard (location to the West)	**AM**	0.386	A
	PM	0.468	A
3. Santa Fe Avenue & Del Amo Boulevard	**AM**	0.722	C
	PM	0.773	C
4. Susana Road & Del Amo Boulevard	**AM**	0.804	D
	PM	0.765	C
5. Wilmington Avenue & Dominguez Street	**AM**	0.395	A
	PM	0.473	A
6. Wilmington Avenue & Carson Street	**AM**	0.577	A
	PM	0.571	A
7. Wilmington Avenue & I-405 NB On-/Off-Ramp	**AM**	0.665	B
	PM	0.694	B
8. Wilmington Avenue & I-405 SB On-/Off-Ramp	**AM**	0.767	C
	PM	0.911	E

3. SIGNIFICANCE CRITERIA

SCAQMD THRESHOLDS OF SIGNIFICANCE

Per the SCAQMD guidelines, the significant impact criteria described below were used to determine significant traffic impact at the analyzed intersections. Construction traffic impacts to transportation and circulation will be considered significant if the following criteria are met:

- Peak period levels on major arterials are disrupted to a point where LOS is reduced to D, E or F for more than one month
- An intersection's V/C increases by 0.02 (two percent) or more when the LOS is already D, E or F
- A major roadway is closed to all through traffic and no alternate route is available
- There is an increase in traffic (e.g., 350 heavy-duty truck round trips per day) that is substantial in relation to the existing traffic load and capacity of the street system
- The demand for parking facilities is substantially increased
- Water-borne, rail car or air traffic is substantially altered
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased

CITY OF CARSON SIGNIFICANT IMPACT CRITERIA

The City of Carson's significant impact criteria were used to identify intersections that could be significantly impacted as a result of the proposed project. According to the threshold criteria established by the City of Carson to determine significant traffic impacts of a proposed project in its jurisdiction, an intersection would be significantly impacted with an increase in V/C ratio equal to or greater than 0.020 if the intersection is projected to operate at LOS E or F under future plus project conditions.

The SCAQMD guidelines were used for impact analysis of both the construction and operation phases of the project since they are more conservative than the criteria required by the City of Carson.

4. CONSTRUCTION PERIOD TRAFFIC ANALYSIS

This section summarizes potential temporary and adverse street impacts that could occur during construction of the proposed project. Construction of the proposed project is anticipated to begin in late 2010 and continue for approximately 19 months. Construction activities resulting from the implementation of the proposed project are expected to generate a temporary increase in traffic associated with construction workers, construction equipment, and the delivery of construction material in the vicinity of the Carson Facility. The proposed construction of the project is expected to employ 195 construction workers.

A traffic impact analysis was conducted to analyze the effects of construction period traffic generation on adjacent streets and intersections. Following is a description of methodology, assumption and significant impact criteria.

METHODOLOGY

Existing weekday morning and evening peak hour traffic counts were used as base traffic data for the purpose of conducting significant impact analysis. The results of the construction period LOS analysis are shown in Table 3.

CONSTRUCTION PERIOD PROJECT FEATURES

Prior to commencement of construction, Shell will prepare and submit a Construction Traffic Management Plan, which will include the following:

- Schedule construction trucks to arrive and depart outside the morning and the evening peak traffic hours.
- Schedule deliveries and pick-ups of construction materials to non-peak travel periods
- Coordinate deliveries and pick-ups to reduce the potential of trucks waiting to load or unload for protracted periods of time
- Control construction equipment traffic access to City streets from the site with the use of flagmen
- Identify designated transport routes for haul trucks and heavy trucks to be used over the duration of the proposed project. Trucks should not be permitted to travel along residential streets serving the neighborhoods surrounding the project site. Construction truck staging would occur on the Shell site and would not interfere with surrounding traffic.
- Incorporate encouragement of public transportation and carpooling for construction workers into the plan.
- Instruct construction workers to park on the Shell site and prohibit parking along residential streets.

ASSUMPTIONS

Trip Generation Assumptions

The overall construction duration for the Shell Carson Facility E10 Project is estimated to be approximately 19 months. The construction of the proposed project is expected to begin in late 2010. As stated in the project description, additional construction trucks and worker trips would travel to and from the project site during project construction. For the purpose of this technical analysis, construction period LOS analysis was conducted for the following two phases of construction:

- Construction Phase 1 – Before the completion of a new ethanol tanker truck loading lane
- Construction Phase 2 – After the completion of the new ethanol tanker truck loading lane

Table 4 provides a summary of trip generation estimates for the two construction phases also described below:

- Construction Phase I

    - Construction Workers – Per estimates provided by AECOM, a total of 195 construction workers per day would be needed during peak construction of Phase I. Assuming that each construction worker represents two trips (arriving in the morning and departing in the evening), a total of 390 construction worker trips were estimated for Phase I, of which 195 trips would occur in the morning representing arrivals before the start of the shift, and 195 would occur in the evening representing departures at the end of the shift. All construction workers are expected to arrive at the project site before 7:00 AM. In the event that workers are unable to arrive by 7:00 AM, it is assumed that all of the construction worker trips would occur in the morning and evening peak hours to provide a worst-case analysis.

    - Construction Trucks (Hauls/Deliveries, etc.) – It is estimated that 115 construction trucks per day would be generated during the peak construction in Phase I. Each truck represents two trips, one inbound and one outbound. Thus, a total of 230 construction truck trips are estimated to occur within a 10-hour period (7:00 AM – 5:00 PM). These trucks were assumed to be distributed evenly throughout the 10-hour period. After applying the passenger car equivalent (PCE) factor to all truck trips, this construction phase is estimated to generate 460 net new daily PCE trips, of which 48 PCE trips (24 PCE inbound/24 PCE outbound) would occur during the morning and evening peak hours.

    - Project Truck Overlap – During this construction phase, it is estimated that the project would increase the number of ethanol trucks by 52 trucks per day, resulting in an increase of 104 daily truck trips, of which four trips (two inbound/two outbound) would occur in the peak hours. Applying the PCE factor to the increase in ethanol truck trips would result in approximately 208 net new daily PCE trips, of which eight PCE trips (four inbound/four outbound) would occur during each of the two analyzed peak hours.

  Per the above, Phase I of the construction is estimated to result in 1,058 net new daily PCE trips, of which 251 PCE trips (223 inbound/28 outbound) would occur during the morning peak hour and 251 PCE trips (28 inbound/233 outbound) would occur during the evening peak hour.

TABLE 3
CONSTRUCTION PERIOD INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Peak Hour	Existing plus Project Construction LOS Analysis						Mitigations			
		Existing Conditions		Existing plus Project Construction							
		V/C	LOS	V/C	LOS	Change in V/C	Potential for Significant Impact? [1]	V/C	LOS	Change in V/C	Potential for Significant Impact? [1]
1. Wilmington Avenue & Del Amo Boulevard	**AM**	0.627	B	0.629	B	0.002	NO	0.629	B	0.002	NO
	PM	0.612	B	0.635	B	0.023	NO	0.635	B	0.023	NO
2. Alameda Street & Del Amo Boulevard (location to the East)	**AM**	0.500	A	0.508	A	0.008	NO	0.508	A	0.008	NO
	PM	0.567	A	0.569	A	0.002	NO	0.580	A	0.013	NO
Alameda Street & Del Amo Boulevard (location to the West)	**AM**	0.386	A	0.392	A	0.006	NO	0.392	A	0.006	NO
	PM	0.468	A	0.471	A	0.003	NO	0.471	A	0.003	NO
3. Santa Fe Avenue & Del Amo Boulevard	**AM**	0.722	C	0.726	C	0.004	NO	0.726	C	0.004	NO
	PM	0.773	C	0.775	C	0.002	NO	0.786	C	0.013	NO
4. Susana Road & Del Amo Boulevard	**AM**	0.804	D	0.809	D	0.005	NO	0.809	D	0.005	NO
	PM	0.765	C	0.768	C	0.003	NO	0.768	C	0.003	NO
5. Wilmington Avenue & Dominguez Street	**AM**	0.395	A	0.424	A	0.029	NO	0.424	A	0.029	NO
	PM	0.473	A	0.625	B	0.152	NO	0.625	B	0.152	NO
6. Wilmington Avenue & Carson Street	**AM**	0.577	A	0.636	B	0.059	NO	0.636	B	0.059	NO
	PM	0.571	A	0.593	A	0.022	NO	0.578	A	0.007	NO
7. Wilmington Avenue & I-405 NB On-/Off-Ramp	**AM**	0.665	B	0.668	B	0.003	NO	0.668	B	0.003	NO
	PM	0.694	B	0.694	B	0.000	NO	0.694	B	0.000	NO
8. Wilmington Avenue & I-405 SB On-/Off-Ramp	**AM**	0.767	C	0.774	C	0.007	NO	0.774	C	0.007	NO
	PM	0.911	E	0.949	E	0.038	**YES**	0.919	E	0.008	NO

[1] South Coast Air Quality Management District Significant Traffic Impact Criteria.

TABLE 4
CONSTRUCTION PERIOD TRIP GENERATION
SHELL CARSON E10 PROJECT

	Construction Phase I [a]									Construction Phase II [a]								
			Daily	AM Peak Hour			PM Peak Hour					Daily	AM Peak Hour			PM Peak Hour		
TRIP TYPE	**Size**	**Unit**	**Trips**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**Size**	**Unit**	**Trips**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Construction Trips																		
Construction Worker Trips [b]	195	Workers/day	390	195	0	195	0	195	195	125	Workers/day	250	125	0	125	0	125	125
Construction Truck Trips [c]	115	Trucks/day	230	12	12	24	12	12	24	75	Trucks/day	150	8	8	16	8	8	16
Passenger Car Equivalents (PCEs)			*460*	*24*	*24*	*48*	*24*	*24*	*48*			*300*	*16*	*16*	*32*	*16*	*16*	*32*
Total Construction Trips			**850**	**219**	**24**	**243**	**24**	**219**	**243**			**550**	**141**	**16**	**157**	**16**	**141**	**157**
Project Trips During Construction Period [d]																		
Ethanol Truck Trips	52	Trucks/day	104	2	2	4	2	2	4	144	Trucks/day	288	6	6	12	6	6	12
Passenger Car Equivalents (PCEs)			*208*	*4*	*4*	*8*	*4*	*4*	*8*			*576*	*12*	*12*	*24*	*12*	*12*	*24*
Project Trips During Construction			**208**	**4**	**4**	**8**	**4**	**4**	**8**			**576**	**12**	**12**	**24**	**12**	**12**	**24**
Net New Trips During Construction (PCEs)			**1,058**	**223**	**28**	**251**	**28**	**223**	**251**			**1,126**	**153**	**28**	**181**	**28**	**153**	**181**

Note: For all truck trips, PCE factor of 2.0 was used per *Transportation and Traffic Engineering Handbook, 2nd Edition* .
[a] Source: Data provided by Shell, May 2010.
Upon completion of the new ethanol tanker truck loading lane, total number of ethanol truck trips will increase, while the number of construction truck trips and worker trips will decrease. The trip generation for these two phases are summarized in the separate columns above.
[b] Construction worker were assumed to arrive before 7:00 AM and depart after 5:00 PM. To provide a worst-case scenario, all worker trips were assumed to occur within the AM and PM peak hours.
[c] Construction truck trips were assumed to arrive and depart between 7:00 AM and 5:00 PM, a 10-hour work day.
[d] New ethanol truck trips will overlap with construction traffic. This increase will overlap with the peak daily number of construction truck and worker trips.
Ethanol truck trips were assumed occur 24 hours/day.

- Construction Phase II

    - Construction Workers – Per estimates provided by AECOM, a total of 125 construction workers per day would be needed during peak construction of Phase II. Assuming that each construction worker represents two trips (arriving in the morning and departing in the evening), a total of 250 construction worker trips were estimated for Phase I, of which 125 trips would occur in the morning representing arrivals before the start of the shift, and 125 would occur in the evening representing departures at the end of the shift. All construction workers are expected to arrive at the project site before 7:00 AM. In the event that workers are unable to arrive by 7:00 AM, it is assumed that all of the construction worker trips would occur in the morning and evening peak hours to provide a worst-case analysis.

    - Construction Trucks (Hauls/Deliveries, etc.) – It is estimated that 75 construction trucks per day would be generated during the peak construction in Phase II. As explained, these trucks represent two trips, one inbound and one outbound. Thus, a total of 150 construction truck trips are estimated to occur within a 10-hour period (7:00 AM – 5:00 PM). These trucks were assumed to be distributed evenly throughout the 10-hour period. After applying the PCE factor to all truck trips, this construction phase is estimated to generate 300 net new daily PCE trips, of which 32 PCE trips (16 PCE inbound/16 PCE outbound) would occur during the morning and evening peak hours.

    - Project Truck Overlap – During this construction phase, it is estimated that the project would increase the number of ethanol trucks by 144 trucks per day, resulting in an overlap of 288 daily truck trips, of which 12 trips (six inbound/six outbound) would occur in the peak hours. Applying the PCE factor to the increase in ethanol truck trips would result in approximately 576 net new daily PCE trips, of which 24 PCE trips (12 inbound/12 outbound) would occur during each of the two analyzed peak hours.

  Per the above, Phase II of the construction is estimated to result in 1,126 net new daily PCE trips, of which 181 PCE trips (153 inbound/28 outbound) would occur during the morning peak hour and 181 PCE trips (28 inbound/153 outbound) would occur during the evening peak hour.

Table 4 shows a comparison of the trip generation estimates under both phases of construction. Since Phase I of the construction would generate more trips during the analyzed peak hours and represents worst-case construction period traffic conditions, it was used to determine temporary adverse impacts during construction of the project.

Trip Distribution and Assignment Assumptions

Trip distribution was based on the general distribution for truck trips used in the project analysis as well as the designated truck routes in the City of Carson. Construction workers were assumed to travel to and from the project site from sub-regional and regional residential communities using both the freeways and major arterials. Figure 4 shows the construction period-only traffic volumes for the proposed Shell Carson E10 project.

EXISTING PLUS CONSTRUCTION TRAFFIC IMPACTS

Existing plus Construction Traffic Volumes

Existing plus construction period traffic volumes were calculated as a sum of existing traffic plus construction trips at each intersection per the distribution and assignment described above. Figure 5 shows existing

plus construction period weekday morning and evening peak hour traffic volumes for the more intense construction period.

Existing plus Construction Level of Service Analysis

Table 3 summarizes the results of the LOS analysis conducted for the existing plus construction traffic. As shown in Table 3, the intersection of Wilmington Avenue & I-405 Southbound On-/Off-Ramps was estimated to operate at LOS of E (in the PM peak hour only) in the existing plus project construction scenarios.

Existing plus Construction Impact Analysis

Based on the above trip distribution and using the SCAQMD significant impact criteria presented in Chapter 3, it is determined that construction of the proposed project would result in one temporary adverse impacts at the study intersection of Wilmington Avenue & I-405 Southbound On-/Off-Ramps during the PM peak hour. Table 3 shows the results of the significant impact analysis.

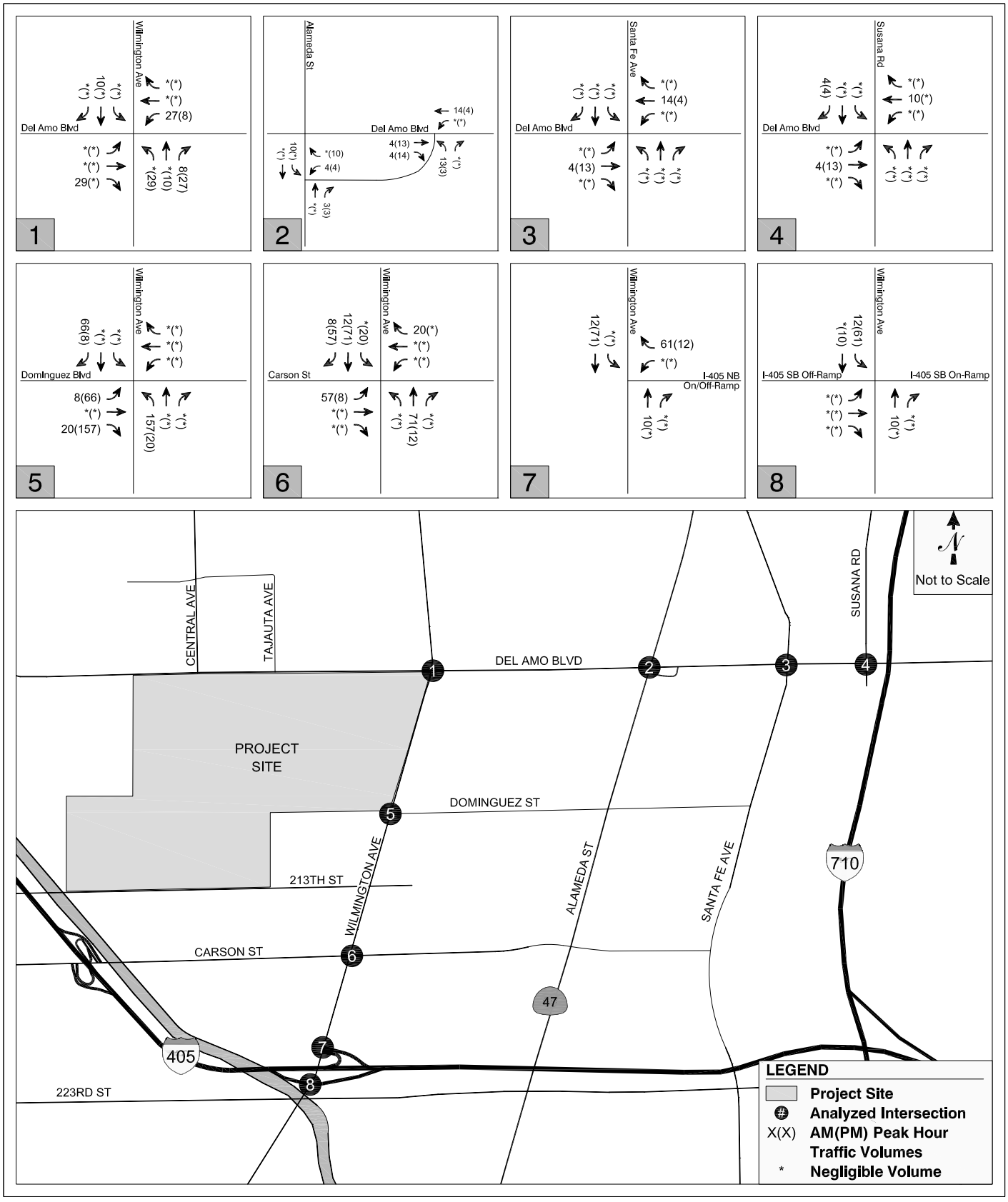
Mitigation Measure

A mitigation measure that would remove the temporary adverse impact at the intersection of Wilmington Avenue & I-405 Southbound On-/Off-Ramps would be the modification of the construction traffic management plan to include the following change to construction worker routes:

- All construction related traffic exiting the project site to go south on I-405 will be required to use the I-710 Southbound On-Ramp at Susana Road (taking Wilmington Boulevard northbound and Del Amo Boulevard eastbound). Shell will develop a method to inform the construction workers and monitor the required routing plan prior to the commencement of construction on site.

Since the intersection of Wilmington Avenue & I-405 Southbound On-/Off-Ramps (Intersection #8) is currently operating at LOS E during the PM peak hour, construction workers would not be permitted to use this entrance when exiting the project area. As previously described under this section, Shell will prepare and submit a construction traffic management plan which will require construction worker exiting the project site to go south on I-405 to use I-710 Southbound On-Ramp at Susana Road to access southbound I-405 Freeway.

As shown in Table 3, implementation of the proposed mitigation measure would result in no temporary adverse impacts at the eight study intersections.



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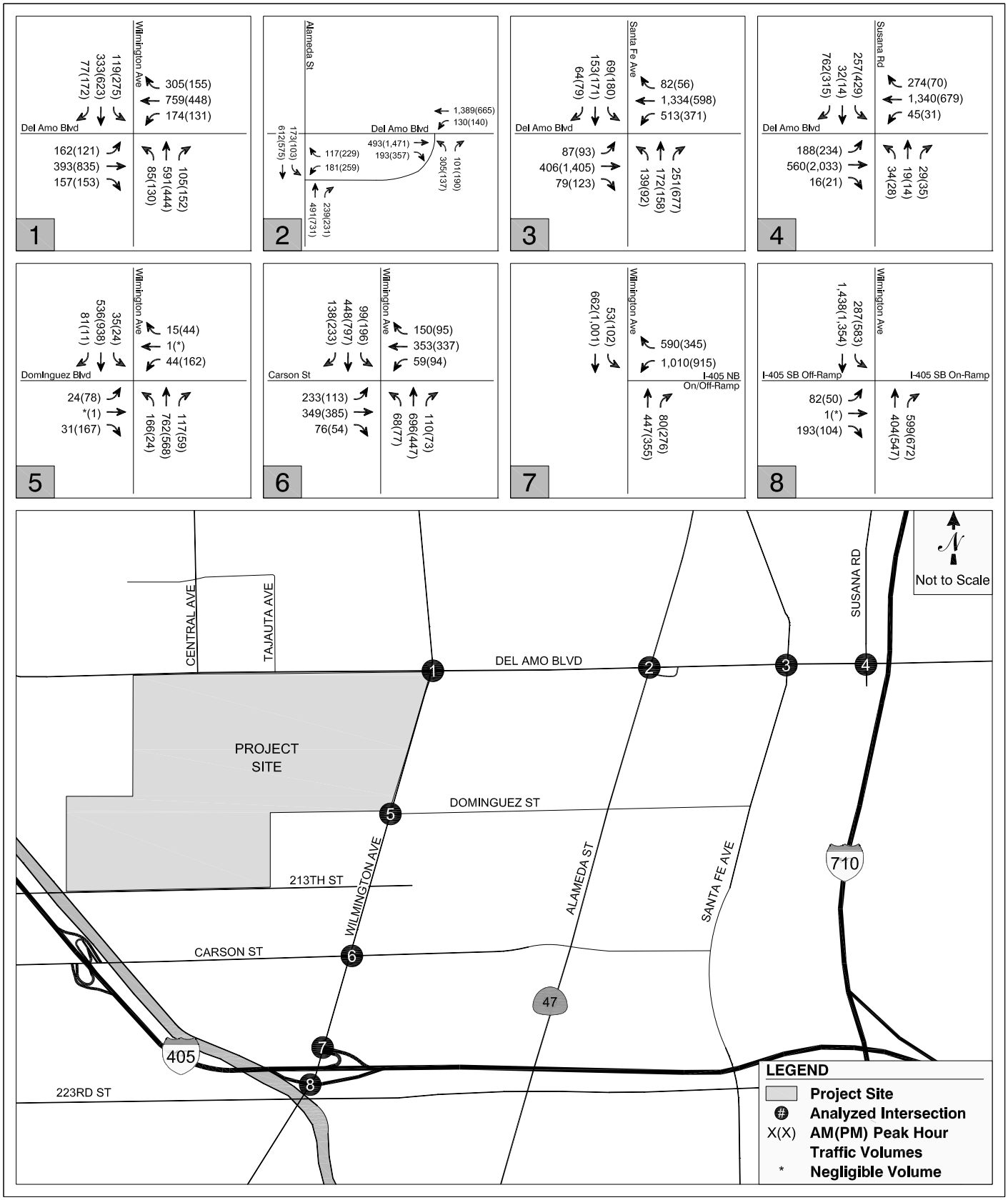
CONSTRUCTION-ONLY TURNING MOVEMENT VOLUMES

FIGURE 4



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EXISTING PLUS CONSTRUCTION TURNING MOVEMENT VOLUMES

FIGURE 5

5. PROJECT OPERATIONS ANALYSIS

To evaluate the potential impacts of the proposed project on the surrounding street system, it was necessary to develop estimates of future traffic conditions in the area both without and with the proposed project's traffic. First, estimates of growth in traffic within the study area were developed to forecast future conditions without the project. These forecasts included traffic increases as a result of both regional ambient traffic growth and traffic generated by specific developments in the vicinity of the project (related projects). These projected traffic volumes, identified herein as the future (Year 2012) without project conditions, represent the future study year conditions without the proposed project. The traffic generated by the proposed project was then estimated and assigned to the surrounding street system. The project traffic was added to the future (Year 2012) without project conditions to form the future (Year 2012) plus project traffic conditions, which were then analyzed to determine the incremental traffic impacts attributable to the project itself.

The assumptions and analysis methodology used to develop each of the future traffic scenarios discussed above are described in more detail in the following sections.

PROJECT TRIP GENERATION

Per information received from Shell and AECOM, once the project is complete, the proposed expansion of Shell's distribution would result in an increase in the number of trucks from an actual average of 132 trucks per day during the project baseline period to a maximum of 276 trucks per day. This represents an increase of 144 trucks per day over and above the actual average of 132 per day during the project baseline period. This increase in truck trips is expected to occur upon completion of the new ethanol tanker truck loading lane and associated ethanol loading rack, which would be completed in 2011. The net new trucks per day were converted into trips to estimate net new truck trips generated by the proposed expansion. To convert the number of trucks into the number of trips, it was assumed that every truck would represent one inbound and one outbound truck trip. The additional truck trips are expected to be spread evenly throughout the day, with a minor slowdown during shift changes, which occur twice in 24 hours, once between 2:30 and 5:30 AM and then between 2:30 and 5:30 PM. Table 5 presents future truck trip generation for Shell operations. As shown in the table, the proposed project is estimated to generate a total of 288 daily (24-hour) truck trips (144 inbound/144 outbound), of which 12 trips (six inbound/six outbound) would occur during the morning and evening peak hours. After applying the PCE factor of 2.0[2], the proposed expansion is estimated to generate a total of 576 net new daily PCE trips, of which 24 PCE trips (12 inbound/12 outbound) would occur during the morning and evening peak hours.

Under existing conditions, there are approximately 106 employees working on the project site. No increase in employees is anticipated as a result of the proposed expansion.

[2] *Transportation and Traffic Engineering Handbook, 2nd Edition* (Institute of Transportation Engineers, 1982)

TABLE 5
PROJECT TRIP GENERATION
SHELL CARSON E10 PROJECT

LAND USE	Size	Unit	Estimated Trip Generation						
			Daily Trips	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Proposed Project									
Proposed Increase in Ethanol Truck Trips [a]	144	Trucks/day	288	6	6	12	6	6	12
Passenger Car Equivalents (PCEs) [b]			*576*	*12*	*12*	*24*	*12*	*12*	*24*
Net New E10 Truck Trips (PCEs) [b]			**576**	**12**	**12**	**24**	**12**	**12**	**24**

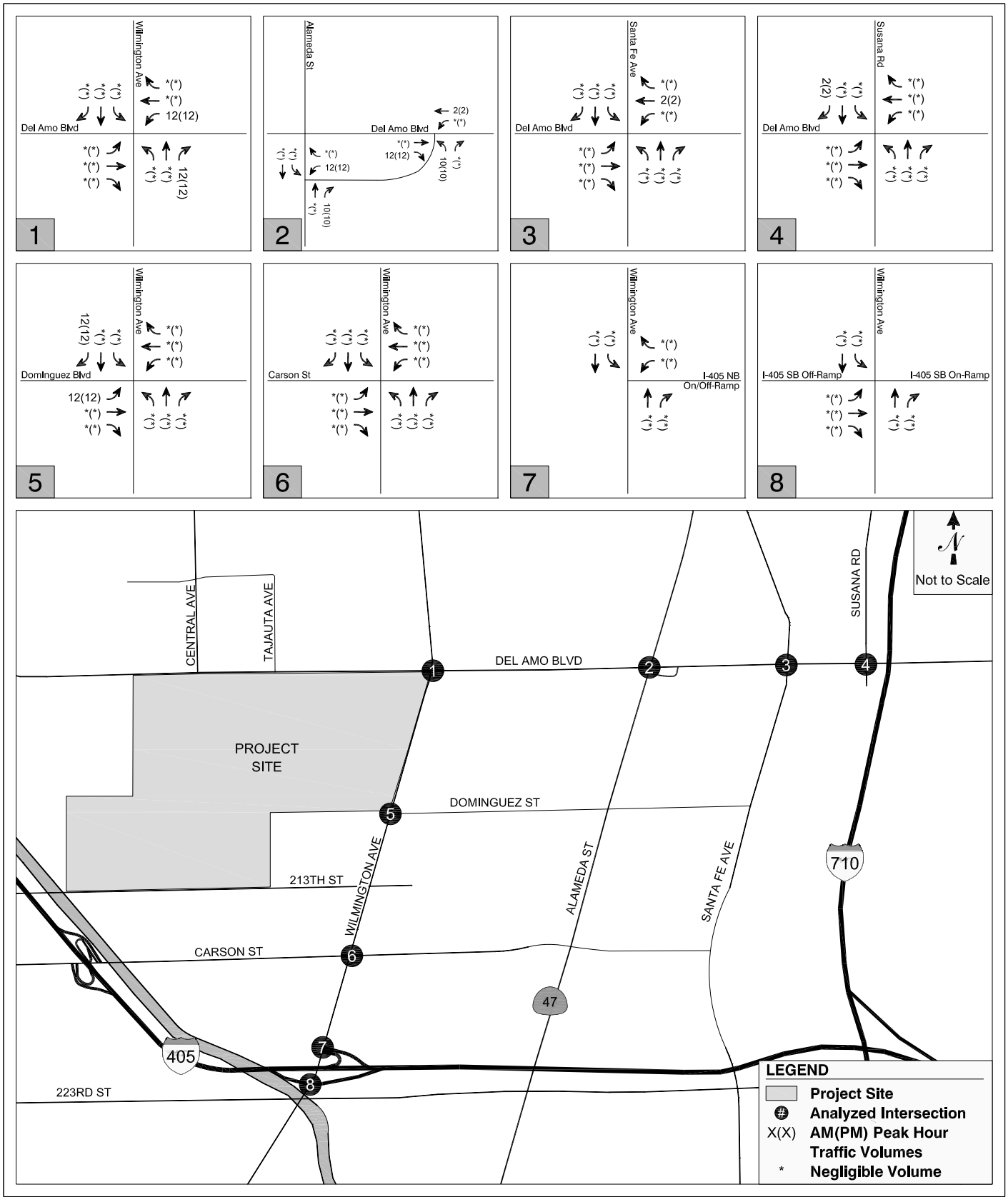
[a] Source: Data provided by Shell, May 2010.

[b] Passenger Car Equivalent (PCE) factor of 2.0 was used per *Transportation and Traffic Engineering Handbook, 2nd Edition* (Institute of Transportation Engineers, 1982).

The project trips were assigned to the street network based on the following three factors:

1. Proposed origin and destination of ethanol trucks in the sub-region
2. Regional and sub-regional truck routes
3. Turn restrictions at intersections in the vicinity

Figure 6 shows the project-only traffic volumes for the proposed project.



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PROJECT-ONLY TURNING MOVEMENT VOLUMES

FIGURE 6

EXISTING WITH PROJECT CONDITIONS

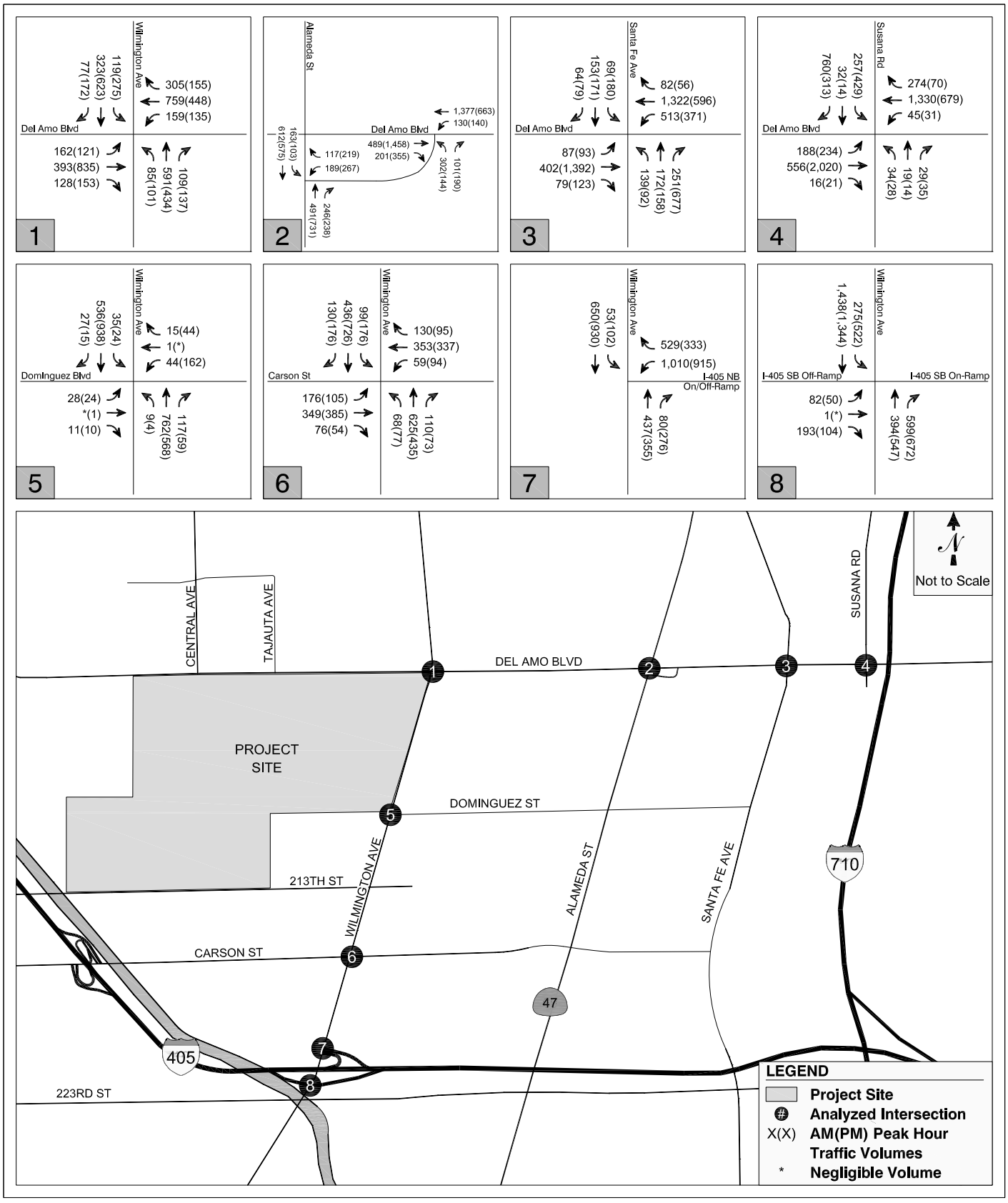
The project-only traffic volumes shown in Figure 6 were added to the existing base traffic volume to calculate existing plus Project traffic volumes. Figure 7 shows existing plus project weekday morning and evening peak hour traffic volumes.

Existing plus Project Level of Service Analysis

Table 6 presents the results of the LOS analysis and V/C for existing plus project conditions. As shown in Table 6, the intersection of Wilmington Avenue & I-405 Southbound On-/Off-Ramps was estimated to operate at a LOS of E (in the PM peak hour only) in the existing plus project scenarios.

Existing plus Project Impact Analysis

After applying the SCAQMD significant impact criteria presented in Chapter 3, it is determined that the proposed project would not result in a significant traffic impact at any of the eight analyzed intersections.



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EXISTING PLUS PROJECT TURNING MOVEMENT VOLUMES

FIGURE 7

TABLE 6
EXISTING PLUS PROJECT LEVEL OF SERVICE ANALYSIS

Intersection	Peak Hour	Existing (Year 2010)		Existing plus Project			
		V/C	LOS	V/C	LOS	Change in V/C	Potential for Significant Impact? [1]
1. Wilmington Avenue & Del Amo Boulevard	**AM**	0.627	B	0.630	B	0.003	NO
	PM	0.612	B	0.619	B	0.007	NO
2. Alameda Street & Del Amo Boulevard (location to the East)	**AM**	0.500	A	0.505	A	0.005	NO
	PM	0.567	A	0.567	A	0.000	NO
Alameda Street & Del Amo Boulevard (location to the West)	**AM**	0.386	A	0.392	A	0.006	NO
	PM	0.468	A	0.472	A	0.004	NO
3. Santa Fe Avenue & Del Amo Boulevard	**AM**	0.722	C	0.722	C	0.000	NO
	PM	0.773	C	0.773	C	0.000	NO
4. Susana Road & Del Amo Boulevard	**AM**	0.804	D	0.805	D	0.001	NO
	PM	0.765	C	0.765	C	0.000	NO
5. Wilmington Avenue & Dominguez Street	**AM**	0.395	A	0.402	A	0.007	NO
	PM	0.473	A	0.481	A	0.008	NO
6. Wilmington Avenue & Carson Street	**AM**	0.577	A	0.577	A	0.000	NO
	PM	0.571	A	0.571	A	0.000	NO
7. Wilmington Avenue & I-405 NB On-/Off-Ramp	**AM**	0.665	B	0.665	B	0.000	NO
	PM	0.694	B	0.694	B	0.000	NO
8. Wilmington Avenue & I-405 SB On-/Off-Ramp	**AM**	0.767	C	0.767	C	0.000	NO
	PM	0.911	E	0.911	E	0.000	NO

[1] South Coast Air Quality Management District Significant Traffic Impact Criteria.

FUTURE (YEAR 2012) WITHOUT PROJECT TRAFFIC PROJECTIONS

The future without project traffic volumes were developed by adding potential growth in traffic over existing conditions from two sources. The first source is the ambient growth in traffic. Ambient growth reflects increases in traffic due to regional growth and development. The second source is growth due to traffic generated by specific projects in or in the vicinity of the study area.

Areawide Traffic Growth

For the purpose of this study, an ambient growth rate of 0.5% per year for a total of two years was applied to the existing traffic counts. This growth is consistent with Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan Model for the sub-region. The total ambient growth adjustment applied over the two-year period (from 2010 to 2012) was 1%.

Traffic Generation of Cumulative Development Projects

In addition to ambient growth, traffic from specific large projects in the vicinity of the Shell Carson E10 study area was added to the projections. The projects were taken from *City of Carson Development Summary* (City of Carson, May 2010). This list has been included as Appendix D. Of the projects listed, those that were planned to be partially developed by 2012 were included in the analysis. These projects include:

- Boulevards at South Bay (formerly Avalon at South Bay and Carson Marketplace) – Located west of the project site, the proposed project consists of 1,150 residential ownership units, 400 residential rental units, 374,000 square feet (sf) of commercial recreation and entertainment, 130,000 sf of neighborhood commercial use, 141,125 sf of restaurant use, a 300-room hotel and 1,150,000 sf of regional commercial use. Although it is unlikely that the project will be completed by 2012, all of the project traffic was included in the base conditions to present a conservative analysis.

- ProLogis – Located southeast of the project site, ProLogis is proposing to construct a 273,323 sf, multi-tenant, warehouse building. The proposed project provides 213 vehicle parking spaces, 51 truck parking spaces, and 58 dock-high loading bays to receive and deliver products.

- Cityview – Located southwest of the project site, Cityview is proposing to construct a 152-unit development with three housing types of various densities.

- Safran City Center – Located southwest of the project site, the applicant proposes to construct a 236-uni residential, mixed-use development project featuring 8,500 sf of restaurant use, 20,000 sf of retail use and a subterranean garage.

Trip generation for these projects was estimated using *Trip Generation, Eighth Edition* (Institute of Transportation Engineers [ITE], 2008).

Cumulative Development Project Traffic Distribution

The geographic distribution of traffic generated by the developments listed above depends on several factors. These factors include the type and density of the proposed land use, the geographic distribution of the population from which employees and potential patrons of proposed commercial developments may be drawn, the geographic distribution of employment and activity centers to which residents of

proposed residential developments may be drawn, the location of the project in relation to the surrounding street system, the extent of the roadway network (e.g., its continuity), and other factors, such as any planned improvements to the existing roadway network. Traffic distribution was also based on any available information from published environmental impact reports of the above projects.

Future (Year 2012) without Project Traffic Volumes

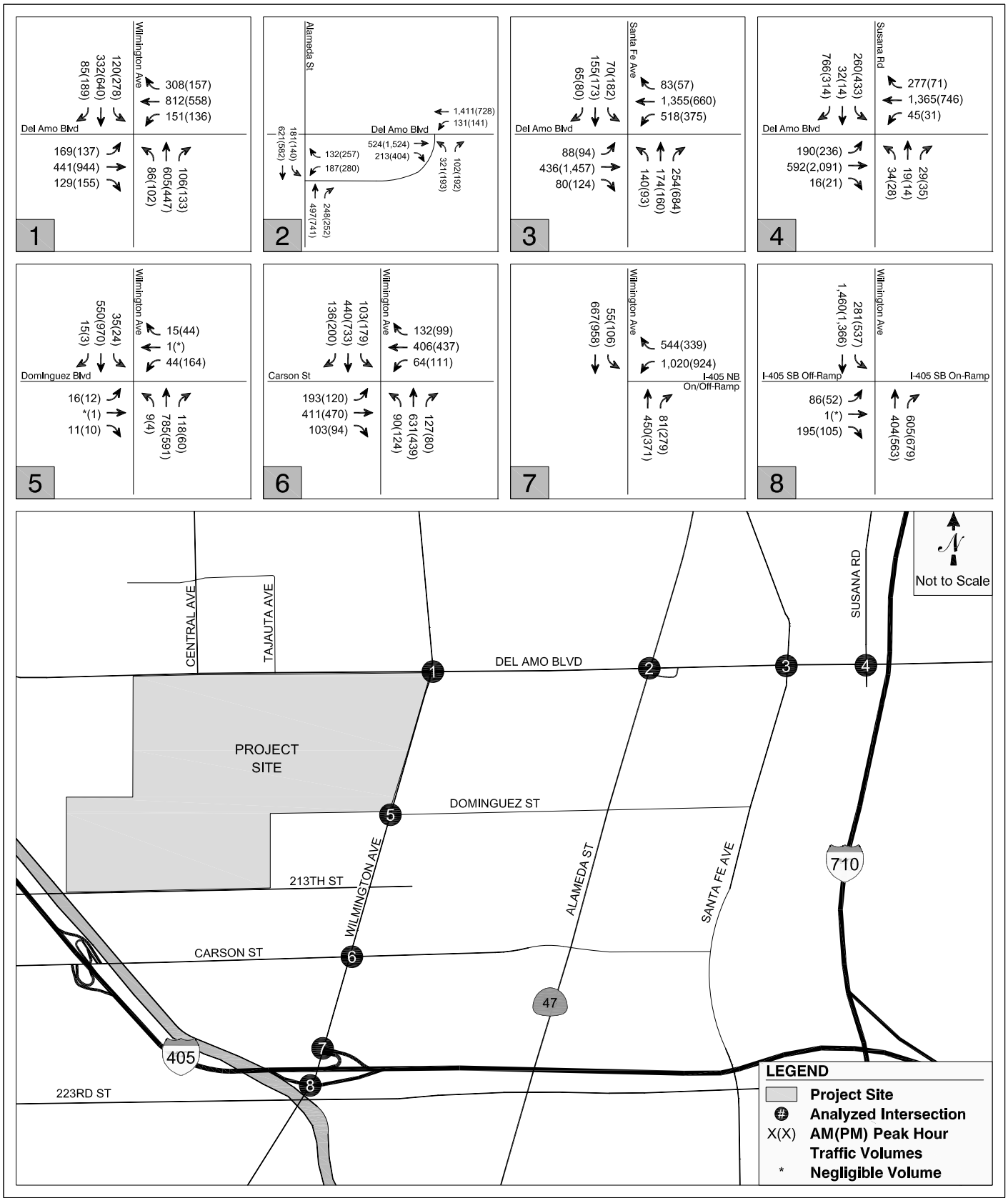
Future (Year 2012) without project traffic volumes, including a total ambient growth factor of 1% and the cumulative development projects listed above, are shown in Figure 8.

FUTURE (YEAR 2012) WITH PROJECT CONDITIONS

Future (Year 2012) with Project Traffic Volumes

Project-only traffic volumes (shown in Figure 6) were added to the future (Year 2012) without project traffic volumes to calculate future (Year 2012) plus project traffic volumes. Figure 9 shows future (Year 2012) plus project weekday morning and evening peak hour traffic volumes. Future (Year 2012) with Project Level of Service Analysis

Table 7 presents the results of the LOS analysis and V/C for the proposed project. As shown in Table 7, the intersection of Wilmington Avenue & I-405 Southbound On-/Off-Ramps was estimated to operate at a LOS of E (in the PM peak hour only) in the future (Year 2012) with project scenarios.



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FUTURE (YEAR 2012) WITHOUT PROJECT TURNING MOVEMENT VOLUMES

FIGURE 8

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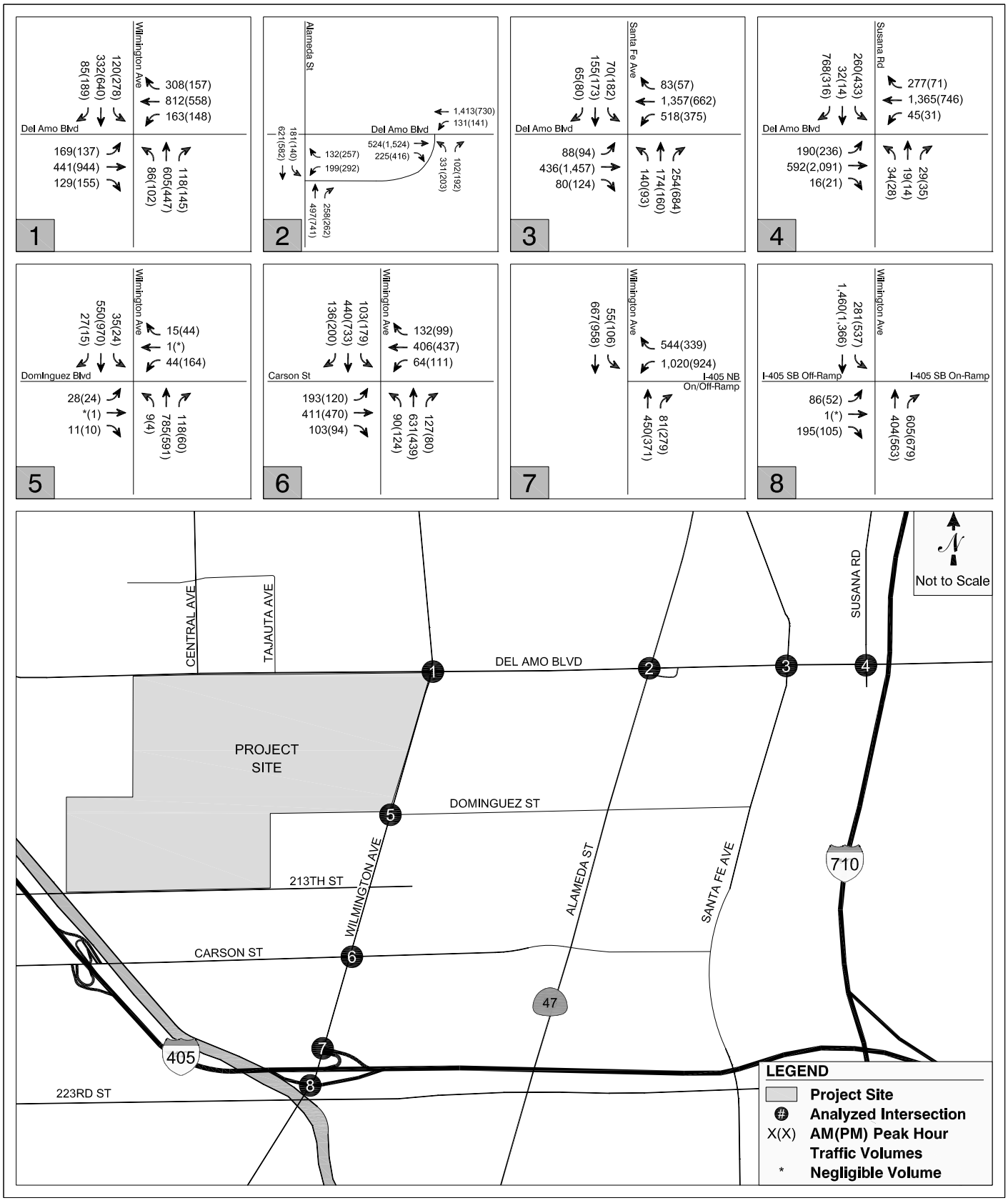

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FUTURE (YEAR 2012) WITH PROJECT TURNING MOVEMENT VOLUMES

FIGURE 9

TABLE 7
FUTURE (YEAR 2012) INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Peak Hour	Future Base (Year 2012)		Future with Project (Year 2012)			
		V/C	LOS	V/C	LOS	Change in V/C	Potential for Significant Impact? [1]
1. Wilmington Avenue & Del Amo Boulevard	**AM**	0.655	B	0.658	B	0.003	NO
	PM	0.651	B	0.659	B	0.008	NO
2. Alameda Street & Del Amo Boulevard (location to the East)	**AM**	0.519	A	0.523	A	0.004	NO
	PM	0.582	A	0.585	A	0.003	NO
Alameda Street & Del Amo Boulevard (location to the West)	**AM**	0.399	A	0.410	A	0.011	NO
	PM	0.496	A	0.501	A	0.005	NO
3. Santa Fe Avenue & Del Amo Boulevard	**AM**	0.735	C	0.736	C	0.001	NO
	PM	0.789	C	0.789	C	0.000	NO
4. Susana Road & Del Amo Boulevard	**AM**	0.818	D	0.818	D	0.000	NO
	PM	0.782	C	0.782	C	0.000	NO
5. Wilmington Avenue & Dominguez Street	**AM**	0.402	A	0.409	A	0.007	NO
	PM	0.484	A	0.492	A	0.008	NO
6. Wilmington Avenue & Carson Street	**AM**	0.609	B	0.609	B	0.000	NO
	PM	0.652	B	0.652	B	0.000	NO
7. Wilmington Avenue & I-405 NB On-/Off-Ramp	**AM**	0.673	B	0.673	B	0.000	NO
	PM	0.701	C	0.701	C	0.000	NO
8. Wilmington Avenue & I-405 SB On-/Off-Ramp	**AM**	0.776	C	0.776	C	0.000	NO
	PM	0.926	E	0.926	E	0.000	NO

[1] South Coast Air Quality Management District Significant Traffic Impact Criteria.

Future (Year 2012) with Project Impact Analysis

After applying the SCAQMD significant impact criteria presented in Chapter 3, it is determined that the proposed project would not result in a significant traffic impact at any of the eight analyzed intersections.

Since no significant impacts were found under the existing plus ambient growth plus cumulative projects with project (future with project) scenario, it is assumed that no significant impacts would occur under the existing plus ambient growth with project scenario.

Existing Conditions Compared to Future (Year 2012) With Project Conditions

Table 8 provides a comparison between existing and future (year 2012) with project conditions. This analysis evaluates the cumulative impacts of all projects, including the proposed project, combined with the ambient growth over existing conditions.

Comparison of Existing Conditions to Future (Year 2012) Without Project Conditions

Table 9 provides a comparison between existing and future (Year 2012) without project conditions. This analysis reflects incremental impact resulting from cumulative projects and ambient growth under "No Project" conditions.

REGIONAL TRANSPORTATION SYSTEM ANALYSIS

This chapter presents the regional transportation system impact analysis for the proposed project. This analysis was conducted in accordance with the transportation impact analysis procedures outlined in *2004 Congestion Management Program for Los Angeles County* (Metro, July 2004). The CMP requires that, when an environmental impact report is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use these facilities.

CMP TRAFFIC IMPACT ANALYSIS CRITERIA

The CMP guidelines require that the first issue addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours of adjacent street traffic.
- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

CMP TRAFFIC IMPACTS

The CMP arterial monitoring intersection nearest to the project site is the study intersection of Alameda Street & Del Amo Boulevard. Based on the project trip generation estimates and a review of the project traffic volumes shown in Figure 6, the proposed project is not expected to add more than 50 net vehicles at the intersection of Alameda Street & Del Amo Boulevard during the AM or PM peak hours. As a result, no further CMP arterial monitoring analysis is required. Therefore, project impact on CMP arterial system is determined to be less than significant.

TABLE 8
COMPARATIVE ANALYSIS
EXISTING AND FUTURE (YEAR 2012) WITH PROJECT LEVEL OF SERVICE

Intersection	Peak Hour	Existing (Year 2010)		Future (Year 2012) With Project		
		V/C	LOS	V/C	LOS	Change in V/C
1. Wilmington Avenue & Del Amo Boulevard	**AM**	0.627	B	0.658	B	0.031
	PM	0.612	B	0.659	B	0.047
2. Alameda Street & Del Amo Boulevard (location to the East)	**AM**	0.500	A	0.523	A	0.023
	PM	0.567	A	0.585	A	0.018
Alameda Street & Del Amo Boulevard (location to the West)	**AM**	0.386	A	0.410	A	0.024
	PM	0.468	A	0.501	A	0.033
3. Santa Fe Avenue & Del Amo Boulevard	**AM**	0.722	C	0.736	C	0.014
	PM	0.773	C	0.789	C	0.016
4. Susana Road & Del Amo Boulevard	**AM**	0.804	D	0.818	D	0.014
	PM	0.765	C	0.782	C	0.017
5. Wilmington Avenue & Dominguez Street	**AM**	0.395	A	0.409	A	0.014
	PM	0.473	A	0.492	A	0.019
6. Wilmington Avenue & Carson Street	**AM**	0.577	A	0.609	A	0.032
	PM	0.571	A	0.652	A	0.081
7. Wilmington Avenue & I-405 NB On-/Off-Ramp	**AM**	0.665	B	0.673	B	0.008
	PM	0.694	B	0.701	B	0.007
8. Wilmington Avenue & I-405 SB On-/Off-Ramp	**AM**	0.767	C	0.776	C	0.009
	PM	0.911	E	0.926	E	0.015

TABLE 9
COMPARATIVE ANALYSIS
EXISTING AND FUTURE (YEAR 2012) WITHOUT PROJECT LEVEL OF SERVICE

Intersection	Peak Hour	Existing (Year 2010)		Future (Year 2012) Without Project		
		V/C	LOS	V/C	LOS	Change in V/C
1. Wilmington Avenue & Del Amo Boulevard	**AM**	0.627	B	0.655	B	0.028
	PM	0.612	B	0.651	B	0.039
2. Alameda Street & Del Amo Boulevard (location to the East)	**AM**	0.500	A	0.519	A	0.019
	PM	0.567	A	0.582	A	0.015
Alameda Street & Del Amo Boulevard (location to the West)	**AM**	0.386	A	0.399	A	0.013
	PM	0.468	A	0.496	A	0.028
3. Santa Fe Avenue & Del Amo Boulevard	**AM**	0.722	C	0.735	C	0.013
	PM	0.773	C	0.789	C	0.016
4. Susana Road & Del Amo Boulevard	**AM**	0.804	D	0.818	D	0.014
	PM	0.765	C	0.782	C	0.017
5. Wilmington Avenue & Dominguez Street	**AM**	0.395	A	0.402	A	0.007
	PM	0.473	A	0.484	A	0.011
6. Wilmington Avenue & Carson Street	**AM**	0.577	A	0.609	A	0.032
	PM	0.571	A	0.652	A	0.081
7. Wilmington Avenue & I-405 NB On-/Off-Ramp	**AM**	0.665	B	0.673	B	0.008
	PM	0.694	B	0.701	B	0.007
8. Wilmington Avenue & I-405 SB On-/Off-Ramp	**AM**	0.767	C	0.776	C	0.009
	PM	0.911	E	0.926	E	0.015

The mainline freeway monitoring locations nearest to the project site are I-405 north of I-110 and I-710 north of I-405. Based on the incremental project trip generation estimates and the project trip assignment, the proposed project would not add sufficient new traffic to exceed the freeway analysis criteria at these locations. Because incremental project-related traffic in any direction during either weekday peak hour is projected to be below the minimum criterion of 150 vehicles, no further CMP freeway analysis is required. Therefore, project impact on CMP freeway system is determined to be less than significant.

Because the number of employees is not anticipated to increase as a result of the proposed project, no significant impact on the regional transit system is expected to occur. The increase in ethanol truck trips would not result in a significant impact on the regional transit system.

6. SUMMARY AND CONCLUSIONS

This technical report summarizes the results of a traffic study conducted by Fehr & Peers to evaluate the potential traffic impacts of proposed E10 Project, which is proposed at the Shell Carson Distribution Facility in the City of Carson, California. The key findings and conclusions of the study are summarized below:

- The proposed project includes the following changes to the Carson Distribution Facility:
    - Increase the ethanol throughput at an existing two-lane tanker truck loading rack
    - Convert up to four existing storage tanks from gasoline to ethanol service
    - Install one new ethanol tanker truck loading lane and associated ethanol loading rack
    - Expand the existing ethanol loading rack operations building
    - Install one new gasoline storage tank to replace gasoline storage capacity that will be transferred to ethanol service

- Detailed intersection capacity and operation analyses were conducted at eight intersections in the vicinity of the project site for weekday AM and PM peak hours (between 7:00 and 9:00 AM and 4:00 and 6:00 PM). Each of the study intersections is currently operating at acceptable levels of service (LOS D or better).

- Construction of the proposed project is anticipated to begin in late 2010 and continue for approximately 19 months. Construction activities resulting from the implementation of the proposed project are expected to generate a temporary increase in traffic associated with construction workers, construction equipment, and the delivery of construction material in the vicinity of the Carson Facility.

- Project construction features were identified that would be implemented before the start of construction. The construction features involve the implementation of a Construction Traffic Management Plan, which will include restriction on construction workers using the I-405 Southbound On-Ramps at Wilmington Boulevard and scheduling of truck trips outside of the peak hours.

- Using the SCAQMD significant impact criteria, it is determined that construction of the proposed project wwould result in one temporary adverse impact at the intersection of Wilmington Avenue & I-405 Southbound On-/Off-Ramps. A mitigation measure that would remove the temporary adverse impact at this location would be the modification of the construction traffic management plan to include the following change to construction worker routes:
    - All construction related traffic exiting the project site to go south on I-405 will be required to use the I-710 Southbound On-Ramp at Susana Road (taking Wilmington Boulevard northbound and Del Amo Boulevard eastbound). Shell will develop a method to inform the construction workers and monitor the required routing plan prior to the commencement of construction on site.

- Future traffic conditions in the study area were projected for Year 2012 based on ambient growth (0.5% per year) and cumulative development projects surrounding the project site. The future without Project analyses indicate that the intersection of Wilmington Avenue & I-405 Southbound On-/Off-Ramps is projected to operate at an unacceptable level (LOS E during the PM peak hour).

- The proposed project is estimated to generate a total of 288 daily (24-hour) truck trips (144 inbound/144 outbound), of which 12 trips (six inbound/six outbound) would occur during the morning and evening peak hours. After applying the PCE factor of 2.0, the proposed expansion is estimated to generate a total of 576 net new daily PCE trips, of which 24 PCE trips (12 inbound/12 outbound) would occur during the morning and evening peak hours.

- After applying the SCAQMD significant impact criteria, it is determined that the proposed project would not result in a significant traffic impact at any of the eight analyzed intersections under both existing plus project and future (Year 2012) plus project conditions.

- No significant CMP intersection, freeway, or transit impacts would result from the proposed project.

REFERENCES

2004 Congestion Management Program for Los Angeles County, Los Angeles County Metropolitan Transportation Authority, July 2004.

City of Carson Development Summary, City of Carson, May 2010.

Trip Generation, 8th Edition, Institute of Transportation Engineers, 2008.

APPENDIX A:
TRAFFIC COUNTS

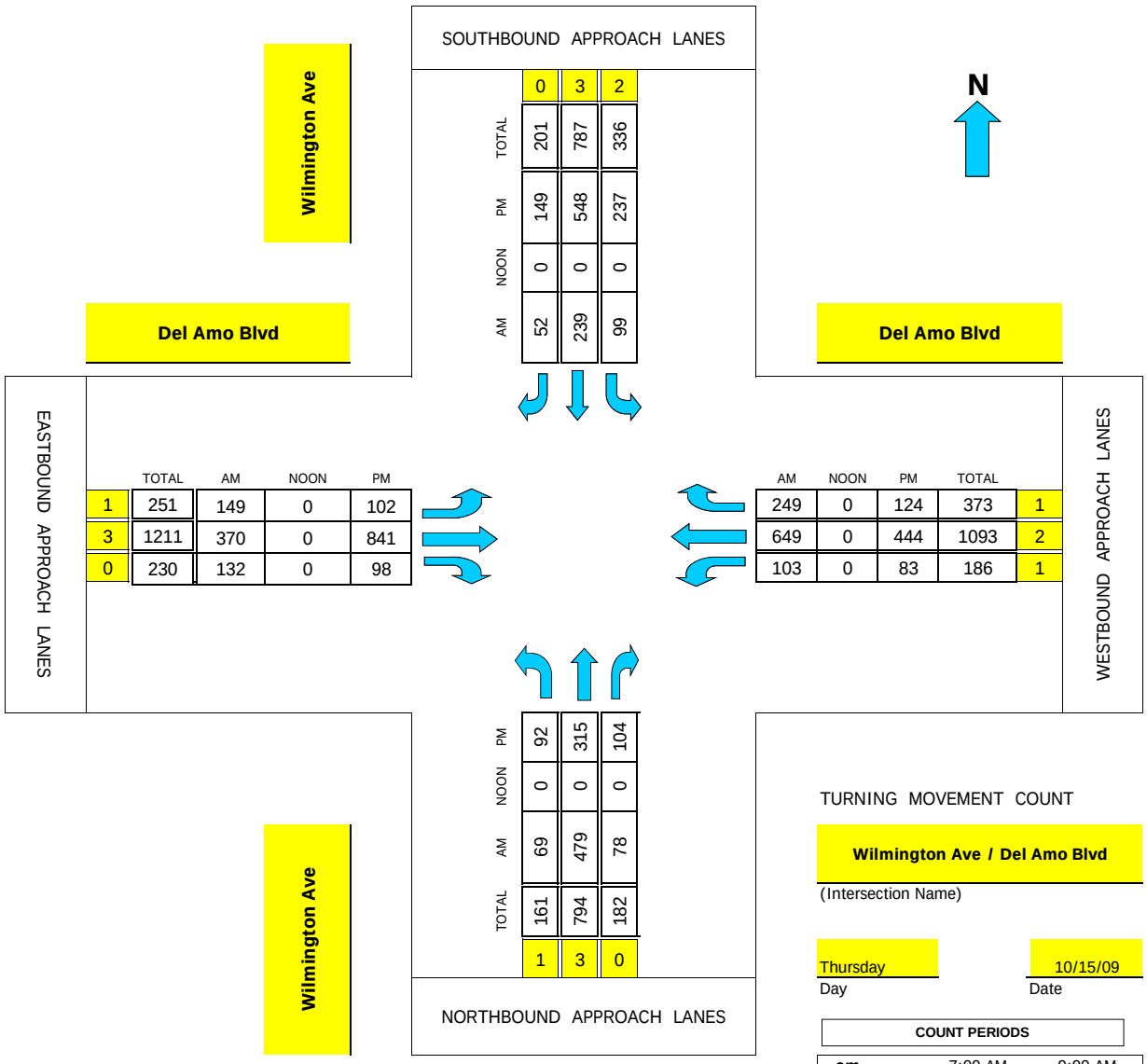
Intersection Turning Movement

Prepared by:

National Data & Surveying Services

TMC Summary of Wilmington Ave / Del Amo Blvd

Project #: 09-5328-003



TURNING MOVEMENT COUNT

Wilmington Ave / Del Amo Blvd

(Intersection Name)

Thursday — Day

10/15/09 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: Signalized

AM PEAK HOUR	715 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	445 PM

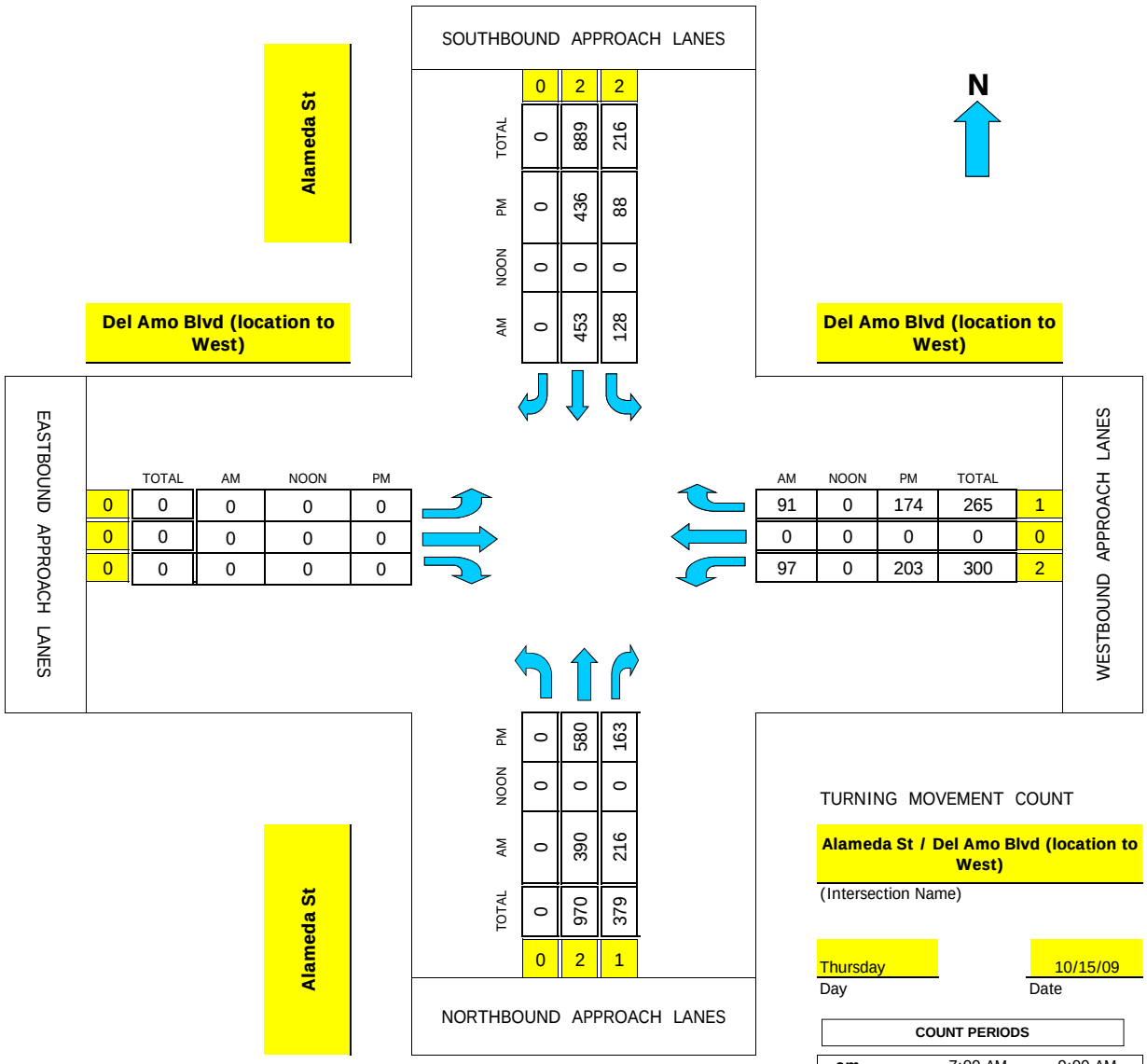
Intersection Turning Movement

Prepared by:

National Data & Surveying Services

TMC Summary of Alameda St/Del Amo Blvd (location to West)

Project #: 09-5328-004



TURNING MOVEMENT COUNT

Alameda St / Del Amo Blvd (location to West)

(Intersection Name)

Thursday — Day

10/15/09 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: Signalized

AM PEAK HOUR	715 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	430 PM

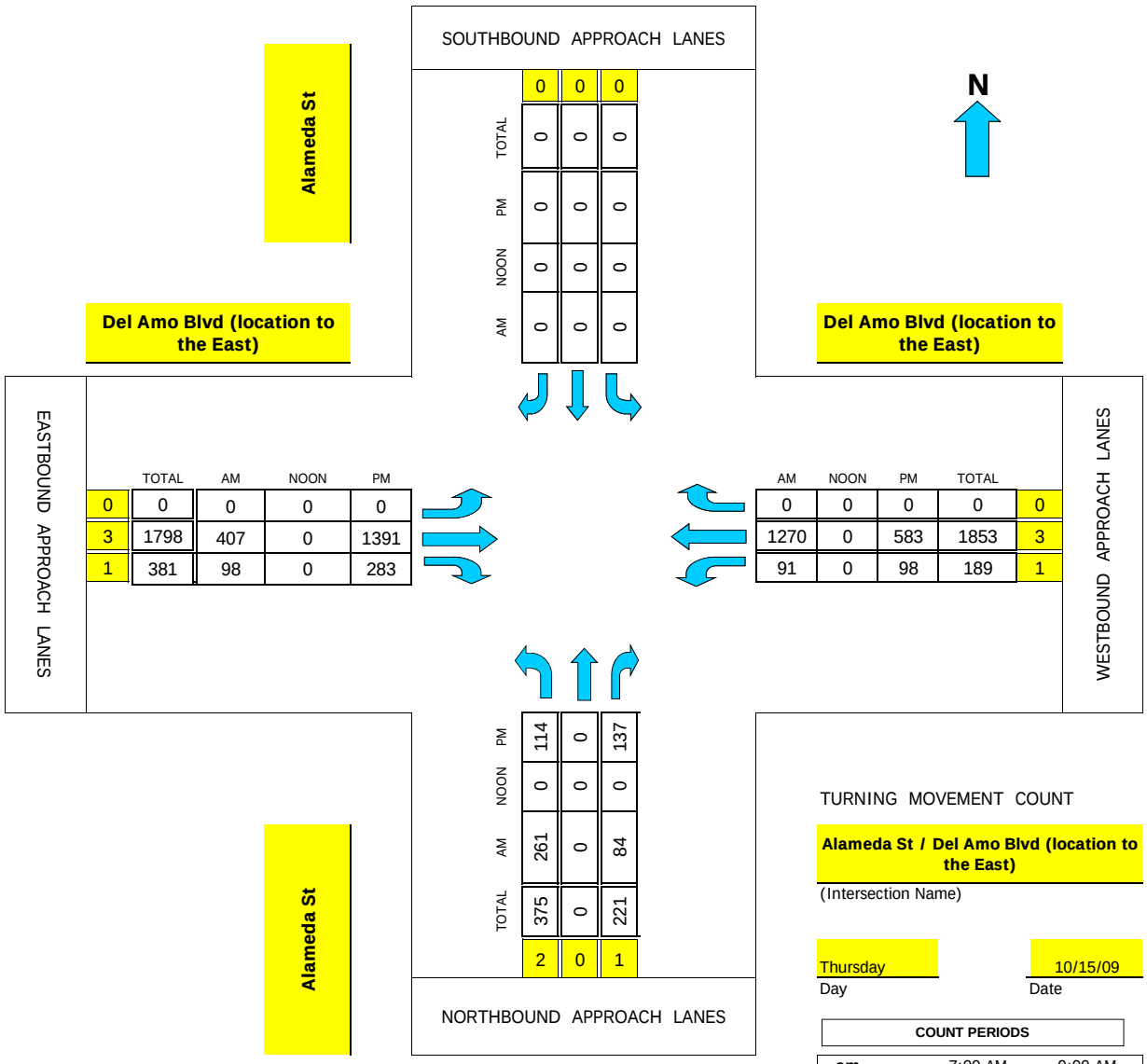
Intersection Turning Movement

Prepared by:

National Data & Surveying Services

TMC Summary of Alameda St/Del Amo Blvd (location to the East)

Project #: 09-5328-014



TURNING MOVEMENT COUNT

Alameda St / Del Amo Blvd (location to the East)

(Intersection Name)

Thursday — Day

10/15/09 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: Signalized

AM PEAK HOUR	715 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	430 PM

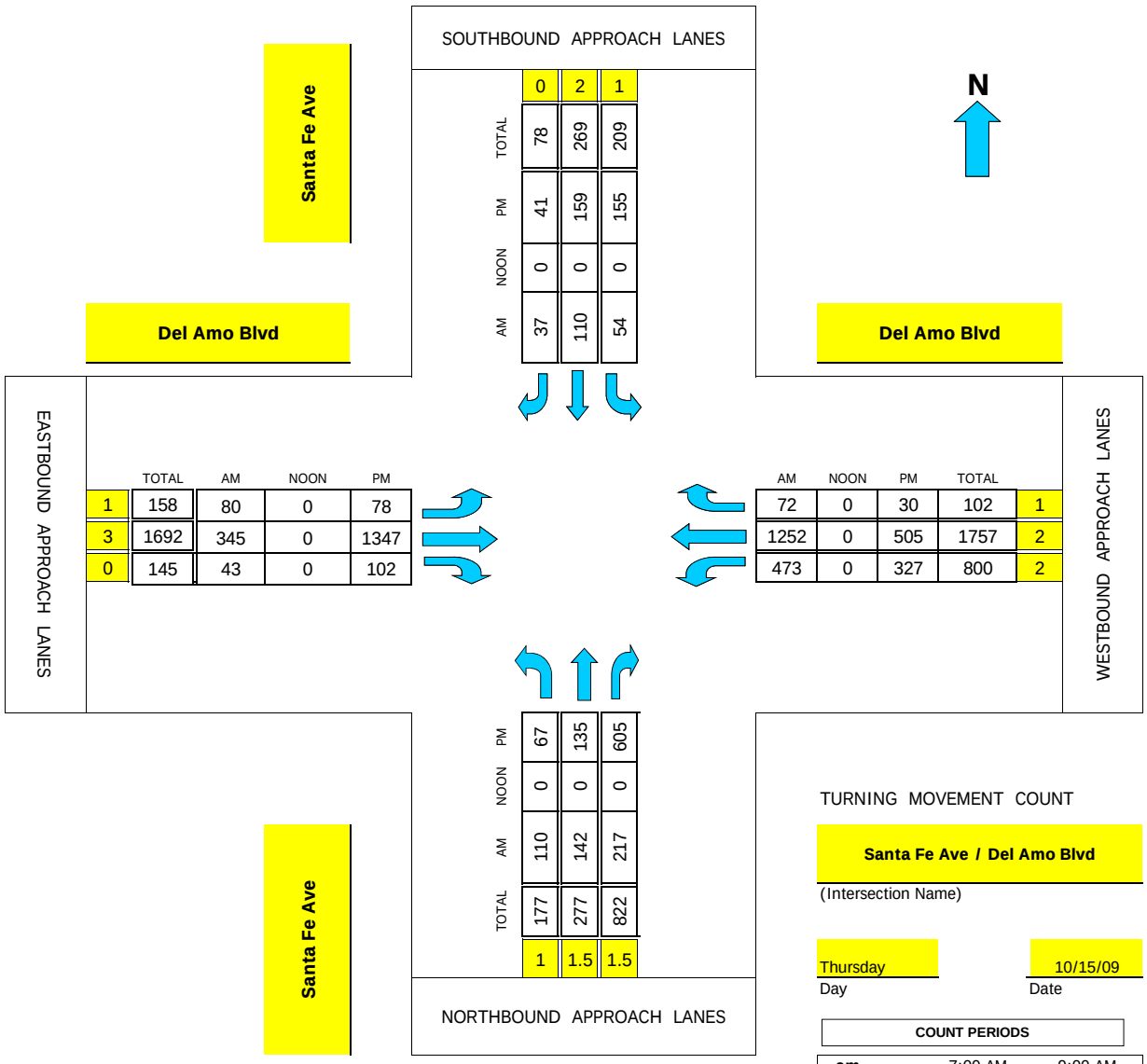
Intersection Turning Movement

Prepared by:

National Data & Surveying Services

TMC Summary of Santa Fe Ave / Del Amo Blvd

Project #: 09-5328-005



TURNING MOVEMENT COUNT

Santa Fe Ave / Del Amo Blvd

(Intersection Name)

Thursday — Day

10/15/09 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: Signalized

AM PEAK HOUR	715 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	430 PM

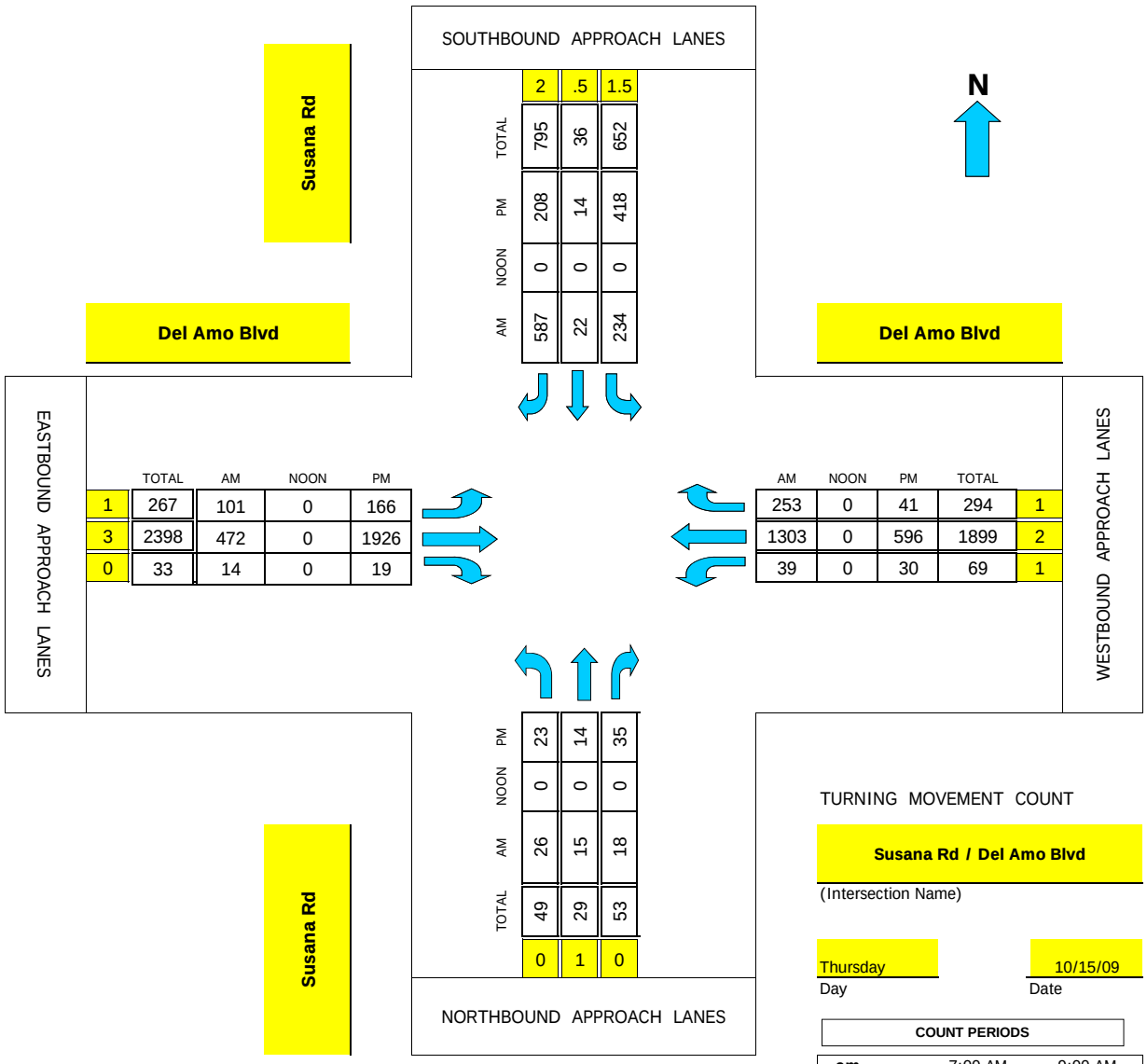
Intersection Turning Movement

Prepared by:

National Data & Surveying Services

TMC Summary of Susana Rd/Del Amo Blvd

Project #: 09-5328-006



TURNING MOVEMENT COUNT

Susana Rd / Del Amo Blvd

(Intersection Name)

Thursday — Day

10/15/09 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: Signalized

AM PEAK HOUR	715 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	430 PM

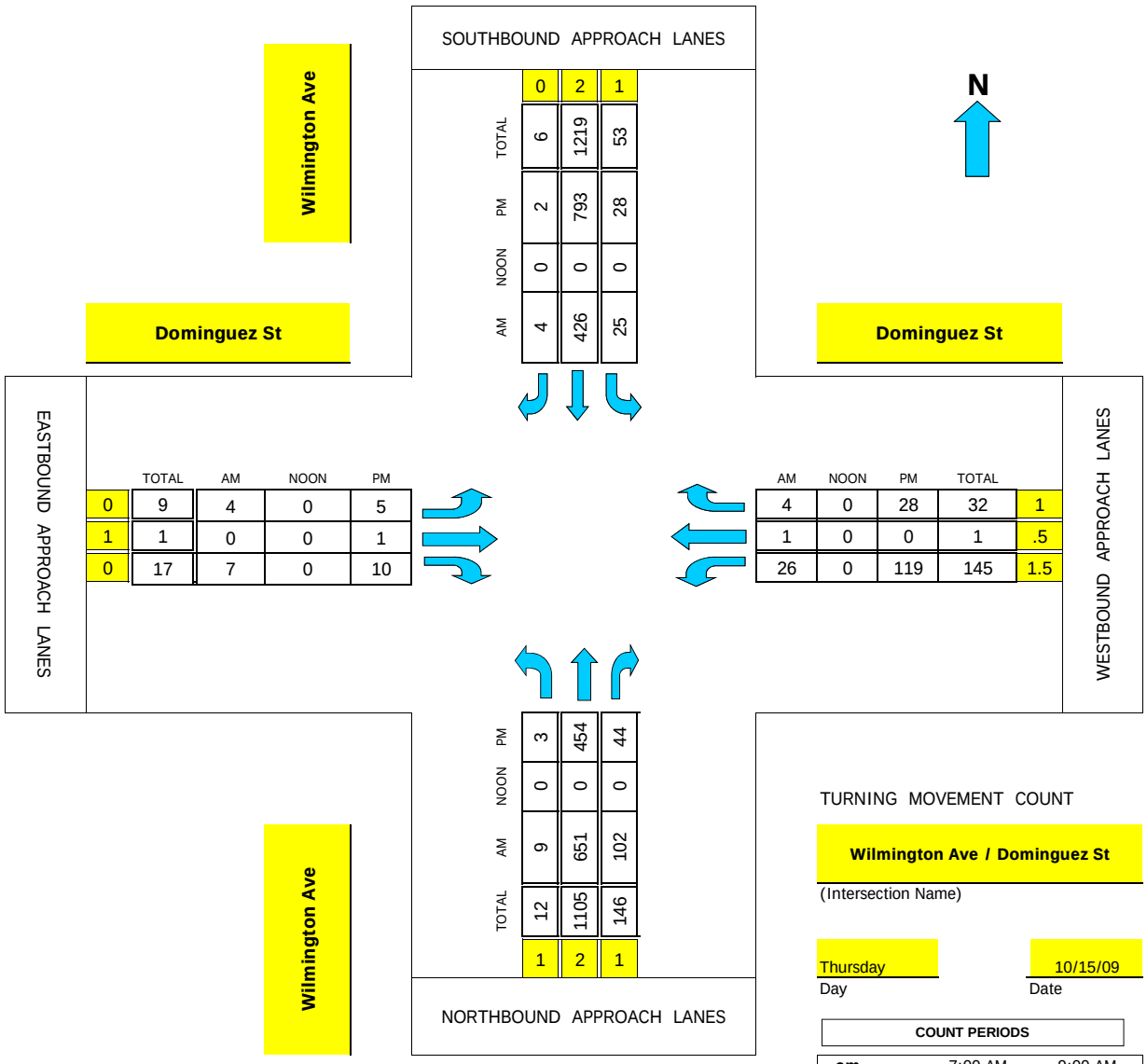
Intersection Turning Movement

Prepared by:

National Data & Surveying Services

TMC Summary of Wilmington Ave / Dominguez St

Project #: 09-5328-007



TURNING MOVEMENT COUNT

Wilmington Ave / Dominguez St

(Intersection Name)

Thursday — Day

10/15/09 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: Signalized

AM PEAK HOUR	730 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	500 PM

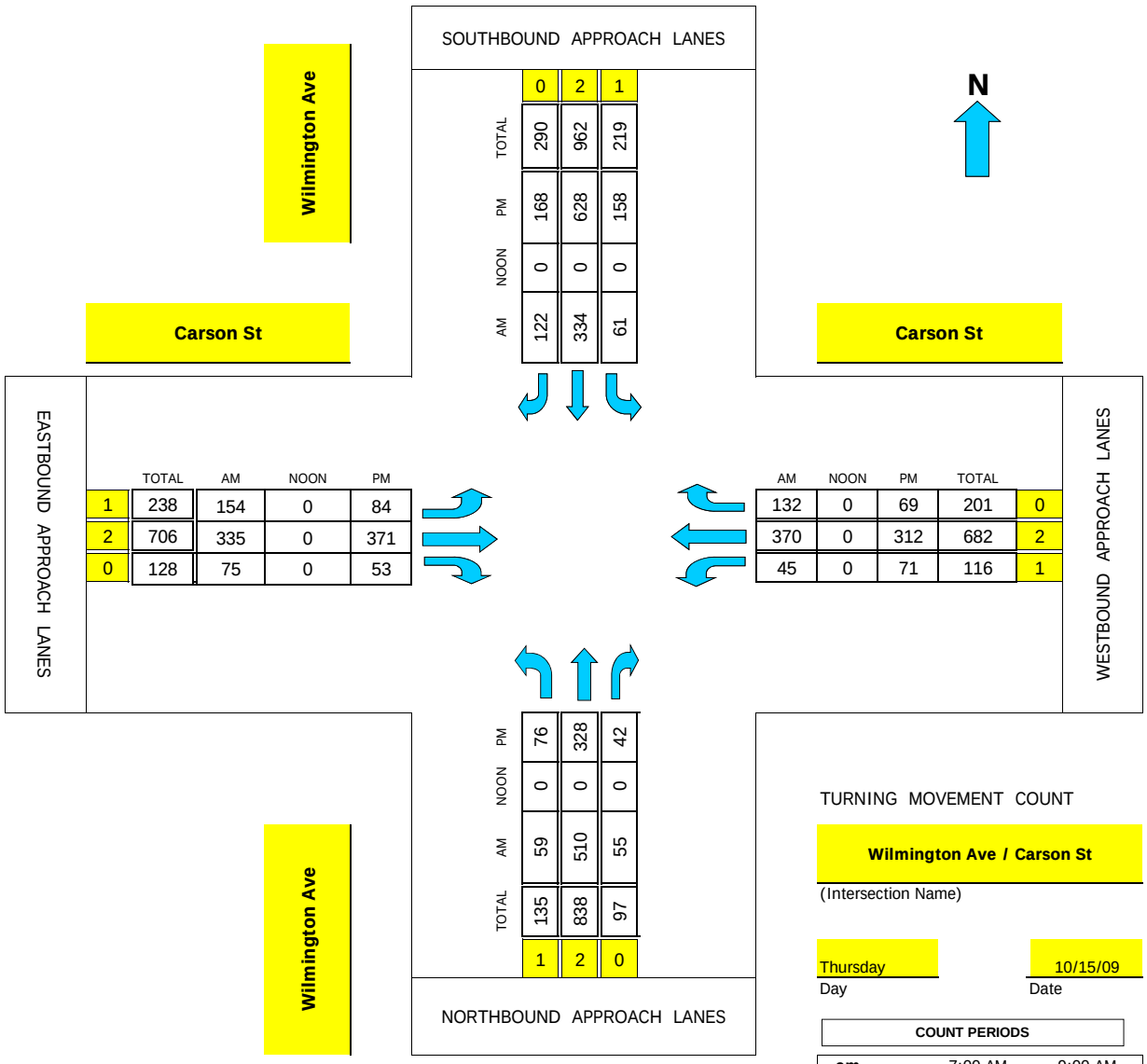
Intersection Turning Movement

Prepared by:

National Data & Surveying Services

TMC Summary of Wilmington Ave/Carson St

Project #: 09-5328-011



TURNING MOVEMENT COUNT

Wilmington Ave / Carson St

(Intersection Name)

Thursday — Day

10/15/09 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: Signalized

AM PEAK HOUR	715 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	445 PM

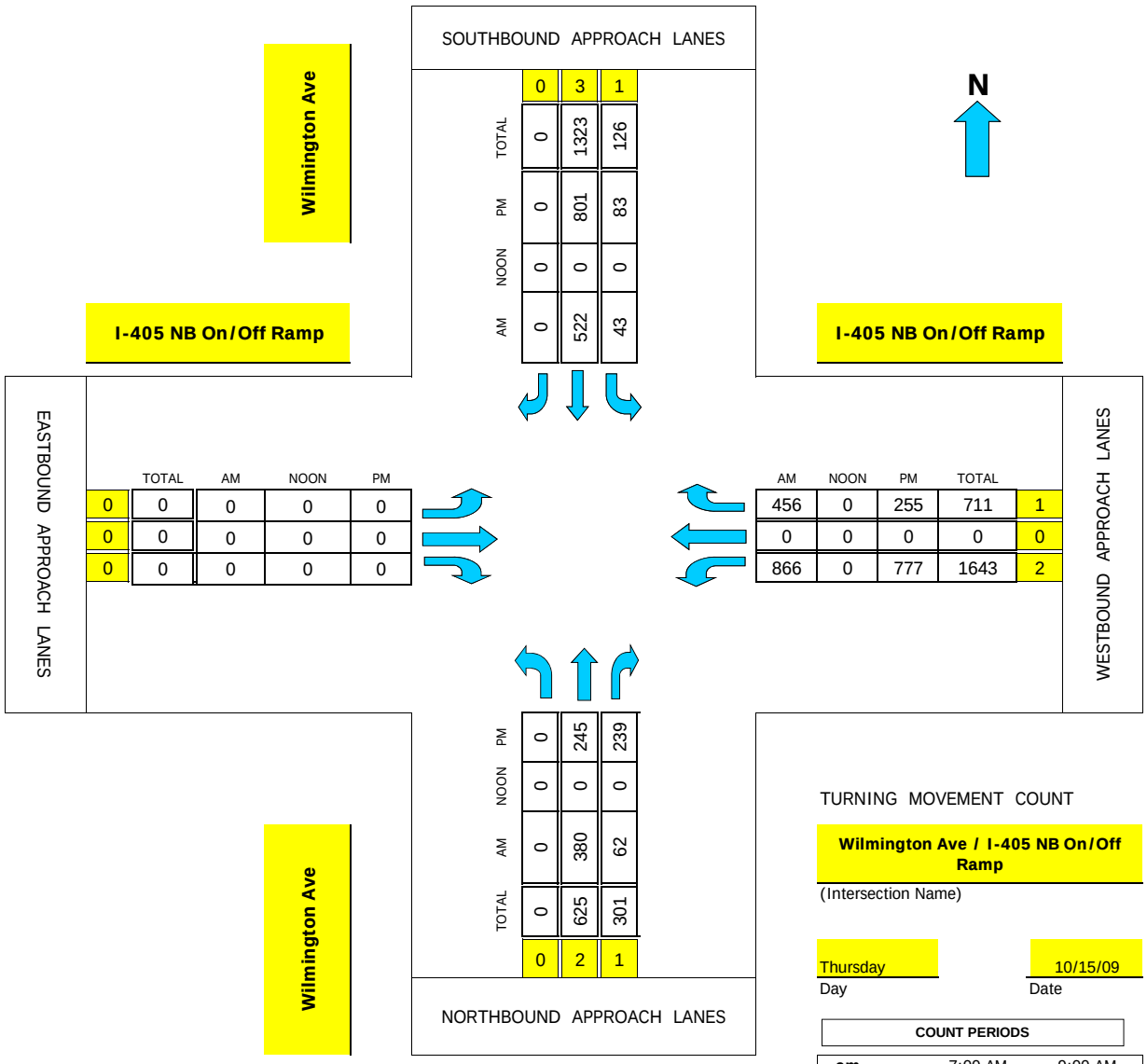
Intersection Turning Movement

Prepared by:

National Data & Surveying Services

TMC Summary of Wilmington Ave / I-405 NB On/Off Ramp

Project #: 09-5328-012



	TOTAL	AM	NOON	PM	
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

	AM	NOON	PM	TOTAL	
	456	0	255	711	1
	0	0	0	0	0
	866	0	777	1643	2

TOTAL	0	1323	126
PM	0	801	83
NOON	0	0	0
AM	0	522	43

	0	3	1

PM	0	245	239
NOON	0	0	0
AM	0	380	62
TOTAL	0	625	301

	0	2	1

TURNING MOVEMENT COUNT

Wilmington Ave / I-405 NB On/Off Ramp

(Intersection Name)

Thursday — Day

10/15/09 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: Signalized

AM PEAK HOUR	715 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	445 PM

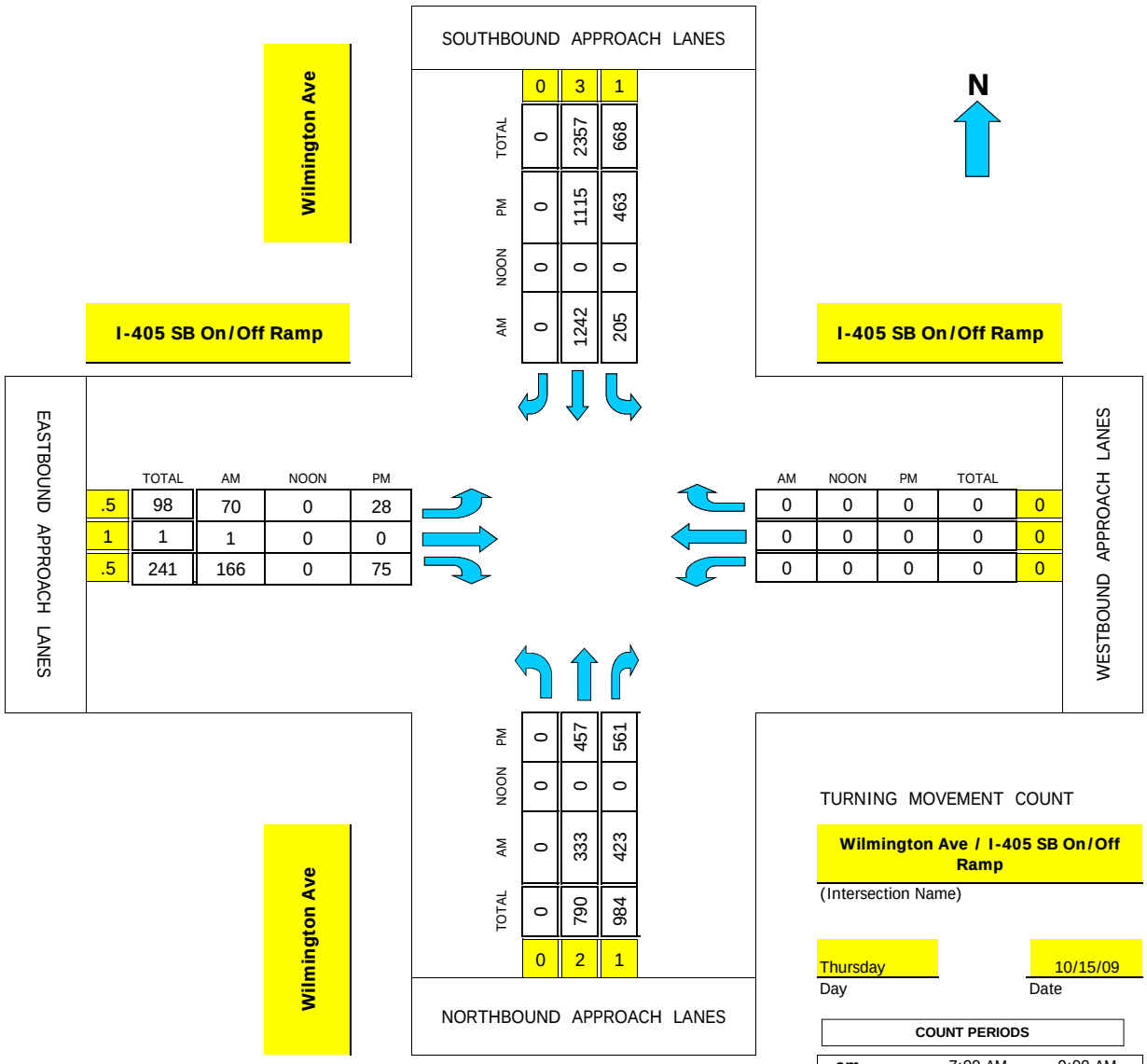
Intersection Turning Movement

Prepared by:

National Data & Surveying Services

TMC Summary of Wilmington Ave / I-405 SB On/Off Ramp

Project #: 09-5328-013



TURNING MOVEMENT COUNT

Wilmington Ave / I-405 SB On/Off Ramp

(Intersection Name)

Thursday — Day

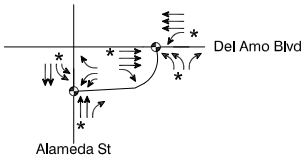
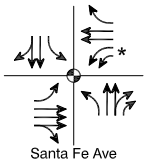
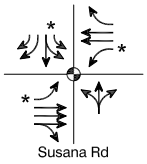
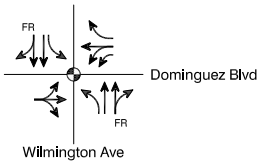
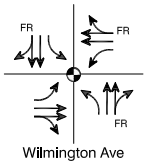
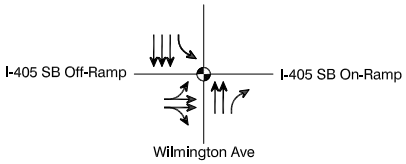
10/15/09 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: Signalized

AM PEAK HOUR	700 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	445 PM

APPENDIX B:
INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE PLUS PROJECT CONDITIONS
1. Wilmington Ave & Del Amo Blvd		Same As Existing Conditions
2. Alameda St & Del Amo Blvd (location to the West) & Alameda St & Del Amo Blvd (location to the East)		Same As Existing Conditions
3. Santa Fe Ave & Del Amo Blvd		Same As Existing Conditions
4. Susana Rd & Del Amo Blvd		Same As Existing Conditions
5. Wilmington Blvd & Dominguez Blvd		Same As Existing Conditions
6. Wilmington Ave & Carson St		Same As Existing Conditions
7. Wilmington Ave & I-405 NB On/Off Ramp		Same As Existing Conditions
8. Wilmington Ave & I-405 SB On/Off Ramp		Same As Existing Conditions

LEGEND
- Traffic Signal
- * No U-turn
- FR Functional Right-turn Lane

FEHR & PEERS
TRANSPORTATION CONSULTANTS

INTERSECTION LANE CONFIGURATIONS

Jul 29, 2010 FPA
\\fpla1\data\Jobs\Active\2400s\2410 – Shell E10\Graphics\ACAD\2410_LaneConfigs.dwg

APPENDIX C:
INTERSECTION LEVEL OF SERVICE WORKSHEETS

EXISTING

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **1. WILMINGTON AVE & DEL AMO BLVD**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	77	0	0.000	N-S(1):	0.189 *
	TH	3.00	323	4,800	0.083	N-S(2):	0.136
	LT	2.00	119	2,560	0.046 *	E-W(1):	0.201
Westbound	RT	1.00	305	1,600	0.144	E-W(2):	0.338 *
	TH	2.00	759	3,200	0.237 *		
	LT	1.00	147	1,600	0.092	V/C:	0.527
Northbound	RT	0.00	97	0	0.000	Lost Time:	0.100
	TH	3.00	591	4,800	0.143 *	ITS:	0.000
	LT	1.00	85	1,600	0.053		
Eastbound	RT	0.00	128	0	0.000	ICU:	0.627
	TH	3.00	393	4,800	0.109		
	LT	1.00	162	1,600	0.101 *	LOS:	B

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	172	0	0.000	N-S(1):	0.223
	TH	3.00	623	4,800	0.166 *	N-S(2):	0.229 *
	LT	2.00	275	2,560	0.107	E-W(1):	0.283 *
Westbound	RT	1.00	155	1,600	0.000	E-W(2):	0.216
	TH	2.00	448	3,200	0.140		
	LT	1.00	123	1,600	0.077 *	V/C:	0.512
Northbound	RT	0.00	125	0	0.000	Lost Time:	0.100
	TH	3.00	434	4,800	0.116	ITS:	0.000
	LT	1.00	101	1,600	0.063 *		
Eastbound	RT	0.00	153	0	0.000	ICU:	0.612
	TH	3.00	835	4,800	0.206 *		
	LT	1.00	121	1,600	0.076	LOS:	B

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **2. ALAMEDA ST & DEL AMO BLVD (LOCATION TO THE EAST)**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	EBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.114 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.00	0	0	0.000 *	E-W(1):	0.199
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.286 *
	TH	3.00	1,375	4,800	0.286 *		
	LT	1.00	130	1,600	0.081	V/C:	0.400
Northbound	RT	1.00	101	1,600	0.023	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	292	2,560	0.114 *		
Eastbound	RT	1.00	189	1,600	0.118	ICU:	0.500
	TH	3.00	489	4,800	0.102		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.075 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.00	0	0	0.000 *	E-W(1):	0.392 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.138
	TH	3.00	661	4,800	0.138		
	LT	1.00	140	1,600	0.088 *	V/C:	0.467
Northbound	RT	1.00	190	1,600	0.075 *	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	134	2,560	0.052		
Eastbound	RT	1.00	343	1,600	0.214	ICU:	0.567
	TH	3.00	1,458	4,800	0.304 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **2. ALAMEDA ST & DEL AMO BLVD (LOCATION TO THE WEST)**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.217 *
	TH	2.00	612	3,200	0.191	N-S(2):	0.191
	LT	2.00	163	2,560	0.064 *	E-W(1):	0.069 *
Westbound	RT	1.00	117	1,600	0.009	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	177	2,560	0.069 *	V/C:	0.286
Northbound	RT	1.00	236	1,600	0.148	Lost Time:	0.100
	TH	2.00	491	3,200	0.153 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.386
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:15-5:15)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.268 *
	TH	2.00	575	3,200	0.180	N-S(2):	0.180
	LT	2.00	103	2,560	0.040 *	E-W(1):	0.100 *
Westbound	RT	1.00	219	1,600	0.097	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	255	2,560	0.100 *	V/C:	0.368
Northbound	RT	1.00	228	1,600	0.143	Lost Time:	0.100
	TH	2.00	731	3,200	0.228 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.468
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **3. SANTA FE AVE & DEL AMO BLVD**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	64	0	0.000	N-S(1):	0.131
	TH	2.00	153	3,200	0.068 *	N-S(2):	0.155 *
	LT	1.00	69	1,600	0.043	E-W(1):	0.300
Westbound	RT	1.00	82	1,600	0.030	E-W(2):	0.467 *
	TH	2.00	1,320	3,200	0.413 *		
	LT	2.00	513	2,560	0.200	V/C:	0.622
Northbound	RT	1.78	251	2,848	0.000	Lost Time:	0.100
	TH	1.22	172	1,952	0.088	ITS:	0.000
	LT	1.00	139	1,600	0.087 *		
Eastbound	RT	0.00	79	0	0.000	ICU:	0.722
	TH	3.00	402	4,800	0.100		
	LT	1.00	87	1,600	0.054 *	LOS:	C

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	79	0	0.000	N-S(1):	0.212 *
	TH	2.00	171	3,200	0.078	N-S(2):	0.136
	LT	1.00	180	1,600	0.113 *	E-W(1):	0.461 *
Westbound	RT	1.00	56	1,600	0.000	E-W(2):	0.244
	TH	2.00	594	3,200	0.186		
	LT	2.00	371	2,560	0.145 *	V/C:	0.673
Northbound	RT	2.00	677	3,200	0.067	Lost Time:	0.100
	TH	1.00	158	1,600	0.099 *	ITS:	0.000
	LT	1.00	92	1,600	0.058		
Eastbound	RT	0.00	123	0	0.000	ICU:	0.773
	TH	3.00	1,392	4,800	0.316 *		
	LT	1.00	93	1,600	0.058	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **4. SUSANA RD & DEL AMO BLVD**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR, SBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	758	3,200	0.119 *	N-S(1):	0.170 *
	TH	0.22	32	354	0.090	N-S(2):	0.000
	LT	1.78	257	2,277	0.113	E-W(1):	0.147
Westbound	RT	1.00	274	1,600	0.058	E-W(2):	0.534 *
	TH	2.00	1,330	3,200	0.416 *		
	LT	1.00	45	1,600	0.028	V/C:	0.704
Northbound	RT	0.00	29	0	0.000	Lost Time:	0.100
	TH	1.00	19	1,600	0.051 *	ITS:	0.000
	LT	0.00	34	1,600	0.021		
Eastbound	RT	0.00	16	0	0.000	ICU:	0.804
	TH	3.00	556	4,800	0.119		
	LT	1.00	188	1,600	0.118 *	LOS:	D

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	311	3,200	0.000	N-S(1):	0.221 *
	TH	0.06	14	101	0.138	N-S(2):	0.000
	LT	1.94	429	2,479	0.173 *	E-W(1):	0.444 *
Westbound	RT	1.00	70	1,600	0.000	E-W(2):	0.358
	TH	2.00	679	3,200	0.212		
	LT	1.00	31	1,600	0.019 *	V/C:	0.665
Northbound	RT	0.00	35	0	0.000	Lost Time:	0.100
	TH	1.00	14	1,600	0.048 *	ITS:	0.000
	LT	0.00	28	1,600	0.018		
Eastbound	RT	0.00	21	0	0.000	ICU:	0.765
	TH	3.00	2,020	4,800	0.425 *		
	LT	1.00	234	1,600	0.146	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **5. WILMINGTON AVE & DOMINGUEZ ST**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	15	1,600	0.004	N-S(1):	0.260 *
	TH	2.00	536	3,200	0.168	N-S(2):	0.174
	LT	1.00	35	1,600	0.022 *	E-W(1):	0.035 *
Westbound	RT	1.00	15	1,600	0.000	E-W(2):	0.000
	TH	0.04	1	71	0.014		
	LT	1.96	44	2,503	0.018 *	V/C:	0.295
Northbound	RT	1.00	117	1,600	0.064	Lost Time:	0.100
	TH	2.00	762	3,200	0.238 *	ITS:	0.000
	LT	1.00	9	1,600	0.006		
Eastbound	RT	0.00	11	0	0.000	ICU:	0.395
	TH	1.00	0	1,600	0.017 *		
	LT	0.00	16	1,600	0.010	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	3	1,600	0.000	N-S(1):	0.193
	TH	2.00	938	3,200	0.293 *	N-S(2):	0.296 *
	LT	1.00	24	1,600	0.015	E-W(1):	0.077 *
Westbound	RT	1.00	44	1,600	0.020	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	162	2,560	0.063 *	V/C:	0.373
Northbound	RT	1.00	59	1,600	0.005	Lost Time:	0.100
	TH	2.00	568	3,200	0.178	ITS:	0.000
	LT	1.00	4	1,600	0.003 *		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.473
	TH	1.00	1	1,600	0.014 *		
	LT	0.00	12	1,600	0.008	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **6. WILMINGTON AVE & CARSON ST**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	130	1,600	0.026	N-S(1):	0.257 *
	TH	2.00	436	3,200	0.136	N-S(2):	0.179
	LT	1.00	99	1,600	0.062 *	E-W(1):	0.170
Westbound	RT	1.00	130	1,600	0.050	E-W(2):	0.220 *
	TH	2.00	353	3,200	0.110 *		
	LT	1.00	59	1,600	0.037	V/C:	0.477
Northbound	RT	1.00	110	1,600	0.050	Lost Time:	0.100
	TH	2.00	625	3,200	0.195 *	ITS:	0.000
	LT	1.00	68	1,600	0.043		
Eastbound	RT	0.00	76	0	0.000	ICU:	0.577
	TH	2.00	349	3,200	0.133		
	LT	1.00	176	1,600	0.110 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	176	1,600	0.077	N-S(1):	0.246
	TH	2.00	726	3,200	0.227 *	N-S(2):	0.275 *
	LT	1.00	176	1,600	0.110	E-W(1):	0.196 *
Westbound	RT	1.00	95	1,600	0.004	E-W(2):	0.171
	TH	2.00	337	3,200	0.105		
	LT	1.00	94	1,600	0.059 *	V/C:	0.471
Northbound	RT	1.00	73	1,600	0.016	Lost Time:	0.100
	TH	2.00	435	3,200	0.136	ITS:	0.000
	LT	1.00	77	1,600	0.048 *		
Eastbound	RT	0.00	54	0	0.000	ICU:	0.571
	TH	2.00	385	3,200	0.137 *		
	LT	1.00	105	1,600	0.066	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **7. WILMINGTON AVE & I-405 NB ON/OFF RAMPS**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.170 *
	TH	3.00	650	4,800	0.135	N-S(2):	0.135
	LT	1.00	53	1,600	0.033 *	E-W(1):	0.395 *
Westbound	RT	1.00	529	1,600	0.314	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	1,010	2,560	0.395 *	V/C:	0.565
Northbound	RT	1.00	80	1,600	0.050	Lost Time:	0.100
	TH	2.00	437	3,200	0.137 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.665
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.237 *
	TH	3.00	930	4,800	0.194	N-S(2):	0.194
	LT	1.00	102	1,600	0.064 *	E-W(1):	0.357 *
Westbound	RT	1.00	333	1,600	0.176	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	915	2,560	0.357 *	V/C:	0.594
Northbound	RT	1.00	276	1,600	0.173 *	Lost Time:	0.100
	TH	2.00	355	3,200	0.111	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.694
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **8. WILMINGTON AVE & I-405 SB ON/OFF RAMPS**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:00-8:00)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.546 *
	TH	3.00	1,438	4,800	0.300	N-S(2):	0.300
	LT	1.00	275	1,600	0.172 *	E-W(1):	0.121 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.667
Northbound	RT	1.00	599	1,600	0.374 *	Lost Time:	0.100
	TH	2.00	394	3,200	0.123	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	193	1,600	0.121 *	ICU:	0.767
	TH	2.00	1	1,600	0.052		
	LT	0.00	82	1,600	0.051	LOS:	C

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.746 *
	TH	3.00	1,344	4,800	0.280	N-S(2):	0.280
	LT	1.00	522	1,600	0.326 *	E-W(1):	0.065 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.811
Northbound	RT	1.00	672	1,600	0.420 *	Lost Time:	0.100
	TH	2.00	547	3,200	0.171	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	104	1,600	0.065 *	ICU:	0.911
	TH	2.00	0	1,600	0.031		
	LT	0.00	50	1,600	0.031	LOS:	E

* - Denotes critical movement

EXISTING PLUS CONSTRUCTION

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **1. WILMINGTON AVE & DEL AMO BLVD**
Description: **FUTURE WITH PROJECT CONSTRUCTION CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	77	0	0.000	N-S(1):	0.191 *
	TH	3.00	333	4,800	0.085	N-S(2):	0.138
	LT	2.00	119	2,560	0.046 *	E-W(1):	0.224
Westbound	RT	1.00	305	1,600	0.144	E-W(2):	0.338 *
	TH	2.00	759	3,200	0.237 *		
	LT	1.00	174	1,600	0.109	V/C:	0.529
Northbound	RT	0.00	105	0	0.000	Lost Time:	0.100
	TH	3.00	591	4,800	0.145 *	ITS:	0.000
	LT	1.00	85	1,600	0.053		
Eastbound	RT	0.00	157	0	0.000	ICU:	0.629
	TH	3.00	393	4,800	0.115		
	LT	1.00	162	1,600	0.101 *	LOS:	B

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	172	0	0.000	N-S(1):	0.231
	TH	3.00	623	4,800	0.166 *	N-S(2):	0.247 *
	LT	2.00	275	2,560	0.107	E-W(1):	0.288 *
Westbound	RT	1.00	155	1,600	0.000	E-W(2):	0.216
	TH	2.00	448	3,200	0.140		
	LT	1.00	131	1,600	0.082 *	V/C:	0.535
Northbound	RT	0.00	152	0	0.000	Lost Time:	0.100
	TH	3.00	444	4,800	0.124	ITS:	0.000
	LT	1.00	130	1,600	0.081 *		
Eastbound	RT	0.00	153	0	0.000	ICU:	0.635
	TH	3.00	835	4,800	0.206 *		
	LT	1.00	121	1,600	0.076	LOS:	B

* - Denotes critical movement

Project Title: SHELL CARSON E10 PROJECT
Intersection: 2. ALAMEDA ST & DEL AMO BLVD (LOCATION TO THE EAST)
Description: FUTURE WITH PROJECT CONSTRUCTION CONDITIONS

Date/Time: AM PEAK HOUR (7:15-8:15)

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	EBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.119 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.00	0	0	0.000 *	E-W(1):	0.202
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.289 *
	TH	3.00	1,389	4,800	0.289 *		
	LT	1.00	130	1,600	0.081	V/C:	0.408
Northbound	RT	1.00	101	1,600	0.023	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	305	2,560	0.119 *		
Eastbound	RT	1.00	193	1,600	0.121	ICU:	0.508
	TH	3.00	493	4,800	0.103		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR (4:30-5:30)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.075 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.00	0	0	0.000 *	E-W(1):	0.394 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.139
	TH	3.00	665	4,800	0.139		
	LT	1.00	140	1,600	0.088 *	V/C:	0.469
Northbound	RT	1.00	190	1,600	0.075 *	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	137	2,560	0.054		
Eastbound	RT	1.00	357	1,600	0.223	ICU:	0.569
	TH	3.00	1,471	4,800	0.306 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **2. ALAMEDA ST & DEL AMO BLVD (LOCATION TO THE WEST)**
Description: **FUTURE WITH PROJECT CONSTRUCTION CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.221 *
	TH	2.00	612	3,200	0.191	N-S(2):	0.191
	LT	2.00	173	2,560	0.068 *	E-W(1):	0.071 *
Westbound	RT	1.00	117	1,600	0.006	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	181	2,560	0.071 *	V/C:	0.292
Northbound	RT	1.00	239	1,600	0.149	Lost Time:	0.100
	TH	2.00	491	3,200	0.153 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.392
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:15-5:15)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.268 *
	TH	2.00	575	3,200	0.180	N-S(2):	0.180
	LT	2.00	103	2,560	0.040 *	E-W(1):	0.103 *
Westbound	RT	1.00	229	1,600	0.103 *	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	259	2,560	0.101	V/C:	0.371
Northbound	RT	1.00	231	1,600	0.144	Lost Time:	0.100
	TH	2.00	731	3,200	0.228 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.471
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **3. SANTA FE AVE & DEL AMO BLVD**
Description: **FUTURE WITH PROJECT CONSTRUCTION CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	64	0	0.000	N-S(1):	0.131
	TH	2.00	153	3,200	0.068 *	N-S(2):	0.155 *
	LT	1.00	69	1,600	0.043	E-W(1):	0.301
Westbound	RT	1.00	82	1,600	0.030	E-W(2):	0.471 *
	TH	2.00	1,334	3,200	0.417 *		
	LT	2.00	513	2,560	0.200	V/C:	0.626
Northbound	RT	1.78	251	2,848	0.000	Lost Time:	0.100
	TH	1.22	172	1,952	0.088	ITS:	0.000
	LT	1.00	139	1,600	0.087 *		
Eastbound	RT	0.00	79	0	0.000	ICU:	0.726
	TH	3.00	406	4,800	0.101		
	LT	1.00	87	1,600	0.054 *	LOS:	C

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	79	0	0.000	N-S(1):	0.212 *
	TH	2.00	171	3,200	0.078	N-S(2):	0.136
	LT	1.00	180	1,600	0.113 *	E-W(1):	0.463 *
Westbound	RT	1.00	56	1,600	0.000	E-W(2):	0.245
	TH	2.00	598	3,200	0.187		
	LT	2.00	371	2,560	0.145 *	V/C:	0.675
Northbound	RT	2.00	677	3,200	0.067	Lost Time:	0.100
	TH	1.00	158	1,600	0.099 *	ITS:	0.000
	LT	1.00	92	1,600	0.058		
Eastbound	RT	0.00	123	0	0.000	ICU:	0.775
	TH	3.00	1,405	4,800	0.318 *		
	LT	1.00	93	1,600	0.058	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **4. SUSANA RD & DEL AMO BLVD**
Description: **FUTURE WITH PROJECT CONSTRUCTION CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR, SBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	762	3,200	0.121 *	N-S(1):	0.172 *
	TH	0.22	32	354	0.090	N-S(2):	0.000
	LT	1.78	257	2,277	0.113	E-W(1):	0.148
Westbound	RT	1.00	274	1,600	0.058	E-W(2):	0.537 *
	TH	2.00	1,340	3,200	0.419 *		
	LT	1.00	45	1,600	0.028	V/C:	0.709
Northbound	RT	0.00	29	0	0.000	Lost Time:	0.100
	TH	1.00	19	1,600	0.051 *	ITS:	0.000
	LT	0.00	34	1,600	0.021		
Eastbound	RT	0.00	16	0	0.000	ICU:	0.809
	TH	3.00	560	4,800	0.120		
	LT	1.00	188	1,600	0.118 *	LOS:	D

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	315	3,200	0.000	N-S(1):	0.221 *
	TH	0.06	14	101	0.138	N-S(2):	0.000
	LT	1.94	429	2,479	0.173 *	E-W(1):	0.447 *
Westbound	RT	1.00	70	1,600	0.000	E-W(2):	0.358
	TH	2.00	679	3,200	0.212		
	LT	1.00	31	1,600	0.019 *	V/C:	0.668
Northbound	RT	0.00	35	0	0.000	Lost Time:	0.100
	TH	1.00	14	1,600	0.048 *	ITS:	0.000
	LT	0.00	28	1,600	0.018		
Eastbound	RT	0.00	21	0	0.000	ICU:	0.768
	TH	3.00	2,033	4,800	0.428 *		
	LT	1.00	234	1,600	0.146	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **5. WILMINGTON AVE & DOMINGUEZ ST**
Description: **FUTURE WITH PROJECT CONSTRUCTION CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	81	1,600	0.043	N-S(1):	0.260
	TH	2.00	536	3,200	0.168 *	N-S(2):	0.272 *
	LT	1.00	35	1,600	0.022	E-W(1):	0.052 *
Westbound	RT	1.00	15	1,600	0.000	E-W(2):	0.000
	TH	0.04	1	71	0.014		
	LT	1.96	44	2,503	0.018 *	V/C:	0.324
Northbound	RT	1.00	117	1,600	0.064	Lost Time:	0.100
	TH	2.00	762	3,200	0.238	ITS:	0.000
	LT	1.00	166	1,600	0.104 *		
Eastbound	RT	0.00	31	0	0.000	ICU:	0.424
	TH	1.00	0	1,600	0.034 *		
	LT	0.00	24	1,600	0.015	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	11	1,600	0.000	N-S(1):	0.193
	TH	2.00	938	3,200	0.293 *	N-S(2):	0.308 *
	LT	1.00	24	1,600	0.015	E-W(1):	0.217 *
Westbound	RT	1.00	44	1,600	0.020	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	162	2,560	0.063 *	V/C:	0.525
Northbound	RT	1.00	59	1,600	0.005	Lost Time:	0.100
	TH	2.00	568	3,200	0.178	ITS:	0.000
	LT	1.00	24	1,600	0.015 *		
Eastbound	RT	0.00	167	0	0.000	ICU:	0.625
	TH	1.00	1	1,600	0.154 *		
	LT	0.00	78	1,600	0.049	LOS:	B

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **6. WILMINGTON AVE & CARSON ST**
Description: **FUTURE WITH PROJECT CONSTRUCTION CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	138	1,600	0.013	N-S(1):	0.280 *
	TH	2.00	448	3,200	0.140	N-S(2):	0.183
	LT	1.00	99	1,600	0.062 *	E-W(1):	0.170
Westbound	RT	1.00	150	1,600	0.063	E-W(2):	0.256 *
	TH	2.00	353	3,200	0.110 *		
	LT	1.00	59	1,600	0.037	V/C:	0.536
Northbound	RT	1.00	110	1,600	0.050	Lost Time:	0.100
	TH	2.00	696	3,200	0.218 *	ITS:	0.000
	LT	1.00	68	1,600	0.043		
Eastbound	RT	0.00	76	0	0.000	ICU:	0.636
	TH	2.00	349	3,200	0.133		
	LT	1.00	233	1,600	0.146 *	LOS:	B

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	233	1,600	0.110	N-S(1):	0.263
	TH	2.00	797	3,200	0.249 *	N-S(2):	0.297 *
	LT	1.00	196	1,600	0.123	E-W(1):	0.196 *
Westbound	RT	1.00	95	1,600	0.000	E-W(2):	0.176
	TH	2.00	337	3,200	0.105		
	LT	1.00	94	1,600	0.059 *	V/C:	0.493
Northbound	RT	1.00	73	1,600	0.016	Lost Time:	0.100
	TH	2.00	447	3,200	0.140	ITS:	0.000
	LT	1.00	77	1,600	0.048 *		
Eastbound	RT	0.00	54	0	0.000	ICU:	0.593
	TH	2.00	385	3,200	0.137 *		
	LT	1.00	113	1,600	0.071	LOS:	A

* - Denotes critical movement

Project Title: SHELL CARSON E10 PROJECT
Intersection: 7. WILMINGTON AVE & I-405 NB ON/OFF RAMPS
Description: FUTURE WITH PROJECT CONSTRUCTION CONDITIONS

Date/Time: AM PEAK HOUR (7:15-8:15)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.173 *
	TH	3.00	662	4,800	0.138	N-S(2):	0.138
	LT	1.00	53	1,600	0.033 *	E-W(1):	0.395 *
Westbound	RT	1.00	590	1,600	0.352	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	1,010	2,560	0.395 *	V/C:	0.568
Northbound	RT	1.00	80	1,600	0.050	Lost Time:	0.100
	TH	2.00	447	3,200	0.140 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.668
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

Date/Time: PM PEAK HOUR (4:30-5:30)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.237 *
	TH	3.00	1,001	4,800	0.209	N-S(2):	0.209
	LT	1.00	102	1,600	0.064 *	E-W(1):	0.357 *
Westbound	RT	1.00	345	1,600	0.184	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	915	2,560	0.357 *	V/C:	0.594
Northbound	RT	1.00	276	1,600	0.173 *	Lost Time:	0.100
	TH	2.00	355	3,200	0.111	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.694
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

* - Denotes critical movement

Project Title: SHELL CARSON E10 PROJECT
Intersection: 8. WILMINGTON AVE & I-405 SB ON/OFF RAMPS
Description: FUTURE WITH PROJECT CONSTRUCTION CONDITIONS

Date/Time: AM PEAK HOUR (7:00-8:00)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.553 *
	TH	3.00	1,438	4,800	0.300	N-S(2):	0.300
	LT	1.00	287	1,600	0.179 *	E-W(1):	0.121 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.674
Northbound	RT	1.00	599	1,600	0.374 *	Lost Time:	0.100
	TH	2.00	404	3,200	0.126	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	193	1,600	0.121 *	ICU:	0.774
	TH	2.00	1	1,600	0.052		
	LT	0.00	82	1,600	0.051	LOS:	C

Date/Time: PM PEAK HOUR (4:45-5:45)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.784 *
	TH	3.00	1,354	4,800	0.282	N-S(2):	0.282
	LT	1.00	583	1,600	0.364 *	E-W(1):	0.065 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.849
Northbound	RT	1.00	672	1,600	0.420 *	Lost Time:	0.100
	TH	2.00	547	3,200	0.171	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	104	1,600	0.065 *	ICU:	0.949
	TH	2.00	0	1,600	0.031		
	LT	0.00	50	1,600	0.031	LOS:	E

* - Denotes critical movement

EXISTING PLUS CONSTRUCTION PLUS MITIGATION

Project Title: SHELL CARSON E10 PROJECT
Intersection: 8. WILMINGTON AVE & I-405 SB ON/OFF RAMPS
Description: FUTURE WITH PROJECT CONSTRUCTION PLUS MIT CONDITIONS

Date/Time: AM PEAK HOUR (7:00-8:00)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.553 *
	TH	3.00	1,438	4,800	0.300	N-S(2):	0.300
	LT	1.00	287	1,600	0.179 *	E-W(1):	0.121 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.674
Northbound	RT	1.00	599	1,600	0.374 *	Lost Time:	0.100
	TH	2.00	404	3,200	0.126	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	193	1,600	0.121 *	ICU:	0.774
	TH	2.00	1	1,600	0.052		
	LT	0.00	82	1,600	0.051	LOS:	C

Date/Time: PM PEAK HOUR (4:45-5:45)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.754 *
	TH	3.00	1,354	4,800	0.282	N-S(2):	0.282
	LT	1.00	534	1,600	0.334 *	E-W(1):	0.065 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.819
Northbound	RT	1.00	672	1,600	0.420 *	Lost Time:	0.100
	TH	2.00	547	3,200	0.171	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	104	1,600	0.065 *	ICU:	0.919
	TH	2.00	0	1,600	0.031		
	LT	0.00	50	1,600	0.031	LOS:	E

* - Denotes critical movement

EXISTING PLUS PROJECT

Project Title: SHELL CARSON E10 PROJECT
Intersection: 1. WILMINGTON AVE & DEL AMO BLVD
Description: EXISTING PLUS PROJECT CONDITIONS

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	77	0	0.000	N-S(1):	0.192 *
	TH	3.00	323	4,800	0.083	N-S(2):	0.136
	LT	2.00	119	2,560	0.046 *	E-W(1):	0.208
Westbound	RT	1.00	305	1,600	0.144	E-W(2):	0.338 *
	TH	2.00	759	3,200	0.237 *		
	LT	1.00	159	1,600	0.099	V/C:	0.530
Northbound	RT	0.00	109	0	0.000	Lost Time:	0.100
	TH	3.00	591	4,800	0.146 *	ITS:	0.000
	LT	1.00	85	1,600	0.053		
Eastbound	RT	0.00	128	0	0.000	ICU:	0.630
	TH	3.00	393	4,800	0.109		
	LT	1.00	162	1,600	0.101 *	LOS:	B

Date/Time: PM PEAK HOUR (4:30-5:30)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	172	0	0.000	N-S(1):	0.226
	TH	3.00	623	4,800	0.166 *	N-S(2):	0.229 *
	LT	2.00	275	2,560	0.107	E-W(1):	0.290 *
Westbound	RT	1.00	155	1,600	0.000	E-W(2):	0.216
	TH	2.00	448	3,200	0.140		
	LT	1.00	135	1,600	0.084 *	V/C:	0.519
Northbound	RT	0.00	137	0	0.000	Lost Time:	0.100
	TH	3.00	434	4,800	0.119	ITS:	0.000
	LT	1.00	101	1,600	0.063 *		
Eastbound	RT	0.00	153	0	0.000	ICU:	0.619
	TH	3.00	835	4,800	0.206 *		
	LT	1.00	121	1,600	0.076	LOS:	B

* - Denotes critical movement

Project Title: SHELL CARSON E10 PROJECT
Intersection: 2. ALAMEDA ST & DEL AMO BLVD (LOCATION TO THE EAST)
Description: EXISTING PLUS PROJECT CONDITIONS

Date/Time: AM PEAK HOUR (7:15-8:15)

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	EBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.118 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.00	0	0	0.000 *	E-W(1):	0.207
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.287 *
	TH	3.00	1,377	4,800	0.287 *		
	LT	1.00	130	1,600	0.081	V/C:	0.405
Northbound	RT	1.00	101	1,600	0.023	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	302	2,560	0.118 *		
Eastbound	RT	1.00	201	1,600	0.126	ICU:	0.505
	TH	3.00	489	4,800	0.102		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR (4:30-5:30)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.075 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.00	0	0	0.000 *	E-W(1):	0.392 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.138
	TH	3.00	663	4,800	0.138		
	LT	1.00	140	1,600	0.088 *	V/C:	0.467
Northbound	RT	1.00	190	1,600	0.075 *	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	144	2,560	0.056		
Eastbound	RT	1.00	355	1,600	0.222	ICU:	0.567
	TH	3.00	1,458	4,800	0.304 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: SHELL CARSON E10 PROJECT
Intersection: 2. ALAMEDA ST & DEL AMO BLVD (LOCATION TO THE WEST)
Description: EXISTING PLUS PROJECT CONDITIONS

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.218 *
	TH	2.00	612	3,200	0.191	N-S(2):	0.191
	LT	2.00	163	2,560	0.064 *	E-W(1):	0.074 *
Westbound	RT	1.00	117	1,600	0.009	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	189	2,560	0.074 *	V/C:	0.292
Northbound	RT	1.00	246	1,600	0.154 *	Lost Time:	0.100
	TH	2.00	491	3,200	0.153	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.392
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR (4:15-5:15)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.268 *
	TH	2.00	575	3,200	0.180	N-S(2):	0.180
	LT	2.00	103	2,560	0.040 *	E-W(1):	0.104 *
Westbound	RT	1.00	219	1,600	0.097	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	267	2,560	0.104 *	V/C:	0.372
Northbound	RT	1.00	238	1,600	0.149	Lost Time:	0.100
	TH	2.00	731	3,200	0.228 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.472
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **3. SANTA FE AVE & DEL AMO BLVD**
Description: **EXISTING PLUS PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	64	0	0.000	N-S(1):	0.131
	TH	2.00	153	3,200	0.068 *	N-S(2):	0.155 *
	LT	1.00	69	1,600	0.043	E-W(1):	0.300
Westbound	RT	1.00	82	1,600	0.030	E-W(2):	0.467 *
	TH	2.00	1,322	3,200	0.413 *		
	LT	2.00	513	2,560	0.200	V/C:	0.622
Northbound	RT	1.78	251	2,848	0.000	Lost Time:	0.100
	TH	1.22	172	1,952	0.088	ITS:	0.000
	LT	1.00	139	1,600	0.087 *		
Eastbound	RT	0.00	79	0	0.000	ICU:	0.722
	TH	3.00	402	4,800	0.100		
	LT	1.00	87	1,600	0.054 *	LOS:	C

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	79	0	0.000	N-S(1):	0.212 *
	TH	2.00	171	3,200	0.078	N-S(2):	0.136
	LT	1.00	180	1,600	0.113 *	E-W(1):	0.461 *
Westbound	RT	1.00	56	1,600	0.000	E-W(2):	0.244
	TH	2.00	596	3,200	0.186		
	LT	2.00	371	2,560	0.145 *	V/C:	0.673
Northbound	RT	2.00	677	3,200	0.067	Lost Time:	0.100
	TH	1.00	158	1,600	0.099 *	ITS:	0.000
	LT	1.00	92	1,600	0.058		
Eastbound	RT	0.00	123	0	0.000	ICU:	0.773
	TH	3.00	1,392	4,800	0.316 *		
	LT	1.00	93	1,600	0.058	LOS:	C

* - Denotes critical movement

Project Title: SHELL CARSON E10 PROJECT
Intersection: 4. SUSANA RD & DEL AMO BLVD
Description: EXISTING PLUS PROJECT CONDITIONS

Date/Time: AM PEAK HOUR (7:15-8:15)

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR, SBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	760	3,200	0.120 *	N-S(1):	0.171 *
	TH	0.22	32	354	0.090	N-S(2):	0.000
	LT	1.78	257	2,277	0.113	E-W(1):	0.147
Westbound	RT	1.00	274	1,600	0.058	E-W(2):	0.534 *
	TH	2.00	1,330	3,200	0.416 *		
	LT	1.00	45	1,600	0.028	V/C:	0.705
Northbound	RT	0.00	29	0	0.000	Lost Time:	0.100
	TH	1.00	19	1,600	0.051 *	ITS:	0.000
	LT	0.00	34	1,600	0.021		
Eastbound	RT	0.00	16	0	0.000	ICU:	0.805
	TH	3.00	556	4,800	0.119		
	LT	1.00	188	1,600	0.118 *	LOS:	D

Date/Time: PM PEAK HOUR (4:30-5:30)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	313	3,200	0.000	N-S(1):	0.221 *
	TH	0.06	14	101	0.138	N-S(2):	0.000
	LT	1.94	429	2,479	0.173 *	E-W(1):	0.444 *
Westbound	RT	1.00	70	1,600	0.000	E-W(2):	0.358
	TH	2.00	679	3,200	0.212		
	LT	1.00	31	1,600	0.019 *	V/C:	0.665
Northbound	RT	0.00	35	0	0.000	Lost Time:	0.100
	TH	1.00	14	1,600	0.048 *	ITS:	0.000
	LT	0.00	28	1,600	0.018		
Eastbound	RT	0.00	21	0	0.000	ICU:	0.765
	TH	3.00	2,020	4,800	0.425 *		
	LT	1.00	234	1,600	0.146	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **5. WILMINGTON AVE & DOMINGUEZ ST**
Description: **EXISTING PLUS PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	27	1,600	0.008	N-S(1):	0.260 *
	TH	2.00	536	3,200	0.168	N-S(2):	0.174
	LT	1.00	35	1,600	0.022 *	E-W(1):	0.042 *
Westbound	RT	1.00	15	1,600	0.000	E-W(2):	0.000
	TH	0.04	1	71	0.014		
	LT	1.96	44	2,503	0.018 *	V/C:	0.302
Northbound	RT	1.00	117	1,600	0.064	Lost Time:	0.100
	TH	2.00	762	3,200	0.238 *	ITS:	0.000
	LT	1.00	9	1,600	0.006		
Eastbound	RT	0.00	11	0	0.000	ICU:	0.402
	TH	1.00	0	1,600	0.024 *		
	LT	0.00	28	1,600	0.018	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	15	1,600	0.002	N-S(1):	0.193
	TH	2.00	938	3,200	0.293 *	N-S(2):	0.296 *
	LT	1.00	24	1,600	0.015	E-W(1):	0.085 *
Westbound	RT	1.00	44	1,600	0.020	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	162	2,560	0.063 *	V/C:	0.381
Northbound	RT	1.00	59	1,600	0.005	Lost Time:	0.100
	TH	2.00	568	3,200	0.178	ITS:	0.000
	LT	1.00	4	1,600	0.003 *		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.481
	TH	1.00	1	1,600	0.022 *		
	LT	0.00	24	1,600	0.015	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **6. WILMINGTON AVE & CARSON ST**
Description: **EXISTING PLUS PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	130	1,600	0.026	N-S(1):	0.257 *
	TH	2.00	436	3,200	0.136	N-S(2):	0.179
	LT	1.00	99	1,600	0.062 *	E-W(1):	0.170
Westbound	RT	1.00	130	1,600	0.050	E-W(2):	0.220 *
	TH	2.00	353	3,200	0.110 *		
	LT	1.00	59	1,600	0.037	V/C:	0.477
Northbound	RT	1.00	110	1,600	0.050	Lost Time:	0.100
	TH	2.00	625	3,200	0.195 *	ITS:	0.000
	LT	1.00	68	1,600	0.043		
Eastbound	RT	0.00	76	0	0.000	ICU:	0.577
	TH	2.00	349	3,200	0.133		
	LT	1.00	176	1,600	0.110 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	176	1,600	0.077	N-S(1):	0.246
	TH	2.00	726	3,200	0.227 *	N-S(2):	0.275 *
	LT	1.00	176	1,600	0.110	E-W(1):	0.196 *
Westbound	RT	1.00	95	1,600	0.004	E-W(2):	0.171
	TH	2.00	337	3,200	0.105		
	LT	1.00	94	1,600	0.059 *	V/C:	0.471
Northbound	RT	1.00	73	1,600	0.016	Lost Time:	0.100
	TH	2.00	435	3,200	0.136	ITS:	0.000
	LT	1.00	77	1,600	0.048 *		
Eastbound	RT	0.00	54	0	0.000	ICU:	0.571
	TH	2.00	385	3,200	0.137 *		
	LT	1.00	105	1,600	0.066	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **7. WILMINGTON AVE & I-405 NB ON/OFF RAMPS**
Description: **EXISTING PLUS PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.170 *
	TH	3.00	650	4,800	0.135	N-S(2):	0.135
	LT	1.00	53	1,600	0.033 *	E-W(1):	0.395 *
Westbound	RT	1.00	529	1,600	0.314	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	1,010	2,560	0.395 *	V/C:	0.565
Northbound	RT	1.00	80	1,600	0.050	Lost Time:	0.100
	TH	2.00	437	3,200	0.137 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.665
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.237 *
	TH	3.00	930	4,800	0.194	N-S(2):	0.194
	LT	1.00	102	1,600	0.064 *	E-W(1):	0.357 *
Westbound	RT	1.00	333	1,600	0.176	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	915	2,560	0.357 *	V/C:	0.594
Northbound	RT	1.00	276	1,600	0.173 *	Lost Time:	0.100
	TH	2.00	355	3,200	0.111	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.694
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **8. WILMINGTON AVE & I-405 SB ON/OFF RAMPS**
Description: **EXISTING PLUS PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:00-8:00)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.546 *
	TH	3.00	1,438	4,800	0.300	N-S(2):	0.300
	LT	1.00	275	1,600	0.172 *	E-W(1):	0.121 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.667
Northbound	RT	1.00	599	1,600	0.374 *	Lost Time:	0.100
	TH	2.00	394	3,200	0.123	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	193	1,600	0.121 *	ICU:	0.767
	TH	2.00	1	1,600	0.052		
	LT	0.00	82	1,600	0.051	LOS:	C

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.746 *
	TH	3.00	1,344	4,800	0.280	N-S(2):	0.280
	LT	1.00	522	1,600	0.326 *	E-W(1):	0.065 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.811
Northbound	RT	1.00	672	1,600	0.420 *	Lost Time:	0.100
	TH	2.00	547	3,200	0.171	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	104	1,600	0.065 *	ICU:	0.911
	TH	2.00	0	1,600	0.031		
	LT	0.00	50	1,600	0.031	LOS:	E

* - Denotes critical movement

FUTURE (YEAR 2012) WITHOUT PROJECT

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **1. WILMINGTON AVE & DEL AMO BLVD**
Description: **FUTURE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	85	0	0.000	N-S(1):	0.195 *
	TH	3.00	332	4,800	0.087	N-S(2):	0.141
	LT	2.00	120	2,560	0.047 *	E-W(1):	0.213
Westbound	RT	1.00	308	1,600	0.146	E-W(2):	0.360 *
	TH	2.00	812	3,200	0.254 *		
	LT	1.00	151	1,600	0.094	V/C:	0.555
Northbound	RT	0.00	106	0	0.000	Lost Time:	0.100
	TH	3.00	605	4,800	0.148 *	ITS:	0.000
	LT	1.00	86	1,600	0.054		
Eastbound	RT	0.00	129	0	0.000	ICU:	0.655
	TH	3.00	441	4,800	0.119		
	LT	1.00	169	1,600	0.106 *	LOS:	B

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	189	0	0.000	N-S(1):	0.230
	TH	3.00	640	4,800	0.173 *	N-S(2):	0.237 *
	LT	2.00	278	2,560	0.109	E-W(1):	0.314 *
Westbound	RT	1.00	157	1,600	0.000	E-W(2):	0.260
	TH	2.00	558	3,200	0.174		
	LT	1.00	136	1,600	0.085 *	V/C:	0.551
Northbound	RT	0.00	133	0	0.000	Lost Time:	0.100
	TH	3.00	447	4,800	0.121	ITS:	0.000
	LT	1.00	102	1,600	0.064 *		
Eastbound	RT	0.00	155	0	0.000	ICU:	0.651
	TH	3.00	944	4,800	0.229 *		
	LT	1.00	137	1,600	0.086	LOS:	B

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **2. ALAMEDA ST & DEL AMO BLVD (LOCATION TO THE EAST)**
Description: **FUTURE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	EBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.125 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.00	0	0	0.000 *	E-W(1):	0.215
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.294 *
	TH	3.00	1,411	4,800	0.294 *		
	LT	1.00	131	1,600	0.082	V/C:	0.419
Northbound	RT	1.00	102	1,600	0.023	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	321	2,560	0.125 *		
Eastbound	RT	1.00	213	1,600	0.133	ICU:	0.519
	TH	3.00	524	4,800	0.109		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.076 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.00	0	0	0.000 *	E-W(1):	0.406 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.152
	TH	3.00	728	4,800	0.152		
	LT	1.00	141	1,600	0.088 *	V/C:	0.482
Northbound	RT	1.00	192	1,600	0.076 *	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	193	2,560	0.075		
Eastbound	RT	1.00	404	1,600	0.253	ICU:	0.582
	TH	3.00	1,524	4,800	0.318 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **2. ALAMEDA ST & DEL AMO BLVD (LOCATION TO THE WEST)**
Description: **FUTURE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.226 *
	TH	2.00	621	3,200	0.194	N-S(2):	0.194
	LT	2.00	181	2,560	0.071 *	E-W(1):	0.073 *
Westbound	RT	1.00	132	1,600	0.012	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	187	2,560	0.073 *	V/C:	0.299
Northbound	RT	1.00	248	1,600	0.155	Lost Time:	0.100
	TH	2.00	497	3,200	0.155 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.399
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:15-5:15)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.287 *
	TH	2.00	582	3,200	0.182	N-S(2):	0.182
	LT	2.00	140	2,560	0.055 *	E-W(1):	0.109 *
Westbound	RT	1.00	257	1,600	0.106	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	280	2,560	0.109 *	V/C:	0.396
Northbound	RT	1.00	252	1,600	0.158	Lost Time:	0.100
	TH	2.00	741	3,200	0.232 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.496
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **3. SANTA FE AVE & DEL AMO BLVD**
Description: **FUTURE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	65	0	0.000	N-S(1):	0.133
	TH	2.00	155	3,200	0.069 *	N-S(2):	0.157 *
	LT	1.00	70	1,600	0.044	E-W(1):	0.310
Westbound	RT	1.00	83	1,600	0.030	E-W(2):	0.478 *
	TH	2.00	1,355	3,200	0.423 *		
	LT	2.00	518	2,560	0.202	V/C:	0.635
Northbound	RT	1.78	254	2,849	0.000	Lost Time:	0.100
	TH	1.22	174	1,951	0.089	ITS:	0.000
	LT	1.00	140	1,600	0.088 *		
Eastbound	RT	0.00	80	0	0.000	ICU:	0.735
	TH	3.00	436	4,800	0.108		
	LT	1.00	88	1,600	0.055 *	LOS:	C

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.214 *
	TH	2.00	173	3,200	0.079	N-S(2):	0.137
	LT	1.00	182	1,600	0.114 *	E-W(1):	0.475 *
Westbound	RT	1.00	57	1,600	0.000	E-W(2):	0.265
	TH	2.00	660	3,200	0.206		
	LT	2.00	375	2,560	0.146 *	V/C:	0.689
Northbound	RT	2.00	684	3,200	0.067	Lost Time:	0.100
	TH	1.00	160	1,600	0.100 *	ITS:	0.000
	LT	1.00	93	1,600	0.058		
Eastbound	RT	0.00	124	0	0.000	ICU:	0.789
	TH	3.00	1,457	4,800	0.329 *		
	LT	1.00	94	1,600	0.059	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **4. SUSANA RD & DEL AMO BLVD**
Description: **FUTURE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR, SBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	766	3,200	0.121 *	N-S(1):	0.172 *
	TH	0.22	32	351	0.091	N-S(2):	0.000
	LT	1.78	260	2,279	0.114	E-W(1):	0.155
Westbound	RT	1.00	277	1,600	0.059	E-W(2):	0.546 *
	TH	2.00	1,365	3,200	0.427 *		
	LT	1.00	45	1,600	0.028	V/C:	0.718
Northbound	RT	0.00	29	0	0.000	Lost Time:	0.100
	TH	1.00	19	1,600	0.051 *	ITS:	0.000
	LT	0.00	34	1,600	0.021		
Eastbound	RT	0.00	16	0	0.000	ICU:	0.818
	TH	3.00	592	4,800	0.127		
	LT	1.00	190	1,600	0.119 *	LOS:	D

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	314	3,200	0.000	N-S(1):	0.223 *
	TH	0.06	14	100	0.140	N-S(2):	0.000
	LT	1.94	433	2,480	0.175 *	E-W(1):	0.459 *
Westbound	RT	1.00	71	1,600	0.000	E-W(2):	0.381
	TH	2.00	746	3,200	0.233		
	LT	1.00	31	1,600	0.019 *	V/C:	0.682
Northbound	RT	0.00	35	0	0.000	Lost Time:	0.100
	TH	1.00	14	1,600	0.048 *	ITS:	0.000
	LT	0.00	28	1,600	0.018		
Eastbound	RT	0.00	21	0	0.000	ICU:	0.782
	TH	3.00	2,091	4,800	0.440 *		
	LT	1.00	236	1,600	0.148	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **5. WILMINGTON AVE & DOMINGUEZ ST**
Description: **FUTURE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	15	1,600	0.004	N-S(1):	0.267 *
	TH	2.00	550	3,200	0.172	N-S(2):	0.178
	LT	1.00	35	1,600	0.022 *	E-W(1):	0.035 *
Westbound	RT	1.00	15	1,600	0.000	E-W(2):	0.000
	TH	0.04	1	71	0.014		
	LT	1.96	44	2,503	0.018 *	V/C:	0.302
Northbound	RT	1.00	118	1,600	0.065	Lost Time:	0.100
	TH	2.00	785	3,200	0.245 *	ITS:	0.000
	LT	1.00	9	1,600	0.006		
Eastbound	RT	0.00	11	0	0.000	ICU:	0.402
	TH	1.00	0	1,600	0.017 *		
	LT	0.00	16	1,600	0.010	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	3	1,600	0.000	N-S(1):	0.200
	TH	2.00	970	3,200	0.303 *	N-S(2):	0.306 *
	LT	1.00	24	1,600	0.015	E-W(1):	0.078 *
Westbound	RT	1.00	44	1,600	0.020	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	164	2,560	0.064 *	V/C:	0.384
Northbound	RT	1.00	60	1,600	0.005	Lost Time:	0.100
	TH	2.00	591	3,200	0.185	ITS:	0.000
	LT	1.00	4	1,600	0.003 *		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.484
	TH	1.00	1	1,600	0.014 *		
	LT	0.00	12	1,600	0.008	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **6. WILMINGTON AVE & CARSON ST**
Description: **FUTURE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	136	1,600	0.025	N-S(1):	0.261 *
	TH	2.00	440	3,200	0.138	N-S(2):	0.194
	LT	1.00	103	1,600	0.064 *	E-W(1):	0.201
Westbound	RT	1.00	132	1,600	0.050	E-W(2):	0.248 *
	TH	2.00	406	3,200	0.127 *		
	LT	1.00	64	1,600	0.040	V/C:	0.509
Northbound	RT	1.00	127	1,600	0.059	Lost Time:	0.100
	TH	2.00	631	3,200	0.197 *	ITS:	0.000
	LT	1.00	90	1,600	0.056		
Eastbound	RT	0.00	103	0	0.000	ICU:	0.609
	TH	2.00	411	3,200	0.161		
	LT	1.00	193	1,600	0.121 *	LOS:	B

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	200	1,600	0.088	N-S(1):	0.249
	TH	2.00	733	3,200	0.229 *	N-S(2):	0.307 *
	LT	1.00	179	1,600	0.112	E-W(1):	0.245 *
Westbound	RT	1.00	99	1,600	0.006	E-W(2):	0.212
	TH	2.00	437	3,200	0.137		
	LT	1.00	111	1,600	0.069 *	V/C:	0.552
Northbound	RT	1.00	80	1,600	0.015	Lost Time:	0.100
	TH	2.00	439	3,200	0.137	ITS:	0.000
	LT	1.00	124	1,600	0.078 *		
Eastbound	RT	0.00	94	0	0.000	ICU:	0.652
	TH	2.00	470	3,200	0.176 *		
	LT	1.00	120	1,600	0.075	LOS:	B

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **7. WILMINGTON AVE & I-405 NB ON/OFF RAMPS**
Description: **FUTURE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.175 *
	TH	3.00	667	4,800	0.139	N-S(2):	0.139
	LT	1.00	55	1,600	0.034 *	E-W(1):	0.398 *
Westbound	RT	1.00	544	1,600	0.323	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	1,020	2,560	0.398 *	V/C:	0.573
Northbound	RT	1.00	81	1,600	0.051	Lost Time:	0.100
	TH	2.00	450	3,200	0.141 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.673
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.240 *
	TH	3.00	958	4,800	0.200	N-S(2):	0.200
	LT	1.00	106	1,600	0.066 *	E-W(1):	0.361 *
Westbound	RT	1.00	339	1,600	0.179	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	924	2,560	0.361 *	V/C:	0.601
Northbound	RT	1.00	279	1,600	0.174 *	Lost Time:	0.100
	TH	2.00	371	3,200	0.116	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.701
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **8. WILMINGTON AVE & I-405 SB ON/OFF RAMPS**
Description: **FUTURE BASE CONDITIONS**

Date/Time: **AM PEAK HOUR (7:00-8:00)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.554 *
	TH	3.00	1,460	4,800	0.304	N-S(2):	0.304
	LT	1.00	281	1,600	0.176 *	E-W(1):	0.122 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.676
Northbound	RT	1.00	605	1,600	0.378 *	Lost Time:	0.100
	TH	2.00	404	3,200	0.126	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	195	1,600	0.122 *	ICU:	0.776
	TH	2.00	1	1,600	0.054		
	LT	0.00	86	1,600	0.054	LOS:	C

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.760 *
	TH	3.00	1,366	4,800	0.285	N-S(2):	0.285
	LT	1.00	537	1,600	0.336 *	E-W(1):	0.066 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.826
Northbound	RT	1.00	679	1,600	0.424 *	Lost Time:	0.100
	TH	2.00	563	3,200	0.176	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	105	1,600	0.066 *	ICU:	0.926
	TH	2.00	0	1,600	0.033		
	LT	0.00	52	1,600	0.033	LOS:	E

* - Denotes critical movement

FUTURE (YEAR 2012) PLUS PROJECT

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **1. WILMINGTON AVE & DEL AMO BLVD**
Description: **FUTURE WITH PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	85	0	0.000	N-S(1):	0.198 *
	TH	3.00	332	4,800	0.087	N-S(2):	0.141
	LT	2.00	120	2,560	0.047 *	E-W(1):	0.221
Westbound	RT	1.00	308	1,600	0.146	E-W(2):	0.360 *
	TH	2.00	812	3,200	0.254 *		
	LT	1.00	163	1,600	0.102	V/C:	0.558
Northbound	RT	0.00	118	0	0.000	Lost Time:	0.100
	TH	3.00	605	4,800	0.151 *	ITS:	0.000
	LT	1.00	86	1,600	0.054		
Eastbound	RT	0.00	129	0	0.000	ICU:	0.658
	TH	3.00	441	4,800	0.119		
	LT	1.00	169	1,600	0.106 *	LOS:	B

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	189	0	0.000	N-S(1):	0.232
	TH	3.00	640	4,800	0.173 *	N-S(2):	0.237 *
	LT	2.00	278	2,560	0.109	E-W(1):	0.322 *
Westbound	RT	1.00	157	1,600	0.000	E-W(2):	0.260
	TH	2.00	558	3,200	0.174		
	LT	1.00	148	1,600	0.093 *	V/C:	0.559
Northbound	RT	0.00	145	0	0.000	Lost Time:	0.100
	TH	3.00	447	4,800	0.123	ITS:	0.000
	LT	1.00	102	1,600	0.064 *		
Eastbound	RT	0.00	155	0	0.000	ICU:	0.659
	TH	3.00	944	4,800	0.229 *		
	LT	1.00	137	1,600	0.086	LOS:	B

* - Denotes critical movement

Project Title: SHELL CARSON E10 PROJECT
Intersection: 2. ALAMEDA ST & DEL AMO BLVD (LOCATION TO THE EAST)
Description: FUTURE WITH PROJECT CONDITIONS

Date/Time: AM PEAK HOUR (7:15-8:15)

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	EBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.129 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.00	0	0	0.000 *	E-W(1):	0.223
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.294 *
	TH	3.00	1,413	4,800	0.294 *		
	LT	1.00	131	1,600	0.082	V/C:	0.423
Northbound	RT	1.00	102	1,600	0.023	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	331	2,560	0.129 *		
Eastbound	RT	1.00	225	1,600	0.141	ICU:	0.523
	TH	3.00	524	4,800	0.109		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR (4:30-5:30)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.079 *
	TH	0.00	0	0	0.000	N-S(2):	0.000
	LT	0.00	0	0	0.000 *	E-W(1):	0.406 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.152
	TH	3.00	730	4,800	0.152		
	LT	1.00	141	1,600	0.088 *	V/C:	0.485
Northbound	RT	1.00	192	1,600	0.076	Lost Time:	0.100
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	203	2,560	0.079 *		
Eastbound	RT	1.00	416	1,600	0.260	ICU:	0.585
	TH	3.00	1,524	4,800	0.318 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **2. ALAMEDA ST & DEL AMO BLVD (LOCATION TO THE WEST)**
Description: **FUTURE WITH PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.232 *
	TH	2.00	621	3,200	0.194	N-S(2):	0.194
	LT	2.00	181	2,560	0.071 *	E-W(1):	0.078 *
Westbound	RT	1.00	132	1,600	0.012	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	199	2,560	0.078 *	V/C:	0.310
Northbound	RT	1.00	258	1,600	0.161 *	Lost Time:	0.100
	TH	2.00	497	3,200	0.155	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.410
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:15-5:15)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.287 *
	TH	2.00	582	3,200	0.182	N-S(2):	0.182
	LT	2.00	140	2,560	0.055 *	E-W(1):	0.114 *
Westbound	RT	1.00	257	1,600	0.106	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	292	2,560	0.114 *	V/C:	0.401
Northbound	RT	1.00	262	1,600	0.164	Lost Time:	0.100
	TH	2.00	741	3,200	0.232 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.501
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **3. SANTA FE AVE & DEL AMO BLVD**
Description: **FUTURE WITH PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	65	0	0.000	N-S(1):	0.133
	TH	2.00	155	3,200	0.069 *	N-S(2):	0.157 *
	LT	1.00	70	1,600	0.044	E-W(1):	0.310
Westbound	RT	1.00	83	1,600	0.030	E-W(2):	0.479 *
	TH	2.00	1,357	3,200	0.424 *		
	LT	2.00	518	2,560	0.202	V/C:	0.636
Northbound	RT	1.78	254	2,849	0.000	Lost Time:	0.100
	TH	1.22	174	1,951	0.089	ITS:	0.000
	LT	1.00	140	1,600	0.088 *		
Eastbound	RT	0.00	80	0	0.000	ICU:	0.736
	TH	3.00	436	4,800	0.108		
	LT	1.00	88	1,600	0.055 *	LOS:	C

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	80	0	0.000	N-S(1):	0.214 *
	TH	2.00	173	3,200	0.079	N-S(2):	0.137
	LT	1.00	182	1,600	0.114 *	E-W(1):	0.475 *
Westbound	RT	1.00	57	1,600	0.000	E-W(2):	0.266
	TH	2.00	662	3,200	0.207		
	LT	2.00	375	2,560	0.146 *	V/C:	0.689
Northbound	RT	2.00	684	3,200	0.067	Lost Time:	0.100
	TH	1.00	160	1,600	0.100 *	ITS:	0.000
	LT	1.00	93	1,600	0.058		
Eastbound	RT	0.00	124	0	0.000	ICU:	0.789
	TH	3.00	1,457	4,800	0.329 *		
	LT	1.00	94	1,600	0.059	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **4. SUSANA RD & DEL AMO BLVD**
Description: **FUTURE WITH PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	WBR, SBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	768	3,200	0.121 *	N-S(1):	0.172 *
	TH	0.22	32	351	0.091	N-S(2):	0.000
	LT	1.78	260	2,279	0.114	E-W(1):	0.155
Westbound	RT	1.00	277	1,600	0.059	E-W(2):	0.546 *
	TH	2.00	1,365	3,200	0.427 *		
	LT	1.00	45	1,600	0.028	V/C:	0.718
Northbound	RT	0.00	29	0	0.000	Lost Time:	0.100
	TH	1.00	19	1,600	0.051 *	ITS:	0.000
	LT	0.00	34	1,600	0.021		
Eastbound	RT	0.00	16	0	0.000	ICU:	0.818
	TH	3.00	592	4,800	0.127		
	LT	1.00	190	1,600	0.119 *	LOS:	D

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	316	3,200	0.000	N-S(1):	0.223 *
	TH	0.06	14	100	0.140	N-S(2):	0.000
	LT	1.94	433	2,480	0.175 *	E-W(1):	0.459 *
Westbound	RT	1.00	71	1,600	0.000	E-W(2):	0.381
	TH	2.00	746	3,200	0.233		
	LT	1.00	31	1,600	0.019 *	V/C:	0.682
Northbound	RT	0.00	35	0	0.000	Lost Time:	0.100
	TH	1.00	14	1,600	0.048 *	ITS:	0.000
	LT	0.00	28	1,600	0.018		
Eastbound	RT	0.00	21	0	0.000	ICU:	0.782
	TH	3.00	2,091	4,800	0.440 *		
	LT	1.00	236	1,600	0.148	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **5. WILMINGTON AVE & DOMINGUEZ ST**
Description: **FUTURE WITH PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	27	1,600	0.008	N-S(1):	0.267 *
	TH	2.00	550	3,200	0.172	N-S(2):	0.178
	LT	1.00	35	1,600	0.022 *	E-W(1):	0.042 *
Westbound	RT	1.00	15	1,600	0.000	E-W(2):	0.000
	TH	0.04	1	71	0.014		
	LT	1.96	44	2,503	0.018 *	V/C:	0.309
Northbound	RT	1.00	118	1,600	0.065	Lost Time:	0.100
	TH	2.00	785	3,200	0.245 *	ITS:	0.000
	LT	1.00	9	1,600	0.006		
Eastbound	RT	0.00	11	0	0.000	ICU:	0.409
	TH	1.00	0	1,600	0.024 *		
	LT	0.00	28	1,600	0.018	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	15	1,600	0.002	N-S(1):	0.200
	TH	2.00	970	3,200	0.303 *	N-S(2):	0.306 *
	LT	1.00	24	1,600	0.015	E-W(1):	0.086 *
Westbound	RT	1.00	44	1,600	0.020	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	164	2,560	0.064 *	V/C:	0.392
Northbound	RT	1.00	60	1,600	0.005	Lost Time:	0.100
	TH	2.00	591	3,200	0.185	ITS:	0.000
	LT	1.00	4	1,600	0.003 *		
Eastbound	RT	0.00	10	0	0.000	ICU:	0.492
	TH	1.00	1	1,600	0.022 *		
	LT	0.00	24	1,600	0.015	LOS:	A

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **6. WILMINGTON AVE & CARSON ST**
Description: **FUTURE WITH PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	136	1,600	0.025	N-S(1):	0.261 *
	TH	2.00	440	3,200	0.138	N-S(2):	0.194
	LT	1.00	103	1,600	0.064 *	E-W(1):	0.201
Westbound	RT	1.00	132	1,600	0.050	E-W(2):	0.248 *
	TH	2.00	406	3,200	0.127 *		
	LT	1.00	64	1,600	0.040	V/C:	0.509
Northbound	RT	1.00	127	1,600	0.059	Lost Time:	0.100
	TH	2.00	631	3,200	0.197 *	ITS:	0.000
	LT	1.00	90	1,600	0.056		
Eastbound	RT	0.00	103	0	0.000	ICU:	0.609
	TH	2.00	411	3,200	0.161		
	LT	1.00	193	1,600	0.121 *	LOS:	B

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	200	1,600	0.088	N-S(1):	0.249
	TH	2.00	733	3,200	0.229 *	N-S(2):	0.307 *
	LT	1.00	179	1,600	0.112	E-W(1):	0.245 *
Westbound	RT	1.00	99	1,600	0.006	E-W(2):	0.212
	TH	2.00	437	3,200	0.137		
	LT	1.00	111	1,600	0.069 *	V/C:	0.552
Northbound	RT	1.00	80	1,600	0.015	Lost Time:	0.100
	TH	2.00	439	3,200	0.137	ITS:	0.000
	LT	1.00	124	1,600	0.078 *		
Eastbound	RT	0.00	94	0	0.000	ICU:	0.652
	TH	2.00	470	3,200	0.176 *		
	LT	1.00	120	1,600	0.075	LOS:	B

* - Denotes critical movement

Project Title: SHELL CARSON E10 PROJECT
Intersection: 7. WILMINGTON AVE & I-405 NB ON/OFF RAMPS
Description: FUTURE WITH PROJECT CONDITIONS

Date/Time: AM PEAK HOUR (7:15-8:15)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.175 *
	TH	3.00	667	4,800	0.139	N-S(2):	0.139
	LT	1.00	55	1,600	0.034 *	E-W(1):	0.398 *
Westbound	RT	1.00	544	1,600	0.323	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	1,020	2,560	0.398 *	V/C:	0.573
Northbound	RT	1.00	81	1,600	0.051	Lost Time:	0.100
	TH	2.00	450	3,200	0.141 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.673
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	B

Date/Time: PM PEAK HOUR (4:30-5:30)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.240 *
	TH	3.00	958	4,800	0.200	N-S(2):	0.200
	LT	1.00	106	1,600	0.066 *	E-W(1):	0.361 *
Westbound	RT	1.00	339	1,600	0.179	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	2.00	924	2,560	0.361 *	V/C:	0.601
Northbound	RT	1.00	279	1,600	0.174 *	Lost Time:	0.100
	TH	2.00	371	3,200	0.116	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.701
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	C

* - Denotes critical movement

Project Title: **SHELL CARSON E10 PROJECT**
Intersection: **8. WILMINGTON AVE & I-405 SB ON/OFF RAMPS**
Description: **FUTURE WITH PROJECT CONDITIONS**

Date/Time: **AM PEAK HOUR (7:00-8:00)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.554 *
	TH	3.00	1,460	4,800	0.304	N-S(2):	0.304
	LT	1.00	281	1,600	0.176 *	E-W(1):	0.122 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.676
Northbound	RT	1.00	605	1,600	0.378 *	Lost Time:	0.100
	TH	2.00	404	3,200	0.126	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	195	1,600	0.122 *	ICU:	0.776
	TH	2.00	1	1,600	0.054		
	LT	0.00	86	1,600	0.054	LOS:	C

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.760 *
	TH	3.00	1,366	4,800	0.285	N-S(2):	0.285
	LT	1.00	537	1,600	0.336 *	E-W(1):	0.066 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	V/C:	0.826
Northbound	RT	1.00	679	1,600	0.424 *	Lost Time:	0.100
	TH	2.00	563	3,200	0.176	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	105	1,600	0.066 *	ICU:	0.926
	TH	2.00	0	1,600	0.033		
	LT	0.00	52	1,600	0.033	LOS:	E

* - Denotes critical movement

APPENDIX D:
CITY OF CARSON DEVELOPMENT SUMMARY

CITY OF CARSON
DEVELOPMENT SUMMARY – MAY 2010

LONG RANGE PROJECTS

Carson Street Master Plan

The Carson Street Mixed-Use District Master Plan (Master Plan) focuses on a 1.75 mile section of Carson Street between the I-405 San Diego Freeway and the I-110 Harbor Freeway. The Master Plan is intended to help the community share their vision with those participating in development efforts along Carson Street. The Master Plan will be used as a guide by the City Council, Redevelopment Agency, Planning Commission and other Commissions for review of public improvements such as streetscape and environmental graphics, as well as private development and related improvements. On November 21, 2006, the City Council adopted the Carson Street Mixed-Use District Master Plan and established a new zoning district with the distinct vision for future mixed-use development along Carson Street. The Carson Redevelopment Agency is currently working with developers on several properties to develop projects consistent with the guidelines in the Carson Street Master Plan.

Consolidated Redevelopment Project Area

The Carson Redevelopment Agency is amending and merging three redevelopment project areas for the purpose of financial flexibility, to re-instate eminent domain in certain portions of Project Area No. 1, re-instate and extend eminent domain in the Carson Merged and Amended Project Area and Project Area No. 4 (excluding eminent domain authority over housing), and renovate and construct a 5,000-square-foot expansion to the existing Sheriff's Station located in Project Area No. 1. A Draft Environmental Impact Report (DEIR) was prepared and released for public comments per the requirements of the California Environmental Quality Act (CEQA). The public comment period for the DEIR ended on May 17, 2010. The DEIR will be considered for certification by the Planning Commission in June 2010.

Housing Element Update

The City of Carson is updating the Housing Element in compliance with Sections 65580 – 65589.8 of the Government Code. The Housing Element examines Carson's housing needs at present and projects future housing needs. It sets forth statements of community goals, objectives and policies concerning those needs. It includes a housing program that responds to current and future needs within the limitations posed by available resources. The housing program details a 5-year schedule of actions the community is undertaking or plans to undertake to achieve its goals and objectives. Upon its adoption by the Carson City Council, this Housing Element serves as a statement of the City's housing policies and as a specific guide for program actions to be taken in support of those policies. The Planning Commission held a public hearing on the Draft Housing Element Update on May 12, 2009.

The City submitted the Draft Housing Element to the California Department of Housing and Community Development (HCD) for review on June 1, 2009, along with additional revisions on July 28, 2009. Further revisions were necessary to comply with State Housing Element law, including the description of the residential capacity of identified sites and an analysis of potential governmental constraints. The City is currently working with HCD to address comments and

anticipates HCD to accept the Housing Element in late spring or early summer 2010, after which it will be adopted by the City.

Shell Specific Plan

Shell Oil Products US is proposing the redevelopment of the 448-acre Shell Carson Terminal facility located at 20945 South Wilmington Avenue. The project will allow for the subsequent development (15 to 25 years from project start date) of additional product storage tanks and light industrial storage. The applicant is currently revising the project description and the notice of preparation (NOP) is expected to be released in June 2010.

LARGE-SCALE PROJECTS

Boulevards at South Bay (formerly Carson Marketplace)

Environmental Impact Report, Specific Plan, General Plan Amendment, Owner Participation Agreement and Development Agreement approved for development of a 157-acre landfill property and 11-acre property north of Del Amo Boulevard. Development includes the following:

Residential – Ownership Units		1,150 units
Residential – Rental Units		400 units
Commercial Recreation & Entertainment	374,000 s.f.	
Neighborhood Commercial	130,000 s.f.	
Restaurant	141,125 s.f.	
Hotel (300 rooms)	200,000 s.f.	
Regional Commercial	1,150,000 s.f.	
Total:	1,995,125 s.f.	1,550 units

Status: Remediation - installation of gas collection system and liner approved by the Department of Toxic Substances Control and installation to begin shortly; Delivery of the liner and pipes for the gas collection installation system is ongoing; Installation of monitoring wells has begun; Shopping area expected to open in 2012.

BP Shop Building: 2350 E. 223rd Street

BP proposes a new 127,273 square-foot building for shop/warehouse/change room on a 14-acre lot within the BP refinery site. The building will be used for existing personnel and equipment which will be relocated from other areas throughout the refinery and consolidated at the new building. Status: DOR No. 1365-2010 received April 29, 2010; Application will be prepared for Planning Commission once found to be complete.

Cityview: 616 E. Carson Street

The Carson Redevelopment Agency has an exclusive negotiating agreement (ENA) with a developer, Cityview, to develop a property formerly used as a mobilehome park. The property is 9.63 acres and the proposed project is a 152-unit mixed use development which includes three housing types of various densities with mixed use buildings located along Carson Street. The mixed use buildings will be four stories with commercial uses at ground level and 46 units above. The central portion of the property includes 77 townhomes and a recreation area. The rear of the property is proposed for 29 single-family detached units. The developer is currently

revising the plans to address preliminary comments. Status: A formal application to the Planning Division is expected in the spring or summer of 2010.

Gabuten Shopping Center: 22005 S. Main Street
Construction of a new 8,700 square-foot commercial center, including three buildings of approximately 2,900, 3,500, and 2,300 square feet. The property is 0.74 acres located at the southwestern corner of Main Street and 220th Street. Status: Under construction.

Harbor Community Church of God: 21739-21745 Dolores Street
Construction of an 11,516-square-foot two-story church located on a 0.9-acre site. Status: Under construction.

Judson Baptist Church: 451 East 223rd Street
Judson Baptist Church was granted approval on April 28, 2009 to demolition 6,465 square feet of an existing church building, construct 13,023 square feet as an expansion (net increase is 5,946 square feet), and construct a new 83,460-square-foot two-story parking structure. Status: On June 8, 2010, the Planning Commission will be considering an extension of time for the permit. Due to changes in the market condition, the applicant is securing financing for the project.

Pacific Planning Group: 101-155 E Lomita Boulevard
Four-story mixed use 123,340 square foot building on a vacant property within an existing retail development. The first floor includes mixed use retail (16,530 s.f.), storage and a storage administration office; the second floor includes storage and a manager's dwelling unit (1,320 s.f.); the third and fourth floors contain all storage. Site access will be via Lomita Boulevard and Main Street. Status: Under construction.

ProLogis: 2211-2241/2307 E. Carson Street
ProLogis is proposing to construct a 273,323 square-foot, multi-tenant, warehouse building. The proposed project provides 213 vehicle parking spaces, 51 truck parking spaces, and 58 dock-high loading bays to receive and deliver products. Status: Approved by the Planning Commission on April 10, 2007; Project on hold by applicant.

Related: 425 E. Carson Street
The Carson Redevelopment Agency is working with a developer, Related, to develop a new four-story, 65-unit affordable housing community on a 1.75-acre vacant lot. The development includes live-work units along Carson Street and a podium design in which parking will be interior at grade with a courtyard located above. It is anticipated that the project will be brought before the Planning Commission for a public hearing in June 2010. Status: Comments provided to developer; revisions being made to development plans.

Safran City Center Project: 708-724 E. Carson Street and 21720-21814 S. Avalon Boulevard
Thomas Safran and Associates proposes to construct a 236-unit residential, mixed-use development project. The project features 150 residential condominium units at market rate and 86 affordable, residential senior housing units. The mixed-use project comprises five levels, including approximately 8,500 square feet of restaurant use, 20,000 square feet of retail use, and a subterranean garage. The 4.29 acre project site consists of seven parcels located at the southeast corner of Carson Street and Avalon Boulevard. The project site is zoned MU-CS

(Mixed-Use–Carson Street). Status: Phase I (northern portion) under construction. Phase II expected to commence in July 2010.

Samoan Congregational Christian Church of South Los Angeles: 1249 E. Carson Street
Approved development plan for new 20,000 square-foot church. Status: Construction complete; second-floor to be constructed at a later date.

PROJECTS FROM OTHER AGENCIES

Alameda Corridor Improvement Study
The Alameda Corridor is the primary rail access route and a significant truck access route to the ports of Los Angeles and Long Beach. The Alameda Corridor Transportation Authority (ACTA) facilitated major improvements to reduce delays, improve safety and enhance traffic flows along Alameda Street. Continued growth in port activity and the proposed Schuyler Heim Bridge Replacement/State Route 47 Project will provide a direct link from the ports to Alameda Street, thereby resulting in increased truck volumes on Alameda Street. One of the environmental impacts associated with the increased train and rail volumes is an increase in noise volumes for the properties adjacent to or near Alameda Street. The City of Carson is working proactively with ACTA to develop a strategy for mitigating the impacts.

Staff completed an evaluation of a sound-wall feasibility study and also evaluated other noise mitigation alternatives. Other alternatives evaluated include: various street closure designs; economic development opportunities for commercial/industrial properties by adding parking via alley widening; and a sound insulation program that retrofits residences with windows, walls, doors, and ceiling through increased insulation treatments. In April 2008 and November 2009, staff held Planning Commission workshops to discuss sound-wall design and noise attenuation alternatives for residents along the Alameda Corridor. In September 2009, city engineering and planning staff met with affected residents and business owners that reside east of Alameda Street. Concerns raised included the closure of the residential streets, potential traffic impacts on Harbor View Street and the acquisition of residential properties.

On May 9, 2009, Caltrans certified the final EIR. On August 12, 2009, Caltrans approved the Schuyler Heim Bridge Replacement and SR-47 Expressway project. A notice of determination was subsequently filed with the Office of Planning and Research (OPR).

CSUDH Campus Master Plan
California State University Dominguez Hills (CSUDH) has prepared a campus master plan to guide future development. The master plan anticipates a build-out of 20,000 full-time equivalent (FTE) students by 2089. Currently the university has 9,554 FTE students and 1,328 FTE faculty and personnel. Near-term development includes the construction of new academic buildings for health and science, a new campus entrance on Central Avenue to the east, student and faculty/staff housing, a student recreation center/gymnasium, and a cogeneration plant. This near-term phase is expected to be developed by 2017 contingent upon student enrollment and funding availability. Long-term development may take several decades and includes academic/administrative facilities; campus life and student support facilities; access, circulation, and parking projects; campus infrastructure; and athletic fields.

On May 11, 2010, the CSU Board certified the EIR for the campus master plan. Prior to certification, two memorandum of understandings (MOUs) were executed between the city and CSUDH. The first MOU addressed the environmental impacts and fair share responsibility resulting from the campus master plan. The second MOU addressed certain public improvements around the university that were not addressed as mitigation measures in the EIR.