

**SAN YSIDRO LAND PORT OF ENTRY (LPOE)
STATION EXPANSION
TRAFFIC IMPACT STUDY**

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Prepared for:
U.S. General Services Administration (GSA)
401 West A Street, Suite 2075
San Diego, CA 92101-7935

Prepared by:
KOA Corporation
5095 Murphy Canyon Road , Suite 330
San Diego, CA 92123
(619) 683-2933
Fax: (619) 683-7982

Job No.: JA82077

Table of Contents

EXECUTIVE SUMMARY	1
CHAPTER 1 THE PROJECT	2
PHASING PLAN	2
<i>Phase 1 – Northbound Facilities</i>	2
Primary Inspection Area	2
Secondary Inspection Area	2
Auto Seizure and Impound Facilities	3
Operations Center	3
Parking Structures	3
Pedestrian Bridge	3
Central Plant	4
<i>Phase 2 – Northbound Buildings</i>	4
<i>Phase 3 – Southbound Facilities</i>	4
Primary Inspection Area	4
Secondary Inspection Area	5
Southbound Roadway	5
Pedestrian Bridges	5
USBP Facility	5
Northbound Primary Inspection Area Expansion	5
STUDY AREA	6
<i>Roadway Segments</i>	6
<i>Freeway Segments</i>	6
<i>Intersections</i>	6
PROJECT DESCRIPTION	6
PROJECT TRIP GENERATION	7
<i>Northbound</i>	7
<i>Southbound</i>	9
<i>Employees</i>	9
<i>Trip Generation Summary</i>	10
TRIP DISTRIBUTION AND ASSIGNMENT	10
PROJECT TRAFFIC	10
TRANSPORTATION OVERVIEW	11
CHAPTER 2 METHODOLOGIES	24
STUDY SCENARIOS	24
ANALYSIS METHODOLOGIES	24
<i>Roadway Segment Capacity Analysis</i>	24
<i>Freeway Mainline Level of Service</i>	24
<i>Intersection Capacity Analysis</i>	25
Signalized Intersections	25
All-way Stop-controlled (AWSC) Intersections	25
Two-way Stop-controlled (TWSC) Intersections	25
Intersecting Lane Vehicle (ILV) Methodology	25
<i>Queuing and Wait Times</i>	26
CHAPTER 3 EXISTING CONDITIONS	27
ROADWAY NETWORK	27
TRAFFIC VOLUMES	28
ANALYSIS	28
QUEUING & WAIT TIMES ANALYSIS	28

CHAPTER 4 NEAR-TERM CONDITIONS	37
NEAR-TERM TRAFFIC VOLUMES	37
NEAR-TERM CIRCULATION NETWORK	38
NEAR-TERM ANALYSIS	38
QUEUING & WAIT TIMES	38
CHAPTER 5 HORIZON YEAR CONDITIONS	49
HORIZON YEAR TRAFFIC VOLUMES	49
HORIZON YEAR CIRCULATION NETWORK	49
HORIZON YEAR ANALYSIS	49
QUEUING & WAIT TIMES	50
CHAPTER 6 PARKING & CONSTRUCTION	61
PARKING	61
CONSTRUCTION	61
CHAPTER 7 SUMMARY OF ANALYSIS	62
CHAPTER 8 IMPROVEMENTS	67
INTERSECTIONS	67
SEGMENTS	67
OTHER POTENTIAL IMPROVEMENTS	67
CHAPTER 9 CONCLUSIONS	70

List of Figures

FIGURE 1-1 PROJECT STUDY AREA	12
FIGURE 1-2 – PROJECT SITE PLAN	13
FIGURE 1-3 – RELOCATED DAILY TRAFFIC FROM PARKING LOT / COMMERCIAL PROPERTY	14
FIGURE 1-4 – RELOCATED AM PEAK HOUR TRAFFIC FROM PARKING LOT / COMMERCIAL PROPERTY	15
FIGURE 1-5 – RELOCATED PM PEAK HOUR TRAFFIC FROM PARKING LOT / COMMERCIAL PROPERTY	16
FIGURE 1-6 – PROJECT DISTRIBUTION	17
FIGURE 1-7 – NEAR-TERM (2014) PROJECT RELATED DAILY TRAFFIC	18
FIGURE 1-8 – NEAR-TERM (2014) PROJECT RELATED TRAFFIC-AM PEAK HOUR	19
FIGURE 1-9 – NEAR-TERM (2014) PROJECT RELATED TRAFFIC-PM PEAK HOUR	20
FIGURE 1-10 – HORIZON YEAR (2030) PROJECT RELATED DAILY TRAFFIC	21
FIGURE 1-11 – HORIZON YEAR (2030) PROJECT RELATED TRAFFIC-AM PEAK HOUR	22
FIGURE 1-12 – HORIZON YEAR (2030) PROJECT RELATED TRAFFIC-PM PEAK HOUR	23
FIGURE 3-1 – EXISTING CIRCULATION NETWORK	33
FIGURE 3-2 – EXISTING ROADWAY SEGMENT VOLUMES	34
FIGURE 3-3 – EXISTING AM PEAK HOUR INTERSECTION VOLUMES	35
FIGURE 3-4 – EXISTING PM PEAK HOUR INTERSECTION VOLUMES	36
FIGURE 4-1 – NEAR-TERM (2014) ROADWAY SEGMENT VOLUMES WITHOUT PROJECT	43
FIGURE 4-2 – NEAR-TERM (2014) AM PEAK HOUR INTERSECTION VOLUMES WITHOUT PROJECT	44
FIGURE 4-3 – NEAR-TERM (2014) PM PEAK HOUR INTERSECTION VOLUMES WITHOUT PROJECT	45
FIGURE 4-4 – NEAR-TERM (2014) ROADWAY SEGMENT VOLUMES WITH PROJECT	46
FIGURE 4-5 – NEAR-TERM (2014) AM PEAK HOUR INTERSECTION VOLUMES WITH PROJECT	47
FIGURE 4-6 – NEAR-TERM (2014) PM PEAK HOUR INTERSECTION VOLUMES WITH PROJECT	48
FIGURE 5-1 – HORIZON YEAR (2030) ROADWAY SEGMENT VOLUMES WITHOUT PROJECT	55
FIGURE 5-2 – HORIZON YEAR (2030) AM PEAK HOUR INTERSECTION VOLUMES WITHOUT PROJECT	56
FIGURE 5-3 – HORIZON YEAR (2030) PM PEAK HOUR INTERSECTION VOLUMES WITHOUT PROJECT	57
FIGURE 5-4 – HORIZON YEAR (2030) ROADWAY SEGMENT VOLUMES WITH PROJECT	58
FIGURE 5-5 – HORIZON YEAR (2030) AM PEAK HOUR INTERSECTION VOLUMES WITH PROJECT	59
FIGURE 5-6 – HORIZON YEAR (2030) PM PEAK HOUR INTERSECTION VOLUMES WITH PROJECT	60
FIGURE 8-1 – IMPROVED LOCATIONS	69

List of Tables

TABLE 1-1 CAPACITY OF THE PORT CONFIGURATIONS – NORTHBOUND POV LANES ONLY	8
TABLE 1-2 SAN YSIDRO BORDER CROSSING NORTHBOUND POV TRAFFIC	8
TABLE 1-3 SAN YSIDRO BORDER CROSSING SOUTHBOUND POV TRAFFIC	9
TABLE 1-4 EMPLOYEE TRIP GENERATION FOR THE SAN YSIDRO PORT OF ENTRY	10
TABLE 1-5 TRIP GENERATION AT THE SAN YSIDRO BORDER CROSSING	10
TABLE 3-1 EXISTING ROADWAY SEGMENT CONDITIONS	29
TABLE 3-2A EXISTING FREEWAY CONDITIONS –AM PEAK HOUR	30
TABLE 3-2B EXISTING FREEWAY CONDITIONS-PM PEAK HOUR	31
TABLE 3-3 EXISTING INTERSECTION CONDITIONS	32
TABLE 4-1 CUMULATIVE PROJECTS	37
TABLE 4-2 NEAR-TERM (2014) ROADWAY SEGMENT CONDITIONS	39
TABLE 4-3A NEAR-TERM (2014) FREEWAY CONDITIONS-AM PEAK HOUR	40
TABLE 4-3B NEAR-TERM (2014) FREEWAY CONDITIONS-PM PEAK HOUR	41
TABLE 4-4 NEAR-TERM (2014) INTERSECTION CONDITIONS	42
TABLE 5-1 HORIZON YEAR (2030) ROADWAY SEGMENT CONDITIONS	51
TABLE 5-2A HORIZON YEAR (2030) FREEWAY CONDITIONS-AM PEAK	52
TABLE 5-2B HORIZON YEAR (2030) FREEWAY CONDITIONS-PM PEAK	53
TABLE 5-3 HORIZON YEAR (2030) INTERSECTION CONDITIONS	54
TABLE 7-1 SUMMARY OF ROADWAY SEGMENT CONDITIONS	63

TABLE 7-2A SUMMARY OF FREEWAY CONDITIONS-AM PEAK HOUR	64
TABLE 7-2B SUMMARY OF FREEWAY CONDITIONS-PM PEAK HOUR	65
TABLE 7-3 SUMMARY OF INTERSECTION CONDITION	66
TABLE 8-1 IMPROVEMENTS	67

Appendices

APPENDIX A LEVEL OF SERVICE CONCEPTS & ANALYSIS METHODOLOGIES
APPENDIX B TRAFFIC COUNT DATA
APPENDIX C MODELING INFORMATION / TRIP GENERATION
APPENDIX D PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS EXISTING CONDITIONS
APPENDIX E PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS NEAR-TERM CONDITIONS
APPENDIX F PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS HORIZON YEAR CONDITIONS
APPENDIX G QUEUING ANALYSIS
APPENDIX H COST ESTIMATES & CONCEPT PLANS

EXECUTIVE SUMMARY

The U.S. General Services Administration (GSA) proposes to expand the number of inspection stations at the San Ysidro Land Port of Entry (LPOE) from 24 stations to 60 stations in an effort to relieve traffic congestion and reduce vehicular queues at the inspection points. As part of this expansion, the property located at the south leg of Camiones Way and Camino de la Plaza intersection, which includes a commercial site and parking lot, will be relocated to nearby locations.

The proposed expansion will increase the capacity of the northbound traffic lanes crossing the border resulting in an increase of daily traffic trips and peak hour traffic volumes on local roadways and intersections respectively.

As part of the LPOE expansion, the southbound approach of the I-5 mainline will be realigned to traverse the property that located at the south side of Camino de la Plaza between Virginia Avenue and the current location of the I-5 southbound lanes. This realignment will result in the need to relocate the parking lot and commercial site that currently exist on this property to nearby locations.

CHAPTER 1 THE PROJECT

This traffic impact analysis has been prepared to analyze the potential vehicular traffic impacts resulting for the proposed San Ysidro Land Port of Entry (LPOE) Crossing Expansion. The San Ysidro LPOE is the busiest port-of-entry between the U.S. and Mexico. Daily more than 50,000 northbound vehicles and 25,000 northbound pedestrians enter the U.S. at the San Ysidro LPOE. The existing border facility located at the southern terminus of I-5 currently consists of 24 inspection stations and 1 inspection station for buses. This existing facility cannot adequately accommodate current or future traffic demand. A separate study will be prepared to analyze the pedestrian and transit impacts of the proposed expansion.

Figure 1-1 shows the project vicinity and study area.

PHASING PLAN

The proposed project consists of phased reconfiguration and expansion of the San Ysidro LPOE. Most of the existing facility would be demolished and new facilities would be constructed, including primary and secondary inspection areas, an administration building, a pedestrian building, a central plant, pedestrian bridges and ramps, parking structures, and other support structures. Buildings to be retained or renovated include the Old Customs House. The expanded facility would consist of approximately 220,000 square feet of building space, 30 northbound inspection lanes, six southbound inspection lanes, and a new southbound roadway connecting with Mexico's planned El Chaparral LPOE facility. The project would be constructed in three phases over a period of approximately four years, with some overlap of phases occurring. Each phase described below could function independently from subsequent phases.

Phase 1 – Northbound Facilities

Proposed improvements in Phase 1 would primarily entail reconfiguration of the northbound facilities to increase inspection processing capacity and operational efficiency.

Primary Inspection Area

The northbound primary vehicle inspection area would be reconfigured to include 24 inspection lanes, consisting of 23 standard vehicular lanes (12 feet wide) and one bus lane (14 feet wide). The standard vehicular lanes would include 46 horizontally stacked inspection booths. Stacked booths consist of two booths arranged in tandem that allow for the concurrent inspection of two cars per lane. The bus lane would include a single inspection booth in the lane. Vehicles cleared to enter the United States from the primary inspection area would be directed to northbound lanes that merge with I-5. A total of six northbound lanes (12 feet wide) would be constructed; three along the eastern portion of the LPOE, and three in the middle of the LPOE, creating a central island for secondary inspections and operations.

Secondary Inspection Area

The existing northbound secondary inspection area would be demolished, and a new secondary inspection and operations center island would be constructed. The entrance to the new secondary inspection area would be equipped with a Z Portal[®] Inspection System, which is a multi-view, drive-through inspection system capable of scanning vehicles and their cargo for concealed threats and contraband. The secondary inspection area would contain up to 36 inspection spaces, up to 5

inspection booths, and a VACIS[®] system inspection area at the northern end. The VACIS[®] system provides gamma ray scanning of cargo containers.

Auto Seizure and Impound Facilities

North of the secondary inspection area, an auto seizure building and impound facility would be constructed. This facility would include an impound parking lot to accommodate approximately 26 spaces for impounded vehicles, as well as two disabled spaces for employees at the auto seizures building. A 12-foot-wide travel lane would be constructed on the northern side of the auto seizure building that would allow vehicles exiting the secondary inspection area to travel into the U.S.

Operations Center

A new operations center building would be constructed immediately east of the secondary inspection area. The operations center building would contain a new head house and a vehicle operations facility.

Parking Structures

Two employee parking structures would be constructed during Phase 1. One multi-story, above-ground structure would be located on the west side of southbound I-5. This structure would require the demolition of the existing USBP station and reconfiguration of the Camiones Way turn-around. A temporary USBP station would be constructed to the west of the existing facility. The existing turn-around that extends to the south between I-5 and the Duty Free Shop would be relocated slightly to the north and would terminate just west of I-5.

The other structure would be a subterranean garage beneath the secondary inspection area and operations center building. Access to the above-ground structure would be provided via an east-west connector road within the reconfigured LPOE. Ingress to the subterranean garage would be from the easternmost lane on southbound I-5 that connects to a ramp into the garage. Egress would be provided from a ramp on the east side of the central island that merges onto northbound I-5.

Pedestrian Bridge

Phase 1 would include construction of an east – west pedestrian bridge over the I-5 and LPOE, between San Ysidro Boulevard and an elevated pedestrian plaza along Camino de la Plaza (to be constructed as part of a separate project). A temporary pedestrian walkway would be constructed between Camiones Way and the border to channel pedestrians around the new above-ground employee parking structure and into Mexico at the current southbound crossing. An existing pedestrian bridge that spans the San Ysidro Boulevard freeway ramps and connects an employee parking lot with a walkway to the existing Pedestrian Inspection Building would be demolished. The existing elevated Administration Building would remain in place and operational during Phase 1, but public access to the existing pedestrian bridge along the existing Administration Building would be closed once the new east-west pedestrian bridge is constructed. The retail loading zone for the two buildings just north of the existing Greyhound station and the Payless Shoe Store would be removed to make room for a Pedestrian Plaza.

Central Plant

Phase 1 would include construction of a new central plant on the eastern side of the LPOE. Two existing buildings along Rail Court (currently occupied by a Payless Shoe Store and a Greyhound Bus station) would be demolished, and a single-story central plant would be constructed to house electrical and mechanical equipment.

Construction of Phase 1 is anticipated to begin in 2010 with an estimated duration of 18 to 24 months.

Phase 2 – Northbound Buildings

Phase 2 improvements would involve the reconfiguration of the eastern operational area and construction of new buildings.

The existing Pedestrian Building would be demolished, and a new Administration and Pedestrian Building would be constructed east of the reconfigured northbound inspection facilities. The proposed Administration and Pedestrian Building would include an underground central detention facility. A new north-south pedestrian ramp would be constructed to channel northbound pedestrians and bicyclists from Mexico to the inspection processing facilities. During construction of the Administration and Pedestrian Building, pedestrian processing operations would temporarily be transferred to the Old Customs House. The Old Customs House would be renovated to accommodate these interim uses, and a new pedestrian sidewalk would be constructed between the border crossing and the renovated building. Following construction of the proposed improvements, the existing Administration Building and bridge (supporting the Administration Building) would be demolished.

Construction of Phase 2 is anticipated to begin in 2012 with an estimated duration of 36 months.

Phase 3 – Southbound Facilities

Proposed Phase 3 improvements primarily would entail the reconfiguration of the southbound facilities to connect with Mexico's planned El Chaparral facility. The reconfiguration of the southbound facilities would require removal of existing structures and modifications to Camiones Way. The existing commercial retail building (UETA Duty Free Shop) and large surface parking lots between Virginia Avenue and I-5 would be demolished. Construction of the proposed southbound roadway would remove most of Camiones Way, and a new cul-de-sac would be constructed immediately south of Camino de la Plaza that would function as a drop-off area for buses, taxis, and jitneys.

Primary Inspection Area

The primary southbound inspection area would contain six inspection lanes, consisting of five standard vehicular lanes (12 feet wide) and one 14-foot-wide bus inspection lane. The inspection lanes would include 12 stacked inspection booths. In addition, two bypass lanes would be provided on the east side of the primary inspection area. One lane would be dedicated for employees entering the LPOE, and the other would provide employees access to the parking garage.

Secondary Inspection Area

A secondary southbound inspection area would be constructed northeast of the above-ground employee parking structure, and would include up to 17 inspection spaces and up to 9 inspection booths. This facility also could be used for northbound secondary inspections, increasing the overall capacity of the northbound secondary inspection area. Therefore, an alternate access point would be provided at the southern end for northbound vehicles. The access points (southbound and northbound) to the secondary inspection area would be equipped with a Z Portal[®] Inspection System to scan vehicles and their cargo. The secondary inspection area also would include an auto inspection/breakdown building.

Southbound Roadway

A new southbound roadway would be constructed at the terminus of southbound I-5, just south of the Camino de la Plaza overcrossing, and would curve southwestward within the LPOE to connect with the planned El Chaparral LPOE in Mexico. The roadway would consist of six southbound lanes (12 feet wide) at the primary inspection area, and would include a seventh lane just south of the primary inspection area. Approximately 1,000 feet southwest of the primary inspection area, the roadway would widen to 14 lanes (12 feet wide) and would divide just prior to the international border. This configuration of the roadway terminus would match the design of the planned EL Chaparral LPOE in Mexico.

Pedestrian Bridges

A pedestrian ramp would be constructed between the east–west pedestrian bridge (to be completed during Phase 1), and a proposed sidewalk that would connect with Virginia Avenue to the east.

USBP Facility

A new USBP station would be constructed in the southern portion of the LPOE, just west of the above-ground employee parking structure. The station would consist of one building, an access turn-around, and a small parking area with nine spaces for USBP employees. Vehicular access to the new station would be provided from the internal east-west connector road. Upon completion of the new USBP station, the temporary station (to the west) would be demolished.

Northbound Primary Inspection Area Expansion

During Phase 3, the northbound primary inspection area would be expanded by six lanes on the west side to include an additional five standard vehicle inspection lanes (12 feet wide) with 10 stacked inspection booths, and one vehicle bypass lane (14 feet wide).

Construction of Phase 3 is anticipated to begin in 2012 with an estimated duration of 18 months.

STUDY AREA

The study area for this project includes those locations that are expected to be affected by this project. The scope of the study area is based on the City of San Diego Guidelines and developed through a review of on-going traffic studies, and a working knowledge of the local transportation system. The study area is shown in Figure 1-1. The specific study area includes the following roadway segments, freeway segments, and street intersections:

Roadway Segments

- East Beyer Boulevard north of San Ysidro Boulevard
- Camino de la Plaza from Virginia Avenue to Interstate 5 (I-5) Southbound Ramps
- Camino de la Plaza from I-5 Southbound ramps to San Ysidro Boulevard
- Camiones Way south of Camino de la Plaza
- San Ysidro Boulevard from Olive Drive to Interstate 805 (I-805) Southbound Ramps
- San Ysidro Boulevard from I-805 Southbound ramps to I-805 Northbound Ramps
- San Ysidro Boulevard from I-805 Northbound ramps to Border Village Road (north)
- San Ysidro Boulevard from Border Village Road (south) to Camino de la Plaza
- Via de San Ysidro from San Ysidro Boulevard to I-5 Northbound Ramps
- Via de San Ysidro from I-5 Northbound Ramps to I-5 Southbound Ramps
- Via de San Ysidro from I-5 Southbound Ramps to Calle Primera

Freeway Segments

- I-5 from Dairy Mart Road to Via de San Ysidro
- I-5 from Via de San Ysidro to I-805 Interchange
- I-5 from I-805 Interchange to East San Ysidro Boulevard
- I-5 from I-805 Interchange to Camino de la Plaza On-Ramp
- I-5 from East San Ysidro Boulevard to the International Border
- I-5 from Camino de la Plaza on-ramp to the International Border
- I-805 from the State Route 905 (SR-905) Interchange to San Ysidro Boulevard
- I-805 from San Ysidro Boulevard to I-5 Interchange

Intersections

- Via de San Ysidro / Calle Primera
- Via de San Ysidro / I-5 Southbound Off-Ramp
- Via de San Ysidro / I-5 Northbound Ramps
- West San Ysidro Boulevard / I-805 Southbound Ramps
- East San Ysidro Boulevard / I-805 Northbound Ramps
- East San Ysidro Boulevard / East Beyer Boulevard
- East San Ysidro Boulevard / I-5 Northbound Ramps
- Camino de la Plaza / I-5 Southbound Ramps
- Camino de la Plaza / Virginia Avenue

PROJECT DESCRIPTION

GSA is proposing to expand the number of inspection stations at the San Ysidro LPOE from 24 stations (plus 1 bus inspection station) to 60 stations (plus 1 bus inspection station) in an effort to relieve traffic congestion and reduce vehicular queues at inspection points. The opening day of the proposed expansion is assumed to occur in the year 2014. Several alternatives were considered for the expansion of the existing facility, GSA selected the Island alternative which is shown in Figure 1-2.

As part of the expansion, Interstate 5 (I-5) southbound lanes will be realigned to the west. The proposed realignment will require the removal and relocation of an existing commercial site and parking lot located on the south side of Camino de la Plaza between Virginia Avenue and current location of I-5. The commercial property has several possible locations for relocation; the most viable location is just north of the realigned I-5 southbound lanes at the southeast corner of Camino de la Plaza / I-5 southbound ramp intersection.

Figure 1-3 illustrates the redistributed daily traffic. Figures 1-4 and 1-5 illustrate the redistributed AM and PM peak hour traffic.

PROJECT TRIP GENERATION

Trip generation is a measure or forecast of the number of trips that begin or end at the project site. The traffic generated is a function of the extent and type of development proposed for the site. These trips will result in some traffic increases on the streets where they occur. In general, vehicular traffic generation characteristics for projects are estimated based on established rates. These rates identify the probable traffic generation of various land uses based studies of developments in comparable settings. However, since there are no published public rates for a border crossing, the trip generation must be estimated.

Northbound

The estimated trip generation for the expansion of the LPOE facilities is based on two components which include increase in lane capacity and personnel.

The trip generation for the increased capacity of the expansion was derived based on the existing operations. Inspection times are considered classified information; therefore the analysis is based on observed inspection times. The existing border vehicle inspection stations that are currently processing privately owned vehicles consist of 24 lanes with single inspection booth. The existing facilities can currently process approximately 3,072 vehicles per hour (based on the observed inspection time per vehicle per lane). Assuming the same rate with all inspection lanes open for 24 hours, the existing facilities has a daily capacity of 73,728 daily trips (24 hours x 3,072 vehicles per hour = 73,728 vehicles per day).

Per GSA estimates, tandem inspection lanes operate at approximately 1.45 times the capacity of the non-tandem lanes. This rate was multiplied by the observed inspection times to obtain the inspection times for tandem lanes. The proposed expansion will include 30 lanes with tandem booths and would be able to process approximately 5,580 vehicles per hour resulting in a daily capacity of 133,920 daily trips (24 hours x 5,580 vehicles per hour = 133,920 vehicles per day).

Table 1-1 summarizes the capacities of the port configurations for privately owned vehicles (POV).

Table 1-1
Capacity of the Port Configurations – Northbound POV Lanes Only

Port Configuration	Number of Lanes	Hourly Capacity (vehicles/hour)	Daily Capacity (vehicles / day)
Existing	24 (single)	3,072	73,728
Proposed	30 (tandem)	5,580	133,920
	Difference	2,508	60,192

The traffic demand for the border crossing was obtained from San Diego Association of Governments (SANDAG) Series 10 Model. The SANDAG model results indicate the unconstrained demand for the years 2000, 2010, and 2030. However, the inspection stations add constraint to the system, reducing the amount of traffic that can actually travel through the border in either direction. Latent demand was also considered in this analysis. Latent demand is traffic that would cross in a day if there was no wait time or short delays at the border, but choose not to cross if there are long delays at the border. Based on the *Economic Impacts of Wait Times at the San Diego – Baja California Border* prepared by SANDAG, it is estimated that approximately 30% of the trips wishing to cross the border choose not to cross due to the wait times and vehicular queues. With the increased capacity due to the proposed LPOE expansion, there will be shorter delays/queues at the border resulting in more vehicles being able to cross. Table 1-2 summarizes the daily trips utilizing the port with and without the expansion.

Table 1-2
San Ysidro Border Crossing Northbound POV Traffic

Analysis Year	Existing (24 lanes)			Proposed (30 Tandem lanes)			Project Increase
	Capacity	Demand	Throughput (trips)	Capacity	Demand	Throughput (trips)	
Daily							
Existing	73,728	54,204	54,204	N/A	N/A	N/A	N/A
2014	73,728	59,935	59,935	133,920	77,908	77,908	17,973
2030	73,728	88,165	65,365	133,920	88,165	88,165	22,800
AM Peak Hour							
Existing	3,072	5,105	3,072	N/A	N/A	N/A	N/A
2014	3,072	7,594	3,072	5,580	5,313	5,313	2,241
2030	3,072	16,612	3,072	5,580	7,640	5,580	2,508
PM Peak Hour							
Existing	3,072	3,945	3,072	N/A	N/A	N/A	N/A
2014	3,072	7,841	3,072	5,580	4,894	4,894	1,822
2030	3,072	29,414	3,072	5,580	4,900	4,900	1,828

Demand is the number of vehicles wanting to cross the border and Throughput is the actual number of vehicles crossing the border

It should be noted that the daily throughput does not always equal the demand, even when there is sufficient daily capacity to satisfy the demand. This is a result of having periods of time during the day when the hourly demand is less than the hourly capacity of the inspection lanes and other periods during the day when the hourly demand is greater than the hourly capacity of the inspection lanes. The result of the hourly demand being greater than the hourly capacity is a backlog of queuing vehicles waiting to cross the border. The excessive hourly demand under the existing port configuration is a result of the spill over from the backlog of the previous hour's vehicular queue.

Southbound

At the time of the preparation of this report, Mexico's plan for the expansion of Mexico's LPOE had not been finalized and is not available for review and coordination. Therefore, the trip generation for Mexico's expansion plans can not be estimated. However, the existing southbound lanes currently have no inspection points and it can be assumed that the future realignment of the southbound lanes will have some inspections resulting in lower capacity and less vehicles in the peak hour. Due to the increase in northbound traffic, it was assumed that a similar increase in the southbound traffic would occur in order for the LPOE inbound traffic to return to Mexico with portion of it choosing to utilize the Otay Mesa LPOE as their return route. Table 1-3 summarizes the daily trips utilizing the port with and without the expansion.

**Table 1-3
San Ysidro Border Crossing Southbound POV Traffic**

Analysis Year	Existing Conditions			With improved Northbound			
	Capacity	Demand	Throughput (trips)	Capacity	Demand	Throughput (trips)	Project Increase
Daily							
Existing	273,600	60,483	60,483	N/A	N/A	N/A	N/A
2014	273,600	69,599	69,599	273,600	87,320	87,320	17,721
2030	273,600	78,436	78,436	273,600	98,407	98,407	19,971
AM Peak Hour							
Existing	11,400	1,636	1,636	N/A	N/A	N/A	N/A
2014	11,400	1,883	1,883	11,400	2,636	2,636	753
2030	11,400	2,122	2,122	11,400	2,971	2,971	849
PM Peak Hour							
Existing	11,400	5,316	5,316	N/A	N/A	N/A	N/A
2014	11,400	6,117	6,117	11,400	7,952	7,952	1,835
2030	11,400	6,894	6,894	11,400	8,962	8,962	2,068

Demand is the number of vehicles wanting to cross the border and Throughput is the actual number of vehicles crossing the border

Employees

The proposed expansion of the border crossing will also result in an increase of staff members to address the daily operations of the expanded LPOE. Per GSA, the current site consists of 798 employees. This number will be increased to 933 employees due to the expansion which is a net increase of 135 additional port employees. Per discussions with City of San Diego Staff, a trip generation rate of three trips per employee was applied to address the anticipated additional daily trips generated by the added employees. The increase in the number of employees will result in approximately 405 new daily trips, 37 AM Peak hour trips and 41 PM Peak hour trips.

Table 1-4 summarizes the employee trip generation.

**Table 1-4
Employee Trip Generation for the San Ysidro Port of Entry**

Land Use	Intensity	Units	Rate/Trips	Daily	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
Current Employees	798	Employees	Rate	3.0	9%	90%	10%	10%	60%	40%
			Trips	2,394	215	194	21	239	143	96
Proposed Employees	933	Employees	Rate	3.0	9%	90%	10%	10%	60%	40%
			Trips	2,799	252	227	25	280	168	112
Net Change				405	37	33	4	41	25	16

Source: City of San Diego Trip Generation Rates for military with increased daily trip generation to account for off-site trips

Note: Numbers may not total due to rounding.

Trip Generation Summary

Table 1-5 summarizes the total two way increase in vehicle traffic at the border due to the expansion, including latent demand for privately owned vehicles and employees.

**Table 1-5
Trip Generation at the San Ysidro Border Crossing**

Port Configuration	Daily	AM	PM
2014 Conditions			
Increase in traffic due to Proposed Port Configuration	36,099	3,031	3,698
2030 Conditions			
Increase in traffic due to Proposed Port Configuration	43,176	3,394	3,937

As stated previously, the proposed LPOE expansion will cause the relocation of an existing commercial/retail building and a parking lot that are currently located at the south leg of Camiones Way / Camino de la Plaza intersection to a nearby location. This relocation will result in redistribution of the existing site trips to the roadway network.

TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution and assignment is the process of identifying the probable destinations, directions and traffic routes that project related traffic will likely affect. Trip distribution and assignment information can be estimated from observed traffic patterns, experience or through use of a computerized travel forecast model. Once the proposed expansion trips have been estimated, they are assigned to the study area network.

Due to the nature of the border crossing, this project's trip distribution and assignment were based on observed traffic patterns and engineering judgment. It was assumed that the additional vehicles crossing the border would go to similar destinations as the existing traffic. The distribution was determined by sending the additional trips proportionally through the project area. Figure 1-6 illustrates the project distribution.

PROJECT TRAFFIC

The proposed project will affect the existing vehicular traffic system in several ways: reduce vehicular queues, increase capacity at the border, increase peak hour and daily traffic volumes, and redistribute existing traffic due to the relocation of the parking lot and commercial property off Camiones Way.

Figure 1-7 illustrates the daily project traffic and Figures 1-8 and 1-9 illustrate the project peak hour traffic.

TRANSPORTATION OVERVIEW

The San Ysidro LPOE is the principal gateway between San Diego and Tijuana. Daily more than 50,000 northbound vehicles and 25,000 northbound pedestrians enter the U.S. at the San Ysidro LPOE.

Southbound vehicular and pedestrian entry into Mexico currently occurs on the west side of I-5, while northbound vehicular and pedestrian entry into the United States currently occurs on the east side of I-5. Most transit operations are located at or in the vicinity of the Intermodal Transit Center on the east side of I-5. Private parking areas are located to the east and west of I-5.

Cohesion of the San Ysidro Community is fragmented by the trolley system and two freeways, I-5 and I-805. In 1996, 766 acres in the San Ysidro Community Planning Area were designated as a redevelopment project area.

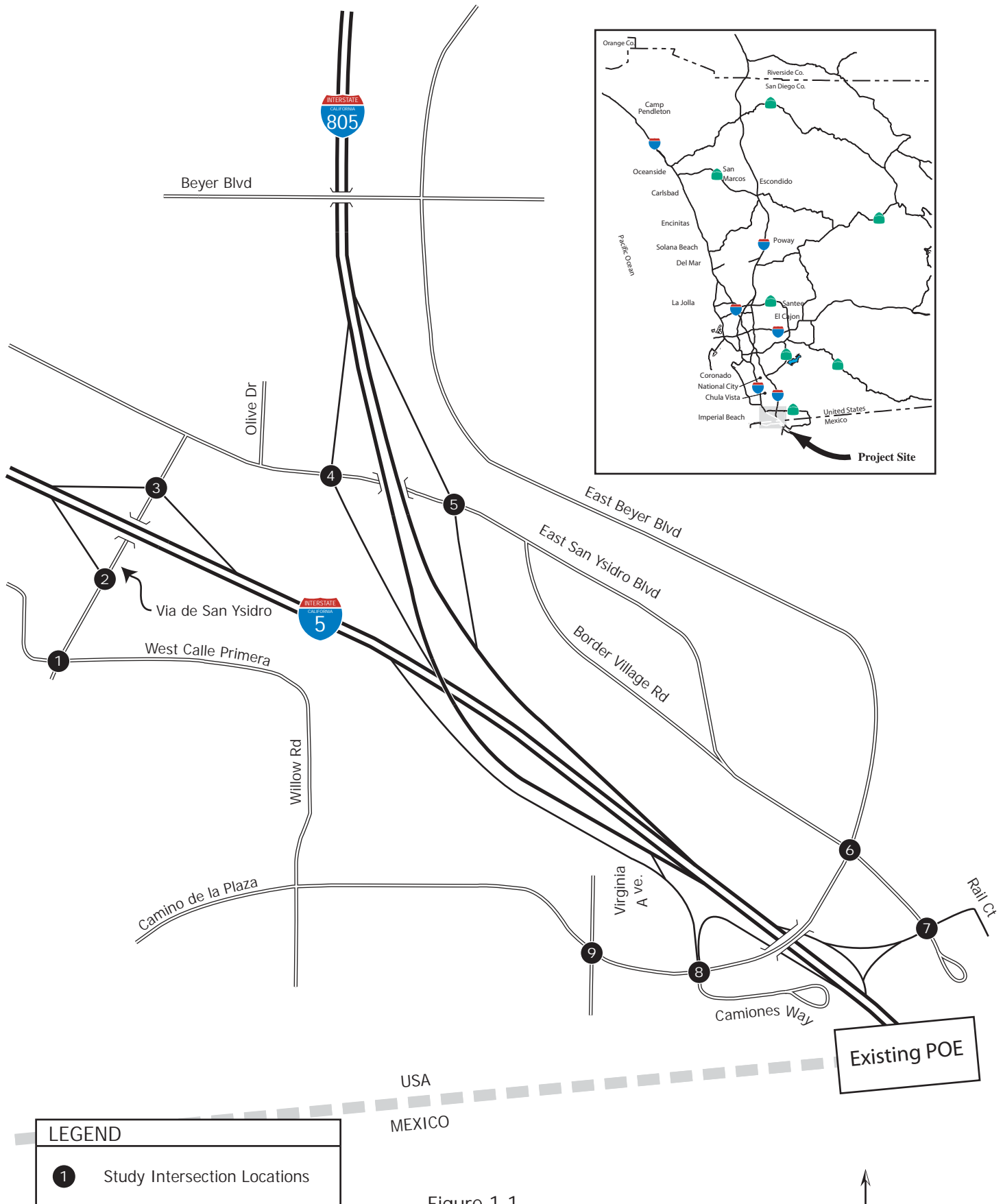


Figure 1-1
Project Study Area

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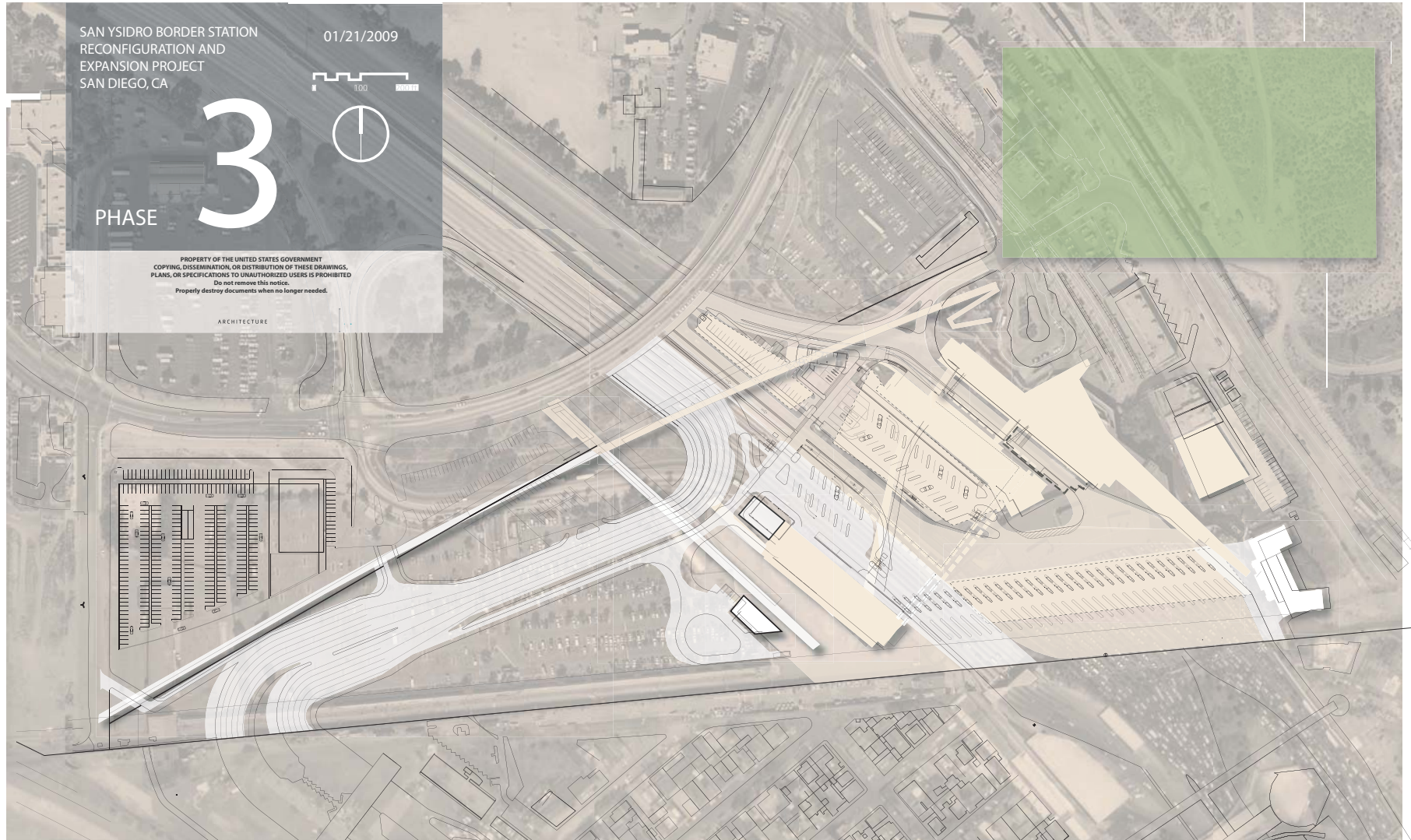
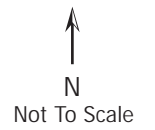


Figure 1-2
Project Site Plan





LEGEND	
—15—	Relocated Daily Traffic

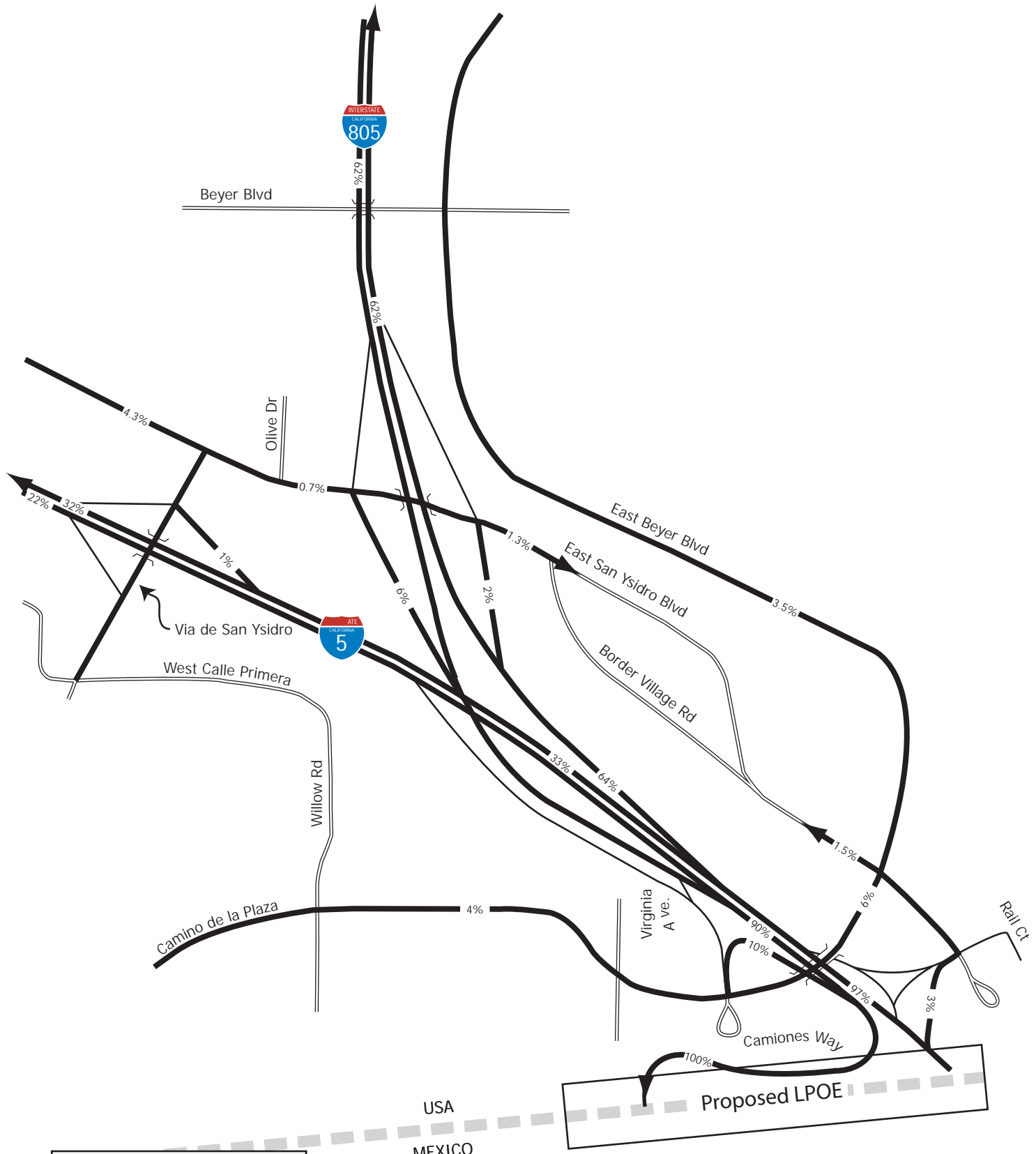
Figure 1-3
Relocated Daily Traffic From Parking Lot / Commercial Property

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Figure 1-4
Relocated AM Peak Hour Traffic From Parking Lot / Commercial Property



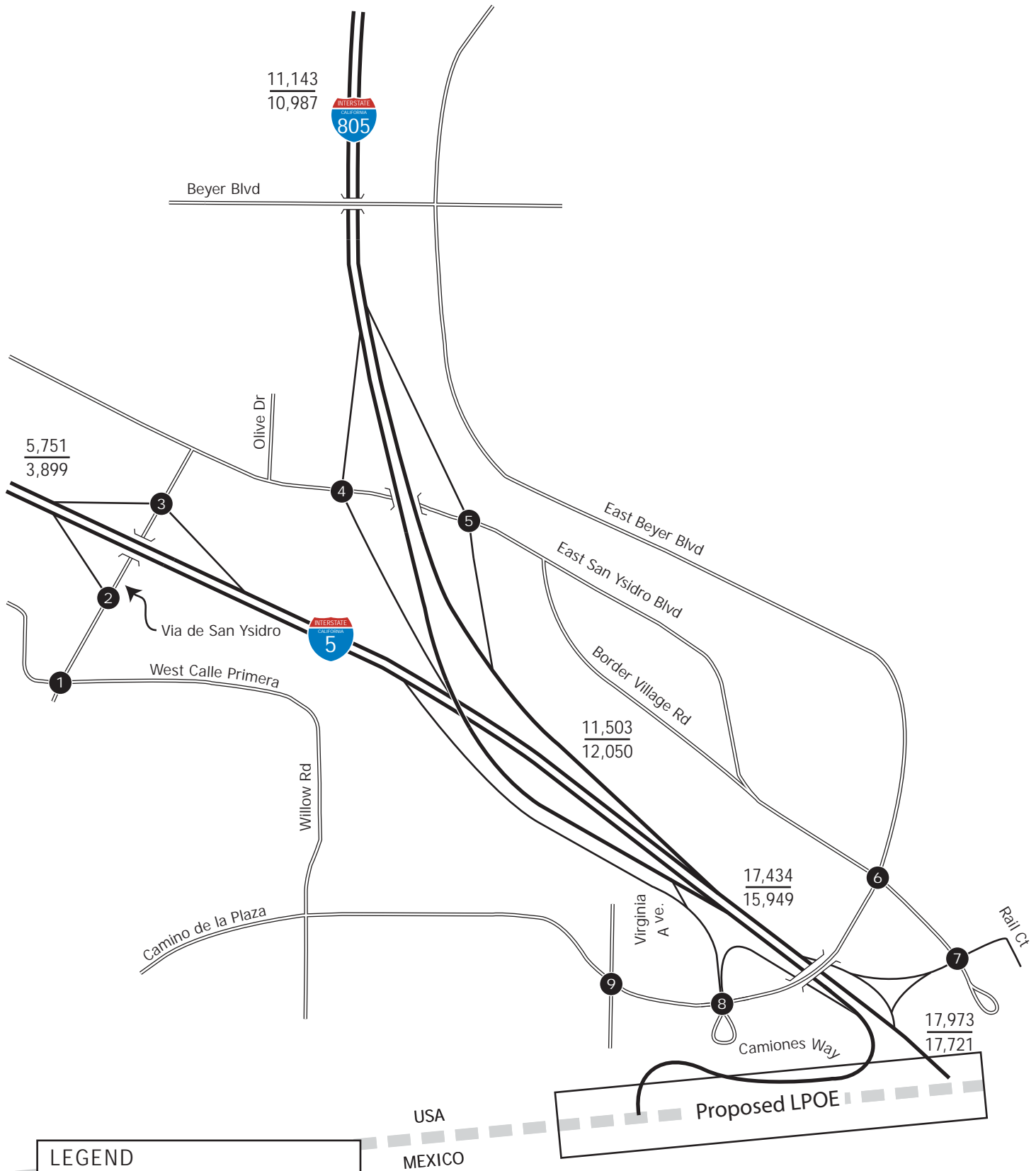


LEGEND

■ 5% ➔ Project Distribution

Figure 1-6
Project Distribution

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LEGEND	
$\frac{2340}{2969}$	Northbound Project Traffic
	Southbound Project Traffic

Figure 1-7
Near-Term (2014) Project Related Daily Traffic

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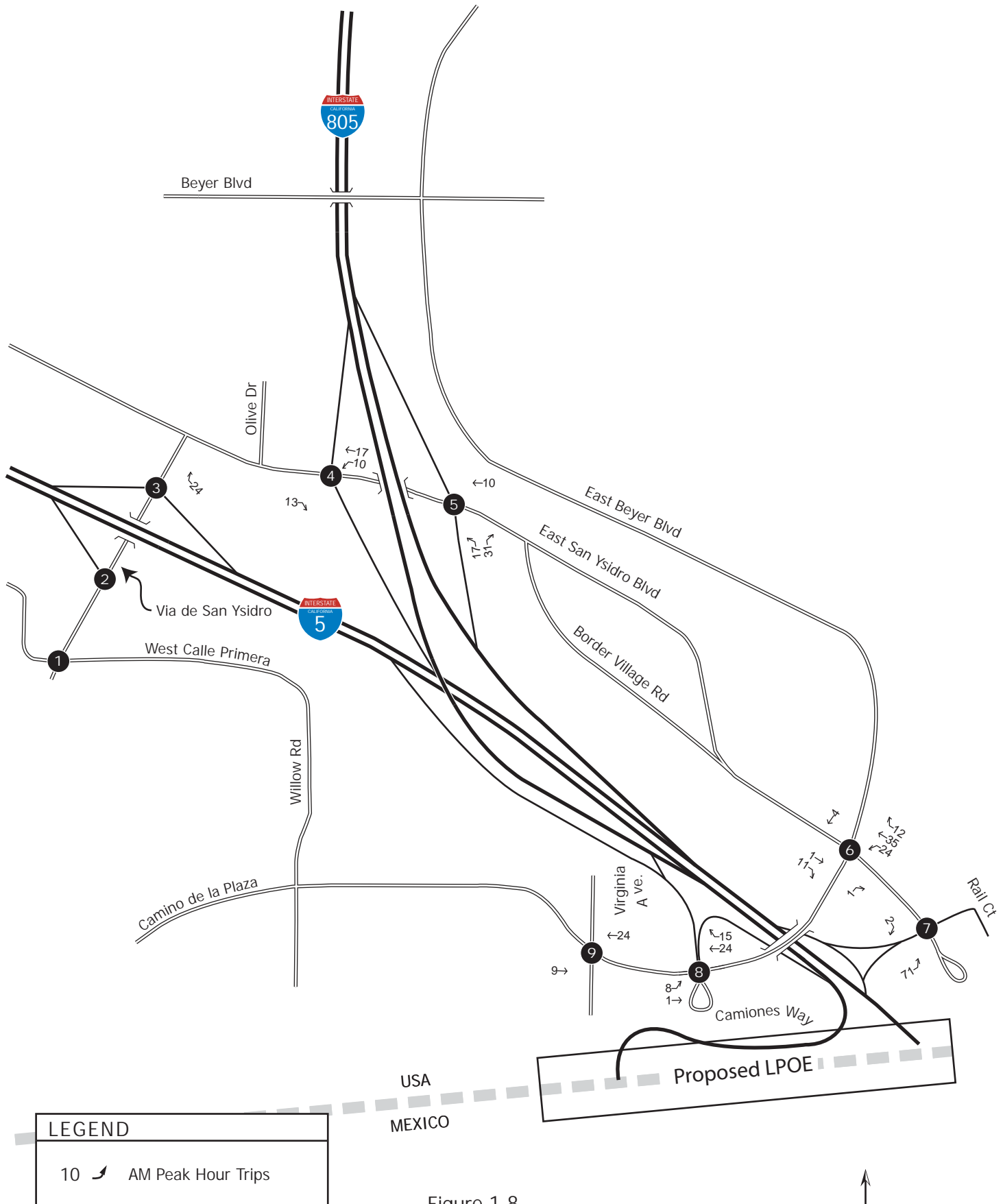


Figure 1-8
Near-Term (2014) Project Related Traffic - AM Peak Hour

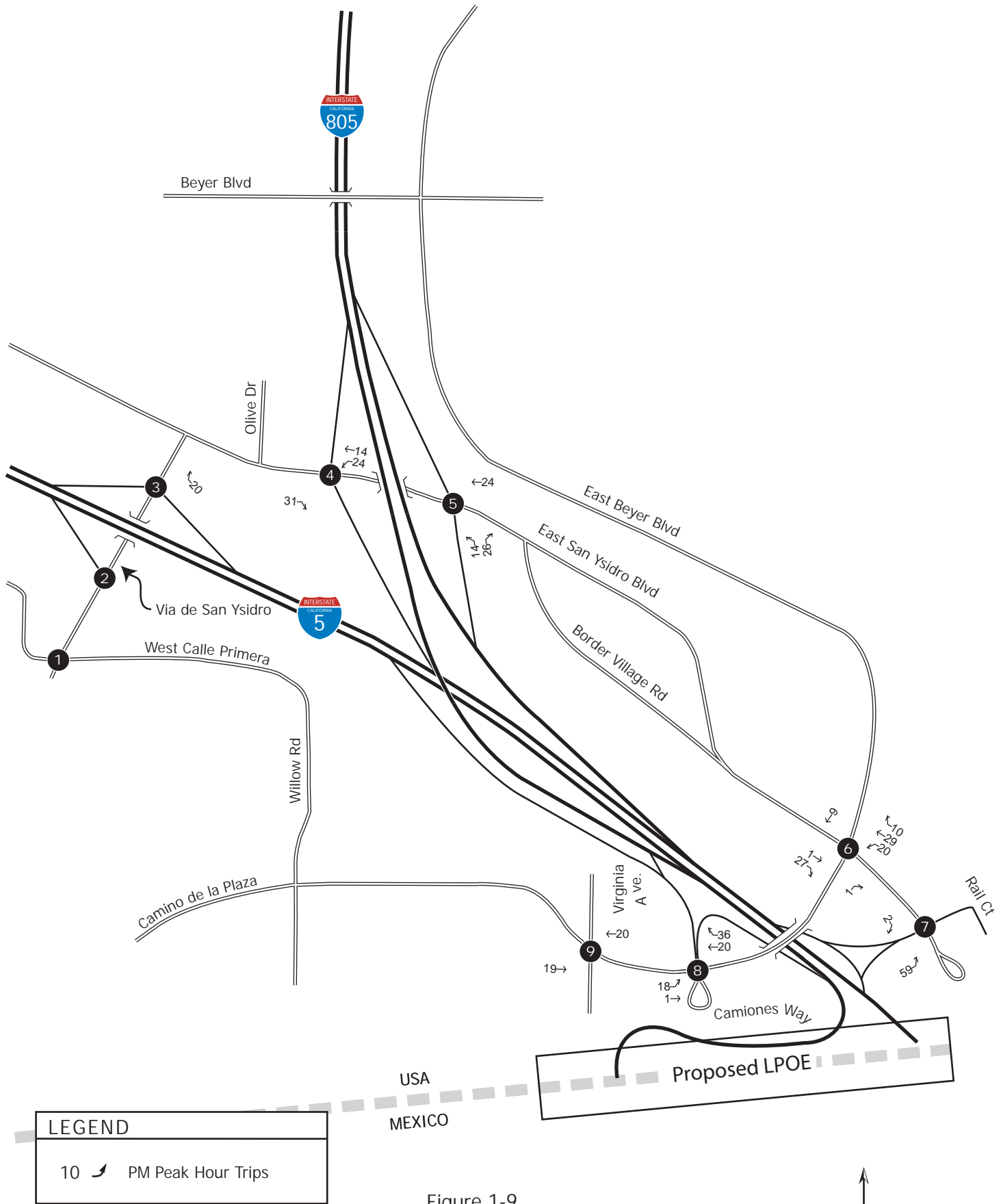


Figure 1-9
Near-Term (2014) Project Related Traffic - PM Peak Hour

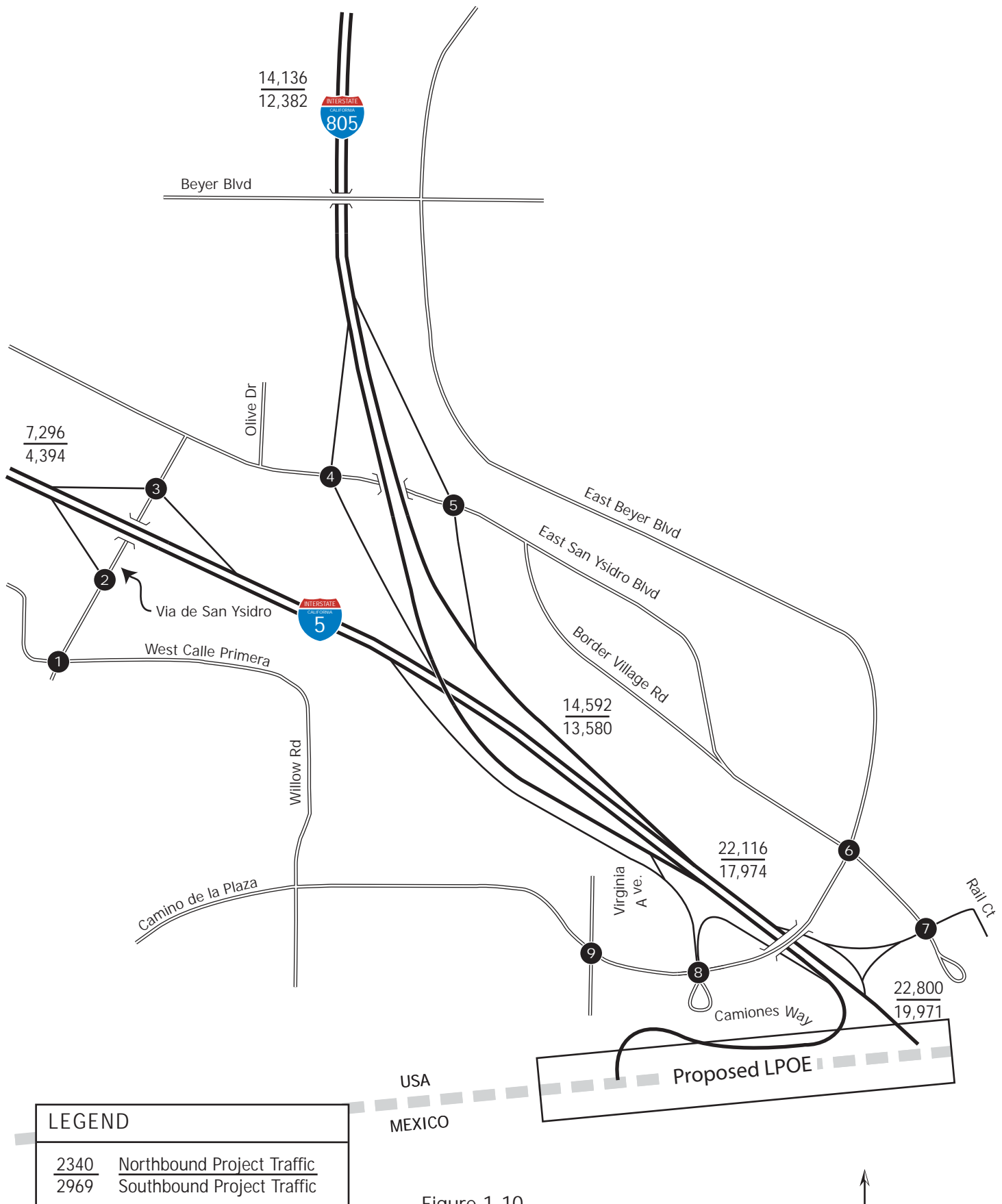


Figure 1-10
Horizon Year (2030) Project Related Daily Traffic

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Figure 1-11
Horizon Year (2030) Project Related Traffic-AM Peak Hour

CHAPTER 2 METHODOLOGIES

This chapter documents the methodologies and assumptions used to conduct the traffic impact analysis for the project. The study methodology and analysis are conducted in accordance with the *City of San Diego Traffic Impact Study Manual (1998)*. This section contains the following background information:

- Study scenarios
- Study time periods
- Capacity analysis methodologies

STUDY SCENARIOS

This report presents the following analysis scenarios:

- Existing Conditions (Year 2008)
- Near-term Conditions (Existing Conditions with Approved Projects and growth- Year 2014)
- Near-term Conditions (Opening Day) with Project (2014)
- Horizon Year Conditions (Year 2030)
- Horizon Year Conditions with Project (Year 2030)

ANALYSIS METHODOLOGIES

Street system operating conditions are typically described in terms of “level of service.” Level of service is a report-card scale used to indicate the quality of traffic flow on roadway segments and at intersections. Level of service (LOS) ranges from LOS A (free flow, little congestion) to LOS F (forced flow, extreme congestion). A more detailed description of the concepts described in this section is provided in Appendix A of this document. The following methods are outlined in this publication and used in this study.

Roadway Segment Capacity Analysis

The City of San Diego has published daily traffic volume standards for roadways within its jurisdiction. To determine service levels on study area roadway segments, we compared the appropriate average daily traffic thresholds for level of service to the daily capacity of the study area roadway segments, and the existing and future volumes in the study area. The thresholds for determining level of service used in this analysis are summarized in Appendix A.

Freeway Mainline Level of Service

The method for calculating freeway level of service is based on the volume-to-capacity (v/c) ratio using the following equation:

$$v/c = \frac{(\text{ADT} * \text{Peak hour percent} * \text{Directional factor}) / \text{Truck factor}}{\text{Capacity}}$$

where:

ADT = average daily traffic volume (2-way);

Peak hour percent = the proportion of ADT that occurs during the peak hour (not specifically AM or PM);

Directional factor = the proportion of peak hour traffic traveling in the peak direction;

Truck factor = a reduction in capacity to account for heavy vehicles and grades; and
Capacity = 2,300 vehicles per hour per lane.

The resultant v/c ratios are compared to the standard v/c thresholds for level of service contained in Appendix A.

Intersection Capacity Analysis

The analysis of peak hour intersection performance was conducted using the Traffix analysis software program, which uses methodologies defined in the 2000 Highway Capacity Manual (HCM) to calculate results. Level of service (LOS) for intersections is determined by control delay. Control delay is defined as the total elapsed time from when a vehicle stops at the end of a queue to the time the vehicle departs from the stop line. The total elapsed time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in the queue. Appendix A lists the HCM delay/LOS criteria for both signalized and unsignalized intersections.

Signalized Intersections

The HCM analysis methodology for evaluating signalized intersections is based on the “operational analysis” procedure. This technique uses 1,900 passenger cars per hour of green per lane (pcphgpl) as the maximum saturation flow of a single lane at an intersection. This saturation flow rate is adjusted to account for lane width, on-street parking, conflicting pedestrian flow, traffic composition, (e.g., the percentage of vehicles that are trucks) and shared lane movements (e.g., through and right-turn movements from the same lane). Average control delay is calculated by taking a volume-weighted average of all the delays for all vehicles entering the intersection.

All-way Stop-controlled (AWSC) Intersections

The HCM analysis methodology for evaluating all-way stop-controlled intersections is based on the degree of conflict for each independent approach created by the opposing approach and each conflicting approach. Level of Service for AWSC intersections is also based on the average control delay. However, AWSC intersections have different threshold values than those applied to signalized intersections. This is based on the rationale that drivers expect AWSC intersections to carry lower traffic volumes than at signalized intersections. Therefore, a higher level of delay is acceptable at a signalized intersection for the same LOS.

Two-way Stop-controlled (TWSC) Intersections

The HCM analysis methodology for evaluating two-way stop-controlled (TWSC) intersections is based on gap acceptance and conflicting traffic for vehicles stopped on the minor-street approaches. The critical gap (or minimum gap that would be acceptable) is defined as the minimum time interval in the major-street traffic stream that allows intersection entry for one minor-street vehicle. Average control delay and LOS for the “worst approach” are reported. Level of service is not defined for the intersection as a whole.

Intersecting Lane Vehicle (ILV) Methodology

To comply with Caltrans guidelines, the signalized intersections along state routes were also analyzed using the Intersecting Lane Vehicle (ILV) methodology. The ILV method determines the operating conditions of an intersection based upon the number of intersecting vehicles that enter the intersection per lane during the hour (ILV/hr). Where less than 1200 ILV/hr represents stable flow, 1200 to 1500 ILV/hr represents unstable flow with considerable delays possible, and 1500 ILV/hr or more represents over capacity, or stop and go operation with severe delay and heavy congestion. ILV analysis can be found in the Appendix.

Queuing and Wait Times

The hourly queuing was analyzed by comparing the demand during any given hour throughout the day to the hourly capacity at the border. When the hourly demand was less than the hourly capacity, the hourly vehicle queue was equal to the demand. When the hourly demand was more than the hourly capacity, the hourly vehicle queue was equal to the demand plus any demand from the proceeding hour that was unable to cross within that hour. Average wait time was determined by dividing the amount of vehicles in the queue by 60 min/hour to determine how many minutes wait (on average) the drivers were experiencing.

CHAPTER 3 EXISTING CONDITIONS

ROADWAY NETWORK

The principal roadways in the project study area are described briefly below. The description includes the physical characteristics, adjacent land uses, and traffic control devices along these roadways. The existing roadway geometry and control conditions are shown in Figure 3-1. Additional details regarding specific intersection operating conditions can be found on the capacity analysis worksheets in the Appendix.

Interstate 5 (I-5)

Interstate 5 runs north-south from Mexico through San Diego and further north through California. I-5 terminates at the San Ysidro LPOE. In the San Ysidro Community Planning Area, I-5 is an eight lane freeway. The I-5 interchanges that provide access to the San Ysidro Community Planning Area include Dairy Mart Road, Via de San Ysidro (excluding a southbound on-ramp), Camino de la Plaza (southbound only), and East San Ysidro Boulevard (northbound only).

Interstate 805 (I-805)

Interstate 805 runs north-south and connects with I-5 approximately one mile north of the San Ysidro LPOE, extending north to rejoin I-5 in north San Diego. In the San Ysidro Community Planning Area, I-805 is an eight lane freeway. The I-805 interchanges that provide access to the San Ysidro Community Planning Area include San Ysidro Boulevard and Camino de la Plaza (southbound only).

Camino de la Plaza

Camino de la Plaza is an east-west road that provides access to Las Americas (formerly International Gateway of the Americas). Las Americas is a mixed use development that incorporates retail, restaurant and commercial uses to the residential neighborhoods at the west side of I-5. Camino de la Plaza is currently constructed and classified as a four-lane collector road. Parking is permitted on the north side of the roadway only. The speed limit is unposted. There is a Class II bicycle lane on the south side of the street from the west extent of the study area to Camiones Way. Camino de la Plaza connects with Dairy Mart Road, the next I-5 interchange north beyond the study area.

San Ysidro Boulevard

San Ysidro Boulevard runs loosely parallel to and north of I-5 and varies in classification and current geometry. The West and East sections of the road are demarcated by I-805. It is constructed as a 4-lane major street between Via de San Ysidro and Camino de la Plaza, and a one-way loop road in the immediate vicinity of San Ysidro Border Trolley Station. Time-restricted parking is permitted north of Via de San Ysidro and generally between its north and south intersections with Border Village Road. The posted speed limit is 35 mph north of and 25 mph south of Via de San Ysidro. San Ysidro Boulevard provides access to the San Ysidro Transit Center and has sizeable commercial and retail development south of its junction with I-805.

Beyer Boulevard

Beyer Boulevard is a north-south road that provides connection from San Ysidro Boulevard to SR-905. In the study area, it is constructed as a two lane collector with commercial/industrial fronting property.

Via de San Ysidro

Via de San Ysidro is a north south road that provides connection from San Ysidro Boulevard to Calle Primera and varies in classification and current geometry. Between San Ysidro Boulevard and I-5 Northbound ramps, the road is classified as a four lane collector with no center lane. Between the I-5 Northbound ramps and I-5 Southbound ramp, the roadway is classified as a three lane major arterial. Between I-5 Southbound ramp and Calle Primera, the roadway is classified as a four lane collector. The posted speed limit is 25 mph.

Camiones Way

Camiones Way is currently constructed and classified as a two-lane collector street. Parking is not permitted. The posted speed limit is 25 mph.

TRAFFIC VOLUMES

The intersection turning movement counts were conducted during the weekday morning peak period from 7:00 AM to 9:00 AM and during the weekday evening peak period from 4:00 PM to 6:00 PM in May 2008. Average daily traffic volumes were obtained through machine data collection in May 2008. The daily traffic volumes are shown in Figure 3-2. The resultant existing weekday morning and evening peak hour intersection volumes are shown in Figures 3-3 and 3-4. Count Data can be found in Appendix B.

ANALYSIS

The existing segment analysis is summarized in Table 3-1. As seen in Table 3-1, all segments in the study area are calculated to operate at an acceptable LOS D or better except for Camiones Way south of Camino de la Plaza, Via de San Ysidro between Calle Primera and the I-5 NB ramps which operates at LOS F and San Ysidro Boulevard between Border Village Road and Camino de la Plaza which operates at LOS E.

The existing freeway analysis is summarized in Table 3-2. As seen in Table 3-2, currently all freeway segments operate at LOS B or better.

The existing intersection analysis is summarized in Table 3-3. As seen in Table 3-3, all intersections in the study area are calculated to operate at an acceptable LOS D or better except for the intersections of Via de San Ysidro/I-5 Northbound ramps which operate at LOS E during the PM peak hour.

QUEUING & WAIT TIMES ANALYSIS

The existing facilities for the northbound traffic is currently experiencing a maximum wait time that reaches two to three hours several times during the day. This leads to long queues of vehicles waiting to cross the border. Tables and charts in Appendix G illustrate the northbound queuing analysis.

Although intermittent inspection is performed on southbound traffic into Mexico, a speed reduction at the entry to Mexico causes congestion. There are currently seven southbound lanes into Mexico, one of which is designated for buses and vehicles making declarations. The wait time at that approach currently reaches 30 minutes to one hour several times during the day. Tables and charts in Appendix G illustrate the southbound queuing analysis.

**Table 3-1
Existing Roadway Segment Conditions**

Roadway Segment	Lanes/ Class	LOS E Capacity	Without Project		
			ADT	V/C	LOS
Beyer Boulevard					
North of San Ysidro Boulevard	2C CIF	8,000	2,734	0.342	B
Camino de la Plaza					
From Virginia Avenue to I-5 SB Ramps	3C	22,500	17,205	0.765	D
From I-5 SB Ramps to San Ysidro Boulevard	3MA	30,000	17,300	0.433	B
Camiones Way					
South of Camino de la Plaza	2C CIF	8,000	11,599	1.450	F
San Ysidro Boulevard					
From Olive Drive to I-805 SB Ramps	4MA	40,000	22,399	0.560	C
From I-805 SB Ramps to I-805 NB Ramps	4MA	40,000	21,770	0.544	C
From I-805 NB Ramps to Border Village Road	4C	30,000	28,394	0.946	E
From Border Village Road to Camino de la Plaza	5C	37,500	13,947	0.372	C
Via de San Ysidro					
From San Ysidro Boulevard to I-5 NB Ramps	4C NCL	15,000	18,556	1.237	F
From I-5 NB Ramps to I-5 SB Off Ramp	3MA	30,000	18,809	0.627	C
From I-5 SB Off-Ramp to Calle Primera	4C	30,000	21,990	0.733	D

Abbreviations: 2C CIF is a 2 lane Collector with commercial and industrial fronting property. 4C is a 4 lane Collector. 4C NCL is a 4 lane Collector with no center lane. 4MA is a 4 lane Major Arterial. 3MA is a 3 lane Major Arterial. 3C is a 3 lane Collector. 5C is a 5 lane Collector.

Table 3-2A
Existing Freeway Conditions –AM Peak Hour

Segment	Lanes	Capacity	Grade (%)	Truck Proportion (%)	Truck Factor	ADT ¹	Peak Hour Peak Direction PCE ²	V/C	LOS
Northbound									
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	28,356	2,400	0.261	A
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	20,724	2,055	0.223	A
I-5 from I-805 Interchange to East San Ysidro Boulevard	4	9,200	0.00%	3.80%	0.9814	59,963	4,334	0.471	B
I-5 from San Ysidro Boulevard to the International Border	4	9,200	0.00%	2.20%	0.9891	50,660	4,270	0.464	B
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	41,618	1,890	0.205	A
I-805 from San Ysidro Boulevard to I-5 Interchange	2	4,600	0.00%	4.10%	0.9799	35,962	1,689	0.367	A
Southbound									
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	26,571	761	0.083	A
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	19,685	432	0.047	A
I-5 from I-805 Interchange to Camino De La Plaza Off-ramp	4	9,200	0.00%	3.80%	0.9814	18,030	318	0.035	A
I-5 from Camino De La Plaza On-ramp to the International Border	6	13,800	0.00%	2.20%	0.9891	51,827	1,736	0.126	A
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	51,199	2,472	0.269	A
I-805 from San Ysidro Boulevard to I-5 Interchange	3	6,900	0.00%	4.10%	0.9799	43,806	1,961	0.284	A

¹Source: Volumes obtained from Caltrans with the directional split derived from SANDAG 2000 forecasts to achieve the North/South split

²Passenger Car Equivalent

Table 3-2B
Existing Freeway Conditions-PM Peak Hour

Segment	Lanes	Capacity	Grade (%)	Truck Proportion (%)	Truck Factor	ADT ¹	Peak Hour Peak Direction PCE ²	V/C	LOS
Northbound									
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	28,356	1,374	0.149	A
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	20,724	808	0.088	A
I-5 from I-805 Interchange to East San Ysidro Boulevard	4	9,200	0.00%	3.80%	0.9814	59,963	3,350	0.364	A
I-5 from San Ysidro Boulevard to the International Border	4	9,200	0.00%	2.20%	0.9891	50,660	2,235	0.243	A
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	41,618	2,914	0.317	A
I-805 from San Ysidro Boulevard to I-5 Interchange	2	4,600	0.00%	4.10%	0.9799	35,962	2,392	0.520	B
Southbound									
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	26,571	2,717	0.295	A
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	19,685	2,313	0.251	A
I-5 from I-805 Interchange to Camino De La Plaza Off-ramp	4	9,200	0.00%	3.80%	0.9814	18,030	2,252	0.245	A
I-5 from Camino De La Plaza On-ramp to the International Border	6	13,800	0.00%	2.20%	0.9891	51,827	4,576	0.332	A
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	51,199	3,039	0.330	A
I-805 from San Ysidro Boulevard to I-5 Interchange	3	6,900	0.00%	4.10%	0.9799	43,806	2,655	0.385	A

¹Source: Volumes obtained from Caltrans with the directional split derived from SANDAG 2000 forecasts to achieve the North/South split

²Passenger Car Equivalent

**Table 3-3
Existing Intersection Conditions**

Intersection	Delay	LOS
AM Peak Hour		
Via de San Ysidro / Calle Primera	26.5	C
Via de San Ysidro / I-5 Southbound Off Ramp	23.0	C
Via de San Ysidro / I-5 Northbound Ramps *	14.9	B
West San Ysidro Blvd / I-805 Southbound Ramps	20.6	C
East San Ysidro Blvd / I-805 Northbound Ramps	22.5	C
East San Ysidro Blvd / East Beyer	16.4	B
East San Ysidro Blvd / I-5 Northbound Ramps	21.3	C
Camino de la Plaza / I-5 Southbound Ramps	23.6	C
Camino de la Plaza / Virginia Ave.	11.7	B
PM Peak Hour		
Via de San Ysidro / Calle Primera	46.2	D
Via de San Ysidro / I-5 Southbound Off Ramp	26.6	C
Via de San Ysidro / I-5 Northbound Ramps *	35.5	E
West San Ysidro Blvd / I-805 Southbound Ramps	25.5	C
East San Ysidro Blvd / I-805 Northbound Ramps	21.8	C
East San Ysidro Blvd / East Beyer	8.4	A
East San Ysidro Blvd / I-5 Northbound Ramps	19.5	B
Camino de la Plaza / I-5 Southbound Ramps	30.2	C
Camino de la Plaza / Virginia Ave.	23.6	C

* Unsignalized

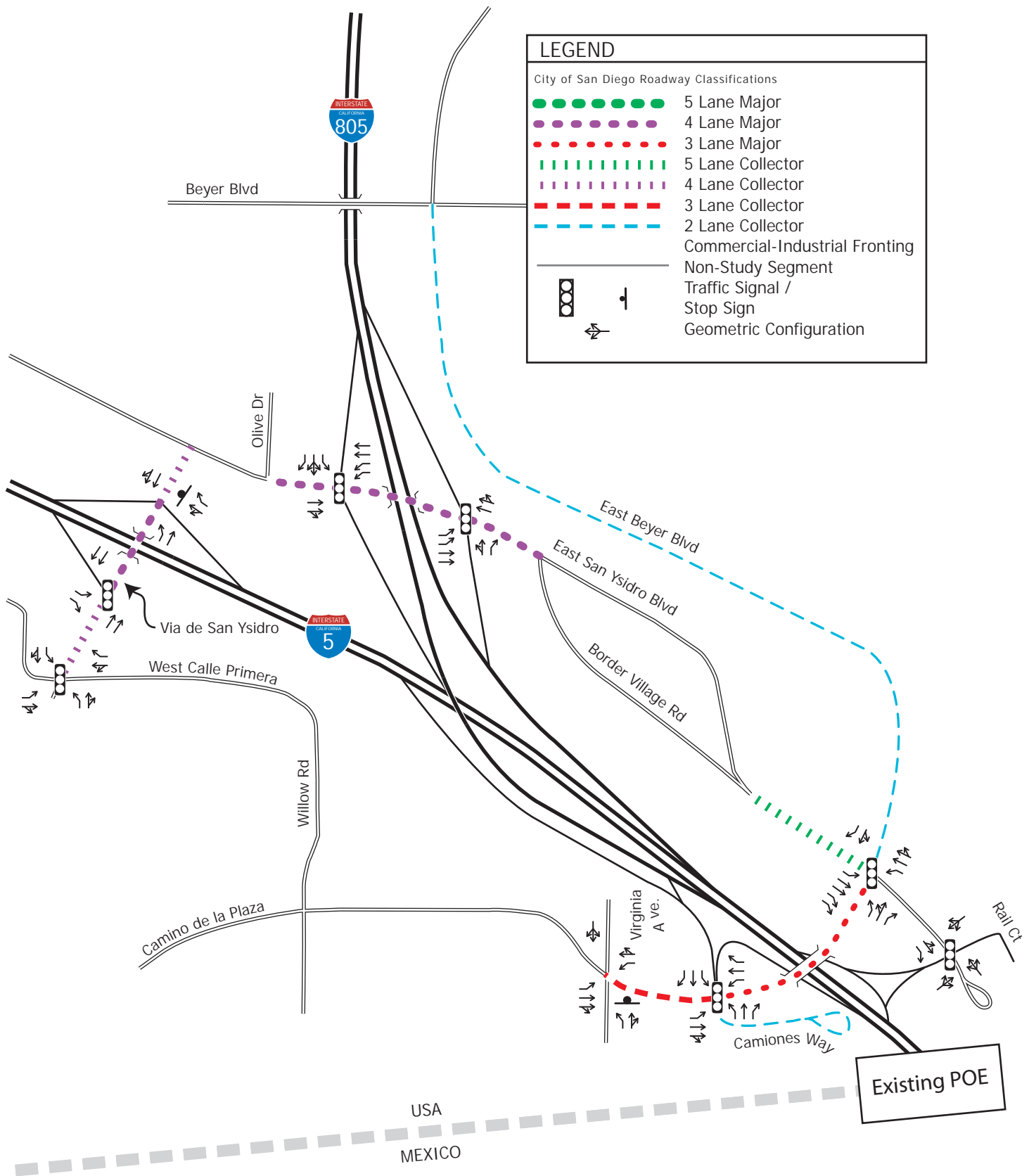


Figure 3-1
Existing Circulation Network

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LEGEND

—1,500— Average Daily Traffic

Figure 3-2
Existing Roadway Segment Volumes

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Not To Scale



LEGEND

10 ↗ AM Peak Hour Traffic

Figure 3-3
Existing AM Peak Hour Intersection Volumes

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N
Not To Scale



LEGEND	
10	PM Peak Hour Traffic

Figure 3-4
Existing PM Peak Hour Intersection Volumes

N
Not To Scale

CHAPTER 4

NEAR-TERM CONDITIONS

Near-term conditions represent opening day of the proposed project (Year 2014). GSA is proposing to expand the number of inspection stations at the San Ysidro LPOE from 24 stations (plus 1 bus lane) to 60 stations (plus 1 bus lane) in an effort to relieve traffic congestion and reduce vehicular queues at the inspection stations.

NEAR-TERM TRAFFIC VOLUMES

Traffic growth on area roadways is a function of the expected land development, economic activity, and changes in demographics. Several methods can be used to estimate this growth.

For this analysis, the study area was divided into sub-areas and a growth rate was determined based on SANDAG Series 10 traffic forecast model for each area. This growth rate was applied to the existing volumes and specific cumulative project traffic was then added in order to develop the near-term base volumes. The growth rate is a conservative estimation for regional growth in the near-term. Cumulative projects are planned new developments that will add traffic to the study area roadways. The current projects in the San Ysidro area were provided by City of San Diego staff. A list of the cumulative projects that are considered in this analysis is shown in Table 4-1. The type and size of each project are included in the table below.

Appendix C contains detailed information about volume development.

Table 4-1
Cumulative Projects

Project Name	Type	Size	Daily Trips
1010 W San Ysidro Blvd	Single Family	125 DU ¹	1,127
Vista Lane / Blackshaw Lane Community Plan	Mixed	Mixed	712
815 W San Ysidro Blvd	Multi Family	22 DU ¹	132
El Pedregal Apartments	Multi Family	45 DU ¹	270
Tuscan Villas	Multi Family	17 DU ¹	136
Las Palmas	Multi Family Single Family	16DU ¹ 1 DU ¹	137
Pilot Village – MI Puebla	Mixed	Mixed	7,750
Pilot Village - Living Rooms at the Border	Mixed	Mixed	2,049
Villas Andalucia	Multi Family	24 DU ¹	192
San Ysidro Health Center	Medical Office	25 KSF ²	941
Pilot Village - Willow Road Mixed Use	Retail/Commercial Multi family	3 KSF 36 DU	878
Pilot Village - Las Americas	Multi Family	156 DU	1,123

¹ Dwelling Unit

² Thousand square feet

NEAR-TERM CIRCULATION NETWORK

There are no current Capital Improvement Projects (CIP) related to the analyzed roadway segments and intersections, therefore, no circulation improvements were assumed with the construction of the Border Crossing Expansion with the exception of the proposed changes to Camiones Way due to the realignment of southbound I-5. As stated earlier, with the construction of the project, the I-5 southbound lanes will be realigned to the west resulting in some of the property located on the southern leg of Camiones Way/Camino de la Plaza intersection being acquired for the additional needed right of way.

Figures 4-1 through 4-5 show the near-term roadway segment and intersection conditions without and with the proposed project.

NEAR-TERM ANALYSIS

The effect of the proposed project on the study area circulation network was evaluated. The following tables summarize the results of this analysis.

As shown in Table 4-2, due to the I-5 southbound realignment and relocation of the parking lot from Camiones Way to Virginia Avenue, the V/C ratio improves with the project condition at the segment of Camiones Way south of Camino de la Plaza.

Under project conditions, the segments of San Ysidro Boulevard between I-805 Northbound ramps and Border Village Road, Via de San Ysidro between San Ysidro Boulevard and I-5 Northbound ramps, and Camino de la Plaza between Virginia Avenue and I-5 Southbound ramps operate at LOS F.

As shown in Table 4-3, all analyzed freeway segments will operate at LOS D or better without and with the proposed project.

As shown in Table 4-4, the intersection of Camino de la Plaza and Virginia Avenue will operate at LOS F during the PM peak hour with project conditions. This is a result of the Camiones Way parking lot traffic being relocated to other areas in San Ysidro. The intersection of Via de San Ysidro and Calle Primera operates at LOS E during the PM peak hour with and without the expansion. The intersection of Via de San Ysidro and I-5 Northbound Ramps operates at LOS F during the PM peak hour with and without the expansion traffic. The delay at this intersection decreases due to the increase in traffic volumes on movements that had experienced lower delay which improved the overall average delay. All other intersections operate at LOS D or better.

QUEUING & WAIT TIMES

The existing northbound traffic facilities in the year 2014 will experience a maximum wait time that reaches three to four hours throughout most of the day. This leads to long queues of vehicles waiting to cross the border. With the expansion of the port, the maximum delay will approach 1 hour throughout the day. Tables and charts in Appendix G illustrate the northbound queuing analysis.

With the current seven southbound lanes into Mexico, one of which is designated for buses and vehicles making declarations, the wait time will approach one hour several times during the day with and without the expansion of the northbound lanes. Tables and charts in Appendix G illustrate the southbound queuing analysis.

**Table 4-2
Near-term (2014) Roadway Segment Conditions**

Roadway Segment	Lanes/ Class	LOS E Capacity	2014			2014 With Expansion			Comparison
			ADT	V/C	LOS	ADT	V/C	LOS	Δ V/C
Beyer Boulevard									
North of San Ysidro Boulevard	2C CIF	8,000	3,300	0.413	B	3,479	0.435	B	0.022
Camino de la Plaza									
From Virginia Avenue to I-5 SB Ramps	3C	22,500	20,650	0.918	E	24,267	1.079	F	0.161
From I-5 SB Ramps to San Ysidro Boulevard	4MA	40,000	20,825	0.521	B	21,381	0.535	C	0.014
Camiones Way									
South of Camino de la Plaza	2C CIF	8,000	11,600	1.450	F	6,624	0.828	E	-0.622
San Ysidro Boulevard									
From Olive Drive to I-805 SB Ramps	4MA	40,000	29,500	0.738	C	29,927	0.748	C	0.011
From I-805 SB Ramps to I-805 NB Ramps	4MA	40,000	27,250	0.681	C	27,609	0.690	C	0.009
From I-805 NB Ramps to Border Village Road	4C	30,000	34,375	1.146	F	34,929	1.164	F	0.018
From Border Village Road to Camino de la Plaza	5C	37,500	16,925	0.451	C	17,479	0.466	C	0.015
Via de San Ysidro									
From San Ysidro Boulevard to I-5 NB Ramps	4C NCL	20,000	23,775	1.585	F	23,955	1.597	F	0.012
From I-5 NB Ramps to I-5 SB Off Ramp	3MA	30,000	22,600	0.753	D	22,600	0.753	D	0.000
From I-5 SB Off-Ramp to Calle Primera	4C	30,000	25,525	0.851	E	25,525	0.851	E	0.000

Abbreviations: 2C CIF is a 2 lane Collector with commercial and industrial fronting property. 4C is a 4 lane Collector. 4C NCL is a 4 lane Collector with no center lane. 4MA is a 4 lane Major Arterial. 3MA is a 3 lane Major Arterial. 3C is a 3 lane Collector. 5C is a 5 lane Collector.

*The traffic volumes are reduced with the construction of the project due to the removal of some of the property off of Camiones way for the re-alignment of the southbound I-5 lanes.

Table 4-3A
Near-term (2014) Freeway Conditions-AM Peak Hour

Segment	Lanes	Capacity	Grade (%)	Truck Proportion (%)	Truck Factor	2014				2014 With Expansion				Comparison
						ADT ¹	Peak Hour Peak Direction PCE ²	V/C	LOS	ADT ²	Peak Hour Peak Direction PCE ²	V/C	LOS	Increase V/C
Northbound														
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	30,379	2,580	0.280	A	36,130	3,311	0.360	A	0.079
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	23,211	2,244	0.244	A	29,142	2,998	0.326	A	0.082
I-5 from I-805 Interchange to East San Ysidro Boulevard	4	9,200	0.00%	3.80%	0.9814	66,944	5,091	0.553	B	84,378	7,306	0.794	C	0.241
I-5 from San Ysidro Boulevard to the International Border	4	9,200	0.00%	2.20%	0.9891	57,333	4,924	0.535	B	75,306	7,189	0.781	C	0.246
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	46,371	2,361	0.257	A	57,514	3,798	0.413	A	0.156
I-805 from San Ysidro Boulevard to I-5 Interchange	2	4,600	0.00%	4.10%	0.9799	40,122	2,131	0.463	B	51,625	3,594	0.781	C	0.318
Southbound														
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	28,690	839	0.091	A	32,589	1,008	0.110	A	0.018
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	22,047	487	0.053	A	25,946	656	0.071	A	0.018
I-5 from I-805 Interchange to Camino De La Plaza Off-ramp	4	9,200	0.00%	3.80%	0.9814	19,813	362	0.039	A	35,762	1,053	0.114	A	0.075
I-5 from Camino De La Plaza On-ramp to the International Border	6	13,800	0.00%	2.20%	0.9891	58,526	2,018	0.146	A	76,247	2,779	0.201	A	0.055
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	56,875	2,584	0.281	A	67,862	3,067	0.333	A	0.053
I-805 from San Ysidro Boulevard to I-5 Interchange	3	6,900	0.00%	4.10%	0.9799	49,169	2,083	0.302	A	61,219	2,605	0.378	A	0.076

¹Source: Volumes obtained from the SANDAG Plot for 2010

²Passenger Car Equivalent

Table 4-3B
Near-term (2014) Freeway Conditions-PM Peak Hour

Segment	Lanes	Capacity	Grade (%)	Truck Proportion (%)	Truck Factor	2014				2014 With Expansion				Comparison
						ADT ¹	Peak Hour Peak Direction PCE ²	V/C	LOS	ADT ²	Peak Hour Peak Direction PCE ²	V/C	LOS	Increase V/C
Northbound														
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	30,379	1,462	0.159	A	36,130	2,058	0.224	A	0.065
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	23,211	889	0.097	A	29,142	1,503	0.163	A	0.067
I-5 from I-805 Interchange to East San Ysidro Boulevard	4	9,200	0.00%	3.80%	0.9814	66,944	3,621	0.394	A	84,378	5,427	0.590	B	0.196
I-5 from San Ysidro Boulevard to the International Border	4	9,200	0.00%	2.20%	0.9891	57,333	2,543	0.276	A	75,306	4,391	0.477	B	0.201
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	46,371	3,155	0.343	A	57,514	4,327	0.470	B	0.127
I-805 from San Ysidro Boulevard to I-5 Interchange	2	4,600	0.00%	4.10%	0.9799	40,122	2,554	0.555	B	51,625	3,748	0.815	D	0.260
Southbound														
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	28,690	2,864	0.311	A	32,589	3,276	0.356	A	0.045
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	22,047	2,507	0.272	A	25,946	2,918	0.317	A	0.045
I-5 from I-805 Interchange to Camino De La Plaza Off-ramp	4	9,200	0.00%	3.80%	0.9814	19,813	2,393	0.260	A	35,762	4,076	0.443	B	0.183
I-5 from Camino De La Plaza On-ramp to the International Border	6	13,800	0.00%	2.20%	0.9891	58,526	5,171	0.375	A	76,247	7,026	0.509	B	0.134
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	56,875	3,634	0.395	A	67,862	4,811	0.523	B	0.128
I-805 from San Ysidro Boulevard to I-5 Interchange	3	6,900	0.00%	4.10%	0.9799	49,169	3,208	0.465	B	61,219	4,482	0.650	C	0.185

¹Source: Volumes obtained from the SANDAG Plot for 2010

²Passenger Car Equivalent

**Table 4-4
Near-term (2014) Intersection Conditions**

Intersection	2014		2014 With Expansion		Δ Delay
	Delay	LOS	Delay	LOS	
AM Peak Hour					
Via de San Ysidro / Calle Primera	32.3	C	32.3	C	0.0
Via de San Ysidro / I-5 Southbound Off Ramp	24.1	C	24.1	C	0.0
Via de San Ysidro / I-5 Northbound Ramps *	17.3	C	17.8	C	0.5
West San Ysidro Blvd / I-805 Southbound Ramps	20.7	C	20.7	C	0.0
East San Ysidro Blvd / I-805 Northbound Ramps	23.9	C	24.8	C	0.9
East San Ysidro Blvd / East Beyer	17.6	B	19.0	B	1.4
East San Ysidro Blvd / I-5 Northbound Ramps	22.9	C	24.8	C	1.9
Camino de la Plaza / I-5 Southbound Ramps	24.8	C	23.1	C	-1.7
Camino de la Plaza / Virginia Ave.	12.9	B	16.3	C	3.4
PM Peak Hour					
Via de San Ysidro / Calle Primera	69.5	E	69.5	E	0.0
Via de San Ysidro / I-5 Southbound Off Ramp	29.0	C	29.0	C	0.0
Via de San Ysidro / I-5 Northbound Ramps *	64.1	F	63.7	F	-0.4
West San Ysidro Blvd / I-805 Southbound Ramps	36.5	D	39.1	D	2.6
East San Ysidro Blvd / I-805 Northbound Ramps	27.7	C	29.2	C	1.5
East San Ysidro Blvd / East Beyer	9.1	A	10.4	B	1.3
East San Ysidro Blvd / I-5 Northbound Ramps	23.4	C	24.3	C	0.9
Camino de la Plaza / I-5 Southbound Ramps	36.3	D	51.7	D	15.4
Camino de la Plaza / Virginia Ave.	33.1	D	89.4	F	56.3

* Unsignalized

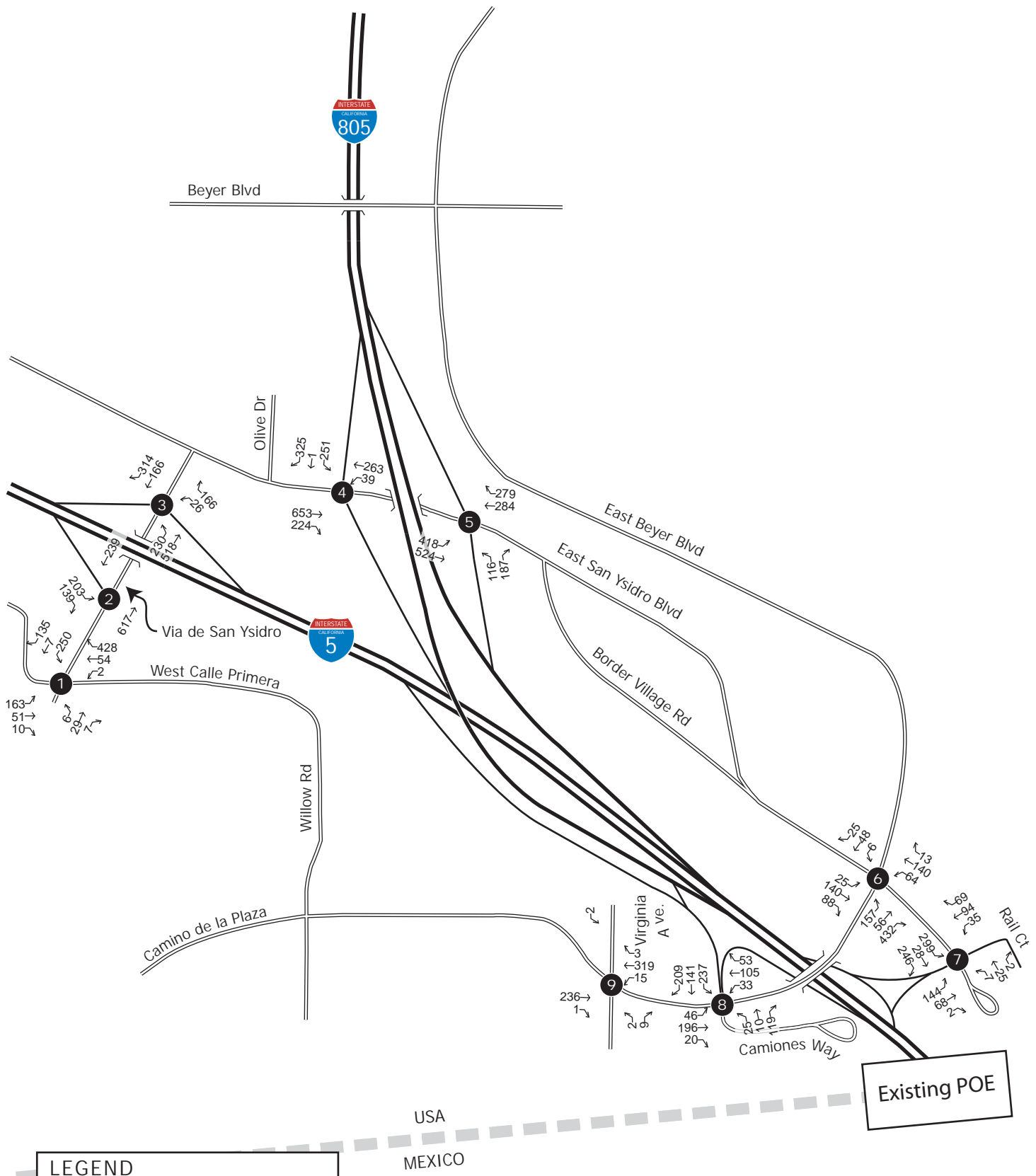


Figure 4-2
Near-Term (2014) AM Peak Hour Intersection Volumes Without Project

↑
N
Not To Scale

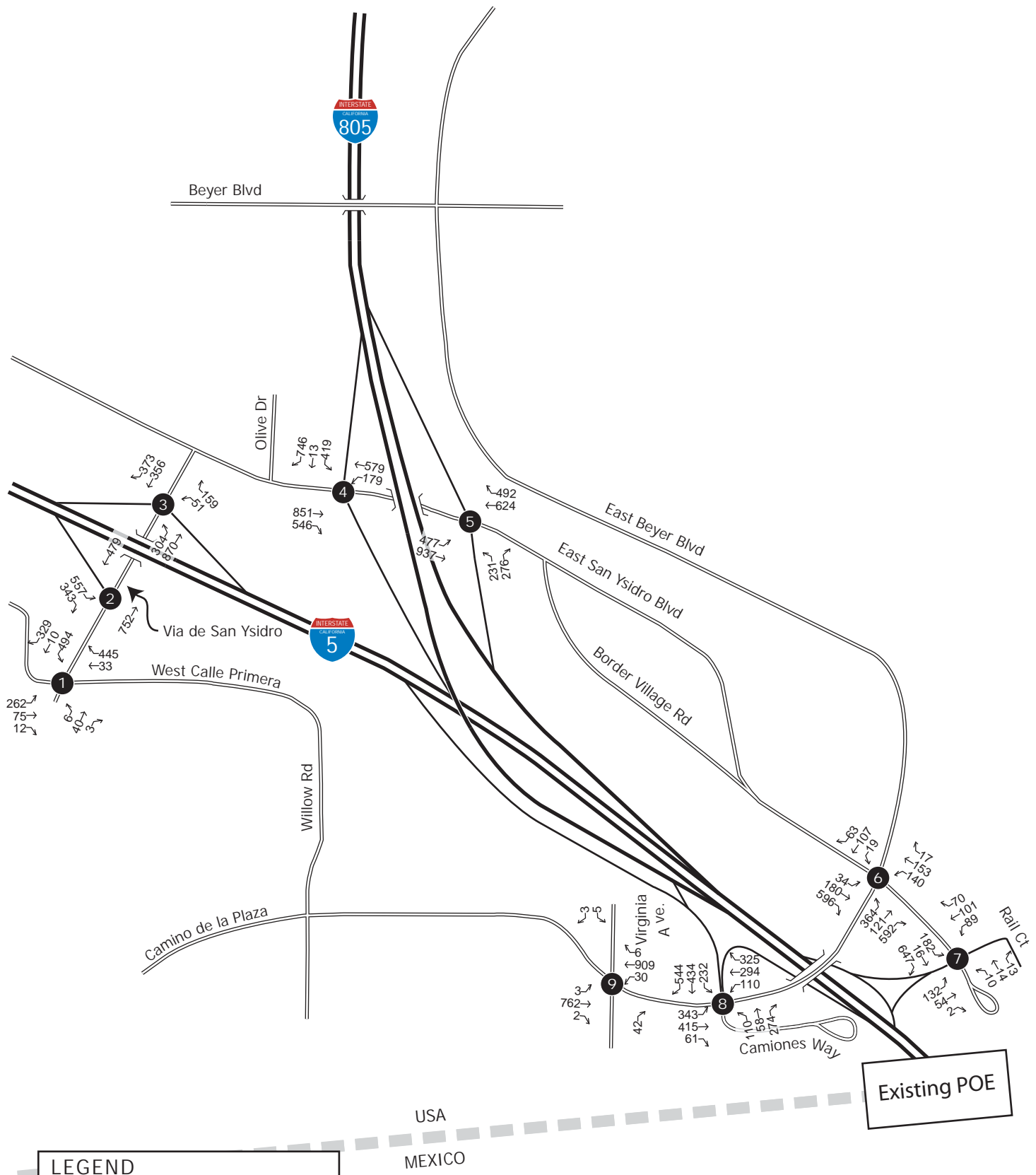


Figure 4-3
Near-Term (2014) PM Peak Hour Intersection Volumes Without Project

LEGEND
10 ↗ PM Peak Hour Traffic

↑
N
Not To Scale

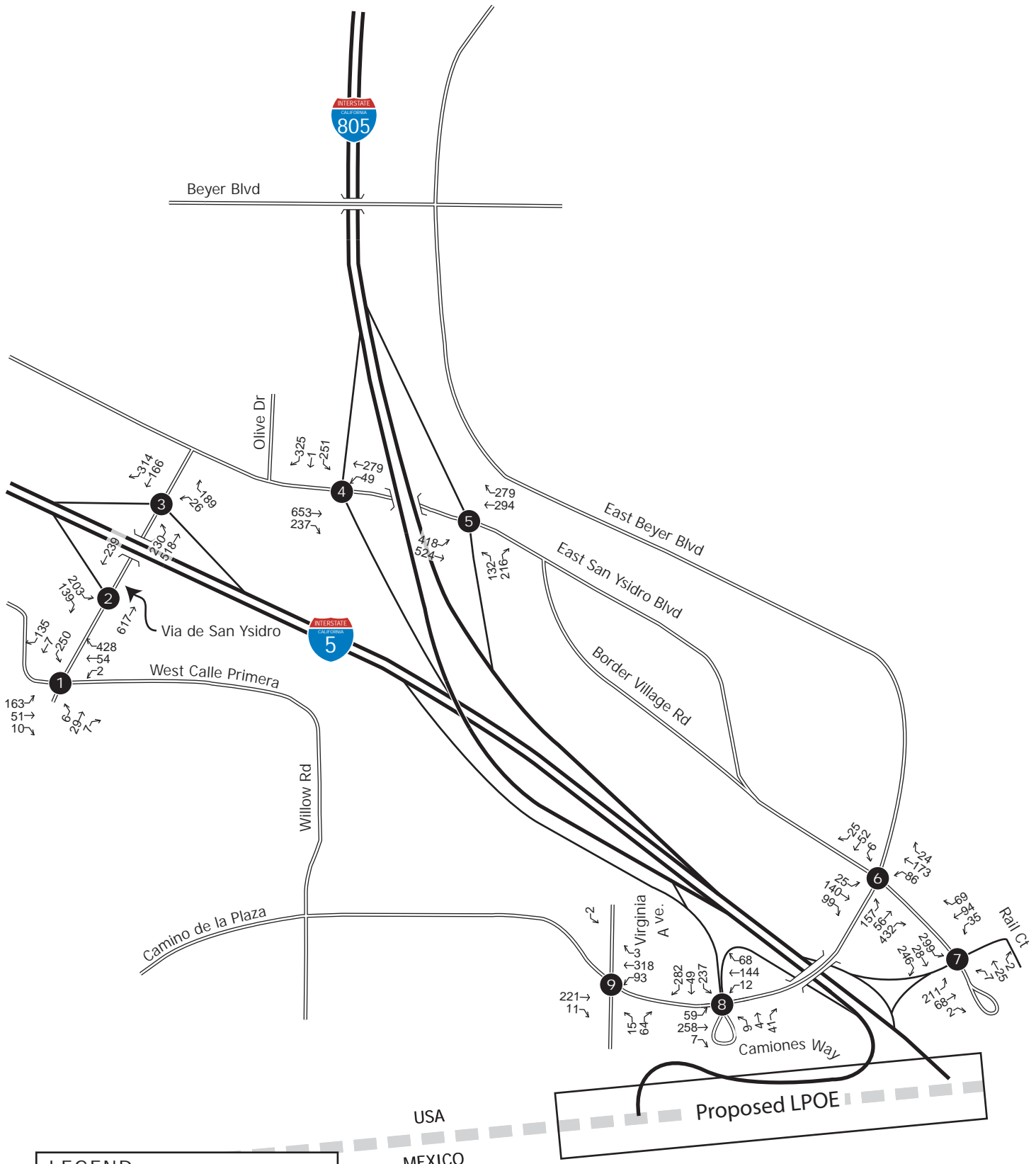


LEGEND

—1,500— Average Daily Traffic

Figure 4-4
Near-Term (2014) Roadway Segment Volumes with Project

↑
N
Not To Scale



LEGEND

10 ↗ AM Peak Hour Traffic

Figure 4-5
Near-Term (2014) AM Peak Hour Intersection Volumes With Project

↑
N
Not To Scale



CHAPTER 5 HORIZON YEAR CONDITIONS

Horizon year conditions represent traffic conditions in the year 2030. GSA proposes to expand the number of inspection stations from 24 to 60 (including designated bus lanes) in an effort to relieve traffic congestion and reduce queues at the inspection stations. As a part of the expansion, the property located on the south leg of the Camiones Way/Camino de la Plaza intersection will be affected. Additionally, the proposed expansion will increase the capacity of the northbound traffic lanes crossing the border, which will increase traffic on local roadways and intersections.

HORIZON YEAR TRAFFIC VOLUMES

Traffic growth on area roadways is a function of the expected land development, economic activity, and changes in demographics. Several methods can be used to estimate this growth. For this analysis the SANDAG Series 10 traffic forecast model was used for the 2030 segment volumes. The growth rate was determined by comparing model year 2006 to the model year 2030. The calculated growth factor was applied to the existing intersection traffic counts to develop horizon year base volumes. Appendix C contains detailed information about volume development.

HORIZON YEAR CIRCULATION NETWORK

In the future, it is planned that Siempre Viva Road will be extended from its current terminus in Otay Mesa to connect to Beyer Boulevard. This new connection will increase vehicular traffic volumes entering the San Ysidro area from east Otay Mesa. As stated earlier, with the construction of the project, the southbound lanes of Interstate 5 will be realigned to the west resulting in some of the property located on the southern leg of the Camiones Way/Camino de la Plaza intersection being required for the right of way.

The effect of the proposed project on the study area circulation network was evaluated. The following tables summarize the results of this analysis. Figures 5-1 through 5-5 illustrate the horizon year roadway segment and intersection conditions without and with the proposed project.

HORIZON YEAR ANALYSIS

As shown in Table 5-1, due to the I-5 southbound realignment and the relocation of the Camiones Way parking lot, the V/C ratio improves with the project conditions from LOS F to LOS E at the segment of Camiones Way south of Camino de la Plaza.

The following roadway segments will operate at LOS E or F with the expansion of the port and the relocation of the parking lot:

- Camino de la Plaza from Virginia Avenue to I-5 Southbound Ramps
- Camiones Way south of Camino de la Plaza
- San Ysidro Boulevard from I-805 Northbound Ramps to Border Village Road
- Via de San Ysidro from San Ysidro Boulevard to I-5 Northbound Ramps.
- Via de San Ysidro from the I-5 Southbound off ramp to Call Primera

The roadway segment of Via de San Ysidro between I-5 Southbound Off Ramp and Calle Primera will operate at LOS F with and without the expansion, however, the project does not distribute any traffic through this segment.

As shown in Table 5-2, all freeway segments analyzed will operate at LOS D or better except northbound I-5 between the border and the I-805 interchange which will operate at LOS E with the project during the AM peak hour, northbound I-805 between the I-5 interchange and San Ysidro Boulevard which will operate at LOS F in the AM peak hour, and I-5 between the I-805 Interchange and East San Ysidro Boulevard which will operate at LOS F in the AM peak hour.

As shown in Table 5-3, the intersection of Camino de la Plaza and Virginia Avenue will operate at LOS F during the PM peak hour with project conditions. This is a result of the Camiones Way parking lot traffic being relocated. The intersection of Via de San Ysidro and Calle Primera operates at LOS F during the PM peak hour with and without the project traffic, the project increases the delay at that location by 0.0 seconds. The intersection of Via de San Ysidro and I-5 Northbound Ramps operates at LOS F during the PM peak hour with and without the project traffic. The delay at this intersection decreases due to increase in traffic volumes on movements that had experienced lower delay which improved the overall average delay. The intersection of Camino de la Plaza and I-5 Southbound Ramps operates at LOS E without the project and LOS F with the project during the PM Peak hour. All other intersections operate at LOS D or better.

QUEUING & WAIT TIMES

The existing northbound traffic facilities in the year 2030 will experience a maximum wait time that exceeds 10 hours throughout most of the day. This leads to long queues of vehicles waiting to cross the border. With the expansion of the port, the maximum delay will be between 1 hour and 1.5 hours throughout the day. Tables and charts in Appendix G illustrate the queuing analysis.

With the current seven southbound lanes into Mexico, one of which is designated for buses and vehicles making declarations, the wait time will approach one hour several times during the day with and without the expansion of the northbound lanes. Tables and charts in Appendix G illustrate the queuing analysis.

**Table 5-1
Horizon Year (2030) Roadway Segment Conditions**

Roadway Segment	Lanes/ Class	LOS E Capacity	2030			2030 With Expansion			Comparison
			ADT	V/C	LOS	ADT	V/C	LOS	Δ V/C
Beyer Boulevard									
North of San Ysidro Boulevard	2C CIF	8,000	4,450	0.556	C	4,664	0.583	C	0.027
Camino de la Plaza									
From Virginia Avenue to I-5 SB Ramps	3C	22,500	24,950	1.109	F	28,638	1.273	F	0.164
From I-5 SB Ramps to San Ysidro Boulevard	4MA	40,000	26,600	0.665	C	27,248	0.681	C	0.016
Camiones Way									
South of Camino de la Plaza	2C CIF	8,000	11,600	1.450	F	6,624	0.828	E	-0.622
San Ysidro Boulevard									
From Olive Drive to I-805 SB Ramps	4MA	40,000	25,500	0.638	C	26,000	0.650	C	0.013
From I-805 SB Ramps to I-805 NB Ramps	4MA	40,000	30,075	0.752	D	30,498	0.762	D	0.011
From I-805 NB Ramps to Border Village Road	4C	30,000	46,100	1.537	F	46,663	1.555	F	0.019
From Border Village Road to Camino de la Plaza	5C	37,500	22,650	0.604	D	23,310	0.622	D	0.018
Via de San Ysidro									
From San Ysidro Boulevard to I-5 NB Ramps	4C NCL	15,000	21,125	1.408	F	21,353	1.424	F	0.015
From I-5 NB Ramps to I-5 SB Off Ramp	3MA	30,000	24,350	0.812	D	24,350	0.812	D	0.000
From I-5 SB Off-Ramp to Calle Primera	4C	30,000	31,875	1.063	F	31,875	1.063	F	0.000

Abbreviations: 2C CIF is a 2 lane Collector with commercial and industrial fronting property. 4C is a 4 lane Collector. 4C NCL is a 4 lane Collector with no center lane. 4MA is a 4 lane Major Arterial. 3MA is a 3 lane Major Arterial. 3C is a 3 lane Collector. 5C is a 5 lane Collector.

*The traffic volumes are reduced with the construction of the project due to the removal of some of the property off of Camiones Way for the realignment of the southbound I-5 lanes.

**Table 5-2A
Horizon Year (2030) Freeway Conditions-AM Peak**

Segment	Lanes	Capacity	Grade (%)	Truck Proportion (%)	Truck Factor	2030				2030 With Expansion				Comparison
						ADT ¹	Peak Hour Peak Direction PCE ²	V/C	LOS	ADT ²	Peak Hour Peak Direction PCE ²	V/C	LOS	Increase V/C
Northbound														
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	36,317	2,963	0.322	A	43,613	3,782	0.411	A	0.089
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	29,021	2,616	0.284	A	36,545	3,460	0.376	A	0.092
I-5 from I-805 Interchange to East San Ysidro Boulevard		9,200	0.00%	3.80%	0.9814	84,219	6,817	0.741	C	106,335	9,296	1.010	F(0)	0.269
I-5 from San Ysidro Boulevard to the International Border	4	9,200	0.00%	2.20%	0.9891	75,060	6,552	0.712	C	97,860	9,088	0.988	E	0.276
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	58,047	3,424	0.372	A	72,183	5,033	0.547	B	0.175
I-805 from San Ysidro Boulevard to I-5 Interchange	2	4,600	0.00%	4.10%	0.9799	50,503	3,144	0.684	C	65,095	4,782	1.040	F(0)	0.356
Southbound														
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	34,484	1,135	0.123	A	38,878	1,326	0.144	A	0.021
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	27,165	652	0.071	A	31,559	843	0.092	A	0.021
I-5 from I-805 Interchange to Camino De La Plaza Off-ramp	4	9,200	0.00%	3.80%	0.9814	24,264	496	0.054	A	42,238	1,275	0.139	A	0.085
I-5 from Camino De La Plaza On-ramp to the International Border	6	13,800	0.00%	2.20%	0.9891	76,317	2,781	0.202	A	96,288	3,640	0.264	A	0.062
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	70,647	2,872	0.312	A	83,029	3,416	0.371	A	0.059
I-805 from San Ysidro Boulevard to I-5 Interchange	3	6,900	0.00%	4.10%	0.9799	62,614	2,386	0.346	A	76,194	2,975	0.431	B	0.085

¹Source: Volumes obtained from the SANDAG Plot for 2030

²Passenger Car Equivalent

Table 5-2B
Horizon Year (2030) Freeway Conditions-PM Peak

Segment	Lanes	Capacity	Grade (%)	Truck Proportion (%)	Truck Factor	2030				2030 With Expansion				Comparison
						ADT ¹	Peak Hour Peak Direction PCE ²	V/C	LOS	ADT ²	Peak Hour Peak Direction PCE ²	V/C	LOS	Increase V/C
Northbound														
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	36,317	1,826	0.198	A	43,613	2,422	0.263	A	0.065
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	29,021	1,172	0.127	A	36,545	1,786	0.194	A	0.067
I-5 from I-805 Interchange to East San Ysidro Boulevard	4	9,200	0.00%	3.80%	0.9814	84,219	4,314	0.469	B	106,335	6,121	0.665	C	0.196
I-5 from San Ysidro Boulevard to the International Border	4	9,200	0.00%	2.20%	0.9891	75,060	3,379	0.367	A	97,860	5,227	0.568	B	0.201
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	58,047	3,604	0.392	A	72,183	4,776	0.519	B	0.127
I-805 from San Ysidro Boulevard to I-5 Interchange	2	4,600	0.00%	4.10%	0.9799	50,503	2,893	0.629	B	65,095	4,087	0.889	D	0.260
Southbound														
I-5 from Dairy Mart Road to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	34,484	3,256	0.354	A	38,878	3,719	0.404	A	0.050
I-5 from I-805 Interchange to Via De San Ysidro	4	9,200	0.00%	3.80%	0.9814	27,165	2,841	0.309	A	31,559	3,305	0.359	A	0.050
I-5 from I-805 Interchange to Camino De La Plaza Off-ramp	4	9,200	0.00%	3.80%	0.9814	24,264	2,667	0.290	A	42,238	4,563	0.496	B	0.206
I-5 from Camino De La Plaza On-ramp to the International Border	6	13,800	0.00%	2.20%	0.9891	76,317	6,650	0.482	B	96,288	8,741	0.633	C	0.152
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	9,200	0.00%	6.90%	0.9667	70,647	5,001	0.544	B	83,029	6,327	0.688	C	0.144
I-805 from San Ysidro Boulevard to I-5 Interchange	3	6,900	0.00%	4.10%	0.9799	62,614	4,542	0.658	C	76,194	5,977	0.866	D	0.208

¹Source: Volumes obtained from the SANDAG Plot for 2030

²Passenger Car Equivalent

Table 5-3
Horizon Year (2030) Intersection Conditions

Intersection	2030		2030 With Expansion		Δ Delay
	Delay	LOS	Delay	LOS	
AM Peak Hour					
Via de San Ysidro / Calle Primera	48.7	D	48.7	D	0.0
Via de San Ysidro / I-5 Southbound Off Ramp	24.1	C	24.1	C	0.0
Via de San Ysidro / I-5 Northbound Ramps *	17.1	C	17.5	C	0.4
West San Ysidro Blvd / I-805 Southbound Ramps	20.8	C	30.9	C	10.1
East San Ysidro Blvd / I-805 Northbound Ramps	24.2	C	25.3	C	1.1
East San Ysidro Blvd /East Beyer	22.1	C	24.6	C	2.5
East San Ysidro Blvd / I-5 Northbound Ramps	32.9	C	38.6	D	5.7
Camino de la Plaza / I-5 Southbound Ramps	26.1	C	22.9	C	-3.2
Camino de la Plaza / Virginia Ave.	13.9	B	19.0	C	5.1
PM Peak Hour					
Via de San Ysidro / Calle Primera	133.6	F	133.6	F	0.0
Via de San Ysidro / I-5 Southbound Off Ramp	31.0	C	31.0	C	0.0
Via de San Ysidro / I-5 Northbound Ramps *	67.4	F	61.9	F	-5.5
West San Ysidro Blvd / I-805 Southbound Ramps	28.7	C	29.8	C	1.1
East San Ysidro Blvd / I-805 Northbound Ramps	43.9	D	49.2	D	5.3
East San Ysidro Blvd /East Beyer	12.7	B	15.0	B	2.3
East San Ysidro Blvd / I-5 Northbound Ramps	44.9	D	47.2	D	2.3
Camino de la Plaza / I-5 Southbound Ramps	60.2	E	87.0	F	26.8
Camino de la Plaza / Virginia Ave.	51.8	F	319.5	F	267.7

* Unsignalized



LEGEND
—1,500— Average Daily Traffic

Figure 5-1
Horizon Year (2030) Roadway Segment Volumes Without Project

↑
N
Not To Scale

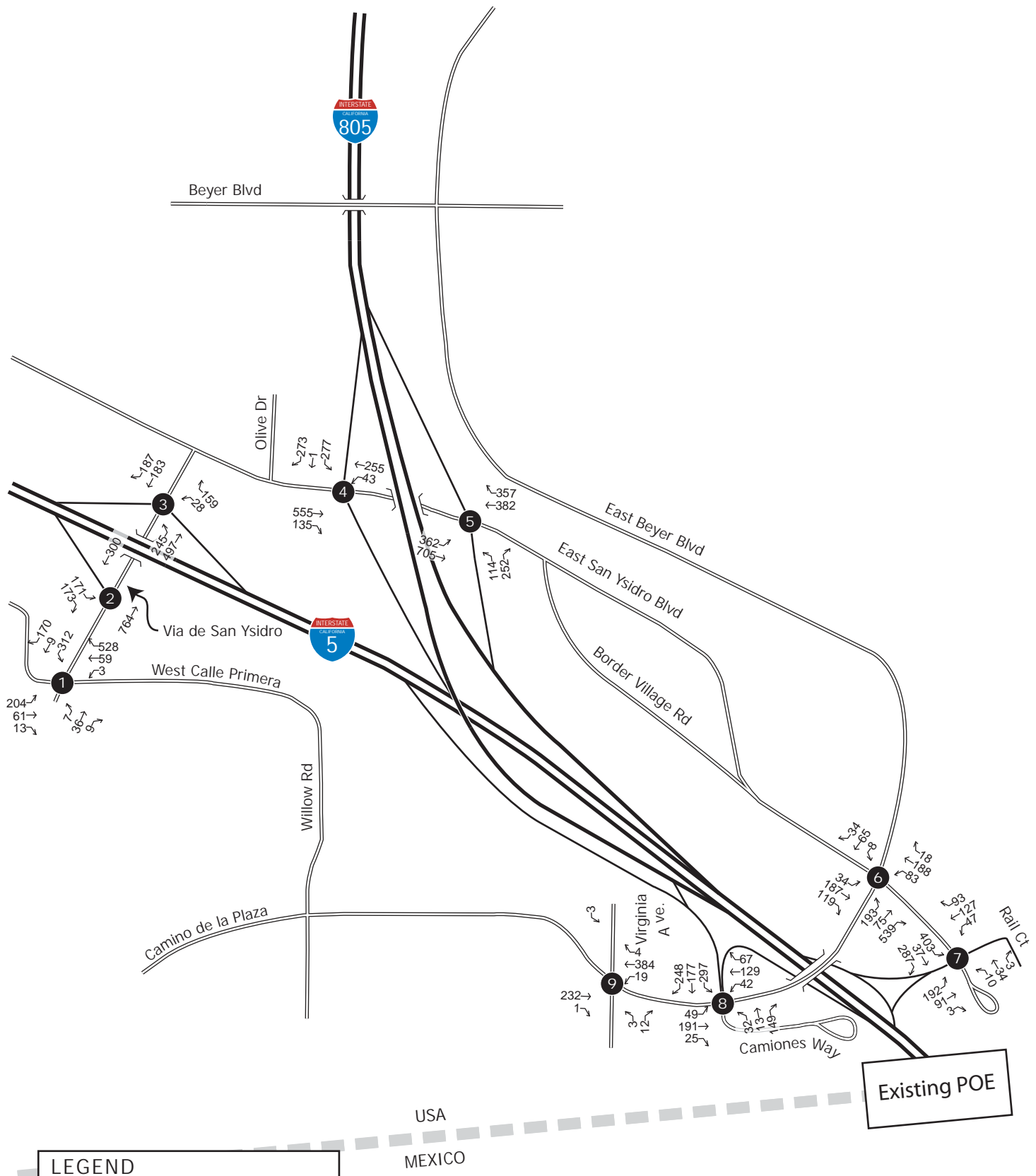


Figure 5-2
Horizon Year (2030) AM Peak Hour Intersection Volumes Without Project



LEGEND

10 ↗ PM Peak Hour Traffic

Figure 5-3
Horizon Year (2030) PM Peak Hour Intersection Volumes Without Project

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Not To Scale



LEGEND

—1,500— Average Daily Traffic

Figure 5-4
Horizon Year (2030) Roadway Segment Volumes with Project

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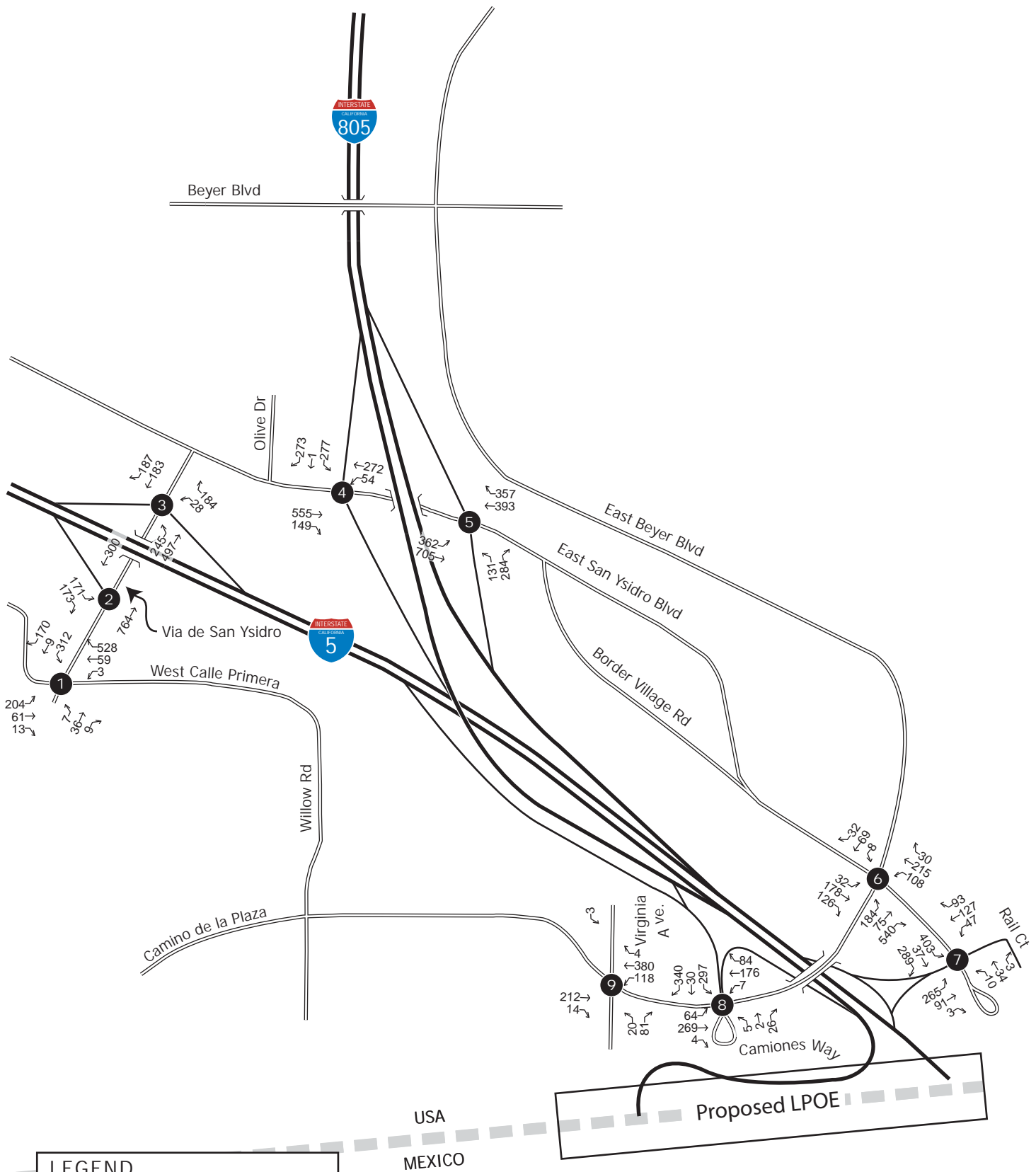
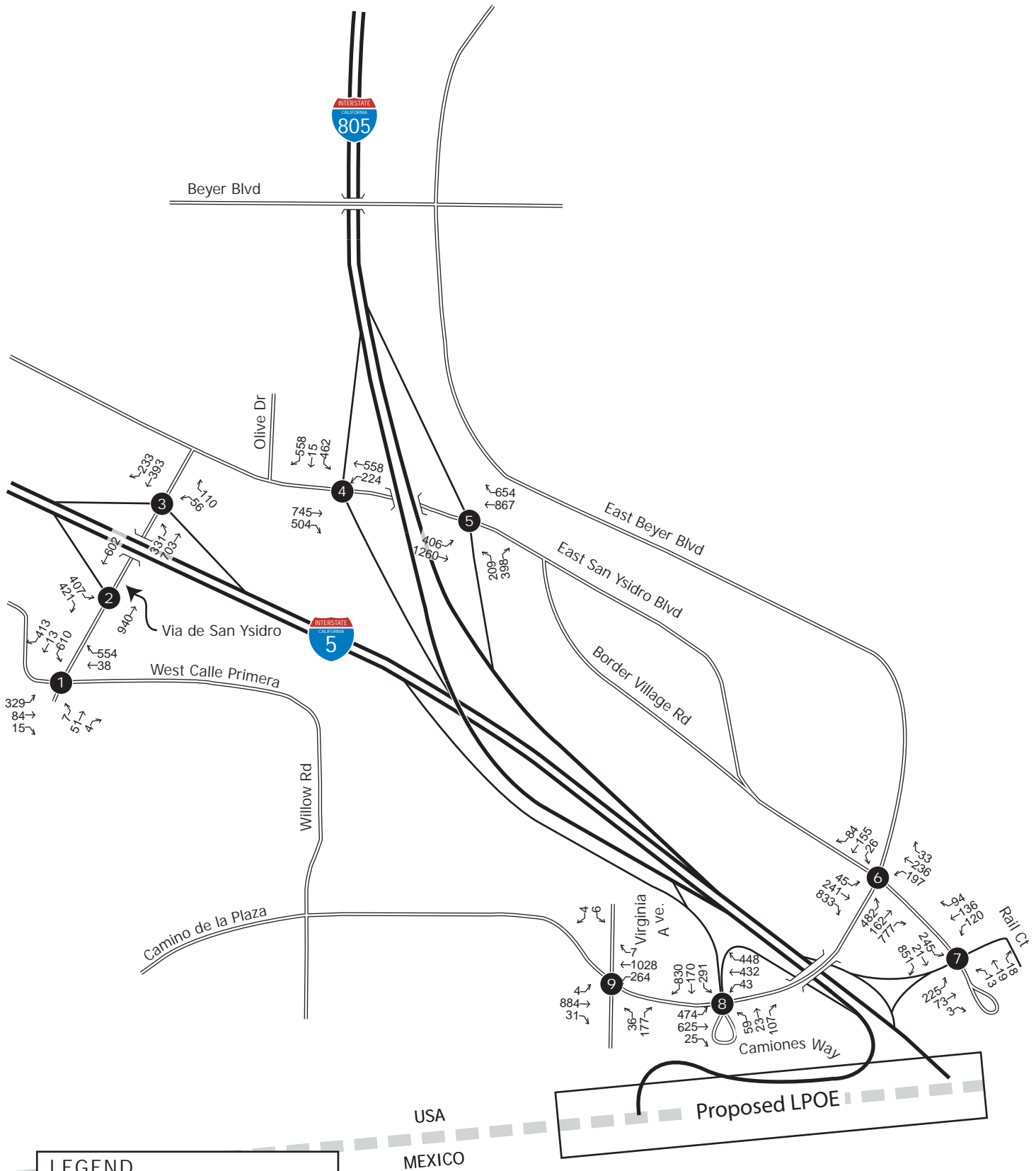


Figure 5-5
Horizon Year (2030) AM Peak Hour Intersection Volumes With Project

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N
Not To Scale



LEGEND

10 ↗ PM Peak Hour Traffic

Figure 5-6
Horizon Year (2030) PM Peak Hour Intersection Volumes With Project

↑
N
Not To Scale

CHAPTER 6

PARKING & CONSTRUCTION

PARKING

While there is limited on-street (curbside) parking in the immediate vicinity of the LPOE, there are several parking lots that are available to the public. The Las Americas (formerly International Gateway of the Americas) Shopping Center provides surface parking for their patrons and there is on-street parking available on the north side of Camino de la Plaza. There is also time-restricted street parking on East San Ysidro Boulevard.

Currently, there is a parking lot with approximately 1,178 parking spaces located on the west side of the LPOE at the southern terminus of Camiones Way. This lot serves as public parking for border traffic and customers of the Duty Free America store located adjacent to the parking lot. With the construction of the LPOE and relocation of the southbound I-5 lanes, this lot will be removed. Also as a result of the LPOE expansion, the loading area along the existing commercial and retail uses, between the trolley track terminus at the LPOE and the existing Payless Shoe Store, will be impacted since it will be eliminated and replaced with a pedestrian plaza.

CONSTRUCTION

The appropriate measures will be implemented by the San Ysidro LPOE to facilitate the flow of traffic crossing the border during the construction phase. These measures will include but not limited to the following:

- Preparation of a Traffic Management Plan (TMP), which ensures that clearly identifiable access through the LPOE would be retained. A TMP is a program of activities for alleviating or minimizing work-related traffic delays by the effective application of traditional traffic-handling practices and an innovative combination of various strategies encompassing public awareness campaigns, motorist information, demand management, incident management, system management, construction methods and staging, and access modification planning. TMP strategies also strive to reduce overall duration of work activities where appropriate. These strategies include but are not limited to partial facility closures, inclusion of additional temporary lanes, modification of existing lanes to process more than one vehicle at a time, and performance based vehicular processing specifications, where appropriate.
- Emergency providers including fire, police, and medical would be informed of all construction activities and access modifications.
- A public awareness program would be developed to inform the public of the upcoming construction schedule.
- Construction signage and flag persons would be used during construction in areas with pedestrian access.

CHAPTER 7

SUMMARY OF ANALYSIS

This chapter summarizes the operations at the study intersections and segments. Table 7-1 shows the summary of roadway segment conditions for each scenario. Table 7-2 shows the summary of intersection conditions for each scenario. As a part of southbound inspection station expansion, the southeast portion of the parcel on Camiones Way which is currently occupied by parking lot facility and a commercial retail building will be relocated. Additionally, the proposed expansion will increase the capacity of the northbound traffic lanes crossing the border, which will increase traffic on local roadways and intersections.

**Table 7-1
Summary of Roadway Segment Conditions**

Roadway Segment	Lanes/ Class	Existing			2014			2014 With Expansion			2014 With Expansion With Improvements			2030			2030 With Expansion			2030 With Expansion With Improvements		
		ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS
Beyer Boulevard																						
North of San Ysidro Boulevard	2C CIF	2,734	0.34	B	3,300	0.41	B	3,479	0.43	B	-	-	-	4,450	0.56	C	4,664	0.58	C	-	-	-
Camino de la Plaza																						
From Virginia Avenue to I-5 SB Ramps	3C	17,205	0.76	D	20,650	0.92	E	24,267	1.08	F	24,267	0.81	D	24,950	1.11	F	28,638	1.27	F	28,664	0.72	C
From I-5 SB Ramps to San Ysidro Boulevard	4MA	17,300	0.43	B	20,825	0.52	B	21,381	0.53	C	-	-	-	26,600	0.67	C	27,248	0.68	C	-	-	-
Camiones Way																						
South of Camino de la Plaza	2C CIF	11,599	1.45	F	11,600	1.45	F	6,624	0.83	E	-	-	-	11,600	1.45	F	6,624	0.83	E	-	-	-
San Ysidro Boulevard																						
From Olive Drive to I-805 SB Ramps	4MA	22,399	0.56	C	29,500	0.74	C	29,927	0.75	C	-	-	-	25,500	0.64	C	26,000	0.65	C	-	-	-
From I-805 SB Ramps to I- 805 NB Ramps	4MA	21,770	0.54	C	27,250	0.68	C	27,609	0.69	C	-	-	-	30,075	0.75	D	30,498	0.76	D	-	-	-
From I-805 NB Ramps to Border Village Road	4C	28,394	0.95	E	34,375	1.15	F	34,929	1.16	F	34,850	0.87	D	46,100	1.54	F	46,663	1.56	F	46,697	1.17	F
From Border Village Road to Camino de la Plaza	5C	13,947	0.37	C	16,925	0.45	C	17,479	0.47	C	-	-	-	22,650	0.60	D	23,310	0.62	D	-	-	-
Via de San Ysidro																						
From San Ysidro Boulevard to I-5 NB Ramps	4C NCL	18,556	1.24	F	23,775	1.59	F	23,955	1.60	F	23,959	0.60	C	21,125	1.41	F	21,353	1.42	F	21,379	0.53	C
From I-5 NB Ramps to I-5 SB Off Ramp	3MA	18,809	0.63	C	22,600	0.75	D	22,600	0.75	D	-	-	-	24,350	0.81	D	24,350	0.81	D	-	-	-
From I-5 SB Off-Ramp to Calle Primera	4C	21,990	0.73	D	25,525	0.85	E	25,525	0.85	E	-	-	-	31,875	1.06	F	31,875	1.06	F	-	-	-

Abbreviations: 2C CIF is a 2 lane Collector with commercial and industrial fronting property. 4C is a 4 lane Collector. 4C NCL is a 4 lane Collector with no center lane. 4MA is a 4 lane Major Arterial. 3MA is a 3 lane Major Arterial. 5MA is a 5 lane Major Arterial.

Table 7-2A
Summary of Freeway Conditions-AM Peak Hour

Segment	Lanes	Existing			2014			2014 With Expansion			2030			2030 With Expansion		
		Peak Hour Peak Direction PCE ¹	V/C	LOS	Peak Hour Peak Direction PCE ¹	V/C	LOS	Peak Hour Peak Direction PCE ¹	V/C	LOS	Peak Hour Peak Direction PCE ¹	V/C	LOS	Peak Hour Peak Direction PCE ¹	V/C	LOS
Northbound																
I-5 from Dairy Mart Road to Via De San Ysidro	4	2,400	0.261	A	2,580	0.280	A	3,311	0.360	A	2,963	0.322	A	3,782	0.411	A
I-5 from I-805 Interchange to Via De San Ysidro	4	2,055	0.223	A	2,244	0.244	A	2,998	0.326	A	2,616	0.284	A	3,460	0.376	A
I-5 from I-805 Interchange to East San Ysidro Boulevard	4	4,334	0.471	B	5,091	0.553	B	7,306	0.794	C	6,817	0.741	C	9,296	1.010	F(0)
I-5 from San Ysidro Boulevard to the International Border	4	4,270	0.464	B	4,924	0.535	B	7,189	0.781	C	6,552	0.712	C	9,088	0.988	E
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	1,890	0.205	A	2,361	0.257	A	3,798	0.413	A	3,424	0.372	A	5,033	0.547	B
I-805 from San Ysidro Boulevard to I-5 Interchange	2	1,689	0.367	A	2,131	0.463	B	3,594	0.781	C	3,144	0.684	C	4,782	1.040	F(0)
Southbound																
I-5 from Dairy Mart Road to Via De San Ysidro	4	761	0.083	A	839	0.091	A	1,008	0.110	A	1,135	0.123	A	1,326	0.144	A
I-5 from I-805 Interchange to Via De San Ysidro	4	432	0.047	A	487	0.053	A	656	0.071	A	652	0.071	A	843	0.092	A
I-5 from I-805 Interchange to Camino De La Plaza Off-ramp	4	318	0.035	A	362	0.039	A	1,053	0.114	A	496	0.054	A	1,275	0.139	A
I-5 from Camino De La Plaza On-ramp to the International Border	6	1,736	0.126	A	2,018	0.146	A	2,779	0.201	A	2,781	0.202	A	3,640	0.264	A
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	2,472	0.269	A	2,584	0.281	A	3,067	0.333	A	2,872	0.312	A	3,416	0.371	A
I-805 from San Ysidro Boulevard to I-5 Interchange	3	1,961	0.284	A	2,083	0.302	A	2,605	0.378	A	2,386	0.346	A	2,975	0.431	B

¹Source: Volumes obtained from the SANDAG Plot for 2030

¹Passenger Car Equivalent

**Table 7-2B
Summary of Freeway Conditions-PM Peak Hour**

Segment	Lanes	Existing			2014			2014 With Expansion			2030			2030 With Expansion		
		Peak Hour Peak Direction PCE ¹	V/C	LOS	Peak Hour Peak Direction PCE ¹	V/C	LOS	Peak Hour Peak Direction PCE ¹	V/C	LOS	Peak Hour Peak Direction PCE ¹	V/C	LOS	Peak Hour Peak Direction PCE ¹	V/C	LOS
Northbound																
I-5 from Dairy Mart Road to Via De San Ysidro	4	1,374	0.149	A	1,462	0.159	A	2,058	0.224	A	1,826	0.198	A	2,422	0.263	A
I-5 from I-805 Interchange to Via De San Ysidro	4	808	0.088	A	889	0.097	A	1,503	0.163	A	1,172	0.127	A	1,786	0.194	A
I-5 from I-805 Interchange to East San Ysidro Boulevard	4	3,350	0.364	A	3,621	0.394	A	5,427	0.590	B	4,314	0.469	B	6,121	0.665	C
I-5 from San Ysidro Boulevard to the International Border	4	2,235	0.243	A	2,543	0.276	A	4,391	0.477	B	3,379	0.367	A	5,227	0.568	B
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	2,914	0.317	A	3,155	0.343	A	4,327	0.470	B	3,604	0.392	A	4,776	0.519	B
I-805 from San Ysidro Boulevard to I-5 Interchange	2	2,392	0.520	B	2,554	0.555	B	3,748	0.815	D	2,893	0.629	B	4,087	0.889	D
Southbound																
I-5 from Dairy Mart Road to Via De San Ysidro	4	2,717	0.295	A	2,864	0.311	A	3,276	0.356	A	3,256	0.354	A	3,719	0.404	A
I-5 from I-805 Interchange to Via De San Ysidro	4	2,313	0.251	A	2,507	0.272	A	2,918	0.317	A	2,841	0.309	A	3,305	0.359	A
I-5 from I-805 Interchange to Camino De La Plaza Off-ramp	4	2,252	0.245	A	2,393	0.260	A	4,076	0.443	B	2,667	0.290	A	4,563	0.496	B
I-5 from Camino De La Plaza On-ramp to the International Border	6	4,576	0.332	A	5,171	0.375	A	7,026	0.509	B	6,650	0.482	B	8,741	0.633	C
I-805 from SR-905 Interchange to San Ysidro Boulevard	4	3,039	0.330	A	3,634	0.395	A	4,811	0.523	B	5,001	0.544	B	6,327	0.688	C
I-805 from San Ysidro Boulevard to I-5 Interchange	3	2,655	0.385	A	3,208	0.465	B	4,482	0.650	C	4,542	0.658	C	5,977	0.866	D

¹Source: Volumes obtained from the SANDAG Plot for 2030

¹Passenger Car Equivalent

**Table 7-3
Summary of Intersection Conditions**

Intersection	Existing		2014		2014 With Expansion		2014 With Expansion With Improvements		2030		2030 With Expansion		2030 With Expansion With Improvements	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
AM Peak Hour														
Via de San Ysidro / Calle Primera	26.5	C	32.3	C	32.3	C	-	-	48.4	D	48.7	D	-	-
Via de San Ysidro / I-5 Southbound Off Ramp	23.0	C	24.1	C	24.1	C	-	-	24.1	C	24.1	C	-	-
Via de San Ysidro / I-5 Northbound Ramps *	14.9	B	17.3	C	17.8	C	-	-	17.1	C	17.5	C	-	-
West San Ysidro Blvd / I-805 Southbound Ramps	20.6	C	20.7	C	20.7	C	-	-	20.8	C	30.9	C	-	-
East San Ysidro Blvd / I-805 Northbound Ramps	22.5	C	23.9	C	24.8	C	-	-	24.2	C	25.3	C	-	-
East San Ysidro Blvd /East Beyer	16.4	B	17.6	B	19.0	B	-	-	22.1	C	24.6	C	-	-
East San Ysidro Blvd / I-5 Northbound Ramps	21.3	C	22.9	C	24.8	C	-	-	32.9	C	38.6	D	-	-
Camino de la Plaza / I-5 Southbound Ramps	23.6	C	24.8	C	23.1	C	-	-	26.1	C	22.9	C	21.6	C
Camino de la Plaza / Virginia Ave.	11.7	B	12.9	B	16.3	C	18.8-	B	13.9	B	19.0	C	17.3	B
PM Peak Hour														
Via de San Ysidro / Calle Primera	46.2	D	69.5	E	69.5	E	-	-	133.6	F	133.6	F	-	-
Via de San Ysidro / I-5 Southbound Off Ramp	26.6	C	29.0	C	29.0	C	-	-	31.0	C	31.0	C	-	-
Via de San Ysidro / I-5 Northbound Ramps *	35.5	E	64.1	F	63.7	F	-	-	67.4	F	61.9	F	-	-
West San Ysidro Blvd / I-805 Southbound Ramps	25.5	C	36.5	D	39.1	D	-	-	28.7	C	29.8	C	-	-
East San Ysidro Blvd / I-805 Northbound Ramps	21.8	C	27.7	C	29.2	C	-	-	43.9	D	49.2	D	-	-
East San Ysidro Blvd /East Beyer	8.4	A	9.1	A	10.4	B	-	-	12.7	B	15.0	B	-	-
East San Ysidro Blvd / I-5 Northbound Ramps	19.5	B	23.4	C	24.3	C	-	-	44.9	D	47.2	D	-	-
Camino de la Plaza / I-5 Southbound Ramps	30.2	C	36.3	D	51.7	D	-	-	60.2	E	87.0	F	31.6	C
Camino de la Plaza / Virginia Ave.	23.6	C	33.1	D	89.4	F	34.8	C	51.8	F	319.5	F	32.9	C

* Unsignalized

** See Chapter 8 for improvement suggestions (to be completed by others)

CHAPTER 8 IMPROVEMENTS

This Chapter identifies potential improvements that can be implemented by others to improve the traffic circulation network within the study area. These improvements can be implemented at the following intersections and roadway segments:

INTERSECTIONS

- 8) Camino de la Plaza / I-5 Southbound Ramps
- 9) Camino de la Plaza / Virginia Avenue

SEGMENTS

- A) Via de San Ysidro: San Ysidro Boulevard to I-5 Northbound Ramps
- B) San Ysidro Boulevards: I-805 Northbound Ramps to Border Village Road
- C) Camino de la Plaza: Virginia Avenue to I-5 Southbound Ramps

These improvements are shown in Table 8-1 and the locations identified in Figure 8-1. Cost estimates and concept plans are included in Appendix H.

**Table 8-1
Improvements**

Location ID#	Location	Type of Impact	Potential Improvements
8	Camino de la Plaza / I-5 Southbound Ramps	Intersection / Cumulative	Restripe I-5 SB Ramps to 1 Southbound Left 1 Southbound Right 1 SBTR Southbound shared Through/Right, add Westbound Through
9	Camino de la Plaza / Virginia Ave.	Intersection / Direct	Signalize Intersection
A	Via de San Ysidro: San Ysidro Blvd. to I-5 Northbound Ramps	Segment / Direct	Improve to Ultimate Classification as a 4 lane Major per Community Plan
B	San Ysidro Blvd: I-805 Northbound Ramps to Border Village Rd	Segment / Direct	Improve to Ultimate Classification as a 4 lane Major per Community Plan
C	Camino de la Plaza: Virginia Ave. to I-5 Southbound Ramps	Segment / Cumulative	Widen to 4 lane Major amend Community Plan

Note: See Figure 8-1 for location of Impacts

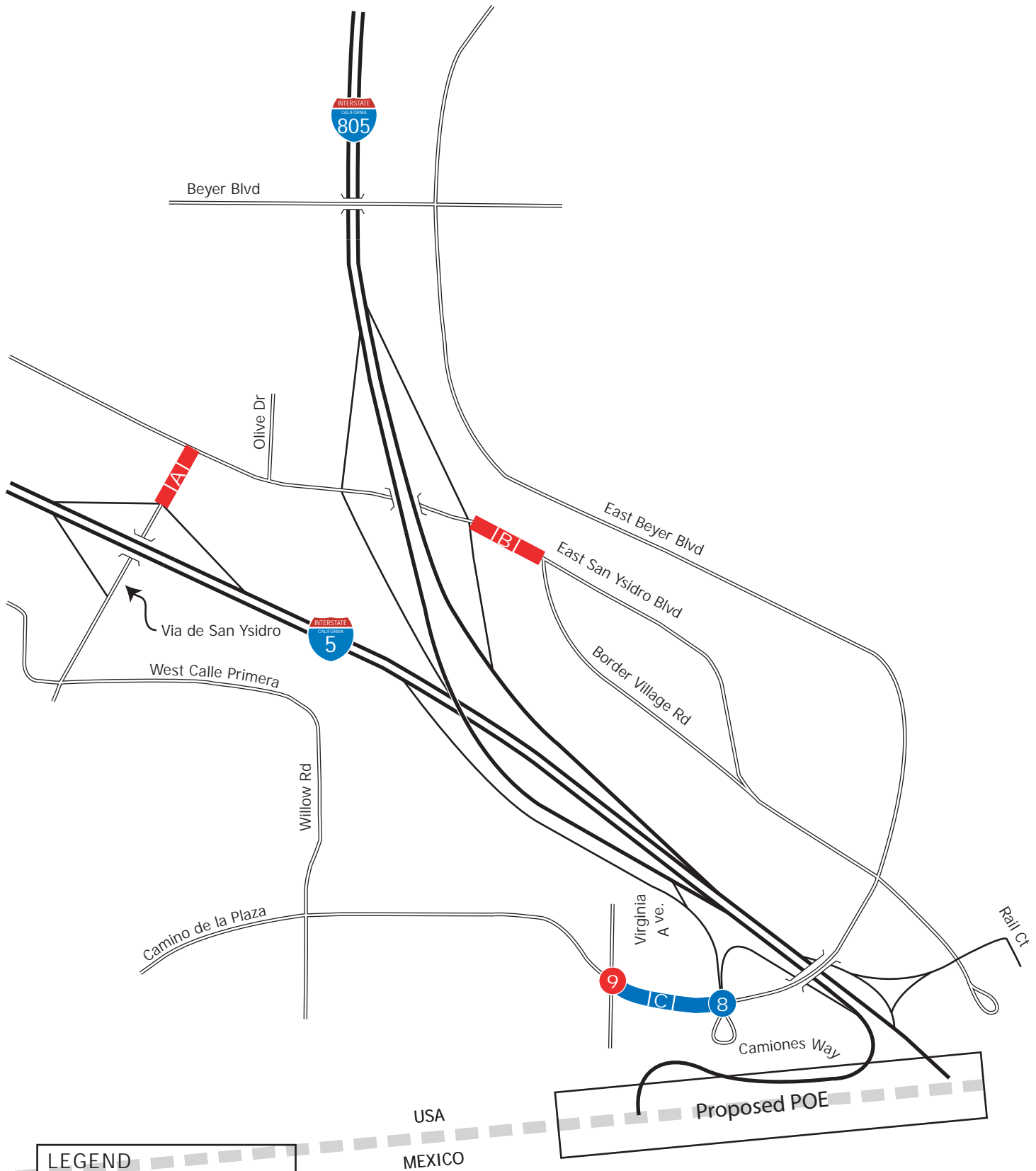
OTHER POTENTIAL IMPROVEMENTS

There are several potential improvements for properties that are adjacent to the LPOE, but not part of the LPOE expansion and would not be constructed by GSA. These improvements include the following:

- Plaza deck over I-5 connected to Camino de la Plaza and the proposed pedestrian bridge to be constructed by others
- Commercial development adjacent to the shortened Camiones Way roadway to be constructed by others

The plaza over I-5 connecting Camino de la Plaza to the pedestrian bridge could be utilized as a park, transit station, or commercial development. If a plaza was created, an area for pedestrian pick up or drop off would exist, as well as providing an area for buses, taxis, or jitneys to pick up passengers. Due to the shortening of Camiones Way with the realignment of southbound I-5, the current southbound terminus for the bus routes 929 and 932 would need to be relocated, creating the plaza deck for transit use would create a safe passenger drop off/pick up location with easy access to the pedestrian bridge to travel by foot into/from Mexico.

The commercial development adjacent to Camiones Way would replace the Commercial property that is being removed due to the realignment of the southbound Interstate 5.



LEGEND

- Project Impact
- Cumulative Impact

See Table 8-1 of Traffic Study for Mitigation

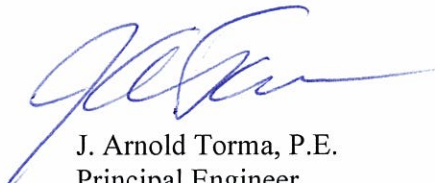
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CHAPTER 9 CONCLUSIONS

GSA is proposing to expand the number of inspection stations from 24 to 60 (including bus lanes) stations in an effort to relieve traffic congestion and reduce vehicular queues at the inspection stations. As part of this expansion, the a commercial site and a parking lot located at the south leg of the Camiones Way/Camino de la Plaza intersection will be relocated. Additionally, the proposed expansion will increase the capacity of the northbound traffic lanes crossing the border, which will increase traffic volumes on local roadways and intersections.

GSA will coordinate with all other local, state and federal jurisdictions and project related stake holders throughout the approval process. In addition, please refer to Chapter 8 for discussion related to improvement suggestions for other projects to make within the study area.

Sincerely,
KOA Corporation



J. Arnold Torma, P.E.
Principal Engineer



APPENDIX A

**LEVEL OF SERVICE CONCEPTS &
ANALYSIS METHODOLOGIES**

Roadway Segment Level of Service Definitions

LOS	V/C	Congestion/Delay	Traffic Description
(Used for surface streets, freeways, expressways and conventional highways)			
"A"	≤0.41	None	Free flow.
"B"	>0.41-0.62	None	Free to stable flow, light to moderate volumes.
"C"	>0.62-0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
"D"	>0.80-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
"E"	>0.92-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
(Used for surface streets and conventional highways)			
"F"	>1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (MPH). Signalized segments experience delays >60.0 seconds/vehicle.
(Used for freeways and expressways)			
"F(0)"	>1.00-1.25	Considerable 0-1 hour delay	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go.
"F(1)"	>1.25-1.35	Severe 1-2 hour delay	Very heavy congestion, very long queues.
"F(2)"	>1.35-1.45	Very Severe 2-3 hour delay	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods.
"F(3)"	>1.45	Extremely Severe 3+ hours of delay	Gridlock

Source: Caltrans, 1992.

LEVEL OF SERVICE (LOS) DEFINITIONS

The concept of LOS is defined as a qualitative measure describing operational conditions within a traffic stream, and the motorist's and/or passengers' perception of operations. A LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, comfort, convenience, and safety. Levels of service for freeway segments can generally be categorized as shown in the table above.

**CITY OF SAN DIEGO
ROADWAY CAPACITY STANDARDS**

Street Classification	Lanes	Cross Sections* (Approx.)	Level of Service ADT**				
			A	B	C	D	E
Expressway	6 lanes	102-160/122-200	30,000	42,000	60,000	70,000	80,000
Prime Arterial	6 lanes	102-108/122-128	25,000	35,000	50,000	55,000	60,000
Major Arterial	6 lanes	102/122	20,000	28,000	40,000	45,000	50,000
Major Arterial	4 lanes	78-82/98-102	15,000	21,000	30,000	35,000	40,000
Secondary Arterial/ Collector	4 lanes	64-72/84-92	10,000	14,000	20,000	25,000	30,000
Collector (no center lane) (continuous left- turn lane)	4 lanes 2 lanes	64/84 50/70	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2 lanes	40/60	4,000	5,500	7,500	9,000	10,000
Collector (commercial- industrial fronting)	2 lanes	50/70	2,500	3,500	5,000	6,500	8,000
Collector (multi-family)	2 lanes	40/60	2,500	3,500	5,000	6,500	8,000
Sub-Collector (single-family)	2 lanes	36/56	---	---	2,200	---	---

Legend:

*Curb to curb width (feet)/right of way width (feet): based upon the City of San Diego Street Design Manual and other jurisdictions within the San Diego region.

**Approximate recommended ADT based upon the City of San Diego Street Design Manual.

Notes:

The volumes and the average daily level of service listed above are only intended as a general planning guideline.

Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

**SIGNALIZED INTERSECTION LEVEL OF SERVICE
HIGHWAY CAPACITY MANUAL OPERATIONAL ANALYSIS METHOD**

The operational analysis method for evaluation of signalized intersections presented in the *2000 Highway Capacity Manual* (Transportation Research Board Special Report 209) defines level of service in terms of delay, or more specifically, control stopped delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption, and lost travel time.

Control Stopped Delay Per Vehicle (seconds)	Level of Service (LOS) Characteristics
<10	LOS A describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
>10 – 20	LOS B describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
>20 – 35	LOS C describes operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
>35 – 55	LOS D describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
>55 – 80	LOS E is considered to be the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>80	LOS F describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: Highway Capacity Manual 2000, Exhibit 16-2

MINOR STREET STOP AND ALL-WAY STOP CONTROLLED INTERSECTION LEVEL OF SERVICE HIGHWAY CAPACITY MANUAL OPERATIONAL ANALYSIS METHOD

The Highway Capacity Manual (HCM) analysis method for evaluating minor street stop intersections is based on the average total delay for each impeded movement. For all-way stop controlled intersections it is based on the average total delay for the entire intersection. As used here, total delay is defined as the total elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue to the first-in-queue position. The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. The resulting delay is used to determine the level of service as shown in the following table.

Average Total Delay	Level of Service (LOS) Characteristics
0-10	<i>LOS A</i> – Little or no delay
>10 – 15	<i>LOS B</i> – Short traffic delay
>15 – 25	<i>LOS C</i> – Average traffic delay
>25 – 35	<i>LOS D</i> – Long traffic delays
>35 – 50	<i>LOS E</i> – Very long traffic delays
>50	<i>LOS F</i> – When the demand exceeds the capacity of the lane, extreme delays will be encountered and queuing may cause severe congestion to the intersection.

Source: Highway Capacity Manual 2000, Exhibit 17-22



San Ysidro Existing Conditions Land Use

Conditions Land Use

Legend

- Single Family Residential: Rural Residential
- Multi-Family Residential
- Residential (under construction)
- Group Quarters
- Mobile Home Park
- Commercial
- Commercial (under construction)
- Industrial: Warehouse/Storage
- Industrial Under Construction
- Communication: Utilities; Parking
- Institutional
- Schools
- Other Transportation
- Agriculture
- Park: Open Space
- Private Recreation
- Undeveloped, Undevelopable Natural Areas

Single Family - single family detached housing units, on lots smaller than 1 acre. Includes detached single family units, townhomes, condominium apartments, and SBO's in County City.

Multi-Family - multi-family detached housing units, on lots smaller than 1 acre. Includes duplexes, triplexes, fourplexes, and townhomes.

Residential (under construction) - residential units under construction.

Group Quarters - includes community neighborhoods and specialty sleeping quarters.

Mobile Home Park - includes mobile home parks.

Commercial - includes retail, office, and service uses.

Commercial (under construction) - commercial units under construction.

Industrial: Warehouse/Storage - includes industrial, warehouse, and storage uses.

Industrial Under Construction - industrial units under construction.

Communication: Utilities; Parking - includes utility, communication, and parking uses.

Institutional - includes educational, cultural, and religious uses.

Schools - includes public and private schools.

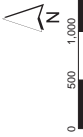
Other Transportation - includes transit stations and related facilities.

Agriculture - includes agricultural uses.

Park: Open Space - includes public parks and open spaces.

Private Recreation - includes private recreational facilities.

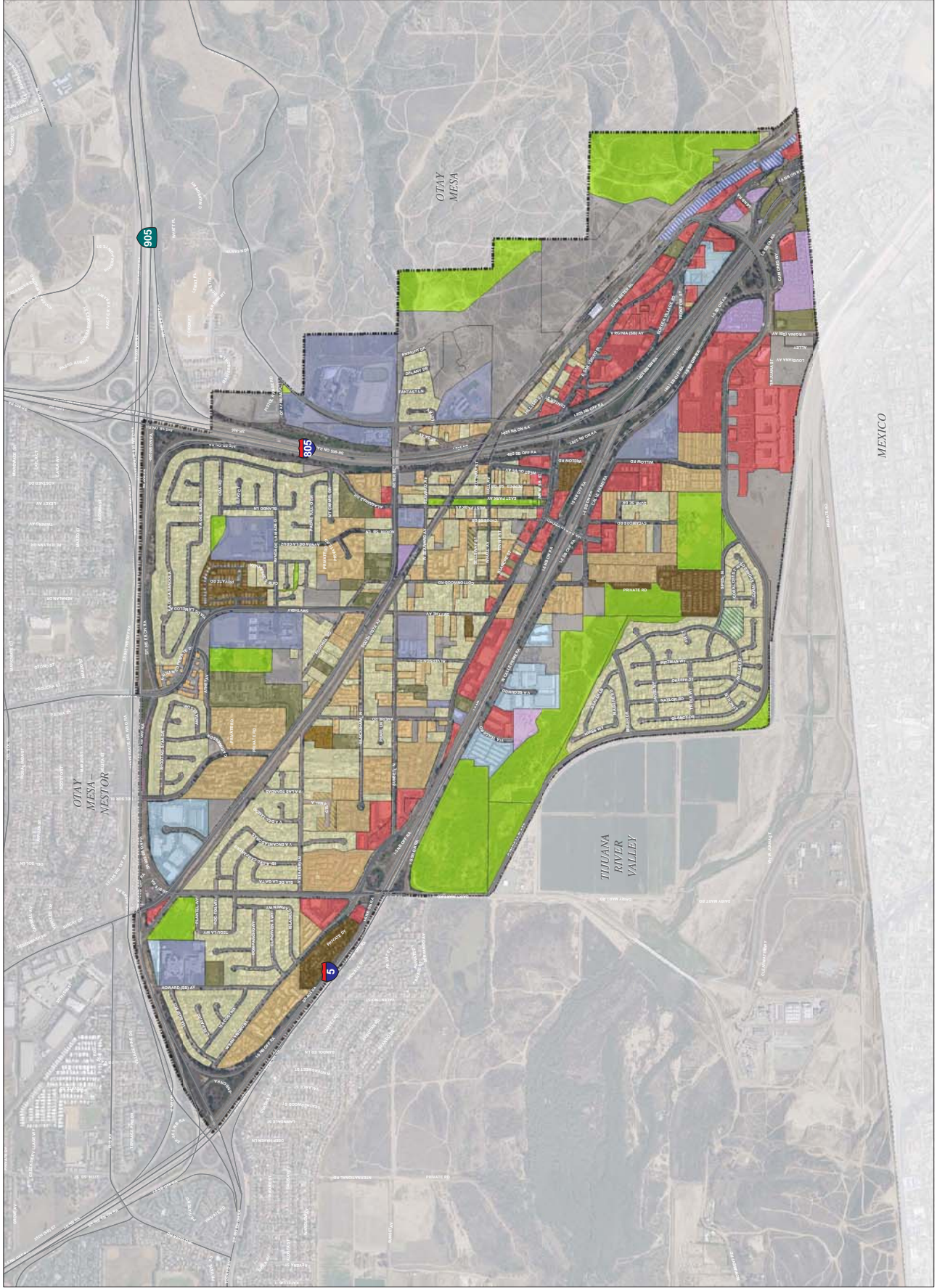
Undeveloped, Undevelopable Natural Areas - includes undeveloped and undevelopable natural areas.



City of San Diego
Planning Department
October 21, 2003



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San Ysidro

Existing Conditions

Transit and Bike Routes

Transit Stops

- Local Bus
- Express Bus
- Limited Express Bus
- Trolley

Transit Routes

- Local Bus
- Limited Express Bus
- Express Bus
- Trolley
- Commuter Rail

123 Route Number/Name (some information may be removed for clarity)

Bikeway Class

- 1
- 2
- 3

Transit and Bike Routes

Bike Lanes and Routes
National design standards for bikeways have been developed by the American Association of Highway and Transportation Builders (AAHTB) and the California Department of Transportation (Caltrans). The California Department of Transportation (Caltrans) has adopted the Bikeway Planning and Design, which is the official standard for all bikeway facilities in California. The California Department of Transportation (Caltrans) has established three classifications of facilities specifically for bikeway traffic.

Path or Trail and Reduced Speed Path, Class 1: Bikeways that are bike paths, also known as "greenways," are typically found in parks and recreational areas. They are provided with limited interference from nearby or intersecting roadways.

Bike Lane, Class 2: Bikeway that consists of a five-foot lanes that are strip on the outside of the roadway and adjacent to the curb. They are typically found in urban areas and are provided with limited interference from nearby or intersecting roadways.

Bike Route, Class 3: Bikeway which typically have wider outside lanes, lower traffic volume, and a slower vehicle speed.

Other Suggested Routes: Any road, connecting streets, or other bikeway.

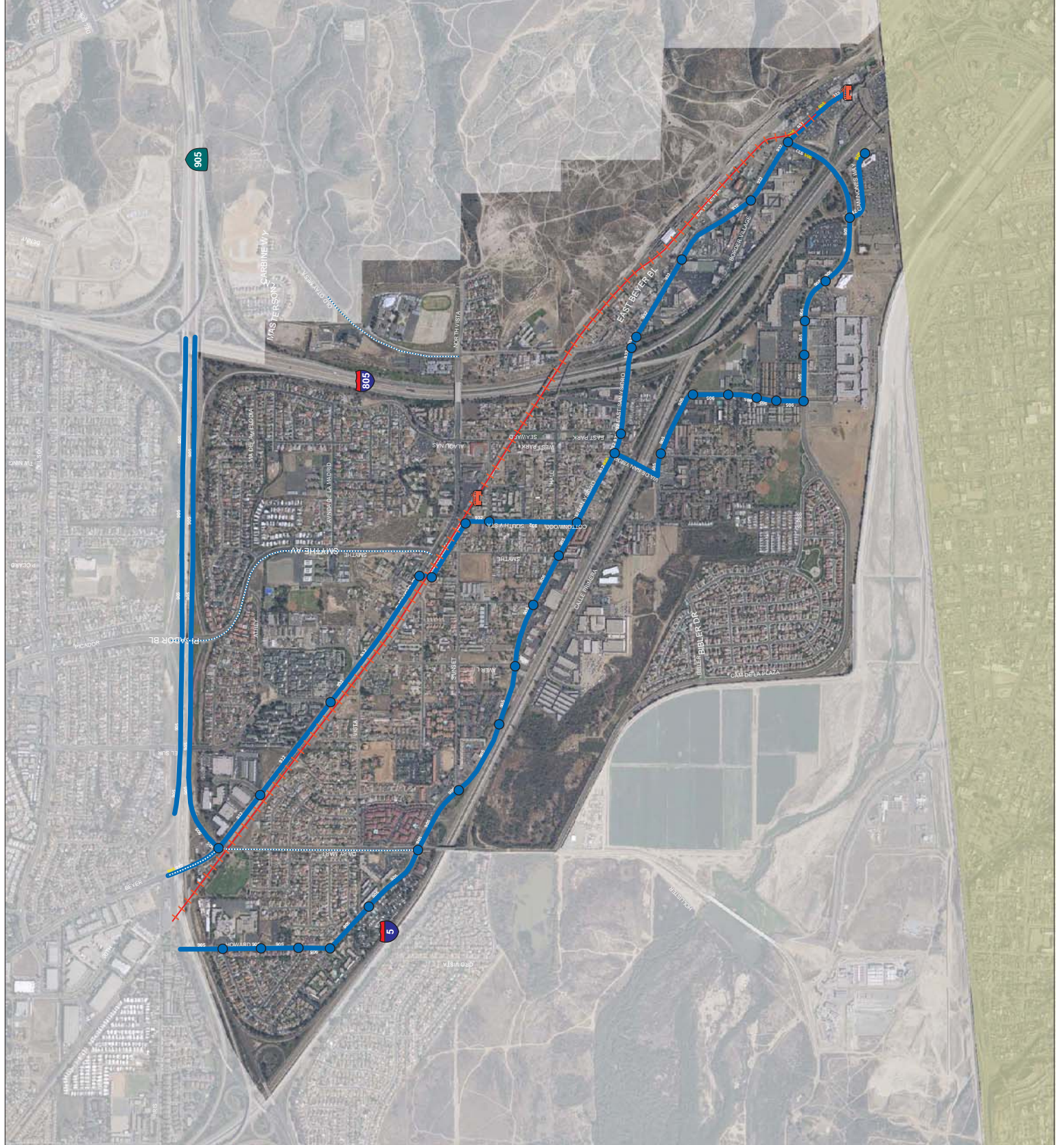
Note: all features may not exist in this area.



City of San Diego Planning Department October 21, 2003

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Background contains 1999 aerial orthophotograph.
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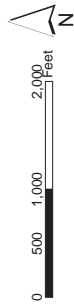
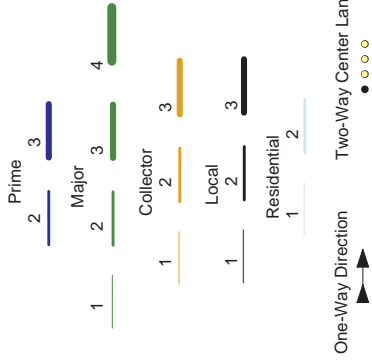




San Ysidro

Existing Conditions

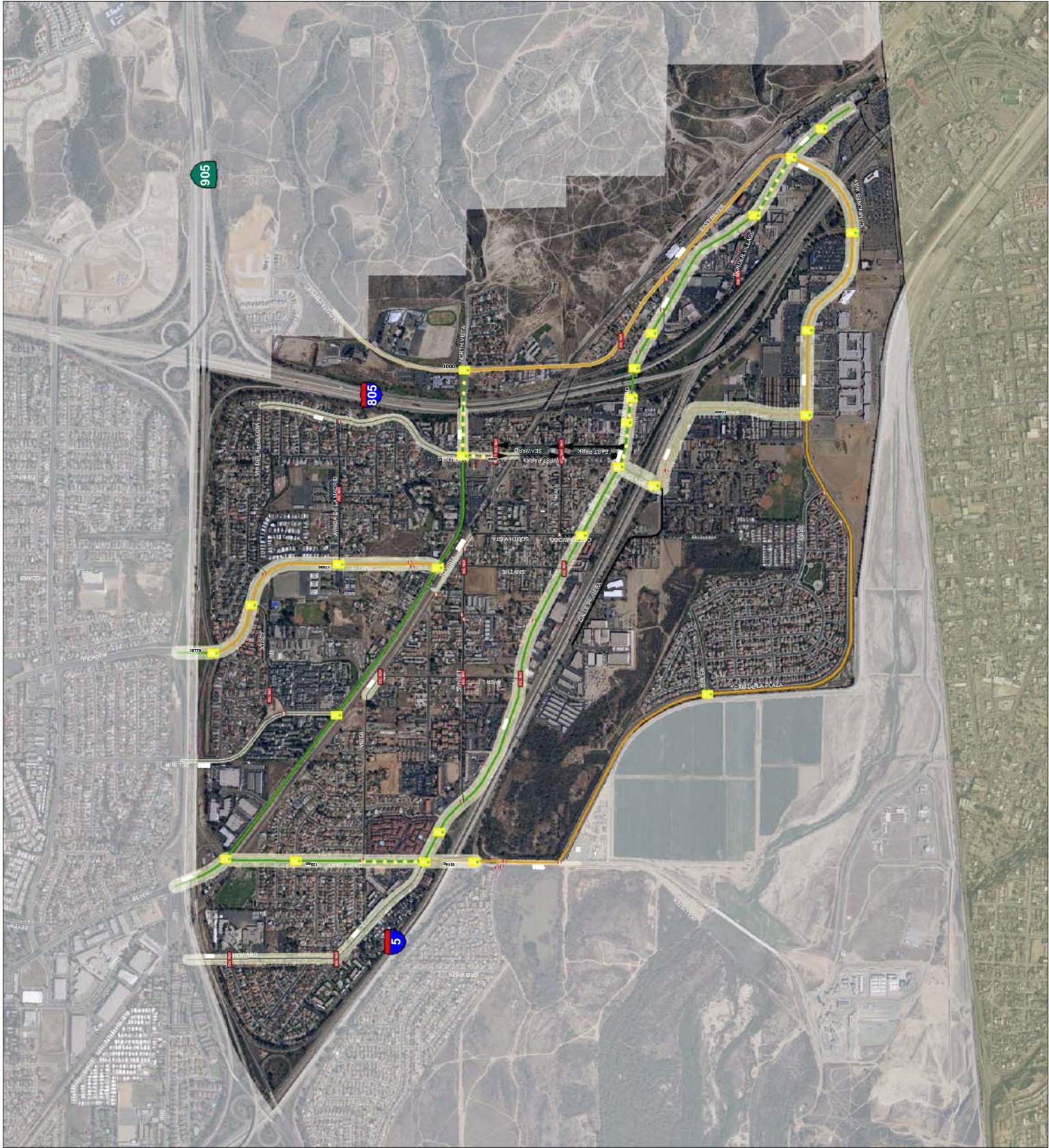
Street Classification, Intersection Controls and Traffic Volumes General Plan Circulation Element Classifications and per Direction Lanes



**City of San Diego
Planning Department
October 21, 2003**

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Background contains 1999 aerial orthorectification. Map Document: I:\GIS\PROJECTS\ECDD\Transportation\San_Ysidro.apr.mxd 12/10/2003 2:19:42 PM



APPENDIX B

TRAFFIC COUNT DATA

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.08.E CALLE PRIMERA.VIA DE SAN YSIDRO
Site Code : 00000000
Start Date : 5/13/2008
Page No : 1

Groups Printed- Vehicles

Start Time	VIA DE SAN YSIDRO Southbound				E CALLE PRIMERA Westbound				VIA DE SAN YSIDRO Northbound				E CALLE PRIMERA Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	20	1	15	0	0	6	70	7	0	1	1	17	24	7	0	1	170
07:15	38	4	20	0	0	10	77	7	0	1	0	31	41	12	0	2	243
07:30	47	0	22	0	1	15	107	14	0	8	2	31	27	24	2	2	302
07:45	56	2	26	0	1	14	99	10	1	8	2	12	48	10	2	1	292
Total	161	7	83	0	2	45	353	38	1	18	5	91	140	53	4	6	1007
08:00	47	1	33	0	0	8	88	8	2	5	1	21	32	5	3	2	256
08:15	65	3	36	0	0	4	70	3	2	4	1	29	34	3	2	1	257
08:30	49	3	43	0	0	5	66	10	10	7	0	6	28	1	3	4	235
08:45	43	2	43	0	0	5	50	0	1	2	1	2	43	3	0	0	195
Total	204	9	155	0	0	22	274	21	15	18	3	58	137	12	8	7	943

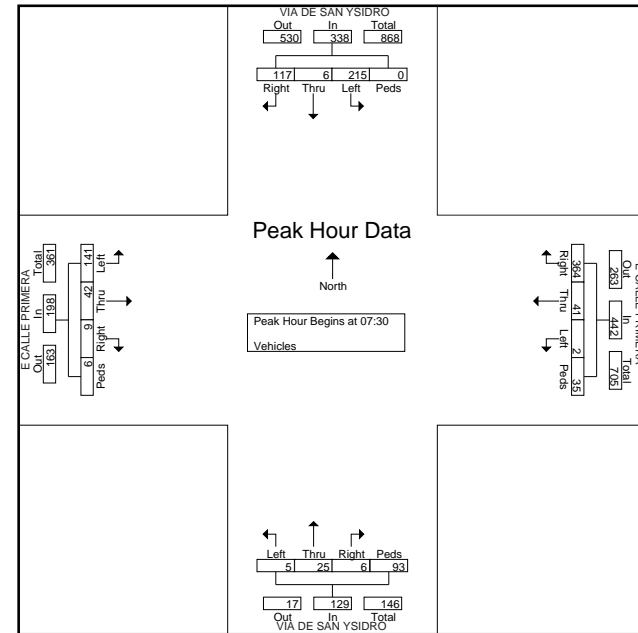
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16:00	99	0	73	0	0	7	79	18	1	14	2	7	68	17	5	4	394
16:15	102	2	70	0	0	6	107	9	3	9	0	18	54	14	1	0	395
16:30	101	5	59	0	0	9	94	21	1	9	1	11	50	13	4	1	379
16:45	119	2	83	0	0	4	102	5	0	3	0	5	55	14	0	0	392
Total	421	9	285	0	0	26	382	53	5	35	3	41	227	58	10	5	1560
17:00	88	1	52	0	0	8	84	9	0	7	2	13	65	18	2	0	349
17:15	130	0	67	0	0	4	101	9	0	9	0	0	52	16	1	0	389
17:30	114	4	67	0	2	9	98	12	1	6	1	7	53	11	0	5	390
17:45	122	6	57	0	1	6	100	4	1	14	3	6	43	10	1	3	377
Total	454	11	243	0	3	27	383	34	2	36	6	26	213	55	4	8	1505
Grand Total	1240	36	766	0	5	120	1392	146	23	107	17	216	717	178	26	26	5015
Apprch %	60.7	1.8	37.5	0	0.3	7.2	83.7	8.8	6.3	29.5	4.7	59.5	75.7	18.8	2.7	2.7	
Total %	24.7	0.7	15.3	0	0.1	2.4	27.8	2.9	0.5	2.1	0.3	4.3	14.3	3.5	0.5	0.5	

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.08.E CALLE PRIMERA.VIA DE SAN YSIDRO
Site Code : 00000000
Start Date : 5/13/2008
Page No : 2

Start Time	VIA DE SAN YSIDRO Southbound				E CALLE PRIMERA Westbound				VIA DE SAN YSIDRO Northbound				E CALLE PRIMERA Eastbound				Int. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	47	0	22	0	69	1	15	107	14	137	0	8	2	31	41	27	24	2	2	55	302
07:45	56	2	26	0	84	1	14	99	10	124	1	8	2	12	23	48	10	2	1	61	292
08:00	47	1	33	0	81	0	8	88	8	104	2	5	1	21	29	32	5	3	2	42	256
08:15	65	3	36	0	104	0	4	70	3	77	2	4	1	29	36	34	3	2	1	40	257
Total Volume	215	6	117	0	338	2	41	364	35	442	5	25	6	93	129	141	42	9	6	198	1107
% App. Total	63.6	1.8	34.6	0		0.5	9.3	82.4	7.9		3.9	19.4	4.7	72.1		71.2	21.2	4.5	3		
PHF	.827	.500	.813	.000	.813	.500	.683	.850	.625	.807	.625	.781	.750	.787		.734	.438	.750	.811		.916



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.08.E CALLE PRIMERA.VIA DE SAN YSIDRO
Site Code : 00000000
Start Date : 5/13/2008
Page No : 3

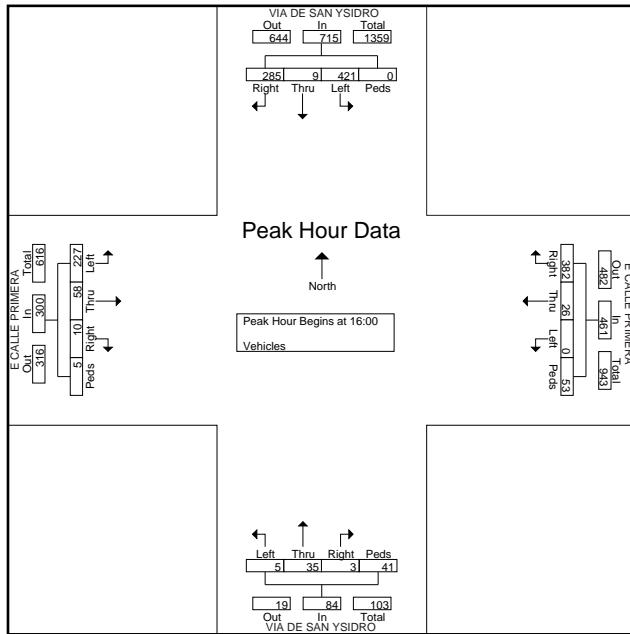
Start Time	VIA DE SAN YSIDRO Southbound				E CALLE PRIMERA Westbound				VIA DE SAN YSIDRO Northbound				E CALLE PRIMERA Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total						
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	99	0	73	0	172	0	7	79	18	104	1	14	2	7	24	68	17	5	4	94	394
16:15	102	2	70	0	174	0	6	107	9	122	3	9	0	18	30	54	14	1	0	69	395
16:30	101	5	59	0	165	0	9	94	21	124	1	9	1	11	22	50	13	4	1	68	379
16:45	119	2	83	0	204	0	4	102	5	111	0	3	0	5	8	55	14	0	0	69	392
Total Volume	421	9	285	0	715	0	26	382	53	461	5	35	3	41	84	227	58	10	5	300	1560
% App. Total	58.9	1.3	39.9	0		0	5.6	82.9	11.5		6	41.7	3.6	48.8		75.7	19.3	3.3	1.7		
PHF	.884	.450	.858	.000	.876	.000	.722	.893	.631	.929	.417	.625	.375	.569	.700	.835	.853	.500	.313	.798	.987

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.07.1-5 SB OFF RAMP.VIA DE SAN YSIDRO
Site Code : 00000000
Start Date : 5/13/2008
Page No : 1

Groups Printed- Vehicles

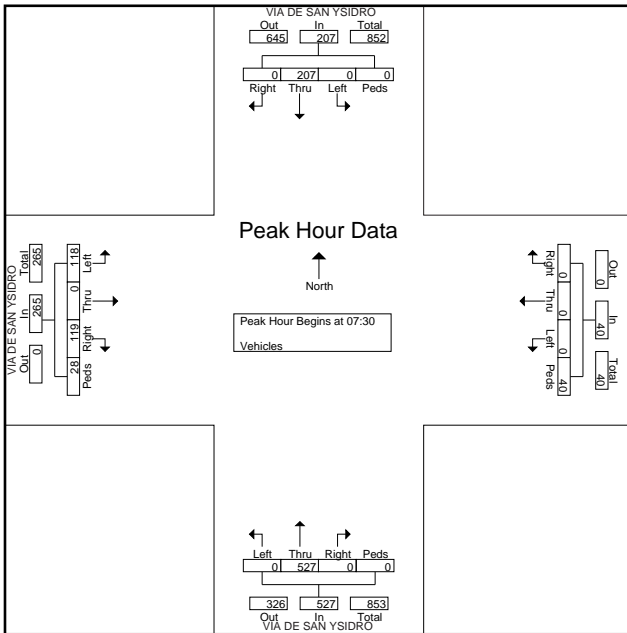
Start Time	VIA DE SAN YSIDRO Southbound				Westbound				VIA DE SAN YSIDRO Northbound				VIA DE SAN YSIDRO Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	0	27	0	0	0	0	0	0	0	93	0	0	18	0	10	0	148
07:15	0	42	0	0	0	0	0	8	0	117	0	0	19	0	16	6	208
07:30	0	45	0	0	0	0	0	13	0	143	0	0	25	0	19	8	253
07:45	0	47	0	0	0	0	0	11	0	157	0	0	34	0	31	4	284
Total	0	161	0	0	0	0	0	32	0	510	0	0	96	0	76	18	893
08:00	0	46	0	0	0	0	0	12	0	123	0	0	38	0	35	5	259
08:15	0	69	0	0	0	0	0	4	0	104	0	0	21	0	34	11	243
08:30	0	66	0	0	0	0	0	17	0	97	0	0	36	0	22	7	245
08:45	0	56	0	0	0	0	0	2	0	96	0	0	34	0	33	2	223
Total	0	237	0	0	0	0	0	35	0	420	0	0	129	0	124	25	970
*** BREAK ***																	
16:00	0	102	0	0	0	0	0	22	0	165	0	0	67	0	71	6	433
16:15	0	93	0	0	0	0	0	14	0	174	0	0	67	0	78	12	438
16:30	0	99	0	0	0	0	0	22	0	151	0	0	71	0	60	7	410
16:45	0	121	0	0	0	0	0	5	0	158	0	0	76	0	81	9	450
Total	0	415	0	0	0	0	0	63	0	648	0	0	281	0	290	34	1731
17:00	0	69	0	0	0	0	0	13	0	158	0	0	62	0	68	12	382
17:15	0	110	0	0	0	0	0	13	0	163	0	0	81	0	87	5	459
17:30	0	97	0	0	0	0	0	17	0	157	0	0	61	0	83	12	427
17:45	0	79	0	0	0	0	0	11	0	160	0	0	65	0	83	5	403
Total	0	355	0	0	0	0	0	54	0	638	0	0	269	0	321	34	1671
Grand Total	0	1168	0	0	0	0	0	184	0	2216	0	0	775	0	811	111	5265
Approch %	0	100	0	0	0	0	0	100	0	100	0	0	45.7	0	47.8	6.5	
Total %	0	22.2	0	0	0	0	0	3.5	0	42.1	0	0	14.7	0	15.4	2.1	



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.07.1-5 SB OFF RAMP.VIA DE SAN YSIDRO
Site Code : 00000000
Start Date : 5/13/2008
Page No : 2

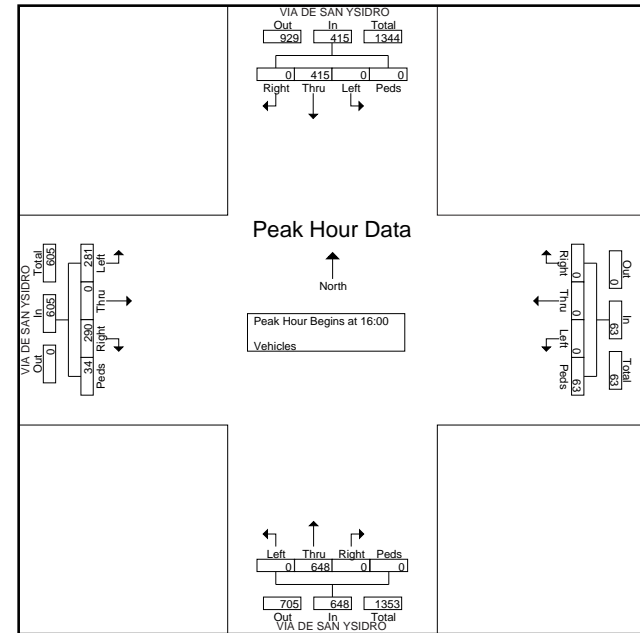
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	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	0	45	0	0	45	0	0	0	13	13	0	143	0	0	143	25	0	19	8	52	253
07:45	0	47	0	0	47	0	0	0	11	11	0	157	0	0	157	34	0	31	4	69	284
08:00	0	46	0	0	46	0	0	0	12	12	0	123	0	0	123	38	0	35	5	78	259
08:15	0	69	0	0	69	0	0	0	4	4	0	104	0	0	104	21	0	34	11	66	243
Total Volume	0	207	0	0	207	0	0	0	40	40	0	527	0	0	527	118	0	119	28	265	1039
% App. Total	0	100	0	0	100	0	0	0	100	100	0	0	0	0	0	44.5	0	44.9	10.6		
PHF	.000	.750	.000	.000	.750	.000	.000	.000	.769	.769	.000	.839	.000	.000	.839	.776	.000	.850	.636	.849	.915



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.07.1-5 SB OFF RAMP.VIA DE SAN YSIDRO
Site Code : 00000000
Start Date : 5/13/2008
Page No : 3

Start Time	VIA DE SAN YSIDRO Southbound				Westbound				VIA DE SAN YSIDRO Northbound				VIA DE SAN YSIDRO Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	0	102	0	0	102	0	0	0	22	22	0	165	0	0	165	67	0	71	6	144	433
16:15	0	93	0	0	93	0	0	0	14	14	0	174	0	0	174	67	0	78	12	157	438
16:30	0	99	0	0	99	0	0	0	22	22	0	151	0	0	151	71	0	60	7	138	410
16:45	0	121	0	0	121	0	0	0	5	5	0	158	0	0	158	76	0	81	9	166	450
Total Volume	0	415	0	0	415	0	0	0	63	63	0	648	0	0	648	281	0	290	34	605	1731
% App. Total	0	100	0	0	100	0	0	0	100	100	0	100	0	0	100	46.4	0	47.9	5.6		
PHF	.000	.857	.000	.000	.857	.000	.000	.000	.716	.716	.000	.931	.000	.000	.931	.924	.000	.895	.708	.911	.962



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.06.I-5 NB RAMPS.VIA DE SAN YSIDRO
Site Code : 00000000
Start Date : 5/13/2008
Page No : 1

Start Time	Groups Printed- Vehicles																Int. Total	
	VIA DE SAN YSIDRO Southbound				I-5 NB RAMPS Westbound				VIA DE SAN YSIDRO Northbound				I-5 NB RAMPS Eastbound					
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds		
07:00	0	23	31	0	4	0	36	9	47	71	0	0	0	0	0	0	9	230
07:15	0	38	41	0	6	0	39	14	51	81	0	0	0	0	0	0	7	277
07:30	0	36	44	0	6	0	22	16	58	113	0	0	0	0	0	0	8	303
07:45	0	43	38	0	7	0	33	14	64	124	0	0	0	0	0	0	6	329
Total	0	140	154	0	23	0	130	53	220	389	0	0	0	0	0	0	30	1139
08:00	0	44	41	0	6	0	46	15	42	119	0	0	0	0	0	0	7	320
08:15	0	47	31	0	15	0	37	3	34	97	0	0	0	0	0	0	12	276
08:30	0	58	36	1	10	0	20	17	42	88	0	0	0	0	0	0	9	281
08:45	0	50	34	1	9	1	26	6	38	97	0	0	0	0	0	0	2	264
Total	0	199	142	2	40	1	129	41	156	401	0	0	0	0	0	0	30	1141

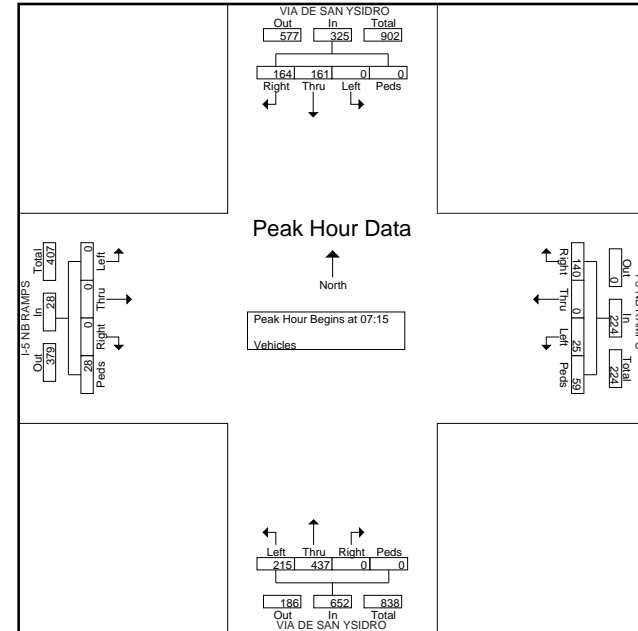
*** BREAK ***

16:00	0	86	39	0	15	0	14	23	66	159	0	0	0	0	0	0	9	411
16:15	0	79	44	0	15	0	22	12	86	160	0	0	0	0	0	0	12	430
16:30	0	89	48	0	7	1	19	19	65	140	0	0	0	0	0	0	9	397
16:45	0	98	37	0	12	0	17	7	79	157	0	0	0	0	0	0	13	420
Total	0	352	168	0	49	1	72	61	296	616	0	0	0	0	0	0	43	1658
17:00	0	72	44	0	15	0	21	10	68	151	0	0	0	0	0	0	12	393
17:15	0	86	65	0	14	0	22	12	68	170	0	0	0	0	0	0	5	442
17:30	0	89	59	0	8	0	19	12	76	140	0	0	0	0	0	0	17	420
17:45	0	82	45	0	10	1	14	12	73	152	0	0	0	0	0	0	7	396
Total	0	329	213	0	47	1	76	46	285	613	0	0	0	0	0	0	41	1651
Grand Total	0	1020	677	2	159	3	407	201	957	2019	0	0	0	0	0	0	144	5589
Apprch %	0	60	39.8	0.1	20.6	0.4	52.9	26.1	32.2	67.8	0	0	0	0	0	0	100	
Total %	0	18.3	12.1	0	2.8	0.1	7.3	3.6	17.1	36.1	0	0	0	0	0	0	2.6	

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.06.I-5 NB RAMPS.VIA DE SAN YSIDRO
Site Code : 00000000
Start Date : 5/13/2008
Page No : 2

Start Time	VIA DE SAN YSIDRO Southbound				I-5 NB RAMPS Westbound				VIA DE SAN YSIDRO Northbound				I-5 NB RAMPS Eastbound				Int. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 4																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	0	38	41	0	79	6	0	39	14	59	51	81	0	0	132	0	0	0	7	7	277
07:30	0	36	44	0	80	6	0	22	16	44	58	113	0	0	171	0	0	0	8	8	303
07:45	0	43	38	0	81	7	0	33	14	54	64	124	0	0	188	0	0	0	6	6	329
08:00	0	44	41	0	85	6	0	46	15	67	42	119	0	0	161	0	0	0	7	7	320
Total Volume	0	161	164	0	325	25	0	140	59	224	215	437	0	0	652	0	0	0	28	28	1229
% App. Total	0	49.5	50.5	0	11.2	0	62.5	26.3	33	67	0	0	0	0	100	0	0	0	100		
PHF	.000	.915	.932	.000	.956	.893	.000	.761	.922	.836	.840	.881	.000	.000	.867	.000	.000	.000	.875	.875	.934



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.06.I-5 NB RAMPS.VIA DE SAN YSIDRO
Site Code : 00000000
Start Date : 5/13/2008
Page No : 3

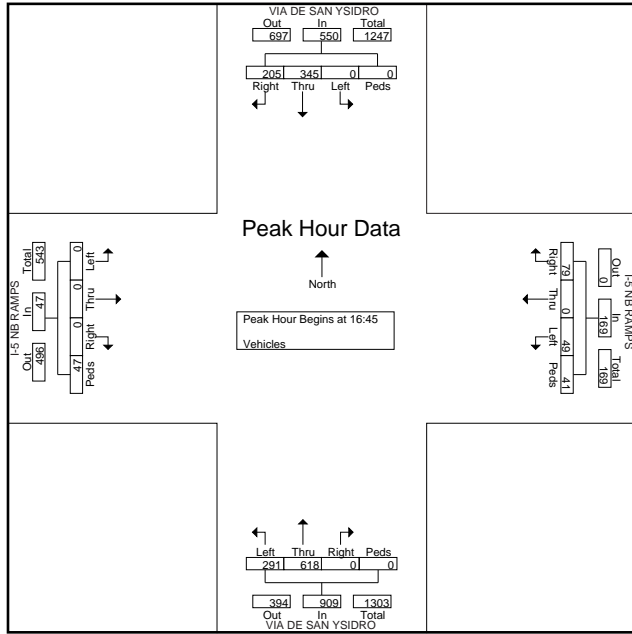
Start Time	VIA DE SAN YSIDRO Southbound				I-5 NB RAMPS Westbound				VIA DE SAN YSIDRO Northbound				I-5 NB RAMPS Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total						
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	0	98	37	0	135	12	0	17	7	36	79	157	0	0	236	0	0	0	13	13	420
17:00	0	72	44	0	116	15	0	21	10	46	68	151	0	0	219	0	0	0	12	12	393
17:15	0	86	65	0	151	14	0	22	12	48	68	170	0	0	238	0	0	0	5	5	442
17:30	0	89	59	0	148	8	0	19	12	39	76	140	0	0	216	0	0	0	17	17	420
Total Volume	0	345	205	0	550	49	0	79	41	169	291	618	0	0	909	0	0	0	47	47	1675
% App. Total	0	62.7	37.3	0		29	0	46.7	24.3		32	68	0	0		0	0	0	100		
PHF	.000	.880	.788	.000	.911	.817	.000	.898	.854	.880	.921	.909	.000	.000	.955	.000	.000	.000	.691	.691	.947

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.05.I-805 SB RAMPS.W SAN YSIDRO BLVD
Site Code : 00000000
Start Date : 5/13/2008
Page No : 1

Groups Printed- Vehicles

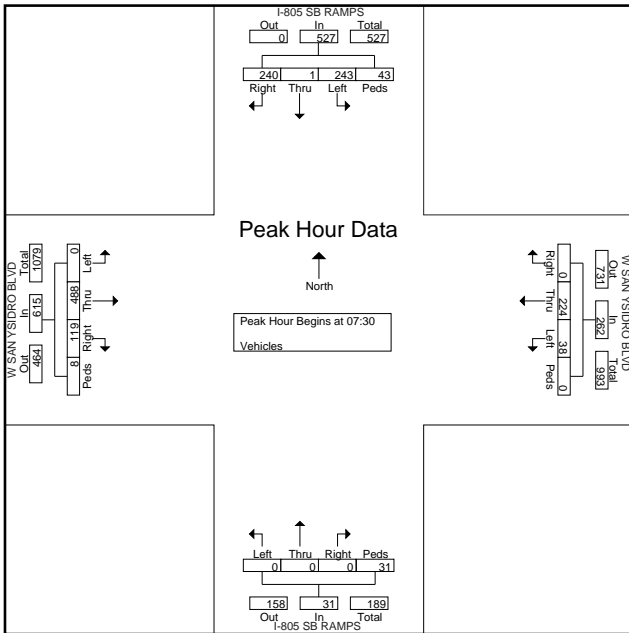
Start Time	I-805 SB RAMPS Southbound				W SAN YSIDRO BLVD Westbound				I-805 SB RAMPS Northbound				W SAN YSIDRO BLVD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	24	0	33	9	11	39	0	1	0	0	0	4	0	83	8	0	212
07:15	57	0	64	6	4	36	0	0	0	0	0	3	0	89	22	1	282
07:30	49	0	52	12	7	51	0	0	0	0	0	4	0	136	26	1	338
07:45	82	0	73	14	12	54	0	0	0	0	0	6	0	116	30	4	391
Total	212	0	222	41	34	180	0	1	0	0	0	17	0	424	86	6	1223
*** BREAK ***																	
08:00	52	0	55	5	11	46	0	0	0	0	0	6	0	122	29	0	326
08:15	60	1	60	12	8	73	0	0	0	0	0	15	0	114	34	3	380
08:30	56	3	57	7	17	70	0	0	0	0	0	3	0	105	18	2	338
08:45	61	1	72	9	21	58	0	0	0	0	0	5	0	126	26	2	381
Total	229	5	244	33	57	247	0	0	0	0	0	29	0	467	107	7	1425
16:00	105	0	118	7	38	90	0	3	0	0	0	17	0	168	90	1	637
16:15	113	8	124	13	63	119	0	1	0	0	0	20	0	151	113	1	726
16:30	90	1	117	14	32	163	0	0	0	0	0	8	0	169	105	1	700
16:45	98	4	131	12	40	106	0	0	0	0	0	13	0	167	104	3	678
Total	406	13	490	46	173	478	0	4	0	0	0	58	0	655	412	6	2741
17:00	63	1	100	9	56	130	0	0	0	0	0	9	0	163	104	1	636
17:15	92	2	121	17	34	125	0	0	0	0	0	13	0	166	107	9	686
17:30	93	2	124	21	30	129	0	0	0	0	0	2	0	153	91	0	645
17:45	100	0	130	10	41	102	0	0	0	0	0	7	0	158	99	5	652
Total	348	5	475	57	161	486	0	0	0	0	0	31	0	640	401	15	2619
Grand Total	1195	23	1431	177	425	1391	0	5	0	0	0	135	0	2186	1006	34	8008
Approch %	42.3	0.8	50.6	6.3	23.3	76.4	0	0.3	0	0	0	100	0	67.8	31.2	1.1	
Total %	14.9	0.3	17.9	2.2	5.3	17.4	0	0.1	0	0	0	1.7	0	27.3	12.6	0.4	



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.05.I-805 SB RAMPS.W SAN YSIDRO BLVD
Site Code : 00000000
Start Date : 5/13/2008
Page No : 2

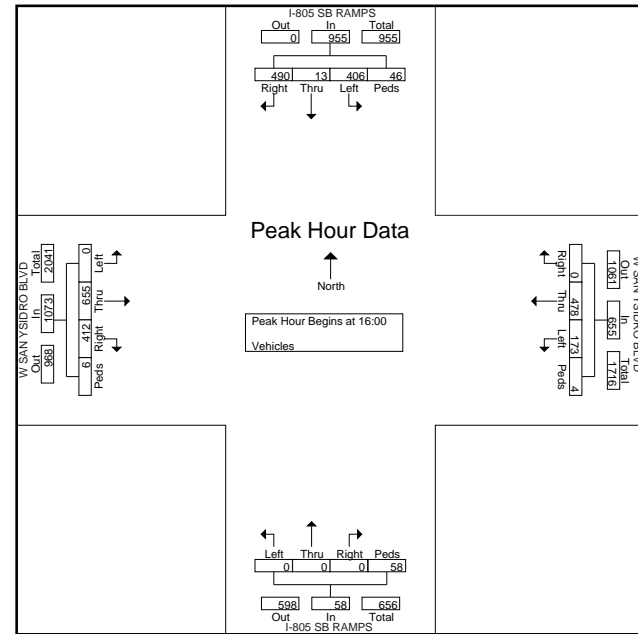
Start Time	I-805 SB RAMPS Southbound				W SAN YSIDRO BLVD Westbound				I-805 SB RAMPS Northbound				W SAN YSIDRO BLVD Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	49	0	52	12	113	7	51	0	0	58	0	0	0	4	4	0	136	26	1	163	338
07:45	82	0	73	14	169	12	54	0	0	66	0	0	0	6	6	0	116	30	4	150	391
08:00	52	0	55	5	112	11	46	0	0	57	0	0	0	6	6	0	122	29	0	151	326
08:15	60	1	60	12	133	8	73	0	0	81	0	0	0	15	15	0	114	34	3	151	380
Total Volume	243	1	240	43	527	38	224	0	0	262	0	0	0	31	31	0	488	119	8	615	1435
% App. Total	46.1	0.2	45.5	8.2		14.5	85.5	0.0	0.0		0.0	0.0	0.0	100		0.0	79.3	19.3	1.3		
PHF	.741	.250	.822	.768	.780	.792	.767	.000	.000	.809	.000	.000	.000	.517	.517	.000	.897	.875	.500	.943	.918



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.05.I-805 SB RAMPS.W SAN YSIDRO BLVD
Site Code : 00000000
Start Date : 5/13/2008
Page No : 3

Start Time	I-805 SB RAMPS Southbound				W SAN YSIDRO BLVD Westbound				I-805 SB RAMPS Northbound				W SAN YSIDRO BLVD Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	105	0	118	7	230	38	90	0	3	131	0	0	0	17	17	0	168	90	1	259	637
16:15	113	8	124	13	258	63	119	0	1	183	0	0	0	20	20	0	151	113	1	265	726
16:30	90	1	117	14	222	32	163	0	0	195	0	0	0	8	8	0	169	105	1	275	700
16:45	98	4	131	12	245	40	106	0	0	146	0	0	0	13	13	0	167	104	3	274	678
Total Volume	406	13	490	46	955	173	478	0	4	655	0	0	0	58	58	0	655	412	6	1073	2741
% App. Total	42.5	1.4	51.3	4.8		26.4	73	0	0.6		0	0	0	100		0	61	38.4	0.6		
PHF	.898	.406	.935	.821	.925	.687	.733	.000	.333	.840	.000	.000	.000	.725	.725	.000	.969	.912	.500	.975	.944



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.04.I-805 NB RAMPS.E SAN YSIDRO BLVD
Site Code : 00000000
Start Date : 5/13/2008
Page No : 1

Groups Printed- Vehicles

Start Time	I-805 NB RAMPS Southbound				E SAN YSIDRO BLVD Westbound				I-805 NB RAMPS Northbound				E SAN YSIDRO BLVD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	0	0	0	0	0	34	45	11	16	0	31	0	42	58	0	7	244
07:15	0	0	0	0	0	30	49	8	11	0	23	0	50	93	0	3	267
07:30	0	0	0	0	0	46	51	10	10	0	23	0	83	106	0	2	331
07:45	0	0	0	0	0	48	57	12	16	0	30	0	56	129	0	3	351
Total	0	0	0	0	0	158	202	41	53	0	107	0	231	386	0	15	1193
08:00	0	0	0	0	0	49	52	10	13	0	39	0	53	116	0	3	335
08:15	0	0	0	0	0	65	60	29	19	0	33	0	48	110	0	4	368
08:30	0	0	0	0	0	62	52	5	17	0	38	0	57	104	0	3	338
08:45	0	0	0	0	0	59	56	6	21	0	45	0	65	104	0	9	365
Total	0	0	0	0	0	235	220	50	70	0	155	0	223	434	0	19	1406

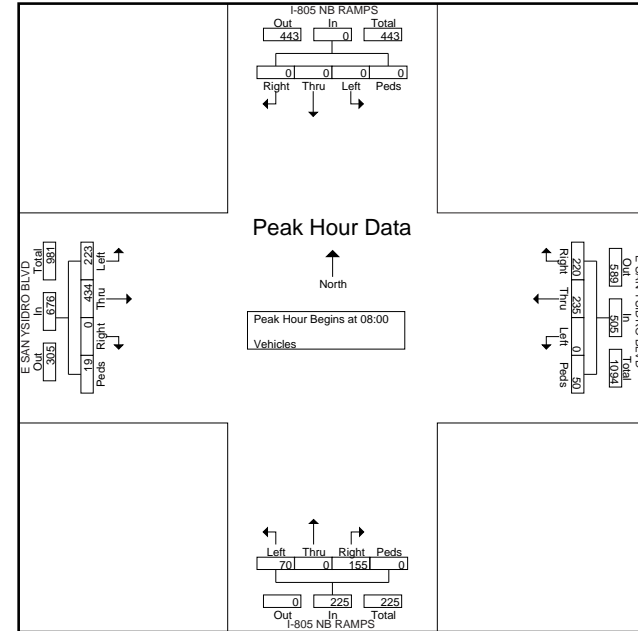
*** BREAK ***

16:00	0	0	0	0	0	106	122	13	26	0	52	1	57	191	0	15	583
16:15	0	0	0	0	0	138	98	5	27	0	62	0	68	208	0	20	626
16:30	0	0	0	0	0	137	101	8	31	0	47	0	54	184	0	12	574
16:45	0	0	0	0	0	109	102	10	27	0	57	0	66	208	0	7	586
Total	0	0	0	0	0	490	423	36	111	0	218	1	245	791	0	54	2369
17:00	0	0	0	0	0	133	102	10	35	0	63	0	62	176	0	9	590
17:15	0	0	0	0	0	122	97	9	32	0	65	0	82	176	0	8	591
17:30	0	0	0	0	0	126	89	8	16	0	53	0	64	166	0	4	526
17:45	0	0	0	0	0	108	94	10	27	0	53	0	69	186	0	20	567
Total	0	0	0	0	0	489	382	37	110	0	234	0	277	704	0	41	2274
Grand Total	0	0	0	0	0	1372	1227	164	344	0	714	1	976	2315	0	129	7242
Apprch %	0	0	0	0	0	49.7	44.4	5.9	32.5	0	67.4	0.1	28.5	67.7	0	3.8	
Total %	0	0	0	0	0	18.9	16.9	2.3	4.8	0	9.9	0	13.5	32	0	1.8	

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.04.I-805 NB RAMPS.E SAN YSIDRO BLVD
Site Code : 00000000
Start Date : 5/13/2008
Page No : 2

Start Time	I-805 NB RAMPS Southbound					E SAN YSIDRO BLVD Westbound					I-805 NB RAMPS Northbound					E SAN YSIDRO BLVD Eastbound					Int. Total	
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total		
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 08:00																						
08:00	0	0	0	0	0	0	49	52	10	111	13	0	39	0	52	53	116	0	3	172	335	
08:15	0	0	0	0	0	0	65	60	29	154	19	0	33	0	52	48	110	0	4	162	368	
08:30	0	0	0	0	0	0	62	52	5	119	17	0	38	0	55	57	104	0	3	164	338	
08:45	0	0	0	0	0	0	59	56	6	121	21	0	45	0	66	65	104	0	9	178	365	
Total Volume	0	0	0	0	0	0	235	220	50	505	70	0	155	0	225	223	434	0	19	676	1406	
% App. Total	0	0	0	0	0	0	46.5	43.6	9.9	820	31.1	0	68.9	0	852	33	64.2	0	2.8	955		
PHF	.000	.000	.000	.000	.000	.000	.000	.904	.917	.431	.820	.833	.000	.861	.000	.852	.858	.935	.000	.528	.949	.955



True Count
3401 First Ave #123
San Diego, CA 92103

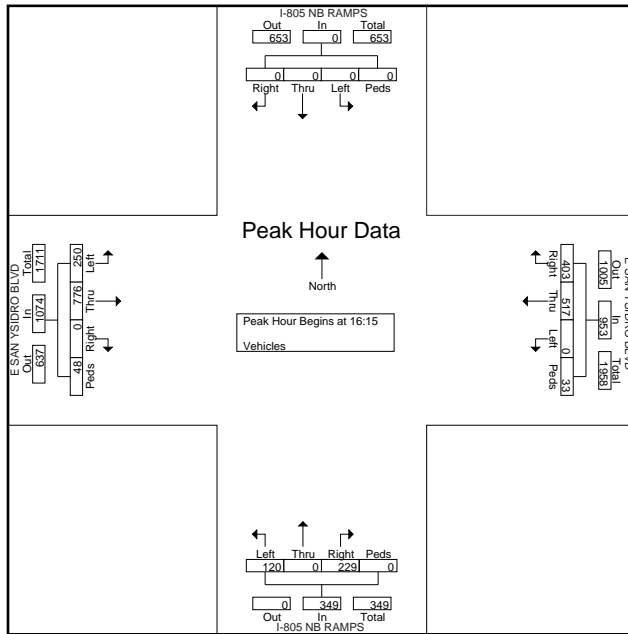
File Name : 8039.04.I-805 NB RAMPS.E SAN YSIDRO BLVD
Site Code : 00000000
Start Date : 5/13/2008
Page No : 3

Start Time	I-805 NB RAMPS Southbound				E SAN YSIDRO BLVD Westbound				I-805 NB RAMPS Northbound				E SAN YSIDRO BLVD Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	0	0	0	0	0	0	138	98	5	241	27	0	62	0	89	68	208	0	20	296	626
16:30	0	0	0	0	0	0	137	101	8	246	31	0	47	0	78	54	184	0	12	250	574
16:45	0	0	0	0	0	0	109	102	10	221	27	0	57	0	84	66	208	0	7	281	586
17:00	0	0	0	0	0	0	133	102	10	245	35	0	63	0	98	62	176	0	9	247	590
Total Volume	0	0	0	0	0	0	517	403	33	953	120	0	229	0	349	250	776	0	48	1074	2376
% App. Total	0	0	0	0	0	0	54.2	42.3	3.5		34.4	0	65.6	0		23.3	72.3	0	4.5		
PHF	.000	.000	.000	.000	.000	.000	.937	.988	.825	.968	.857	.000	.909	.000	.890	.919	.933	.000	.600	.907	.949

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.02.E SAN YSIDRO BLVD.CAMINO DE LA PLAZA
Site Code : 00000000
Start Date : 5/13/2008
Page No : 1

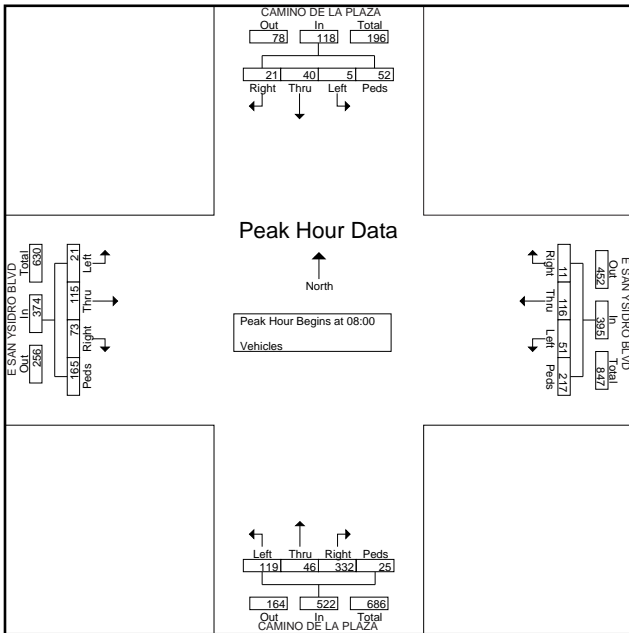
Start Time	CAMINO DE LA PLAZA Southbound				E SAN YSIDRO BLVD Westbound				CAMINO DE LA PLAZA Northbound				E SAN YSIDRO BLVD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Groups Printed- Vehicles																	
07:00	2	3	1	14	13	11	7	59	12	4	43	3	3	31	12	35	253
07:15	2	7	2	12	18	17	3	50	21	5	44	2	6	20	15	33	257
07:30	2	10	0	4	11	12	2	35	19	7	57	2	3	23	16	26	229
07:45	0	11	3	17	7	10	3	38	24	13	72	0	2	12	14	32	258
Total	6	31	6	47	49	50	15	182	76	29	216	7	14	86	57	126	997
08:00	1	10	8	8	6	29	3	56	21	17	68	1	6	22	11	36	303
08:15	3	14	3	14	7	30	1	52	29	7	92	5	3	30	21	35	346
08:30	0	9	6	12	18	26	4	56	31	12	93	12	7	28	22	47	383
08:45	1	7	4	18	20	31	3	53	38	10	79	7	5	35	19	47	377
Total	5	40	21	52	51	116	11	217	119	46	332	25	21	115	73	165	1409
*** BREAK ***																	
16:00	4	36	7	2	42	31	3	40	80	34	128	6	9	41	110	52	625
16:15	7	31	10	14	23	26	0	52	58	15	115	15	11	36	96	61	570
16:30	1	22	8	14	28	24	3	55	71	25	98	0	5	27	108	51	540
16:45	2	14	11	7	35	32	3	45	67	22	116	21	8	31	117	49	580
Total	14	103	36	37	128	113	9	192	276	96	457	42	33	135	431	213	2315
17:00	2	28	15	17	28	29	4	54	83	33	138	1	9	46	128	65	680
17:15	7	25	15	14	24	42	4	50	71	23	125	2	6	41	112	76	637
17:30	5	22	11	15	22	24	3	37	76	22	99	4	5	30	137	48	560
17:45	11	27	4	9	27	31	3	22	73	21	114	19	1	39	112	48	561
Total	25	102	45	55	101	126	14	163	303	99	476	26	21	156	489	237	2438
Grand Total	50	276	108	191	329	405	49	754	774	270	1481	100	89	492	1050	741	7159
Approch %	8	44.2	17.3	30.6	21.4	26.4	3.2	49.1	29.5	10.3	56.4	3.8	3.8	20.7	44.3	31.2	2438
Total %	0.7	3.9	1.5	2.7	4.6	5.7	0.7	10.5	10.8	3.8	20.7	1.4	1.2	6.9	14.7	10.4	



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.02.E SAN YSIDRO BLVD.CAMINO DE LA PLAZA
Site Code : 00000000
Start Date : 5/13/2008
Page No : 2

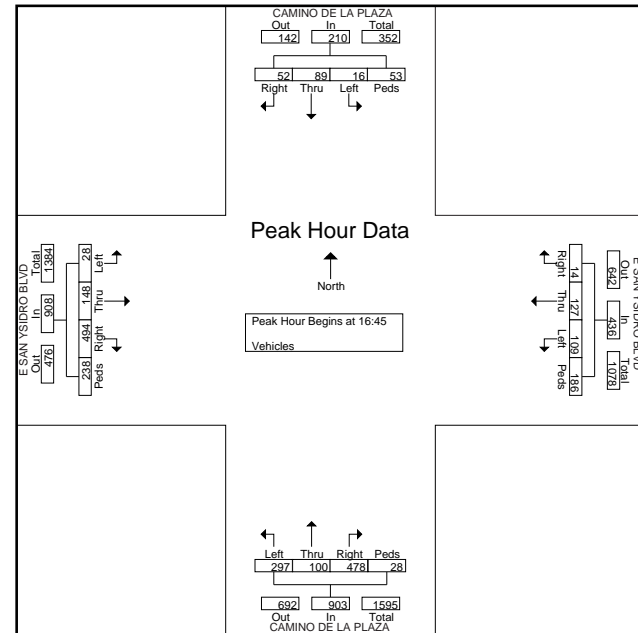
Start Time	CAMINO DE LA PLAZA Southbound				E SAN YSIDRO BLVD Westbound				CAMINO DE LA PLAZA Northbound				E SAN YSIDRO BLVD Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	1	10	8	8	27	6	29	3	56	94	21	17	68	1	107	6	22	11	36	75	303
08:15	3	14	3	14	34	7	30	1	52	90	29	7	92	5	133	3	30	21	35	89	346
08:30	0	9	6	12	27	18	26	4	56	104	31	12	93	12	148	7	28	22	47	104	383
08:45	1	7	4	18	30	20	31	3	53	107	38	10	79	7	134	5	35	19	47	106	377
Total Volume	5	40	21	52	118	51	116	11	217	395	119	46	332	25	522	21	115	73	165	374	1409
% App. Total	4.2	33.9	17.8	44.1		12.9	29.4	2.8	54.9		22.8	8.8	63.6	4.8		5.6	30.7	19.5	44.1		
PHF	.417	.714	.656	.722	.868	.638	.935	.688	.969	.923	.783	.676	.892	.521	.882	.750	.821	.830	.878	.882	.920



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.02.E SAN YSIDRO BLVD.CAMINO DE LA PLAZA
Site Code : 00000000
Start Date : 5/13/2008
Page No : 3

Start Time	CAMINO DE LA PLAZA Southbound				E SAN YSIDRO BLVD Westbound				CAMINO DE LA PLAZA Northbound				E SAN YSIDRO BLVD Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	2	14	11	7	34	35	32	3	45	115	67	22	116	21	226	8	31	117	49	205	580
17:00	2	28	15	17	62	28	29	4	54	115	83	33	138	1	255	9	46	128	65	248	680
17:15	7	25	15	14	61	24	42	4	50	120	71	23	125	2	221	6	41	112	76	235	637
17:30	5	22	11	15	53	22	24	3	37	86	76	22	99	4	201	5	30	137	48	220	560
Total Volume	16	89	52	53	210	109	127	14	186	436	297	100	478	28	903	28	148	494	238	908	2457
% App. Total	7.6	42.4	24.8	25.2		25	29.1	3.2	42.7		32.9	11.1	52.9	3.1		3.1	16.3	54.4	26.2		
PHF	.571	.795	.867	.779	.847	.779	.756	.875	.861	.908	.895	.758	.866	.333	.885	.778	.804	.901	.783	.915	.903



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.01.I-5 NB RAMP.SAN YSIDRO BLVD
Site Code : 00000000
Start Date : 5/14/2008
Page No : 1

Start Time	SAN YSIDRO BLVD Southbound				DRWY Westbound				SAN YSIDRO BLVD Northbound				I-5 NB RAMP Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
	07:00	15	4	47	24	0	17	8	12	0	6	1	129	9	9	1	
07:15	24	7	48	24	10	14	16	9	3	3	0	101	17	5	0	0	281
07:30	36	8	53	33	15	18	10	12	0	6	0	131	11	11	2	0	346
07:45	24	6	38	22	29	16	11	12	0	5	0	141	13	4	1	0	322
Total	99	25	186	103	54	65	45	45	3	20	1	502	50	29	4	0	1231
08:00	43	6	53	33	3	14	11	12	1	3	0	96	38	13	0	0	326
08:15	60	5	46	43	10	23	16	13	1	7	0	132	36	17	1	0	410
08:30	66	5	39	62	3	18	16	8	1	5	1	193	30	14	0	0	461
08:45	79	7	39	51	13	23	14	7	3	6	1	176	14	12	1	0	446
Total	248	23	177	189	29	78	57	40	6	21	2	597	118	56	2	0	1643

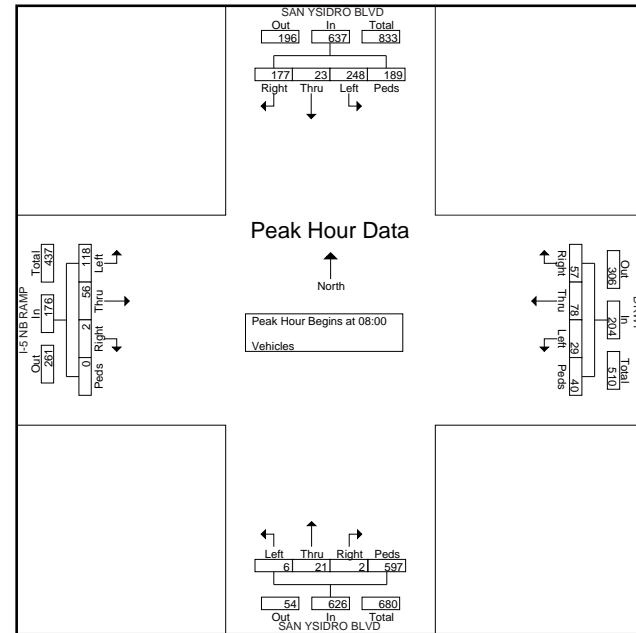
*** BREAK ***

16:00	37	4	143	61	1	16	9	1	4	4	2	102	36	12	0	0	432
16:15	41	6	127	47	17	31	9	0	1	4	0	108	25	11	0	0	427
16:30	29	6	131	38	0	22	18	0	4	6	0	117	26	6	0	0	403
16:45	25	8	106	36	28	15	14	0	4	4	0	122	30	11	1	0	404
Total	132	24	507	182	46	84	50	1	13	18	2	449	117	40	1	0	1666
17:00	26	4	140	30	6	12	14	0	2	3	11	103	21	13	0	0	385
17:15	53	3	126	49	0	28	22	0	3	1	0	134	26	8	0	0	453
17:30	37	3	111	49	14	20	7	0	2	3	0	80	33	9	1	0	369
17:45	35	3	146	32	54	24	15	0	1	5	0	63	22	15	1	0	416
Total	151	13	523	160	74	84	58	0	8	12	11	380	102	45	2	0	1623
Grand Total	630	85	1393	634	203	311	210	86	30	71	16	1928	387	170	9	0	6163
Apprch %	23	3.1	50.8	23.1	25.1	38.4	25.9	10.6	1.5	3.5	0.8	94.3	68.4	30	1.6	0	
Total %	10.2	1.4	22.6	10.3	3.3	5	3.4	1.4	0.5	1.2	0.3	31.3	6.3	2.8	0.1	0	

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.01.I-5 NB RAMP.SAN YSIDRO BLVD
Site Code : 00000000
Start Date : 5/14/2008
Page No : 2

Start Time	SAN YSIDRO BLVD Southbound				DRWY Westbound				SAN YSIDRO BLVD Northbound				I-5 NB RAMP Eastbound				Int. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	43	6	53	33	135	3	14	11	12	40	1	3	0	96	100	38	13	0	0	51	326
08:15	60	5	46	43	154	10	23	16	13	62	1	7	0	132	140	36	17	1	0	54	410
08:30	66	5	39	62	172	3	18	16	8	45	1	5	1	193	200	30	14	0	0	44	461
08:45	79	7	39	51	176	13	23	14	7	57	3	6	1	176	186	14	12	1	0	27	446
Total Volume	248	23	177	189	637	29	78	57	40	204	6	21	2	597	626	118	56	2	0	176	1643
% App. Total	38.9	3.6	27.8	29.7		14.2	38.2	27.9	19.6		1	3.4	0.3	95.4		67	31.8	1.1	0		
PHF	.785	.821	.835	.762	.905	.558	.848	.891	.769	.823	.500	.750	.500	.773	.783	.776	.824	.500	.000	.815	.891



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.03.I-5 SB RAMPS.CAMINO DE LA PLAZA
Site Code : 00000000
Start Date : 5/13/2008
Page No : 1

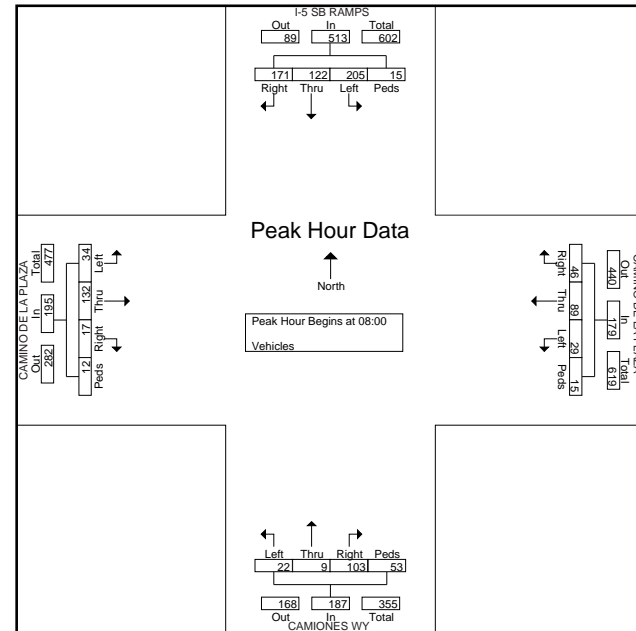
Groups Printed- Vehicles

Start Time	I-5 SB RAMPS Southbound				CAMINO DE LA PLAZA Westbound				CAMIONES WY Northbound				CAMINO DE LA PLAZA Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	25	14	28	1	6	9	11	8	5	1	16	7	5	16	3	2	157
07:15	32	18	36	2	5	23	9	4	9	1	21	16	4	21	3	1	205
07:30	40	18	47	1	5	19	15	3	3	3	22	9	9	24	6	0	224
07:45	57	22	38	3	7	12	14	9	4	0	19	11	5	29	5	1	236
Total	154	72	149	7	23	63	49	24	21	5	78	43	23	90	17	4	822
08:00	41	31	30	0	8	18	12	2	7	4	27	22	5	33	3	2	245
08:15	54	30	36	0	5	21	13	2	6	3	25	10	10	32	4	2	253
08:30	51	31	46	5	9	28	13	8	5	1	33	12	14	28	6	3	293
08:45	59	30	59	10	7	22	8	3	4	1	18	9	5	39	4	5	283
Total	205	122	171	15	29	89	46	15	22	9	103	53	34	132	17	12	1074
*** BREAK ***																	
16:00	50	79	96	12	32	68	80	11	26	11	38	19	68	101	17	4	712
16:15	44	72	104	19	24	59	79	13	29	8	54	11	64	66	8	7	661
16:30	48	64	112	9	28	56	89	15	18	2	50	32	83	68	12	5	691
16:45	47	77	100	12	27	50	84	14	22	12	55	21	55	90	15	7	688
Total	189	292	412	52	111	233	332	53	95	33	197	83	270	325	52	23	2752
17:00	60	97	117	20	29	65	71	11	17	13	73	28	75	83	14	5	778
17:15	49	100	93	22	24	49	72	16	32	21	41	30	63	83	13	7	715
17:30	50	109	108	10	15	70	74	4	18	5	58	19	62	78	10	9	699
17:45	42	70	112	22	27	64	64	14	28	11	65	46	94	97	16	15	787
Total	201	376	430	74	95	248	281	45	95	50	237	123	294	341	53	36	2979
Grand Total	749	862	1162	148	258	633	708	137	233	97	615	302	621	888	139	75	7627
Apprch %	25.6	29.5	39.8	5.1	14.9	36.5	40.8	7.9	18.7	7.8	49.3	24.2	36	51.5	8.1	4.4	
Total %	9.8	11.3	15.2	1.9	3.4	8.3	9.3	1.8	3.1	1.3	8.1	4	8.1	11.6	1.8	1	

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.03.I-5 SB RAMPS.CAMINO DE LA PLAZA
Site Code : 00000000
Start Date : 5/13/2008
Page No : 2

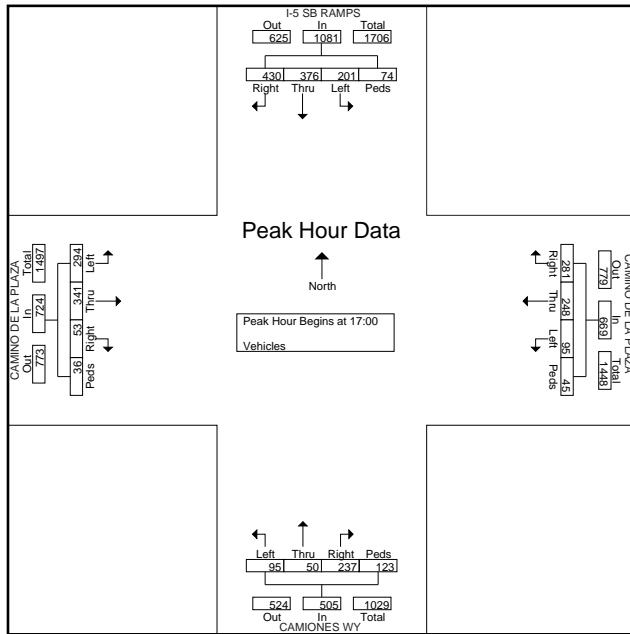
Start Time	I-5 SB RAMPS Southbound					CAMINO DE LA PLAZA Westbound					CAMIONES WY Northbound					CAMINO DE LA PLAZA Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	41	31	30	0	102	8	18	12	2	40	7	4	27	22	60	5	33	3	2	43	245
08:15	54	30	36	0	120	5	21	13	2	41	6	3	25	10	44	10	32	4	2	48	253
08:30	51	31	46	5	133	9	28	13	8	58	5	1	33	12	51	14	28	6	3	51	293
08:45	59	30	59	10	158	7	22	8	3	40	4	1	18	9	32	5	39	4	5	53	283
Total Volume	205	122	171	15	513	29	89	46	15	179	22	9	103	53	187	34	132	17	12	195	1074
% App. Total	40	23.8	33.3	2.9		16.2	49.7	25.7	8.4		11.8	4.8	55.1	28.3		17.4	67.7	8.7	6.2		
PHF	8.69	984	725	375	812	806	795	885	469	772	786	563	780	602	779	607	846	708	600	920	916



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.03.I-5 SB RAMPS.CAMINO DE LA PLAZA
Site Code : 00000000
Start Date : 5/13/2008
Page No : 3

Start Time	I-5 SB RAMPS Southbound				CAMINO DE LA PLAZA Westbound				CAMIONES WY Northbound				CAMINO DE LA PLAZA Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	60	97	117	20	294	29	65	71	11	176	17	13	73	28	131	75	83	14	5	177	778
17:15	49	100	93	22	264	24	49	72	16	161	32	21	41	30	124	63	83	13	7	166	715
17:30	50	109	108	10	277	15	70	74	4	163	18	5	58	19	100	62	78	10	9	159	699
17:45	42	70	112	22	246	27	64	64	14	169	28	11	65	46	150	94	97	16	15	222	787
Total Volume	201	376	430	74	1081	95	248	281	45	669	95	50	237	123	505	294	341	53	36	724	2979
% App. Total	18.6	34.8	39.8	6.8		14.2	37.1	42	6.7		18.8	9.9	46.9	24.4		40.6	47.1	7.3	5		
PHF	0.838	0.862	0.919	0.841	0.919	0.819	0.886	0.949	0.703	0.950	0.742	0.595	0.812	0.668	0.842	0.782	0.879	0.828	0.600	0.815	0.946



True Count
3401 First Ave #123
San Diego, CA 92103

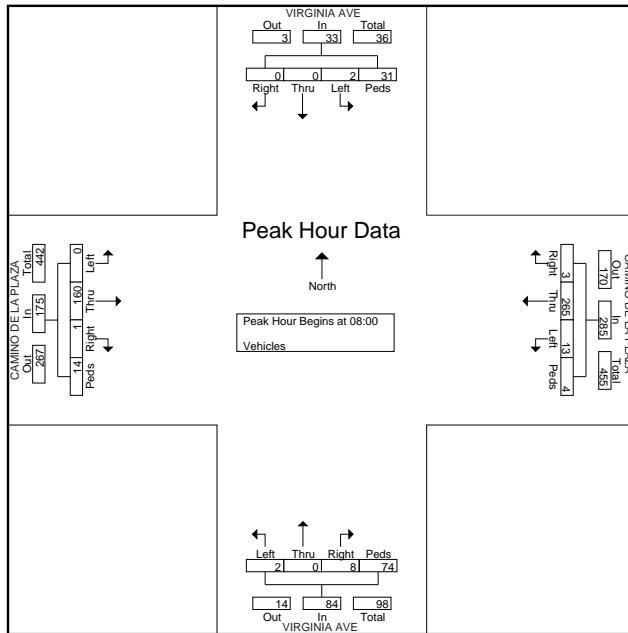
File Name : 8039.09.VIRGINIA AVE.CAMINO DE LA PLAZA
Site Code : 00000000
Start Date : 5/13/2008
Page No : 1

Start Time	VIRGINIA AVE Southbound				CAMINO DE LA PLAZA Westbound				VIRGINIA AVE Northbound				CAMINO DE LA PLAZA Eastbound				Int. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds		
Groups Printed- Vehicles																		
07:00	2	0	0	10	1	36	0	0	0	0	0	0	4	0	17	0	0	70
07:15	0	0	1	0	4	52	2	0	1	0	2	14	0	23	0	0	99	
07:30	1	0	0	5	2	64	1	0	0	0	1	14	0	34	0	2	124	
07:45	0	0	0	11	1	53	0	8	0	0	0	13	0	38	1	0	125	
Total	3	0	1	26	8	205	3	8	1	0	3	45	0	112	1	2	418	
08:00	1	0	0	0	3	50	1	2	0	0	0	21	0	36	1	9	124	
08:15	0	0	0	2	4	62	0	0	0	0	4	25	0	45	0	1	143	
08:30	1	0	0	15	5	75	0	1	1	0	3	12	0	40	0	1	154	
08:45	0	0	0	14	1	78	2	1	1	0	1	16	0	39	0	3	156	
Total	2	0	0	31	13	265	3	4	2	0	8	74	0	160	1	14	577	
*** BREAK ***																		
16:00	5	0	0	15	4	185	2	5	2	0	9	60	0	176	3	0	466	
16:15	0	0	0	31	9	194	1	7	2	0	11	35	0	125	1	6	422	
16:30	2	0	0	48	4	200	1	19	0	0	9	65	2	168	0	0	518	
16:45	1	0	2	25	11	175	3	2	0	0	9	74	1	148	0	1	452	
Total	8	0	2	119	28	754	7	33	4	0	38	234	3	617	4	7	1858	
17:00	1	0	0	21	6	191	1	6	0	0	12	58	0	162	2	5	465	
17:15	0	0	1	31	5	173	0	3	0	0	6	66	0	161	0	3	449	
17:30	2	0	0	16	7	183	1	2	0	0	9	61	0	150	1	0	432	
17:45	0	0	0	37	7	202	0	3	2	0	12	45	1	174	3	4	490	
Total	3	0	1	105	25	749	2	14	2	0	39	230	1	647	6	12	1836	
Grand Total	16	0	4	281	74	1973	15	59	9	0	88	583	4	1536	12	35	4689	
Apprch %	5.3	0	1.3	93.4	3.5	93	0.7	2.8	1.3	0	12.9	85.7	0.3	96.8	0.8	2.2		
Total %	0.3	0	0.1	6	1.6	42.1	0.3	1.3	0.2	0	1.9	12.4	0.1	32.8	0.3	0.7		

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.09.VIRGINIA AVE.CAMINO DE LA PLAZA
Site Code : 00000000
Start Date : 5/13/2008
Page No : 2

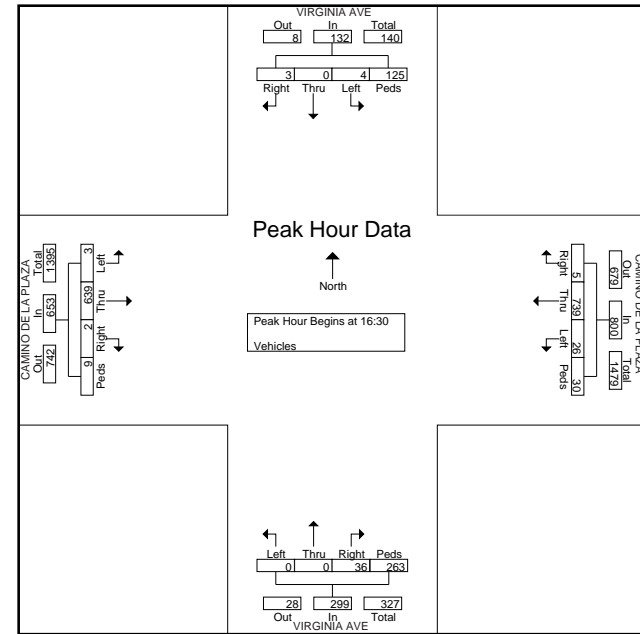
Start Time	VIRGINIA AVE Southbound				CAMINO DE LA PLAZA Westbound				VIRGINIA AVE Northbound				CAMINO DE LA PLAZA Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	1	0	0	0	1	3	50	1	2	56	0	0	0	21	21	0	36	1	9	46	124
08:15	0	0	0	2	2	4	62	0	0	66	0	0	4	25	29	0	45	0	1	46	143
08:30	1	0	0	15	16	5	75	0	1	81	1	0	3	12	16	0	40	0	1	41	154
08:45	0	0	0	14	14	1	78	2	1	82	1	0	1	16	18	0	39	0	3	42	156
Total Volume	2	0	0	31	33	13	265	3	4	285	2	0	8	74	84	0	160	1	14	175	577
% App. Total	6.1	0	0	93.9		4.6	93	1.1	1.4		2.4	0	9.5	88.1		0	91.4	0.6	8		
PHF	.500	.000	.000	.517	.516	.650	.849	.375	.500	.869	.500	.000	.500	.740	.724	.000	.889	.250	.389	.951	.925



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8039.09.VIRGINIA AVE.CAMINO DE LA PLAZA
Site Code : 00000000
Start Date : 5/13/2008
Page No : 3

Start Time	VIRGINIA AVE Southbound				CAMINO DE LA PLAZA Westbound				VIRGINIA AVE Northbound				CAMINO DE LA PLAZA Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	2	0	0	48	50	4	200	1	19	224	0	0	9	65	74	2	168	0	0	170	518
16:45	1	0	2	25	28	11	175	3	2	191	0	0	9	74	83	1	148	0	1	150	452
17:00	1	0	0	21	22	6	191	1	6	204	0	0	12	58	70	0	162	2	5	169	465
17:15	0	0	1	31	32	5	173	0	3	181	0	0	6	66	72	0	161	0	3	164	449
Total Volume	4	0	3	125	132	26	739	5	30	800	0	0	36	263	299	3	639	2	9	653	1884
% App. Total	3	0	2.3	94.7		3.2	92.4	0.6	3.8		0	0	12	88		0.5	97.9	0.3	1.4		
PHF	.500	.000	.375	.651	.660	.591	.924	.417	.395	.893	.000	.000	.750	.889	.901	.375	.951	.250	.450	.960	.909



MetroCount Traffic Executive Event Counts

EventCount-776 -- English (ENU)

Datasets:

Site: [8039.A] BEYER BLVD (EAST OF SAN YSIDRO BLVD) NORTHBOUND
Input A: 1 - North bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 19:00 Monday, May 12, 2008 => 10:55 Wednesday, May 14, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.A.N14May2008.EC0 (Base)
Identifier: V289W1MS MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, May 13, 2008 => 0:00 Wednesday, May 14, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 1098 / 1344 (81.70%)

4 Tuesday, May 13, 2008=1098, 15 minute drops

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	0	0	4	16	18	22	52	262	1236	45	46	59	63	93	91	104	105	79	63	53	36	25	9	-	
1	1	1	0	5	4	5	15	10	8	3	12	13	21	16	21	37	31	22	18	14					-
0	1	1	1	9	8	6	11	17	8	3	12	16	6	18	18	20	28	26	17	10	14	4	2	-	
	1	5	0	2	4	5	16	15	9	7	18	14	14	17	31	25	29	25	18	13	13	11	11	24	-
											11	16	19	28	27	18	21	13	15	16	3	4	1	24	-

AM Peak 0715 - 0815 (64), AM PHF=0.73

MetroCount Traffic Executive Event Counts

EventCount-777 -- English (ENU)

Datasets:

Site: [8039.A] BEYER BLVD (EAST OF SAN YSIDRO BLVD) SOUTHBOUND
Input A: 3 - South bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 19:04 Monday, May 12, 2008 => 10:56 Wednesday, May 14, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.A.S14May2008.EC0 (Regular)
Identifier: S1339PHE MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, May 13, 2008 => 0:00 Wednesday, May 14, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 1637 / 1935 (84.60%)

5 Tuesday, May 13, 2008=1636, 15 minute drops

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	0	0	0	10	12	22	33	62	74	86	68	84	2124	2580	119	134	158	167	137	77	57	54	35	28	
2	1	0	1	4	6	4	14	25	26	19	15	41	12	22	50	47	37	42	17	18	13	8	12	-	
1	1	2	2	2	3	4	16	22	30	24	24	16	23	23	17	47	55	31	24	7	26	10	4	-	
	0	1	5	3	9	6	14	15	18	11	18	29	33	30	30	35	37	38	31	16	12	9	4	-	
							17	9	19	7				13	44	32	27	37	33	20	20	10	8	7	-

AM Peak 1130 - 1230 (121), AM PHF=0.74

MetroCount Traffic Executive Event Counts

EventCount-778 -- English (ENU)

Datasets:
Site: [8039.B] CAMINO DE LA PLAZA (VIRGINIA AVE-I-805 SB RAMPS) EASTBOUND
Input A: 2 - East bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 20:07 Monday, May 12, 2008 => 10:59 Wednesday, May 14, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.B.E14May2008.EC0 (Regular)
Identifier: T575QTP3 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Tuesday, May 13, 2008 => 0:00 Wednesday, May 14, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 8473 / 9649 (87.81%)

* Tuesday, May 13, 2008=8473, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300		
10	27	20	13	20	28	72	134	181	211	349	407	9683	619	682	669	696	807	834	695	679	557	175	78		
13	30	4	5	5		25	35	50	78	96	111	155	165	186	190	218	205	192	175	175	60	37	-		
7	7	2	7	7	10	15	30	50	46	96	107	137	134	182	140	154	189	247	184	168	137	46	12	-	
	10	8	1	5	6	23	37	53	67	95	94	110	139	169	153	182	167	214	188	142	158	108	31	9	-

AM Peak 1145 - 1245 (438), AM PHF=0.80

MetroCount Traffic Executive Event Counts

EventCount-779 -- English (ENU)

Datasets:
Site: [8039.B] CAMINO DE LA PLAZA (VIRGINIA AVE-I-805 SB RAMPS) WESTBOUND
Input A: 4 - West bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 20:11 Monday, May 12, 2008 => 11:00 Wednesday, May 14, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.B.W14May2008.EC0 (Regular)
Identifier: S1079HQH MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Tuesday, May 13, 2008 => 0:00 Wednesday, May 14, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 8732 / 9492 (91.99%)

* Tuesday, May 13, 2008=8732, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300		
10	17	12	32	29	84	113	226	279	414	555	559	674	642	581	720	809	839	710	602	393	221	116	60		
13	7	4	5	8		23	37	52	87	144	126	162	162	149	185	194	214	199	187	108	54	33	18	-	
10	3	3	10	2	30	27	76	87	109	130	130	173	178	143	187	208	180	179	155	121	73	35	20	-	
	3	2	13	13	34	44	58	75	121	134	158	168	168	158	153	180	191	231	150	119	71	48	25	14	-

AM Peak 1145 - 1245 (664), AM PHF=0.96

MetroCount Traffic Executive Event Counts

EventCount-780 -- English (ENU)

Datasets:
Site: [8039.C] CAMINO DE LA PLAZA (I-805 SB RAMPS-SAN YSIDRO BLVD) EASTBOUND
Input A: 2 - East bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 19:23 Monday, May 12, 2008 => 10:58 Wednesday, May 14, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.C.E14May2008.EC0 (Regular)
Identifier: T5441WJP MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Tuesday, May 13, 2008 => 0:00 Wednesday, May 14, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 10386 / 12318 (84.32%)

* Tuesday, May 13, 2008=10385, 15 minute drops

	0100	0110	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
25	59	56	45	99	147	215	324	409	406	462	509	526	598	742	905	821	896	828	740	586	477	253	167	
25	16	8	8	21	31	40	68	94	87	112	148	117	140	176	253	218	234	200	204	152	126	76	55	-
25	14	10	18	25	46	53	60	106	88	114	125	138	148	190	203	185	231	233	190	152	128	66	38	-
25	12	17	10	25	36	50	87	109	103	134	125	138	161	187	205	210	193	229	176	143	115	63	46	-
25	17	21	9	28	34	72	109	100	128	102	113	161	149	189	244	208	238	166	170	139	108	48	28	-

AM Peak 1100 - 1200 (509), AM PHF=0.86

MetroCount Traffic Executive Event Counts

EventCount-781 -- English (ENU)

Datasets:
Site: [8039.C] CAMINO DE LA PLAZA (I-805 SB RAMPS-SAN YSIDRO BLVD) WESTBOUND
Input A: 4 - West bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 19:18 Monday, May 12, 2008 => 10:57 Wednesday, May 14, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.C.W14May2008.EC0 (Base)
Identifier: V286M0GP MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Tuesday, May 13, 2008 => 0:00 Wednesday, May 14, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 6916 / 7880 (87.77%)

* Tuesday, May 13, 2008=6915, 15 minute drops

	0100	0110	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
25	22	21	27	39	43	75	151	173	281	297	404	452	492	515	645	708	690	618	517	317	222	112	60		
4	7	4	5	17	9	16	31	37	74	73	99	118	126	114	160	193	190	159	163	91	58	30	29	-	
7	6	5	7	17	9	16	41	40	74	72	114	111	123	122	151	168	163	166	138	95	78	31	13	-	
4	3	6	13	18	15	36	43	53	57	85	80	116	116	141	147	168	168	163	137	117	51	42	20	11	-

AM Peak 1145 - 1245 (424), AM PHF=0.90

MetroCount Traffic Executive Event Counts

EventCount-782 -- English (ENU)

Datasets:
Site: [8039.D] CAMIONES WAY (SOUTH OF CAMINO DE LA PLAZA) NORTHBOUND
Input A: 1 - North bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 20:34 Monday, May 12, 2008 => 11:02 Wednesday, May 14, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.D.N14May2008.EC0 (Base)
Identifier: V273S0NX MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Tuesday, May 13, 2008 => 0:00 Wednesday, May 14, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 5561 / 6388 (87.05%)

*** Tuesday, May 13, 2008=5561, 15 minute drops**

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
127	43	39	25	33	41	80	140	170	206	247	231	6281	8270	307	467	468	542	506	453	297	278	221	128		
16	13					32	48	51	59	59	66	64	70	115	117	148	148	109	86	60	66	42	-		
19	10	7	4	12	18	18	38	42	46	58	58	77	67	72	111	118	151	134	114	60	74	54	32	-	
	11	13	10	8	9	21	39	47	48	65	58	56	78		66	110	105	123	115	144	77	71	47	31	-
	9	12	5	8	11	33	31	33	61	65			55	99	131	128	120	109	86	74	73	54	23	-	

AM Peak 1145 - 1245 (261), AM PHF=0.85

MetroCount Traffic Executive Event Counts

EventCount-783 -- English (ENU)

Datasets:
Site: [8039.D] CAMIONES WAY (SOUTH OF CAMINO DE LA PLAZA) SOUTHBOUND
Input A: 3 - South bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 20:31 Monday, May 12, 2008 => 11:03 Wednesday, May 14, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.D.S14May2008.EC0 (Regular)
Identifier: S014F2C9 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Tuesday, May 13, 2008 => 0:00 Wednesday, May 14, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 6038 / 6971 (86.62%)

*** Tuesday, May 13, 2008=6038, 15 minute drops**

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
127	40	38	29	27	18	71	138	220	277	8394	6298	306	292	329	570	502	588	536	477	294	300	200	109		
21	10					31	61	62	65	87	70	85	78	162	135	159	142	109	79	63	52	36	-		
14	9	10	7	10	7	21	32	54	77	76	82	61	65	94	135	113	162	151	134	81	88	52	28	-	
	11	13	10	2	5	23	35	58	81	57	68		75	76	68	125	119	150	135	154	71	70	49	24	-
	10	6	5	10	5	22	40	47				62	100	66	89	148	135	117	108	80	63	79	47	21	-

AM Peak 0945 - 1045 (307), AM PHF=0.90

MetroCount Traffic Executive
Event Counts

EventCount-785 -- English (ENU)

Datasets:
Site: [8039.E] SAN YSIDRO BLVD (OLIVE DR-I-805 SB RAMPS) EASTBOUND
Input A: 3 - East bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 19:43 Wednesday, May 07, 2008 => 12:45 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.E.S09May2008.EC0 (Regular)
Identifier: S014F2C9 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 12534 / 17117 (73.23%)

*** Thursday, May 08, 2008=12533, 15 minute drops**

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
48	45	49	54	87	199	306	520	511	511	602	684	746	739	911	1051	1135	1247	1017	707	597	434	216	117	
5	11	5	9	15	33	62	88	133	117	168	180	198	176	210	265	292	318	284	195	176	130	60	33	-
13	16	15	11	14	38	63	101	115	122	123	167	175	203	243	245	263	307	290	191	141	130	61	29	-
11	6	18	12	33	58	91	171	139	137	138	174	163	204	236	275	286	304	247	179	141	97	48	29	-
12	11	22	25	70	90	160	124	135	173	163	204	199	222	266	294	318	196	142	139	77	47	26	-	

AM Peak 1145 - 1245 (705), AM PHF=0.89

MetroCount Traffic Executive
Event Counts

EventCount-784 -- English (ENU)

Datasets:
Site: [8039.E] SAN YSIDRO BLVD (OLIVE DR-I-805 SB RAMPS) WESTBOUND
Input A: 1 - West bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 19:40 Wednesday, May 07, 2008 => 12:51 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.E.N09May2008.EC0 (Regular)
Identifier: S1079HQH MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 9866 / 13959 (70.68%)

*** Thursday, May 08, 2008=9866, 15 minute drops**

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
41	34	43	45	92	134	246	424	468	549	611	632	654	657	645	720	819	846	664	511	433	287	169	126	
13				16	26	47	74	120	146	148	175	169	159	152	186	181	192	181	130	130	80	57	36	-
16	10	12	11	23	27	56	97	113	142	165	186	160	145	140	190	206	216	164	144	115	81	33	39	-
11	7	14	12	37	37	75	112	112	119	164	160	145	177	178	180	239	238	167	114	95	63	49	27	-
9	11	14	16	44	68	141	123	142	134	141	167	167	175	164	193	200	152	123	93	63	30	24	-	

AM Peak 1130 - 1230 (643), AM PHF=0.93

MetroCount Traffic Executive Event Counts

EventCount-787 -- English (ENU)

Datasets:
Site: [8039.F] SAN YSIDRO BLVD (BETWEEN I-805 RAMPS) EASTBOUND
Input A: 3 - East bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 20:12 Wednesday, May 07, 2008 => 12:50 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.F.S09May2008.EC0 (Base)
Identifier: V280CRV3 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 12811 / 17504 (73.19%)

* Thursday, May 08, 2008=12810, 15 minute drops

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
41	12	32	47	64	118	237	362	600	642	612	693	769	780	829	883	1002	1062	1232	910	680	501	399	201	114
7		9	8	10	21	38	81	108	149	153	195	208	215	194	231	247	259	281	248	191	141	121	55	31
11		10	15	10	24	42	80	137	149	149	158	184	188	200	224	232	265	310	259	182	138	102	58	32
		4	15	15	40	62	103	181	170	149	176	184	188	227	216	282	287	349	210	165	127	99	53	24
		9	9	29	33	95	98	174	174	161	164	186	209	208	212	241	251	292	193	142	95	77	35	27

AM Peak 1100 - 1200 (769), AM PHF=0.96

MetroCount Traffic Executive Event Counts

EventCount-786 -- English (ENU)

Datasets:
Site: [8039.F] SAN YSIDRO BLVD (BETWEEN I-805 RAMPS) WESTBOUND
Input A: 1 - West bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 20:08 Wednesday, May 07, 2008 => 12:46 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.F.N09May2008.EC0 (Base)
Identifier: V273S0NX MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 8960 / 12656 (70.80%)

* Thursday, May 08, 2008=8960, 15 minute drops

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
41	12	26	40	48	96	133	181	271	311	399	483	496	575	579	580	731	866	868	726	572	436	245	145	115
9				10	16	26	35	47	66	96	120	119	136	143	120	206	185	210	206	146	140	71	52	32
12		6	14	8	35	22	38	57	76	103	121	118	136	130	134	194	220	208	174	159	129	66	28	35
		9	11	15	28	38	57	70	84	95	135	136	130	151	177	155	276	230	181	130	82	65	43	29
		6	8	15	17	47	51	97	85	105	107	113	155	146	149	176	185	220	165	137	85	43	22	19

AM Peak 1130 - 1230 (539), AM PHF=0.88

MetroCount Traffic Executive
Event Counts

EventCount-789 -- English (ENU)

Datasets:

Site: [8039.G] SAN YSIDRO BLVD (I-805 NB RAMPS-BORDER VILLAGE RD) EASTBOUND
Input A: 3 - East bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 20:44 Wednesday, May 07, 2008 => 12:44 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.G.S09May2008.EC0
Identifier: W558TFAZ MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 15155 / 20466 (74.05%)

*** Thursday, May 08, 2008=15155, 15 minute drops**

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
47		42	38	93	153	230	249	462	668	763	964	1051	958	939	1022	1235	1303	1585	1167	884	572	390	214	116
14		13	5	10	32	52	62	101	141	203	285	254	264	247	257	289	324	378	296	251	190	126	68	39
13		8	15	17	39	49	43	87	137	189	214	254	226	230	267	272	306	400	310	237	149	84	54	37
		6	11	32	41	48	66	124	195	191	236	257	226	224	254	329	335	404	258	201	144	106	54	26
		15	7	34	41	81	78	150	195	180	229	255	256	238	244	345	338	403	303	195	89	74	38	14

AM Peak 1100 - 1200 (1051), AM PHF=0.92

MetroCount Traffic Executive
Event Counts

EventCount-788 -- English (ENU)

Datasets:

Site: [8039.G] SAN YSIDRO BLVD (I-805 NB RAMPS-BORDER VILLAGE RD) WESTBOUND
Input A: 1 - West bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 20:41 Wednesday, May 07, 2008 => 12:52 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.G.N09May2008.EC0 (Regular)
Identifier: R8319BB9 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 13239 / 17701 (74.79%)

*** Thursday, May 08, 2008=13239, 15 minute drops**

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
52		38	48	50	121	175	203	308	453	576	698	867	879	885	973	939	1148	1338	1047	936	624	457	261	163
11		9	5	13	10	32	35	45	89	92	138	191	209	188	234	245	228	324	274	217	183	161	105	47
9		8	19	18	37	45	52	80	114	152	199	231	210	223	244	228	270	301	263	270	176	115	60	39
17		16	9	13	32	54	54	85	124	139	156	191	234	253	278	228	380	356	291	227	144	102	63	49

AM Peak 1115 - 1215 (905), AM PHF=0.92

MetroCount Traffic Executive
Event Counts

EventCount-791 -- English (ENU)

Datasets:
Site: [8039.H] SAN YSIDRO BLVD (BORDER VILLAGE RD-CAMINO DE LA PLAZA) EASTBOUND
Input A: 3 - East bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 21:20 Wednesday, May 07, 2008 => 12:51 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.H.S09May2008.EC0
Identifier: V239JE7M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 7947 / 10457 (76.00%)

* Thursday, May 08, 2008=7946, 15 minute drops

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300			
4		28	30	63	143	134	137	173	230	331	391	450	440	500	559	614	749	811	695	548	379	253	4838	88			
7		9	8	11	10	20	30	33	40	57	66	89	93	113	104	147	132	148	168	181	157	149	91	57	26	2219	-
14		7	9		21	39	29	35	42	66	84	100	127	126	115	162	169	210	218	163	130	82	63	41		-	
		4	6	26	38	47	39	45	68	93	105	117	124	116	131	181	188	234	153	114	87	53	25	15		-	

AM Peak 1115 - 1215 (473), AM PHF=0.93

MetroCount Traffic Executive
Event Counts

EventCount-790 -- English (ENU)

Datasets:
Site: [8039.H] SAN YSIDRO BLVD (BORDER VILLAGE RD-CAMINO DE LA PLAZA) WESTBOUND
Input A: 1 - West bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 21:23 Wednesday, May 07, 2008 => 12:42 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.H.N09May2008.EC0
Identifier: W139NODA MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 6002 / 7974 (75.27%)

* Thursday, May 08, 2008=6001, 15 minute drops

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300		
8		30	37	46	83	92	114	164	254	295	255	419	461	428	446	456	555	521	422	324	228	190	3110	76		
7		10	10	10	19	15	26	36	50	83	24	95	92	108	104	107	140	111	117	78	56	61		26	-	
7				8	11	18	25	33	57	86	71	113	123	104	116	119	151	143	109	91	60	48	35	2118	-	
		5	14	16	22	24	36	48	68	68	83	95	116	90	106	99	119	132	122	71	67	61	37	21	11	-
		10	9	12	31	35	27	47	79	58	77	116	90	106	99	119	132	122	71	67	61	37	21	11		-

AM Peak 1145 - 1245 (441), AM PHF=0.90

MetroCount Traffic Executive Event Counts

EventCount-792 -- English (ENU)

Datasets:
Site: [8039.I] VIA DE SAN YSIDRO (SAN YSIDRO BLVD-I-5 NB RAMPS) NORTHBOUND
Input A: 2 - North bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 19:11 Wednesday, May 07, 2008 => 12:47 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.I.E09May2008.EC0 (Regular)
Identifier: T575QTP3 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 11973 / 16971 (70.55%)

* Thursday, May 08, 2008=11973, 15 minute drops

55	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
10	41	55	85	171	275	375	567	493	461	507	683	703	692	891	886	949	1100	915	670	568	475	237	119	
6	11	6	10	34	53	79	124	129	107	140	171	166	185	205	204	216	260	264	187	171	152	61	30	-
22	12	12	20	54	59	108	106	120	105	114	149	162	173	241	210	229	268	199	174	134	107	60	30	-
12	17	26	43	95	82	185	112	119	111	171	175	171	235	242	257	272	185	140	131	93	46	28	-	

AM Peak 1130 - 1230 (718), AM PHF=0.90

MetroCount Traffic Executive Event Counts

EventCount-793 -- English (ENU)

Datasets:
Site: [8039.I] VIA DE SAN YSIDRO (SAN YSIDRO BLVD-I-5 NB RAMPS) SOUTHBOUND
Input A: 4 - North bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 19:09 Wednesday, May 07, 2008 => 12:41 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.I.W09May2008.EC0 (Regular)
Identifier: T5441WJP MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 6584 / 9950 (66.17%)

* Thursday, May 08, 2008=6583, 15 minute drops

55	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
7	23	23	19	57	106	177	248	299	284	334	347	9074	9357	468	525	574	609	603	394	326	214	115	75	
7	9	3	3		19	47	49	70	64	80	79	106	96	109	154	111	151	164	113	86	64	41	21	-
10	5	9	6	14	22	47	74	73	73	80	9084	74	97	120	149	149	170	99	89	63	25	22	-	
7	5	8	5	23	34	36	52	62	73	85	94	104	73	133	139	149	151	150	97	85	44	25	18	-

AM Peak 1130 - 1230 (380), AM PHF=0.90

MetroCount Traffic Executive Event Counts

EventCount-794 -- English (ENU)

Datasets:
Site: [8039.J] VIA DE SAN YSIDRO (BETWEEN I-5 RAMPS) NORTHBOUND
Input A: 2 - North bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 18:22 Wednesday, May 07, 2008 => 12:44 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.J.E09May2008.EC0 (Base)
Identifier: V286M0GP MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 13389 / 19199 (69.74%)

* Thursday, May 08, 2008=13387, 15 minute drops

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300				
12																												
10					20	28	72	129	142	124	132	188	199	230	228	222	254	266	319	226	214	179	83	34				
18		8	10	11	16	48	101	122	113	122	122	182	209	202	238	237	237	357	340	215	182	170	79	34				
					10	13	8	33	79	86	194	127	126	137	222	174		190	281	250	288	330	227	175	178	124	62	23

AM Peak 1145 - 1245 (868), AM PHF=0.91

MetroCount Traffic Executive Event Counts

EventCount-795 -- English (ENU)

Datasets:
Site: [8039.J] VIA DE SAN YSIDRO (BETWEEN I-5 RAMPS) SOUTHBOUND
Input A: 4 - South bound. - Added to totals. (1)
Input B: 0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration: 18:20 Wednesday, May 07, 2008 => 12:39 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.J.W09May2008.EC0 (Regular)
Identifier: S1339PHE MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:
Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 5423 / 7735 (70.11%)

* Thursday, May 08, 2008=5422, 15 minute drops

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
26																								
9																								
7																								

AM Peak 1130 - 1230 (352), AM PHF=0.87

MetroCount Traffic Executive Event Counts

EventCount-797 -- English (ENU)

Datasets:

Site: [8039.K] VIA DE SAN YSIDRO (I-5 SB RAMPS-CALLE PRIMERA) NORTHBOUND
Input A: 4 - South bound. - Excluded from totals. (0)
Input B: 2 - North bound. - Added to totals. (1)
Survey Duration: 18:18 Wednesday, May 07, 2008 => 12:37 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.K09May2008.EC0 (Base)
Identifier: V289W1MS MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 22381 / 31910 (70.14%)

*** Thursday, May 08, 2008=11991, 15 minute drops**

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
14		24	35	38	85	247	374	578	472	443	490	708	759	773	953	812	922	1061	986	691	650	523	226	97
10					23	33	80	125	137	97	125	174	177	204	220	215	208	243	272	198	194	138	74	32
8		7	7	10	18	49	97	128	111	110	119	150	203	179	226	217	214	303	295	166	170	133	60	23
		5	11	13	14	84	107	157	115	119	130	179	206	159	261	175	257	255	219	168	128	138	46	21
		6	12	9	30	81	90	168	109	117	116	206	159	189	246	205	243	260	200	159	158	114	46	21

AM Peak 1145 - 1245 (806), AM PHF=0.92

MetroCount Traffic Executive Event Counts

EventCount-796 -- English (ENU)

Datasets:

Site: [8039.K] VIA DE SAN YSIDRO (I-5 SB RAMPS-CALLE PRIMERA) SOUTHBOUND
Input A: 4 - South bound. - Added to totals. (1)
Input B: 2 - North bound. - Excluded from totals. (0)
Survey Duration: 18:18 Wednesday, May 07, 2008 => 12:37 Friday, May 09, 2008
File: C:\Users\Gus\True Count\Projects\8039 KOA SAN YSIDRO\8039.K09May2008.EC0 (Base)
Identifier: V289W1MS MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Event Count
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 08, 2008 => 0:00 Friday, May 09, 2008
Name: TC Default Profile
Scheme: Count events divided by two.
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Events = 21542 / 30714 (70.14%)

*** Thursday, May 08, 2008=9999, 15 minute drops**

	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
14		34	25	24	34	62	125	223	355	415	449	460	493	539	647	791	864	1076	938	837	631	464	308	151
12		8	6	6	10	10	24	50	80	102	110	129	125	142	150	191	209	223	230	221	162	130	94	44
14								12	27	49	81	74	90	120	160	183	232	274	224	222	173	142	80	37
		9	10	6	5	8	9	16	29	51	110	120	118	124	127	160	221	206	285	261	197	160	105	69
														10	10	6	5	8	9	16	29	51	110	120

AM Peak 1030 - 1130 (475), AM PHF=0.92

APPENDIX C

MODELING INFORMATION / TRIP GENERATION



TABLE 1

TRIP GENERATION RATE SUMMARY
(WEEKDAY)

LAND USE	DRIVEWAY (1)(2) VEHICLE TRIP RATE	CUMULATIVE (8) VEHICLE TRIP RATE	AM (IN:OUT) PM (IN:OUT)	PEAK HOUR AND IN/OUT RATIO
AGRICULTURE (OPEN SPACE) (3)	2 trips/acre	2 trips/acre	--	--
AIRPORT (3)				
Commercial	100 trips/flight; 60 trips/acre	100 trips/flight; 60 trips/acre	6% (6:4)	7% (5:5)
General Aviation	2 trips/flight; 6 trips/acre	2 trips/flight; 6 trips/acre	--	--
CEMETERY	5 trips/acre	5 trips/acre	--	--
COMMERCIAL-RETAIL (4) (5)				
Automobile Services:				
Car Dealer	50 trips/1,000 sq. ft.; 300 trips/acre	45 trips/1,000 sq. ft.; 297 trips/acre	5% (7:3)	8% (4:6)
Carwash:				
Full service	900 trips/site; 600 trips/acre	450 trips/site; 300 trips/acre	4% (5:5)	9% (5:5)
Self service	100 trips/wash stall	50 trips/wash stall	4% (5:5)	8% (5:5)
Gasoline Stations:	130 trips/vehicle fueling space; 750 trips/station	26 trips/vehicle fueling space; 150 trips/station	7% (5:5)	11% (5:5)
With food mart	150 trips/vehicle fueling space	30 trips/vehicle fueling space	8% (5:5)	8% (5:5)
With fully automated carwash	135 trips/vehicle fueling space	27 trips/vehicle fueling space	--	--
With food mart & fully automated carwash	155 trips/vehicle fueling space	31 trips/vehicle fueling space	8% (5:5)	9% (5:5)
Parts Sale	62 trips/1,000 sq. ft.	56 trips/1,000 sq. ft.	4% (5:5)	10% (5:5)
Repair Shop	20 trips/1,000 sq. ft.; 20 trips/service stall; 400 trips acre	18 trips/1,000 sq. ft.; 19 trips/service stall	8% (7:3)	11% (4:6)
Tire Store	25 trips/1,000 sq. ft.; 30 trips/service stall	23 trips/1,000 sq. ft.; 27 trips/service stall	7% (6:4)	11% (5:5)
Convenience Market Chain:				
Open Up to 16 Hours Per Day	500 trips/1,000 sq. ft.	250 trips/1,000 sq. ft.	8% (5:5)	8% (5:5)
Open 24 Hours	700 trips/1,000 sq. ft.	350 trips/1,000 sq. ft.	9% (5:5)	7% (5:5)
Discount Store/Discount Club	70 trips/1,000 sq. ft.	49 trips/1,000 sq. ft.	2% (6:4)	10% (5:5)
Drugstore	90 trips/1,000 sq. ft.	40 trips/1,000 sq. ft.	4% (6:4)	10% (5:5)
Furniture Store	6 trips/1,000 sq. ft.; 100 trips/acre	5.4 trips/1,000 sq. ft.	4% (7:3)	9% (5:5)
Lumber/Home Improvement Store	30 trips/1,000 sq. ft.; 150 trips/acre	27 trips/1,000 sq. ft.; 135 trips/acre	7% (6:4)	9% (5:5)
Nursery	40 trips/1,000 sq. ft.; 90 trips/acre	36 trips/1,000 sq. ft.; 81 trips/acre	3% (6:4)	10% (5:5)
Restaurant:				
Quality	100 trips/1,000 sq. ft.; 3 trips/seat; 500 trips/acre	90 trips/1,000 sq. ft.; 2.7 trips/seat; 450 trips/acre	1% (6:4)	8% (7:3)
High Turnover (sit-down)	130 trips/1,000 sq. ft.; 7 trips/seat; 1,200 trips/acre	104 trips/1,000 sq. ft.; 5.6 trips/seat; 460 trips/acre	8% (5:5)	8% (6:4)
Fast Food (with or without drive-through)	700 trips/1,000 sq. ft.; 22 trips/seat; 3,000 trips/acre	420 trips/1,000 sq. ft.; 13.2 trips/seat; 1,800 trips/acre	4% (6:4)	8% (5:5)
Shopping Center:				
Neighborhood (30,000 sq. ft. or more GLA on 4 or more acres)	120 trips/1,000 sq. ft. GLA; 1,200 trips/acre	72 trips/1,000 sq. ft.; 720 trips/acre	4% (6:4)	11% (5:5)
Community (100,000 sq. ft. or more GLA on 10 or more acres)	70 trips/1,000 sq. ft. GLA; 700 trips/acre	49 trips/1,000 sq. ft.; 490 trips/acre	3% (6:4)	10% (5:5)
Regional (300,000 sq. ft. or more GLA) (6)	$\text{Ln}(T) = 0.756 \text{Ln}(x) + 5.25$ *	$0.8 \text{Ln}(T) = 0.756 \text{Ln}(x) + 5.25$ *	2% (7:3)	9% (5:5)
Specialty Retail Center/Strip Commercial	40 trips/1,000 sq. ft.; 400 trips/acre	36 trips/1,000 sq. ft.; 360 trips/acre	3% (6:4)	9% (5:5)
Supermarket	150 trips/1,000 sq. ft.; 2,000 trips/acre	90 trips/1,000 sq. ft.; 2,000 trips/acre	4% (7:3)	10% (5:5)

* See Table 2

TABLE 1 (Continued)
TRIP GENERATION RATE SUMMARY
(WEEKDAY)

LAND USE	(8)		PEAK HOUR AND IN/OUT RATIO
	(1) (2)	(8)	
	VEHICLE TRIP RATE	MOBILE TRIP RATE	AM (IN:OUT) PM (IN:OUT)
EDUCATION ⁽³⁾			
University (4 years or higher)	2.5 trips/student; 100 trips/acre	2.5 trips/student; 100 trips/acre	10% (9:1)
Community College (2 years)	1.6 trips/student; 18 trips/1,000 sq. ft.; 80 trips/acre	1.6 trips/student; 18 trips/1,000 sq. ft.; 80 trips/acre	12% (9:1)
High School	1.8 trips/student; 50 trips/acre; 11 trips/1,000 sq. ft.	1.8 trips/student; 50 trips/acre; 11 trips/1,000 sq. ft.	20% (8:2)
Junior High/Middle School	1.4 trip/student; 12 trips/1,000 sq. ft.; 40 trips/acre	1.4 trips/student; 12 trips/1,000 sq. ft.; 40 trips/acre	24% (7:3)
Elementary School	2.9 trips/student; 39 trips/1,000 sq. ft.; 136 trips/acre	2.9 trips/student; 39 trips/1,000 sq. ft.; 136 trips/acre	31% (6:4)
Day Care Center	5 trips/child; 80 trips/1,000 sq. ft.	5 trips/child; 80 trips/1,000 sq. ft.	19% (5:5)
FINANCIAL INSTITUTION (Bank or Credit Union) ⁽⁵⁾			
Excluding drive-through	150 trips/1,000 sq. ft.; 1,000 trips/acre	112.5 trips/1,000 sq. ft.; 750 trips/acre	4% (7:3)
With drive-through	200 trips/1,000 sq. ft.; 1,500 trips/acre	150 trips/1,000 sq. ft.; 1,125 trips/acre	5% (6:4)
Drive-through only	250 trips/lane	187.5 trips/lane	3% (5:5)
HOSPITAL ⁽³⁾			
Convalescent/Nursing	3 trips/bed	3 trips/bed	7% (6:4)
General	20 trips/bed; 20 trips/1,000 sq. ft.; 300 trips/acre	20 trips/bed; 20 trips/1,000 sq. ft.; 300 trips/acre	9% (7:3)
HOUSE OF WORSHIP ⁽⁴⁾			
General	15 trips/1,000 sq. ft.; quadruple rates for days of	9 trips/1,000 sq. ft.; quadruple rate for days of	4% (8:2)
Without School or Day Care	5 trips/1,000 sq. ft.; quadruple rates for days of assembly	5 trips/1,000 sq. ft.; quadruple rate for days of	4% (8:2)
INDUSTRIAL			
Industrial/Business Park (some commercial included) ⁽³⁾	16 trips/1,000 sq. ft.; 200 trips/acre	16 trips/1,000 sq. ft.; 200 trips/acre	12% (8:2)
Small Industrial Park ^{(7) *}	15 trips/1,000 sq. ft.; 120 trips/acre	15 trips/1,000 sq. ft.; 120 trips/acre	11% (9:1)
Large Industrial Park *	8 trips/1,000 sq. ft.; 100 trips/acre	8 trips/1,000 sq. ft.; 100 trips/acre	11% (9:1)
Manufacturing/Assembly	4 trips/1,000 sq. ft.; 50 trips/acre	4 trips/1,000 sq. ft.; 50 trips/acre	20% (9:1)
Rental Storage	2 trips/1,000 sq. ft.; 30 trips/acre	2 trips/1,000 sq. ft.; 30 trips/acre	6% (5:5)
Scientific Research and Development	8 trips/1,000 sq. ft.; 80 trips/acre	8 trips/1,000 sq. ft.; 80 trips/acre	16% (9:1)
Truck Terminal	10 trips/1,000 sq. ft.; 7 trips/bay; 80 trips/acre	10 trips/1,000 sq. ft.; 7 trips/bay; 80 trips/acre	9% (4:6)
Warehousing	5 trips/1,000 sq. ft.; 60 trips/acre	5 trips/1,000 sq. ft.; 60 trips/acre	15% (7:3)
LIBRARY ⁽³⁾	50 trips/1,000 sq. ft.; 400 trips/acre		2% (7:3)
Less than 100,000 sq. ft.		20 trips/1,000 sq. ft.	2% (7:3)
100,000 sq. ft. or more		16 trips/1,000 sq. ft.	10% (5:5)

* Small amount of local serving commercial included. May have multiple shifts.

TABLE 1 (Continued)
TRIP GENERATION RATE SUMMARY
(WEEKDAY)

LAND USE	DRIVEWAY (1)(2)		CUMULATIVE (8) VEHICLE TRIP RATE	PEAK HOUR AND IN/OUT RATIO	
	VEHICLE TRIP RATE	VEHICLE TRIP RATE		AM (IN:OUT)	PM (IN:OUT)
LODGING (3)					
Hotel (w/convention facilities/restaurant)	10 trips/room; 300 trips/acre	10 trips/room; 300 trips/acre		6% (6:4)	8% (6:4)
Motor Hotel	9 trips/room; 200 trips/acre	9 trips/room; 200 trips/acre		8% (4:6)	9% (4:6)
Resort Hotel	8 trips/room; 100 trips/acre	8 trips/room; 100 trips/acre		5% (6:4)	7% (6:4)
MILITARY BASE (3)					
2.5 trips/employee (military or civilian)	2.5 trips/employee (military or civilian)	2.5 trips/employee (military or civilian)		9% (9:1)	10% (6:4)
OFFICE					
Commercial Office (6)	$\text{Ln}(T) = 0.756 \text{Ln}(x) + 3.95$; 450 trips/acre	$\text{Ln}(T) = 0.756 \text{Ln}(x) + 3.95$; 450 trips/acre		13% (9:1)	14% (2:8)
Corporate Headquarters/Single Tenant Office	10 trips/1,000 sq. ft.	10 trips/1,000 sq. ft.		15% (9:1)	15% (1:9)
Department of Motor Vehicles	180 trips/1,000 sq. ft.; 900 trips/acre	180 trips/1,000 sq. ft.		6% (6:4)	11% (4:6)
Government Office (Civic Center):	30 trips/1,000 sq. ft.	30 trips/1,000 sq. ft.		9% (9:1)	12% (3:7)
Less than 100,000 sq. ft.		20 trips/1,000 sq. ft.		9% (9:1)	12% (3:7)
100,000 sq. ft. or more		16 trips/1,000 sq. ft.		9% (9:1)	12% (3:7)
Medical Office:		20 trips/1,000 sq. ft.		6% (8:2)	10% (3:7)
Less than 100,000 sq. ft.		20 trips/1,000 sq. ft.		6% (8:2)	10% (3:7)
100,000 sq. ft. or more		16 trips/1,000 sq. ft.		6% (8:2)	10% (3:7)
Post Office:		76 trips/1,000 sq. ft.		5%	7%
Distribution (central/walk-in only)		168 trips/1,000 sq. ft.; 1,092 trips/acre		6% (6:4)	9% (5:5)
Community (without mail drop lane)		300 trips/1,000 sq. ft.; 2,000 trips/acre		7% (5:5)	9% (3:7)
Community (with mail drop lane)		168 trips/1,000 sq. ft.; 1,092 trips/acre		7% (5:5)	7% (6:4)
Less than 100,000 sq. ft.		252 trips/1,000 sq. ft.; 1,680 trips/acre		7% (5:5)	8% (7:3)
100,000 sq. ft. or more					
RECREATION					
Bowling Center	30 trips/lane; 300 trips/acre	30 trips/lane; 300 trips/acre		7% (7:3)	10% (4:6)
Golf Course	600 trips/course; 40 trips/hole; 8 trips/acre	600 trips/course; 40 trips/hole; 8 trips/acre		6% (8:2)	9% (3:7)
Marina	4 trips/berth; 20 trips/acre	4 trips/berth; 20 trips/acre		3% (3:7)	7% (6:4)
Movie Theater	80 trips/1,000 sq. ft.; 1.8 trips/seat	80 trips/1,000 sq. ft.; 1.8 trips/seat		0.3%	8% (7:3)
Park:					
Beach, Ocean or Bay	600 trips/1,000 ft. shoreline; 60 trips/acre	600 trips/1,000 ft. shoreline; 60 trips/acre		--	11% (4:6)
Developed	50 trips/acre	50 trips/acre		4%	8%
Undeveloped	5 trips/acre	5 trips/acre		4%	8%
Racquetball/Tennis/Health Club	40 trips/1,000 sq. ft.; 40 trips/court; 300 trips/acre	40 trips/1,000 sq. ft.; 40 trips/court; 300 trips/acre		4% (6:4)	9% (6:4)
San Diego Zoo	115 trips/acre	115 trips/acre		--	--
Sea World	80 trips/acre	80 trips/acre		--	--
Sport Facility:					
Indoor	30 trips/acre	30 trips/acre		--	--
Outdoor	50 trips/acre	50 trips/acre		--	--

TABLE 1 (Continued)
TRIP GENERATION RATE SUMMARY
(WEEKDAY)

LAND USE	DRIVEWAY ⁽¹⁾⁽²⁾		CUMULATIVE ⁽⁸⁾ VEHICLE TRIP RATE	PEAK HOUR AND IN/OUT RATIO	
	VEHICLE TRIP RATE	VEHICLE TRIP RATE		AM (IN:OUT)	PM (IN:OUT)
RESIDENTIAL ⁽³⁾					
Congregate Care Facility	2 trips/dwelling unit	2 trips/dwelling unit	2 trips/dwelling unit	3% (6:4)	8% (5:5)
Estate Housing	12 trips/dwelling unit	12 trips/dwelling unit	12 trips/dwelling unit	-	-
Mobile Home	5 trips/dwelling unit; 40 trips/acre	5 trips/dwelling unit; 40 trips/acre	5 trips/dwelling unit; 40 trips/acre	9% (3:7)	12% (6:4)
Multiple Dwelling Unit:					
Under 20 dwelling units/acre	8 trips/dwelling unit	8 trips/dwelling unit	8 trips/dwelling unit	8% (2:8)	10% (7:3)
Over 20 dwelling units/acre	6 trips/dwelling unit	6 trips/dwelling unit	6 trips/dwelling unit	8% (2:8)	9% (7:3)
Retirement/Senior Citizen Housing	4 trips/dwelling unit	4 trips/dwelling unit	4 trips/dwelling unit	-	-
Single Family Detached:					
Urbanized Area ⁽¹⁾	9 trips/dwelling unit	9 trips/dwelling unit	9 trips/dwelling unit	8% (2:8)	10% (7:3)
Urbanizing Area ⁽¹⁾	10 trips/dwelling unit	10 trips/dwelling unit	10 trips/dwelling unit	8% (2:8)	10% (7:3)
TRANSPORTATION FACILITIES ⁽³⁾					
Bus Depot	25 trips/1,000 sq. ft.	25 trips/1,000 sq. ft.	25 trips/1,000 sq. ft.		
Park & Ride Lots	400 trips/acre; 600 trips/paved acre	400 trips/acre; 600 trips/paved acre	400 trips/acre; 600 trips/paved acre	14% (7:3)	15% (3:7)
Transit Station (rail)	300 trips/acre	300 trips/acre	300 trips/acre	14% (7:3)	15% (3:7)

Notes:

- (1) From the 1990 Trip Generation Manual. Driveway rates reflect trips that are generated by a site. These rates are used to calculate the total number of trips that impact the project and its immediate vicinity.
- (2) Does not include trip rates for Centre City area. See Table 5.
- (3) San Diego Association of Governments (SANDAG), "Traffic Generators," San Diego, California, December 1996, and July 1998.
- (4) City of San Diego memo, "Trip Generation Rate for Churches," December 9, 1992.
- (5) Refer to Cumulative Vehicle Trip Rate column for reduced trip rates.
- (6) Ln = Natural logarithm; fitted curve logarithmic equation is used for Commercial Office and Regional Shopping Center. For example, the trip generation of an Office Building with 100,000 sq. ft. of GLA is: $\text{Ln}(T) = 0.756 \text{Ln}(100) + 3.95$, or $\text{Ln}(T) = 0.756 (4.60517) + 3.95$, or $\text{Ln}(T) = 3.481509 + 3.95$, or $\text{Ln}(T) = 7.431509$, which is 1,688 trips. The trip generation of a Regional Shopping Center with 1,000,000 sq. ft. of GLA is: $\text{Ln}(T) = 0.756 \text{Ln}(1,000) + 5.25$, or $\text{Ln}(T) = 0.756 (6.907755) + 5.25$, or $\text{Ln}(T) = 5.222263 + 5.25$, or $\text{Ln}(T) = 10.47226$, which is 35,322 trips. See Table 2 for calculated trip generation for selected sizes of Regional Shopping Centers, and Table 3 for calculated trip generation for selected sizes of Commercial Offices. GLA = Gross Leasable Area; T = trips; x = GLA in 1,000 square feet.
- (7) Institute of Transportation Engineers, "Trip Generation," 5th and 6th Editions, Washington, District of Columbia, 1991 and 1998.
- (8) Trips made to a site are Pass-By and Cumulative trips. See Appendix A for definitions of these trips. Cumulative rates are used to determine the community-wide impact of a new project.

<u>Project Name</u>	<u>Location</u>	<u>Intensity & Land Use</u>	<u>ADI</u>	<u>AM</u>	<u>in</u>	<u>out</u>	<u>PM</u>	<u>in</u>	<u>out</u>
1010 W. San Ysidro Bl	101 W. San Ysidro Bl	125 single-family dus	1,127	90	18	72	113	79	34
Vista Lane/Blackshaw Lane Community Plan	s/o Vista	net increase based on changing the density	712	55	10	45	61	40	21
815 W. San Ysidro Bl	815 W. San Ysidro Bl	22 multi-family dus	132	11	2	9	13	9	4
El Pedregal Apts	104 Averil Rd	45 multi-family dus	270	22	4	18	27	19	8
Tuscan Villas	517 W. San Ysidro Bl	17 multi-family dus	136	11	2	9	14	10	4
Las Palmas	122 Alverson Rd	16 multi-family dus; 1 single family du	137	11	2	9	14	10	4
Total			2,514	200	38	162	242	167	75
Pilot Village (what's left)	AKA Mi Puebla								
	Varies		7,750	280	75	207	837	489	348
Living Rooms at the Border part of Pilot Village	114 W Hall Ave	1500sf office; 1800sf community ctr; 2500sf market; 15 multi-family dus	2,049	181	92	89	154	76	78
Total			9,799	461	167	296	991	565	426
					205	458	1,233	732	501
Villas Andaluia	4225 Beyer Bl	24 multi-family dus	192	15	3	12	19	13	6
San Ysidro Health Ctr	4004 Beyer Bl	25,244sf medical office	941	56	45	11	94	28	66
Total			1,133	71	48	23	113	41	72
Willow Rd Mixed Use Part of Pilot Village	120 Willow Rd	3142sf retail/commercial; 36 multi-family dus	878	43	19	24	76	42	34
Total			878	43	19	24	76	42	34
Las Americas Part of Pilot Village	3905 1/3 Camino de La Plaza	156 multi-family dus	1,123	90	18	72	113	79	34
Total			1,123	90	18	72	113	79	34
Grand Total			15,447	865	290	577	1,535	894	641

APPENDIX D

PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS EXISTING CONDITIONS

Scenario: Existing AM
Command: Default
Volume: Existing AM
Geometry: Existing
Impact Fee: Default
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default
Configuration: Default

Intersection		Base		Future		Change in		
		V/ C	LOS	Del/ Veh	V/ C			
# 1 Via de San Ysidro at Calle Pri	C	26.5	0.665	C	26.5	0.665	+ 0.000	D/V
# 2 Via de San Ysidro at I-5 S/B R	C	23.0	0.278	C	23.0	0.278	+ 0.000	D/V
# 3 Via de San Ysidro at I-5 N/B R	B	14.9	0.000	B	14.9	0.000	+ 0.000	D/V
# 6 West San Ysidro Blvd at I-805	C	20.6	0.401	C	20.6	0.401	+ 0.000	D/V
# 7 Esat San Ysidro at I-805 N/B r	C	22.5	0.395	C	22.5	0.395	+ 0.000	D/V
# 11 East San Ysidro at East Beyer/	B	16.4	0.456	B	16.4	0.456	+ 0.000	D/V
# 12 East San Ysidro at I-5 N/B Ram	C	21.3	0.508	C	21.3	0.508	+ 0.000	D/V
# 13 Camino de la Plaza at I-5 S/B	C	23.6	0.237	C	23.6	0.237	+ 0.000	D/V
# 14 Camino de la Plaza at Virginia	B	11.7	0.000	B	11.7	0.000	+ 0.000	D/V

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Existing AM Tue Jul 22, 2008 14:20:30 Page 3-1

Intersection #1 Via de San Ysidro at Calle Primera
Cycle (sec): 60 Critical Vol./Cap.(X): 0.665
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 26.5
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: Via de San Ysidro Calle Primera
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1 0
Volume Module:
Base Vol: 5 25 6 215 6 117 141 42 9 2 41 364
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 5 25 6 215 6 117 141 42 9 2 41 364
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 5 25 6 215 6 117 141 42 9 2 41 364
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 5 26 6 226 6 123 148 44 9 2 43 383
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 5 26 6 226 6 123 148 44 9 2 43 383
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 5 26 6 226 6 123 148 44 9 2 43 383
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.96 1.21 1.15 1.05 0.98 0.96 0.84 0.99 0.98 0.95 0.95 0.75
Lanes: 1.00 0.80 0.20 1.00 0.05 0.95 1.00 0.82 0.18 0.05 0.95 1.00
Final Sat.: 1827 1831 439 2004 89 1730 1592 1542 330 84 1713 1434
Capacity Analysis Module:
Vol/Sat: 0.00 0.01 0.01 0.11 0.07 0.07 0.09 0.03 0.03 0.03 0.03 0.27
Crit Moves: ****
Green/Cycle: 0.08 0.08 0.08 0.16 0.16 0.16 0.13 0.13 0.13 0.37 0.37 0.37
Volume/Cap: 0.03 0.17 0.17 0.73 0.46 0.46 0.73 0.22 0.22 0.07 0.07 0.73
Delay/Veh: 25.4 26.0 26.0 32.6 24.2 24.2 37.6 24.0 24.0 12.4 12.4 21.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 25.4 26.0 26.0 32.6 24.2 24.2 37.6 24.0 24.0 12.4 12.4 21.5
LOS by Move: C C C C C C D C B B C
HCM2kAvgQ: 0 1 1 4 2 2 4 1 1 1 1 8
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Existing AM Tue Jul 22, 2008 14:20:31 Page 4-1

Intersection #2 Via de San Ysidro at I-5 S/B Ramp
Cycle (sec): 90 Critical Vol./Cap.(X): 0.278
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 23.0
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: Via de San Ysidro I-5 S/B Ramp
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 2 0 0 0 0 2 0 0 1 0 0 0 0 0
Volume Module:
Base Vol: 0 527 0 0 207 0 118 0 119 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 527 0 0 207 0 118 0 119 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 527 0 0 207 0 118 0 119 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 555 0 0 218 0 124 0 125 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 555 0 0 218 0 124 0 125 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 555 0 0 218 0 124 0 125 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.33 1.00 1.00 1.09 1.00 0.93 1.00 0.83 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 0 5070 0 0 4129 0 1769 0 1584 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.11 0.00 0.00 0.05 0.00 0.07 0.00 0.08 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.39 0.00 0.00 0.19 0.00 0.28 0.00 0.28 0.00 0.00 0.00
Volume/Cap: 0.00 0.28 0.00 0.00 0.28 0.00 0.25 0.00 0.28 0.00 0.00 0.00
Delay/Veh: 0.0 18.7 0.0 0.0 31.4 0.0 25.1 0.0 25.4 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 18.7 0.0 0.0 31.4 0.0 25.1 0.0 25.4 0.0 0.0 0.0
LOS by Move: A B A A C A C A C A A
HCM2kAvgQ: 0 5 0 0 3 0 3 0 3 0 0 0
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

Intersection #3 Via de San Ysidro at I-5 N/B Ramps

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B [14.9]

Street Name: Vis de San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 1
Volume Module:
Base Vol: 215 437 0 0 161 164 0 0 0 25 0 140
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 215 437 0 0 161 164 0 0 0 25 0 140
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 215 437 0 0 161 164 0 0 0 25 0 140
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 226 460 0 0 169 173 0 0 0 26 0 147
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 226 460 0 0 169 173 0 0 0 26 0 147
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 6.5 6.2
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3
Capacity Module:
Cnflct Vol: 352 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1017 1275 480
Potent Cap.: 1207 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 263 167 586
Move Cap.: 1197 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 221 133 575
Volume/Cap: 0.19 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.12 0.00 0.26
Level Of Service Module:
2Way95thQ: 0.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1.0
Control Del: 8.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 13.4
LOS by Move: A * * * * * * * * * * * * * * B
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 221 xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.4 xxxxx xxxxx
Shrd CnDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 23.5 xxxxx xxxxx
Shared LOS: * * * * * * * * * * C * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 14.9
ApproachLOS: * * * * * B

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

Intersection #6 West San Ysidro Blvd at I-805 S/B Ramps

Cycle (sec): 90 Critical Vol./Cap.(X): 0.401
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 20.6
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name: I-805 S/B Ramps San Ysidro Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 0 0 0 1 0 1 0 1 0 0 1 1 0 2 0 2 0 0
Volume Module:
Base Vol: 0 0 0 243 1 240 0 488 119 38 224 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 243 1 240 0 488 119 38 224 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 243 1 240 0 488 119 38 224 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 256 1 253 0 514 125 40 236 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 256 1 253 0 514 125 40 236 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 256 1 253 0 514 125 40 236 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.84 0.84 0.84 1.00 0.90 1.28 0.87 0.96 1.00
Lanes: 0.00 0.00 0.00 1.50 0.01 1.49 0.00 1.71 0.29 2.00 2.00 0.00
Final Sat.: 0 0 0 2395 7 2390 0 2930 714 3318 3655 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.11 0.16 0.11 0.00 0.18 0.18 0.01 0.06 0.00
Crit Moves: **** * * * * *
Green/Cycle: 0.00 0.00 0.00 0.39 0.39 0.39 0.00 0.42 0.42 0.06 0.26 0.00
Volume/Cap: 0.00 0.00 0.00 0.28 0.41 0.27 0.00 0.41 0.41 0.22 0.25 0.00
Delay/Veh: 0.0 0.0 0.0 19.0 20.4 19.0 0.0 18.3 18.3 41.2 26.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 19.0 20.4 19.0 0.0 18.3 18.3 41.2 26.6 0.0
LOS by Move: A A A B C B A B B D C A
HCM2kAvgQ: 0 0 0 3 5 3 0 6 9 1 3 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Existing AM Tue Jul 22, 2008 14:20:31 Page 7-1

Intersection #7 Esat San Ysidro at I-805 N/B ramps
Cycle (sec): 94 Critical Vol./Cap.(X): 0.395
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 22.5
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-805 N/B Ramps East San Ysidro
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 1 0 0 1 0 0 0 0 0 2 0 2 0 0 0 0 1 1 0 0
Volume Module:
Base Vol: 70 0 155 0 0 0 223 434 0 0 235 220
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 70 0 155 0 0 0 223 434 0 0 235 220
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 70 0 155 0 0 0 223 434 0 0 235 220
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 74 0 163 0 0 0 235 457 0 0 247 232
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 74 0 163 0 0 0 235 457 0 0 247 232
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 74 0 163 0 0 0 235 457 0 0 247 232
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.82 1.00 1.00 1.00 0.90 0.93 1.00 1.00 0.86 0.71
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 2.00 2.00 0.00 0.00 1.00 1.00
Final Sat.: 1773 0 1553 0 0 0 3432 3538 0 0 1640 1355
Capacity Analysis Module:
Vol/Sat: 0.04 0.00 0.11 0.00 0.00 0.00 0.07 0.13 0.00 0.00 0.15 0.17
Crit Moves: ****
Green/Cycle: 0.27 0.00 0.27 0.00 0.00 0.00 0.17 0.43 0.00 0.00 0.43 0.43
Volume/Cap: 0.16 0.00 0.39 0.00 0.00 0.00 0.39 0.30 0.00 0.00 0.35 0.39
Delay/Veh: 26.6 0.0 28.9 0.0 0.0 0.0 34.9 17.7 0.0 0.0 18.0 18.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 26.6 0.0 28.9 0.0 0.0 0.0 34.9 17.7 0.0 0.0 18.0 18.4
LOS by Move: C A C A A A C B A A B B
HCM2kAvgQ: 2 0 4 0 0 0 3 4 0 0 5 5
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Existing AM Tue Jul 22, 2008 14:20:31 Page 8-1

Intersection #11 East San Ysidro at East Beyer/Camino de la Plaza
Cycle (sec): 60 Critical Vol./Cap.(X): 0.456
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 16.4
Optimal Cycle: OPTIMIZED Level Of Service: B
Street Name: East San Ysidro East Beyer/Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Ignore Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 1 0 0 1 0 1 0 0 2 1 0 2 0 2 1 0 1 1 0 0
Volume Module:
Base Vol: 119 46 332 5 40 21 21 115 73 51 116 11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 119 46 332 5 40 21 21 115 73 51 116 11
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 119 46 332 5 40 21 21 115 73 51 116 11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 125 48 349 5 42 0 22 121 77 54 122 12
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 125 48 349 5 42 0 22 121 77 54 122 12
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 125 48 349 5 42 0 22 121 77 54 122 12
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.88 0.76 1.01 0.97 0.88 0.96 0.87 0.44 0.96 0.95 1.80
Lanes: 1.49 0.51 1.00 0.11 0.89 2.00 1.00 2.00 2.00 1.00 1.90 0.10
Final Sat.: 2225 860 1440 206 1651 3344 1827 3301 1659 1827 3435 326
Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.24 0.03 0.03 0.00 0.01 0.04 0.05 0.03 0.04 0.04
Crit Moves: ****
Green/Cycle: 0.48 0.48 0.48 0.08 0.08 0.00 0.08 0.08 0.57 0.08 0.08 0.08
Volume/Cap: 0.12 0.12 0.50 0.31 0.31 0.00 0.15 0.44 0.08 0.35 0.43 0.43
Delay/Veh: 8.5 8.5 11.2 27.0 27.0 0.0 26.0 27.3 5.9 27.4 27.1 27.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.5 8.5 11.2 27.0 27.0 0.0 26.0 27.3 5.9 27.4 27.1 27.1
LOS by Move: A A B C C A C C A C C
HCM2kAvgQ: 1 1 4 1 1 0 0 1 0 1 1 2
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Existing AM Tue Jul 22, 2008 14:20:31 Page 9-1

Intersection #12 East San Ysidro at I-5 N/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.508
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: East San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 1 0 0 0 1 0 0 1 0 0 0 0 1 0 0 0
Volume Module:
Base Vol: 6 21 2 248 23 177 118 56 2 29 78 57
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 6 21 2 248 23 177 118 56 2 29 78 57
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 6 21 2 248 23 177 118 56 2 29 78 57
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 6 22 2 261 24 186 124 59 2 31 82 60
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 6 22 2 261 24 186 124 59 2 31 82 60
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 6 22 2 261 24 186 124 59 2 31 82 60
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.92 0.91 0.62 0.74 0.71 0.97 0.97 0.97 0.93 0.93 0.89
Lanes: 0.21 0.72 0.07 0.93 0.07 1.00 0.67 0.32 0.01 0.17 0.47 0.36
Final Sat.: 360 1260 120 1090 101 1351 1232 585 21 307 826 603
Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.24 0.24 0.14 0.10 0.10 0.10 0.10 0.10 0.10
Crit Moves: ****
Green/Cycle: 0.47 0.47 0.47 0.47 0.47 0.67 0.20 0.20 0.20 0.20 0.20 0.20
Volume/Cap: 0.04 0.04 0.04 0.51 0.51 0.21 0.51 0.51 0.51 0.51 0.51 0.51
Delay/Veh: 12.8 12.8 12.8 17.3 17.3 5.8 33.3 33.3 33.3 33.6 33.6 33.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.8 12.8 12.8 17.3 17.3 5.8 33.3 33.3 33.3 33.6 33.6 33.6
LOS by Move: B B B B B A C C C C C
HCM2kAvgQ: 0 0 0 5 6 2 5 5 5 5 5 5
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Existing AM Tue Jul 22, 2008 14:20:31 Page 10-1

Intersection #13 Camino de la Plaza at I-5 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.237
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 23.6
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-5 N/B ramps Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Ovl
Min. Green: 5 5 5 5 5 5 5 5 5 5
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1
Volume Module:
Base Vol: 22 9 103 205 122 171 34 132 17 29 89 46
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 22 9 103 205 122 171 34 132 17 29 89 46
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 22 9 103 205 122 171 34 132 17 29 89 46
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 23 9 108 216 128 180 36 139 18 31 94 48
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 23 9 108 216 128 180 36 139 18 31 94 48
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 23 9 108 216 128 180 36 139 18 31 94 48
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.91 0.75 0.96 0.98 0.80 0.90 0.92 0.91 0.93 0.98 0.93
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.77 0.23 1.00 1.00 1.00
Final Sat.: 1711 1737 1420 1827 1862 1512 1711 3079 397 1769 1862 1764
Capacity Analysis Module:
Vol/Sat: 0.01 0.01 0.08 0.12 0.07 0.12 0.02 0.05 0.05 0.02 0.05 0.03
Crit Moves: ****
Green/Cycle: 0.19 0.06 0.20 0.48 0.34 0.43 0.08 0.14 0.14 0.14 0.20 0.68
Volume/Cap: 0.07 0.10 0.38 0.25 0.20 0.28 0.25 0.31 0.31 0.12 0.25 0.04
Delay/Veh: 29.8 40.8 32.1 14.0 21.2 17.1 39.4 34.9 34.9 33.7 30.4 4.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 29.8 40.8 32.1 14.0 21.2 17.1 39.4 34.9 34.9 33.7 30.4 4.7
LOS by Move: C D C B C B D C C C C A
HCM2kAvgQ: 1 0 3 4 3 3 1 2 2 1 2 0
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
Existing AM Tue Jul 22, 2008 14:20:31 Page 11-1

Intersection #14 Camino de la Plaza at Virginia

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[11.7]

Street Name: Virginia Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 1 0 0 0 0 1 0 1 1 0 1 0 0 1 0
Volume Module:
Base Vol: 2 0 8 2 0 0 0 160 1 13 265 3
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 8 2 0 0 0 160 1 13 265 3
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 2 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 8 2 0 0 0 160 1 13 265 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 2 0 8 2 0 0 0 168 1 14 279 3
Reduct Vol: 2 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 2 0 8 2 0 0 0 168 1 14 279 3
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflct Vol: 497 498 105 412 xxxx xxxxx xxxx xxxx xxxxx 179 xxxx xxxxx
Potent Cap.: 487 477 955 554 xxxx xxxxx xxxx xxxx xxxxx 1396 xxxx xxxxx
Move Cap.: 475 464 939 536 xxxx xxxxx xxxx xxxx xxxxx 1385 xxxx xxxxx
Volume/Cap: 0.00 0.00 0.01 0.00 xxxx xxxxx xxxx xxxx xxxxx 0.01 xxxx xxxxx
Level Of Service Module:
2Way95thQ: 0.0 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx
Control Del: 12.6 xxxx xxxxx 11.7 xxxx xxxxx xxxxx xxxx xxxxx 7.6 xxxx xxxxx
LOS by Move: B * * B * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx 939 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx 0.0 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxx 8.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: A * * * * * * * * * *
ApproachDel: 9.6 11.7 xxxxxxxx xxxxxxxx
ApproachLOS: A B * *

Note: Queue reported is the number of cars per lane.

Existing PM Tue Jul 22, 2008 14:21:19 Page 1-1

Scenario: Existing PM
Command: Default
Volume: Existing PM
Geometry: Existing
Impact Fee: Default
Trip Generation: none
Trip Distribution: none
Paths: none
Routes: Default
Configuration: Default

Intersection	Base	Future		Change
		V/C	Del/Veh	
# 1 Via de San Ysidro at Calle Pri	D 46.2 0.845	D 46.2 0.845	+ 0.000	D/V
# 2 Via de San Ysidro at I-5 S/B R	C 26.6 0.501	C 26.6 0.501	+ 0.000	D/V
# 3 Via de San Ysidro at I-5 N/B R	E 35.5 0.000	E 35.5 0.000	+ 0.000	D/V
# 6 West San Ysidro Blvd at I-805	C 25.5 0.762	C 25.5 0.762	+ 0.000	D/V
# 7 Esat San Ysidro at I-805 N/B r	C 21.8 0.619	C 21.8 0.619	+ 0.000	D/V
# 11 East San Ysidro at East Beyer/	A 8.4 0.506	A 8.4 0.506	+ 0.000	D/V
# 12 East San Ysidro at I-5 N/B Ram	B 19.5 0.595	B 19.5 0.595	+ 0.000	D/V
# 13 Camino de la Plaza at I-5 S/B	C 30.2 0.720	C 30.2 0.720	+ 0.000	D/V
# 14 Camino de la Plaza at Virginia	C 23.6 0.000	C 23.6 0.000	+ 0.000	D/V

Level Of Service Computation Report

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*****
Intersection #1 Via de San Ysidro at Calle Primera
*****
Cycle (sec):          90          Critical Vol./Cap.(X):      0.845
Loss Time (sec):      16 (Y+R=4.0 sec)  Average Delay (sec/veh):  46.2
Optimal Cycle: OPTIMIZED          Level Of Service:      D
*****
Street Name:          Via de San Ysidro          Calle Primera
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:              Split Phase          Split Phase          Split Phase          Split Phase
Rights:               Include             Include             Include             Include
Min. Green:           5 5 5 5 5 5 5 5 5 5 5 5
Lanes:                1 0 0 1 0 1 0 0 1 0 0 1 0 1 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:             5 35 3 421 9 285 227 58 10 0 26 382
Growth Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:          5 35 3 421 9 285 227 58 10 0 26 382
Added Vol:            0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:         0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:          5 35 3 421 9 285 227 58 10 0 26 382
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:          5 37 3 443 9 300 239 61 11 0 27 402
Reduct Vol:           0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:         5 37 3 443 9 300 239 61 11 0 27 402
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:         5 37 3 443 9 300 239 61 11 0 27 402
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:           0.96 1.23 1.21 1.05 0.98 0.94 0.84 0.99 0.99 1.00 0.95 0.69
Lanes:                1.00 0.92 0.08 1.00 0.03 0.97 1.00 0.85 0.15 0.00 1.00 1.00
Final Sat.:          1827 2145 184 2004 55 1735 1592 1603 276 0 1801 1313
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.00 0.02 0.02 0.22 0.17 0.17 0.15 0.04 0.04 0.00 0.02 0.31
Crit Moves:          ****          ****          ****
Green/Cycle:          0.06 0.06 0.06 0.25 0.25 0.25 0.17 0.17 0.17 0.00 0.35 0.35
Volume/Cap:           0.05 0.31 0.31 0.88 0.69 0.69 0.88 0.22 0.22 0.00 0.04 0.88
Delay/Veh:            40.5 42.2 42.2 49.3 35.2 35.2 63.6 32.6 32.6 0.0 19.5 45.8
User DelAdj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:           40.5 42.2 42.2 49.3 35.2 35.2 63.6 32.6 32.6 0.0 19.5 45.8
LOS by Move:         D D D D D D E C C A B D
HCM2kAvgQ:            0 1 1 13 8 8 10 2 2 0 0 14
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
Existing PM Tue Jul 22, 2008 14:21:21 Page 4-1

Intersection #2 Via de San Ysidro at I-5 S/B Ramp
Cycle (sec): 90 Critical Vol./Cap.(X): 0.501
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 26.6
Optimal Cycle: OPTIMIZED Level Of Service: C

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
Existing PM Tue Jul 22, 2008 14:21:21 Page 5-1

Intersection #3 Via de San Ysidro at I-5 N/B Ramps
Average Delay (sec/veh): 4.8 Worst Case Level Of Service: E[35.5]
Street Name: Vis de San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 0 1 0 0 1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
Existing PM Tue Jul 22, 2008 14:21:21 Page 6-1

Intersection #6 West San Ysidro Blvd at I-805 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.762
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 25.5
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-805 S/B Ramps San Ysidro Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 0 0 1 0 1 0 1 0 0 1 1 0 2 0 2 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
Existing PM Tue Jul 22, 2008 14:21:21 Page 7-1

Intersection #7 Esat San Ysidro at I-805 N/B ramps
Cycle (sec): 94 Critical Vol./Cap.(X): 0.619
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-805 N/B Ramps East San Ysidro
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 1 0 0 1 0 0 0 0 0 2 0 2 0 0 0 0 1 1 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
Existing PM Tue Jul 22, 2008 14:21:21 Page 8-1

Intersection #11 East San Ysidro at East Beyer/Camino de la Plaza
Cycle (sec): 60 Critical Vol./Cap.(X): 0.506
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 8.4
Optimal Cycle: OPTIMIZED Level Of Service: A
Street Name: East San Ysidro East Beyer/Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Ignore Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5
Lanes: 1 1 0 0 1 0 1 0 0 2 1 0 2 0 2 1 0 1 1 0

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
Existing PM Tue Jul 22, 2008 14:21:21 Page 9-1

Intersection #12 East San Ysidro at I-5 N/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.595
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 19.5
Optimal Cycle: OPTIMIZED Level Of Service: B
Street Name: East San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Ovl Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 1 0 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
Existing PM Tue Jul 22, 2008 14:21:21 Page 10-1

Intersection #13 Camino de la Plaza at I-5 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.720
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 30.2
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-5 N/B ramps Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Ovl
Min. Green: 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1
Volume Module:
Base Vol: 95 50 237 201 376 430 294 341 53 95 248 281
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 95 50 237 201 376 430 294 341 53 95 248 281
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 95 50 237 201 376 430 294 341 53 95 248 281
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 100 53 249 212 396 453 309 359 56 100 261 296
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 100 53 249 212 396 453 309 359 56 100 261 296
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 100 53 249 212 396 453 309 359 56 100 261 296
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.91 0.67 0.96 0.98 0.65 0.90 0.91 0.90 0.93 0.98 0.84
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.73 0.27 1.00 1.00 1.00
Final Sat.: 1711 1737 1280 1827 1862 1242 1711 2994 465 1769 1862 1602
Capacity Analysis Module:
Vol/Sat: 0.06 0.03 0.19 0.12 0.21 0.36 0.18 0.12 0.12 0.06 0.14 0.18
Crit Moves: ****
Green/Cycle: 0.08 0.20 0.35 0.17 0.30 0.55 0.25 0.30 0.30 0.14 0.19 0.37
Volume/Cap: 0.72 0.15 0.56 0.68 0.72 0.67 0.72 0.40 0.40 0.40 0.72 0.50
Delay/Veh: 57.1 29.5 25.4 40.7 33.0 17.1 36.7 25.1 25.1 36.1 40.8 22.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 57.1 29.5 25.4 40.7 33.0 17.1 36.7 25.1 25.1 36.1 40.8 22.9
LOS by Move: E C C D C B D C C D D C
HCM2kAvgQ: 4 1 6 7 11 10 8 5 5 2 7 6
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

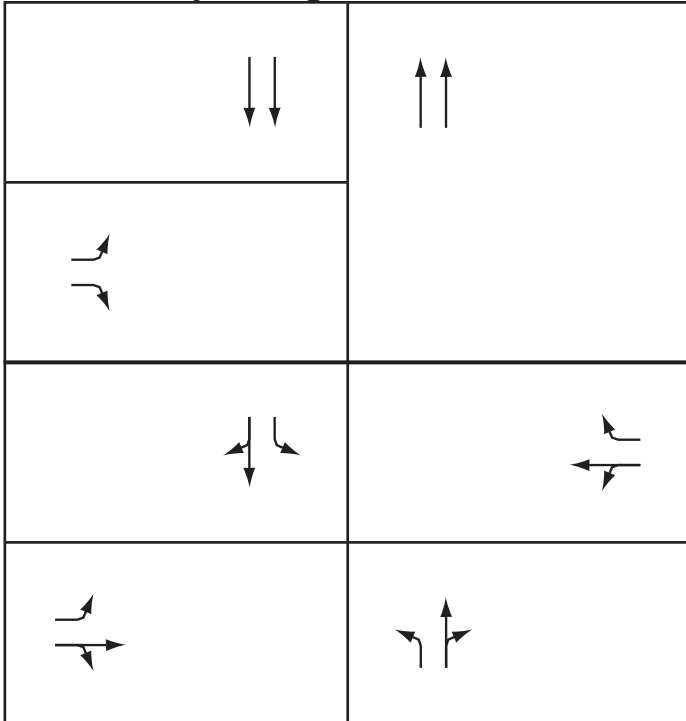
2000 HCM Unsignalized Method (Future Volume Alternative)
Existing PM Tue Jul 22, 2008 14:21:21 Page 11-1

Intersection #14 Camino de la Plaza at Virginia
Average Delay (sec/veh): 0.6 Worst Case Level Of Service: C [23.6]
Street Name: Virginia Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 0 0 0 1 0 0 1 0 1 1 0 1 0 0 1 0
Volume Module:
Base Vol: 0 0 36 4 0 3 3 639 2 26 739 5
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 36 4 0 3 3 639 2 26 739 5
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 36 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 36 4 0 3 3 639 2 26 739 5
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 38 4 0 3 3 673 2 27 778 5
Reduct Vol: 0 0 38 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 38 4 0 3 3 673 2 27 778 5
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Conflict Vol: 1537 1538 357 1198 1536 801 793 xxxx xxxxx 685 xxxx xxxxx
Potent Cap.: 96 117 691 164 117 388 828 xxxx xxxxx 909 xxxx xxxxx
Move Cap.: 91 111 680 148 111 381 821 xxxx xxxxx 901 xxxx xxxxx
Volume/Cap: 0.00 0.00 0.06 0.03 0.00 0.01 0.00 xxxx xxxxx 0.03 xxxx xxxxx
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx 0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 9.4 xxxx xxxxx 9.1 xxxx xxxxxx
LOS by Move: * * * * * A * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx 680 xxxx 201 xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx
SharedQueue:xxxxx xxxx 0.2 xxxxxx 0.1 xxxxxx xxxxxx xxxx xxxxxx xxxx xxxx xxxxxx
Shrd ConDel:xxxxx xxxxx 10.6 xxxxxx 23.6 xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx
Shared LOS: B * C * * * * * * * * *
ApproachDel: 10.6 23.6 xxxxxx xxxxxx
ApproachLOS: B C * *
Note: Queue reported is the number of cars per lane.

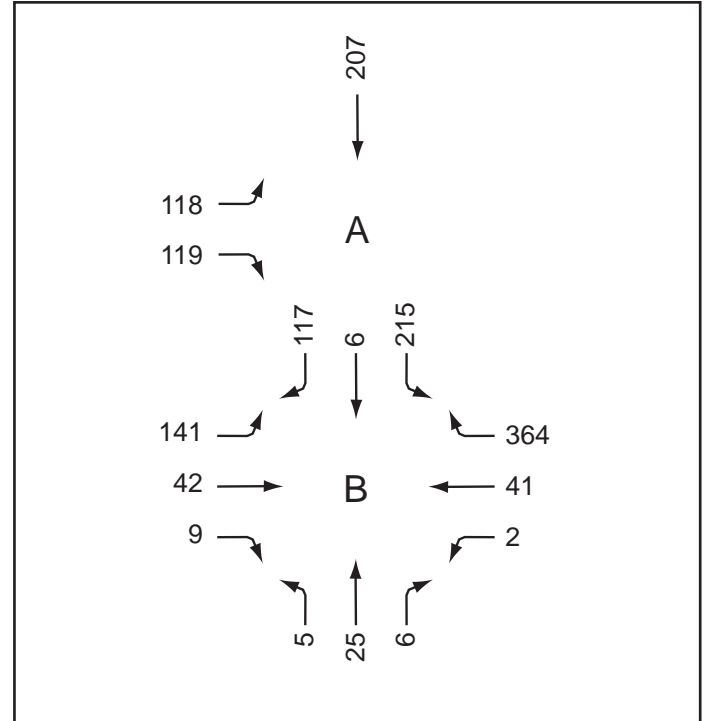
ILV Calculation

1&2: Via de San Ysidro & I-5 SB Ramp
Existing AM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
<p>A</p> <p>104</p> <p>103</p>	<p>A</p> <p>118</p> <p>119</p>	<p>A</p> <p>141</p>	<p>A</p> <p>260</p>	<p>A</p> <p>25</p>
<p>B</p> <p>104</p> <p>104</p> <p>104</p>	<p>B</p> <p>19</p> <p>111</p>	<p>B</p> <p>141</p> <p>51</p>	<p>B</p> <p>260</p> <p>43</p>	<p>B</p> <p>5</p> <p>31</p>

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
104	119	141	260	31

Total Operating Level (ILV/hr):

Σ
655

Is...

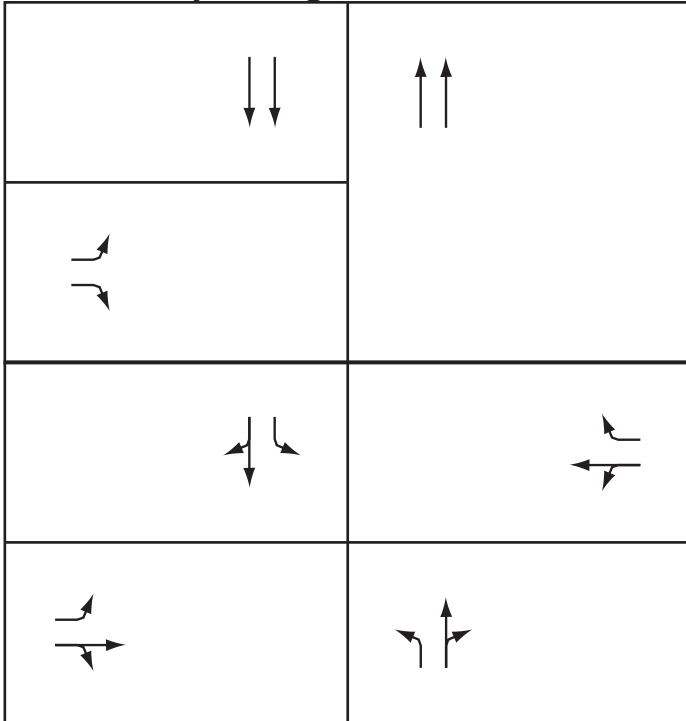
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

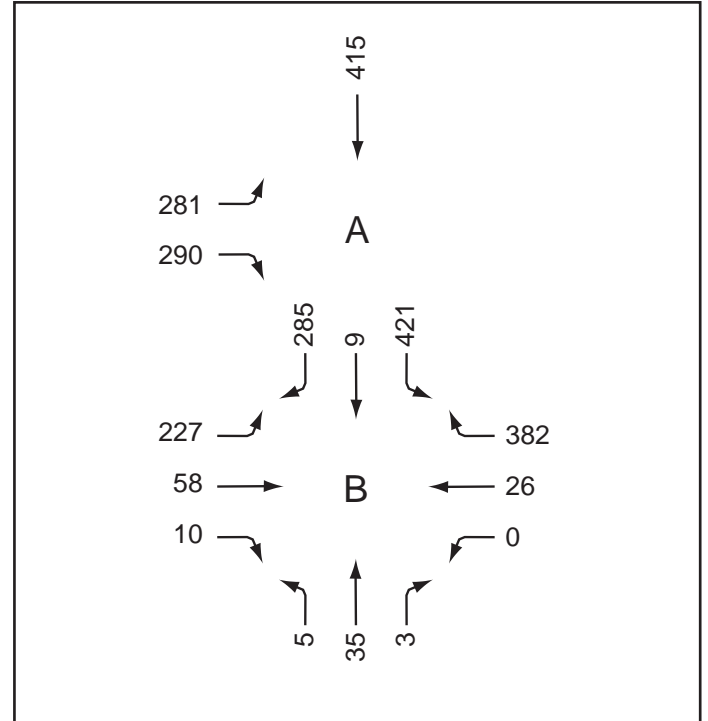
ILV Calculation

1&2: Via de San Ysidro & I-5 SB Ramp
Existing PM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1		Phase 2		Phase 3		Phase 4		Phase 5	
A	208 207	A	281 290	A	227	A	174	A	35
B	208 208 208	B	86 213	B	227 68	B	174 26	B	5 38

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
208	290	227	174	38

Total Operating Level (ILV/hr):

Σ
937

Is...

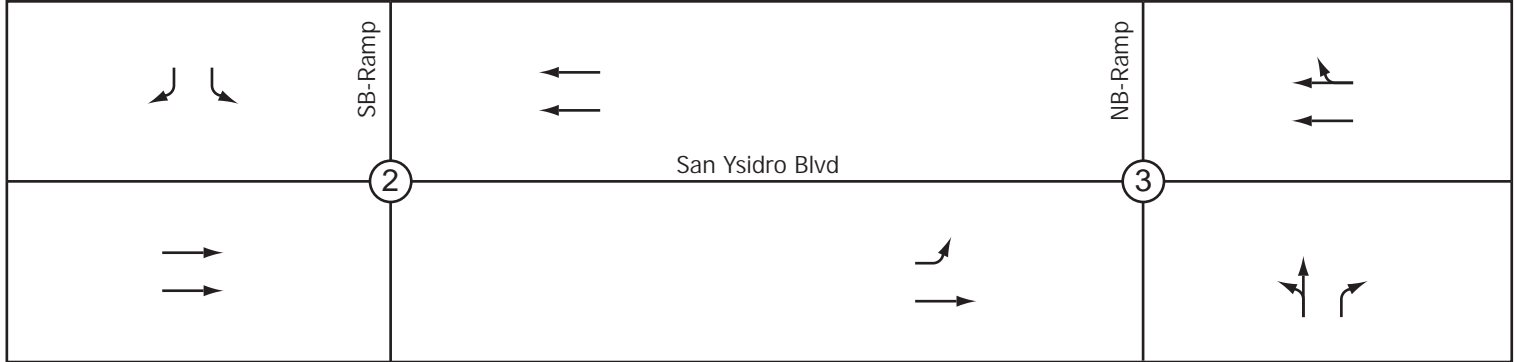
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

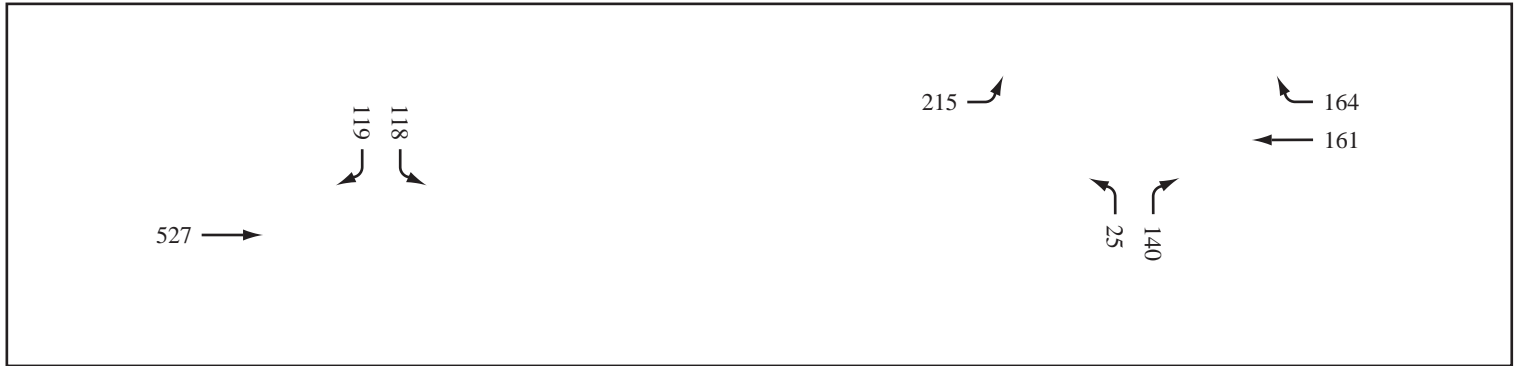
ILV Calculation

2&3: Via de San Ysidro & I-5 SB & NB Ramps
Existing AM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1
164

Phase 2
25

Phase 3
312

Phase 4
119

Total Operating Level (ILV/hr):

Σ
620

Is...

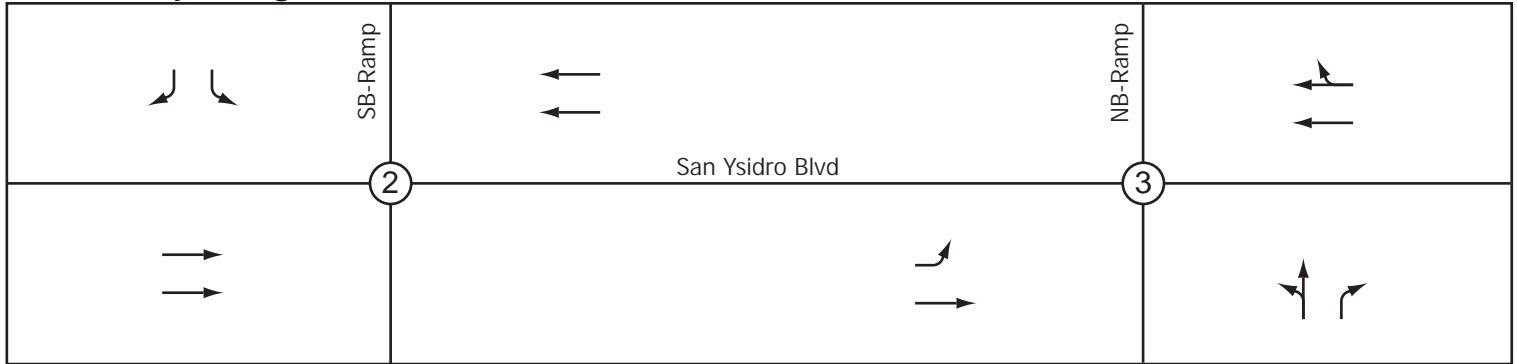
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

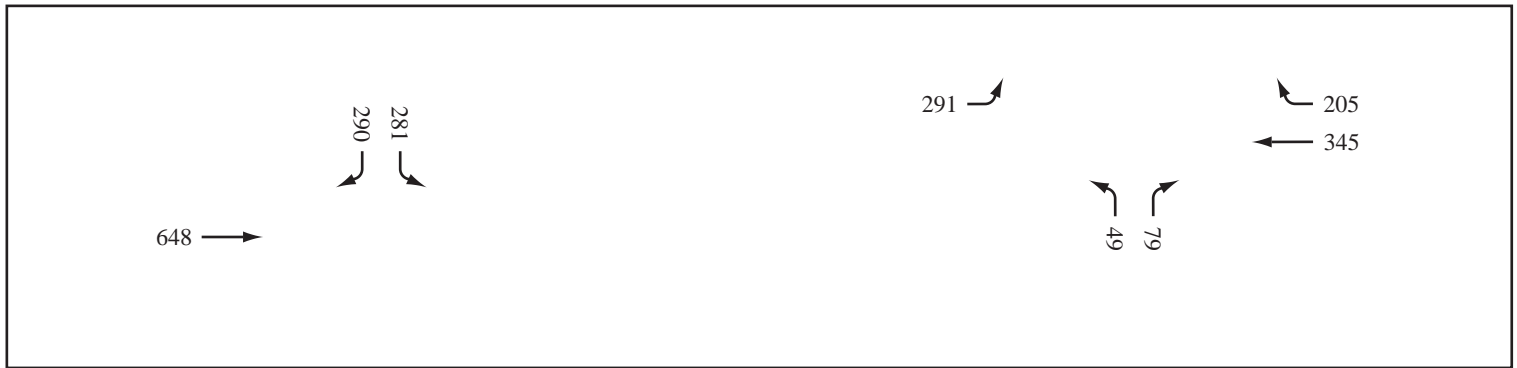
ILV Calculation

2&3: Via de San Ysidro & I-5 SB & NB Ramps
Existing PM Peak Hour

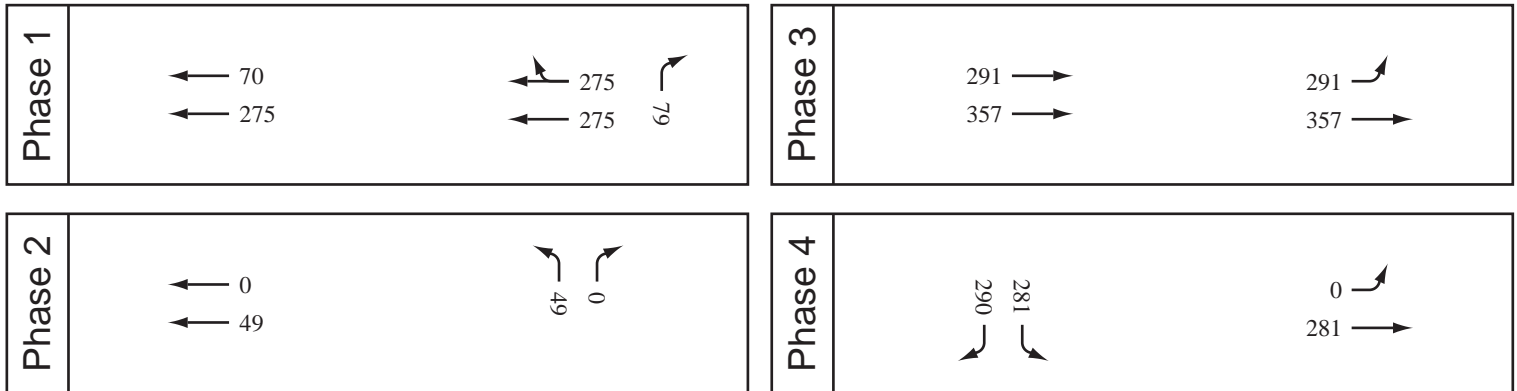
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
275	49	357	290

Total Operating Level (ILV/hr):

Σ
971

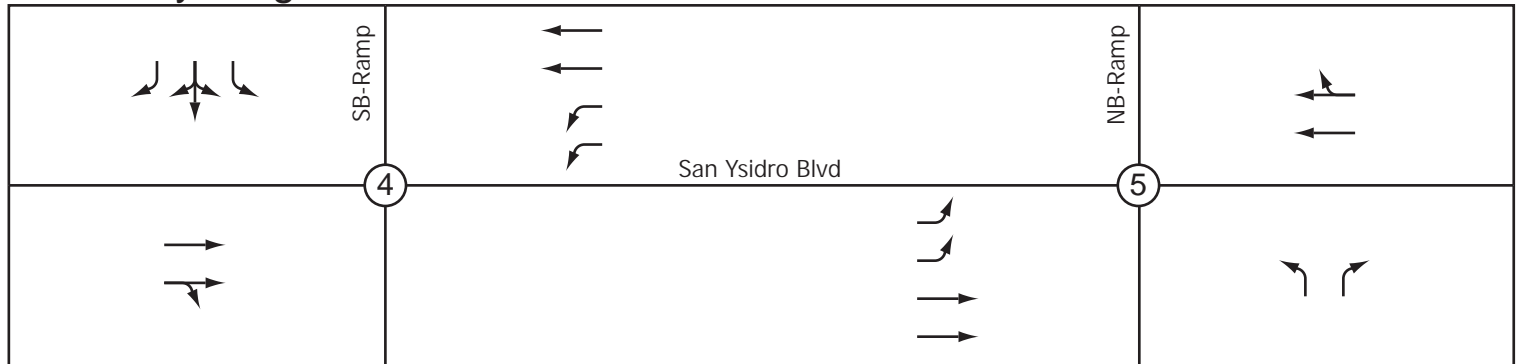
- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

Remarks:

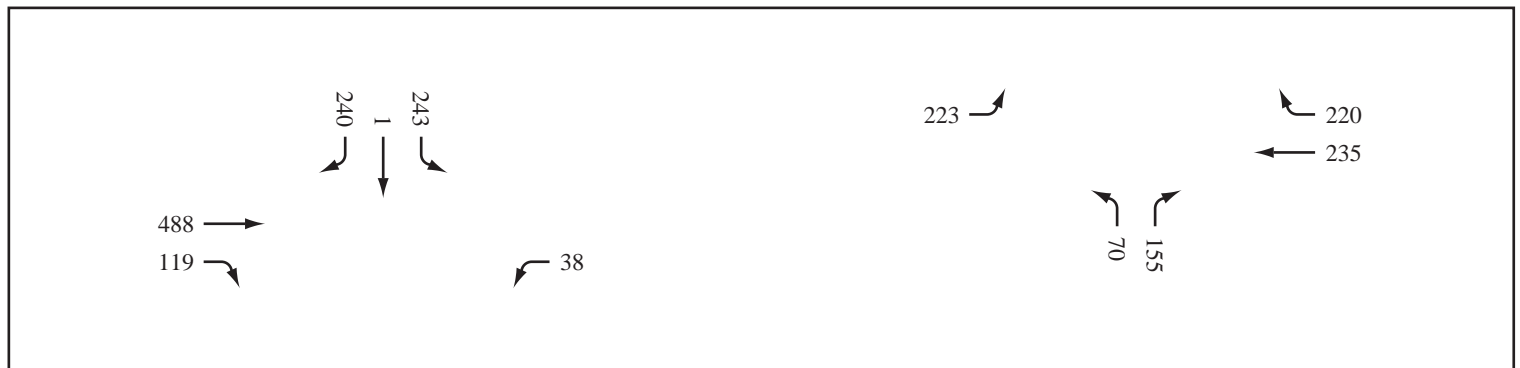
ILV Calculation

4&5: San Ysidro Boulevard & I-805 SB & NB Ramps
Existing AM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	← 7	← 190	↪ 38	← 227	← 228	Phase 3	→ 304	↪ 303	↪ 0	↪ 223	→ 81	→ 184	
	↪ 0	↪ 70	↪ 0	↪ 0	↪ 70		↪ 155	↪ 161	↪ 162	↪ 161	↪ 161	→ 161	→ 82
	↪ 0	↪ 0	↪ 0	↪ 0	↪ 0		↪ 0	↪ 0	↪ 0	↪ 0	↪ 0	↪ 0	↪ 0
	↪ 0	↪ 0	↪ 0	↪ 0	↪ 0		↪ 0	↪ 0	↪ 0	↪ 0	↪ 0	↪ 0	↪ 0

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
228	155	304	162

Total Operating Level (ILV/hr):

Σ
849

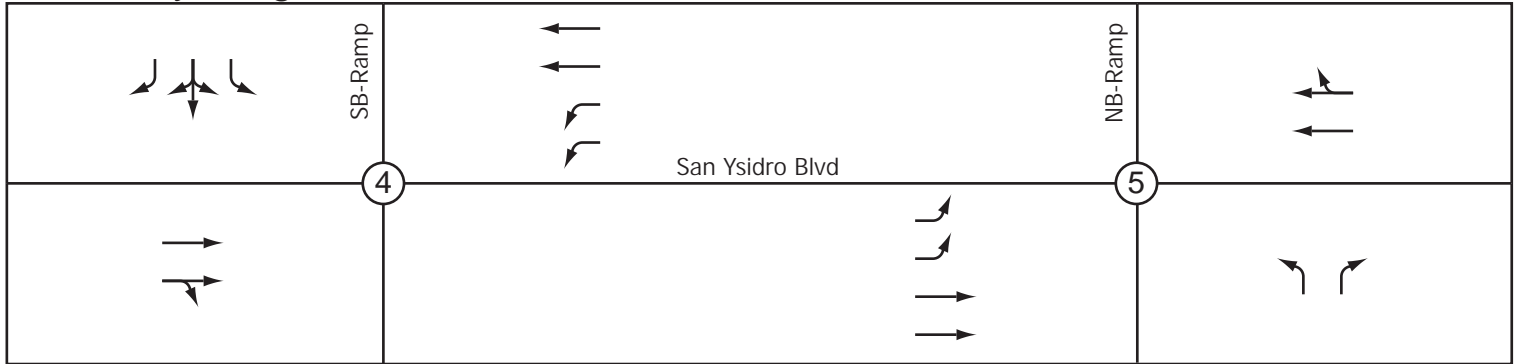
- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

Remarks:

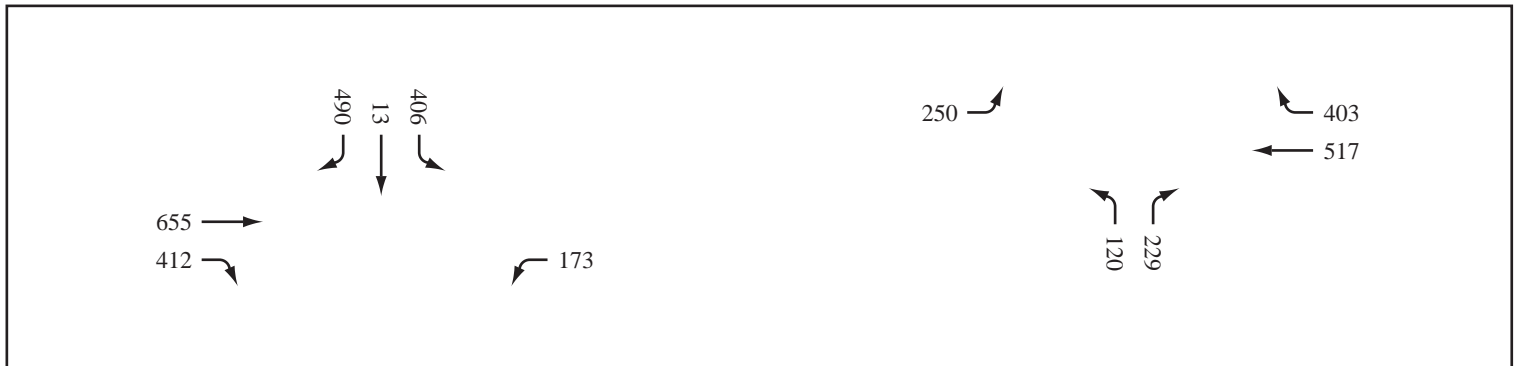
ILV Calculation

4&5: San Ysidro Boulevard & I-805 SB & NB Ramps
Existing PM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	← 57	← 287	↪ 173	↪ 0	↪ 460	← 460
	← 0	← 120	↪ 0	↪ 0	↪ 120	↪ 229
Phase 2	← 0	← 120	↪ 0	↪ 0	↪ 120	↪ 229
	← 0	← 120	↪ 0	↪ 0	↪ 120	↪ 229
Phase 3	← 534	← 533	↪ 0	↪ 250	← 284	← 121
	← 534	← 533	↪ 0	↪ 250	← 284	← 121
Phase 4	← 303	← 303	↪ 303	↪ 303	← 0	← 0
	← 303	← 303	↪ 303	↪ 303	← 0	← 0

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
460	229	534	303

Total Operating Level (ILV/hr):

Σ
1526

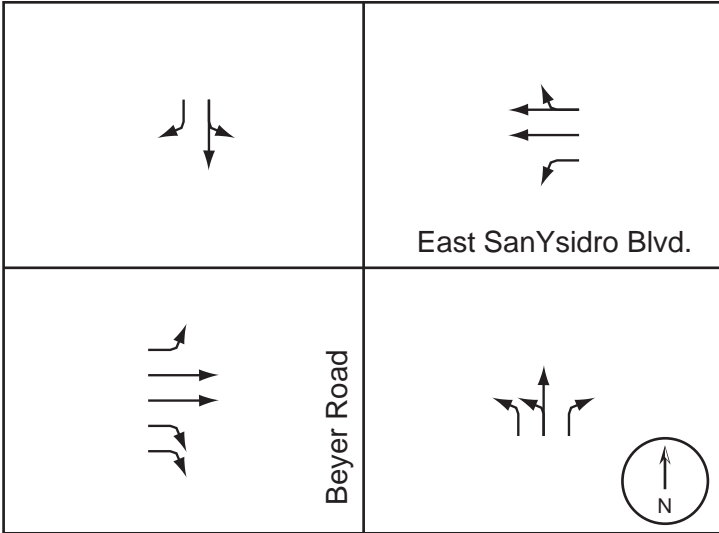
- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

Remarks:

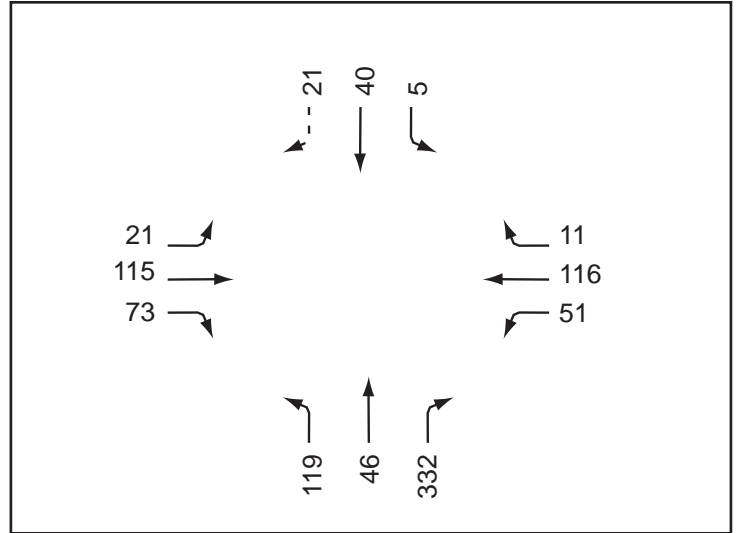
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Existing AM Peak Hour

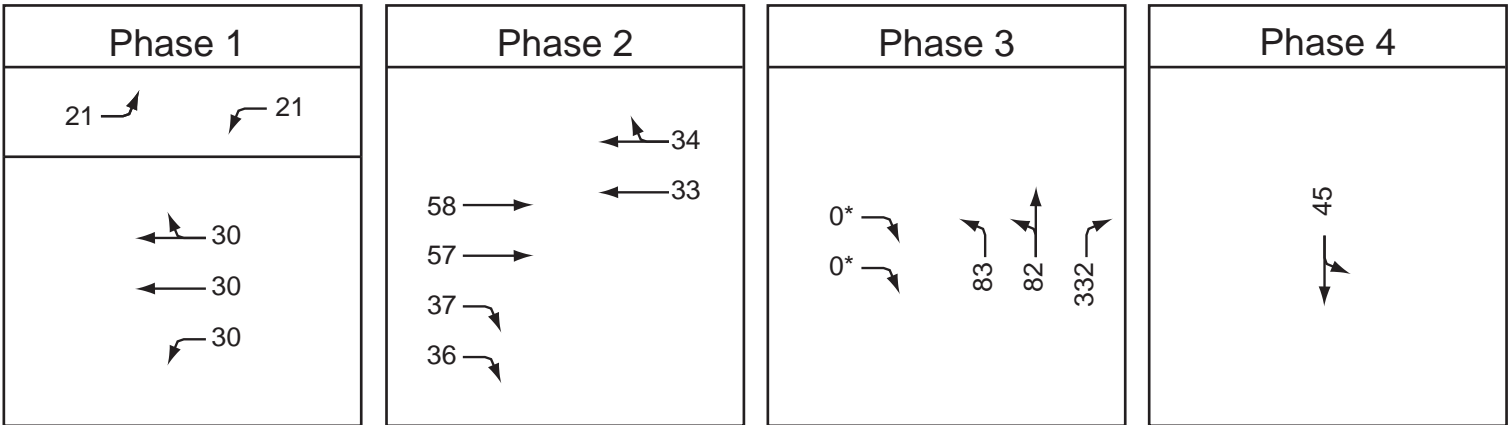
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
30	58	332	45

Total Operating Level (ILV/hr):

Σ
465

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

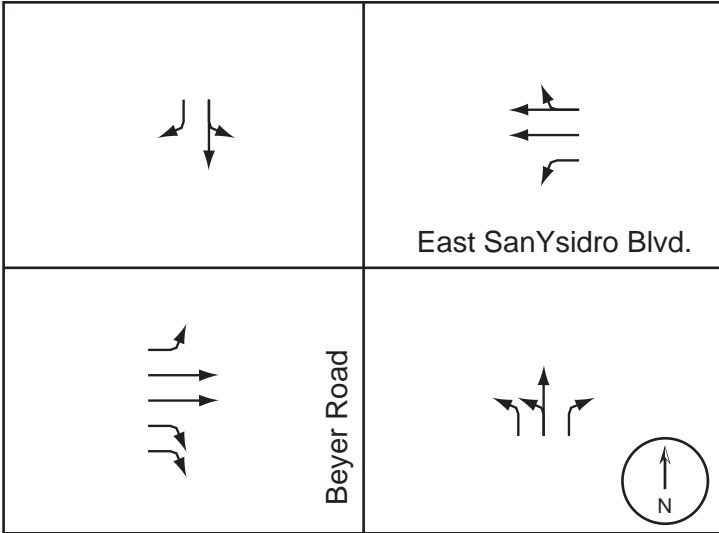
Free Right

*Right-Turn Overlap

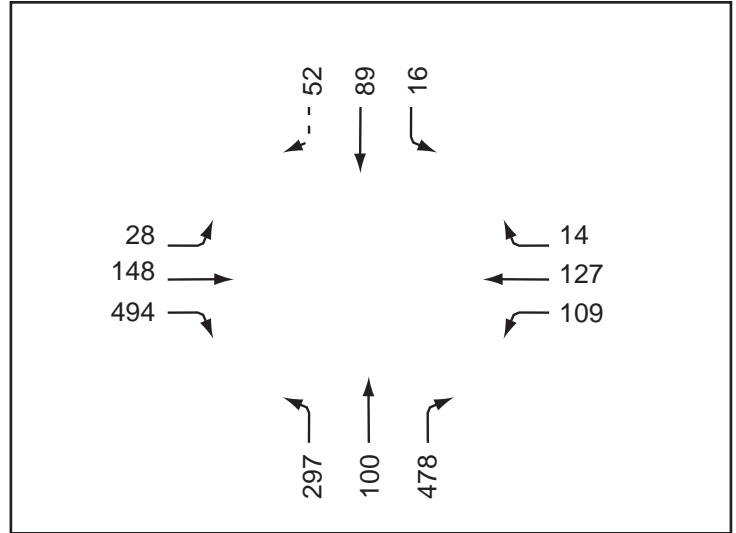
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Existing PM Peak Hour

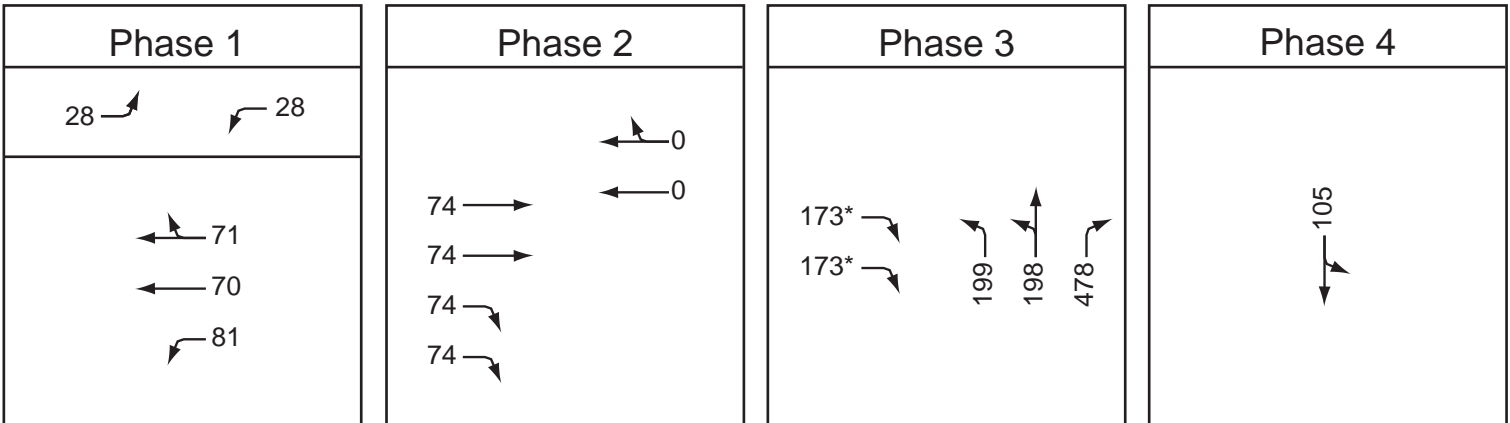
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
81	74	478	105

Total Operating Level (ILV/hr):

Σ
738

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

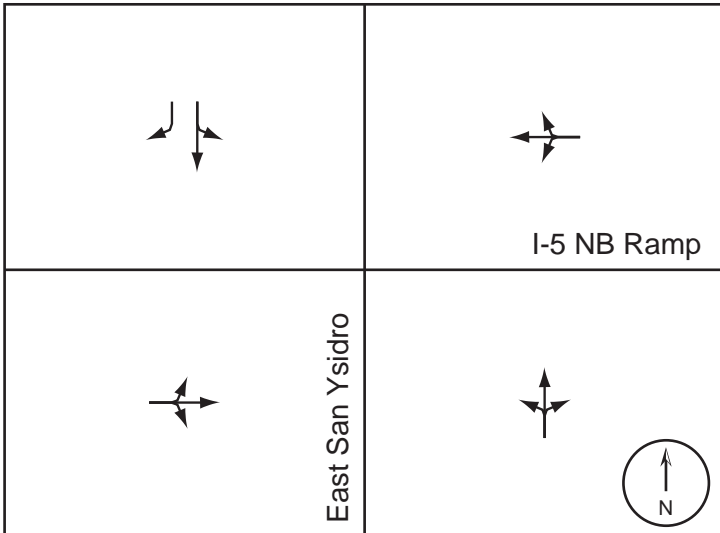
Free Right

*Right-Turn Overlap

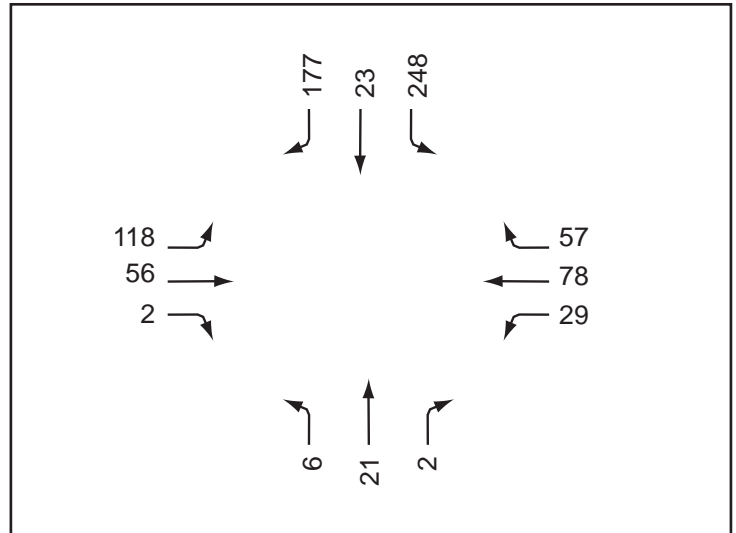
ILV Calculation

7: East San Ysidro Boulevard & I-5 NB Ramp
Existing AM Peak Hour

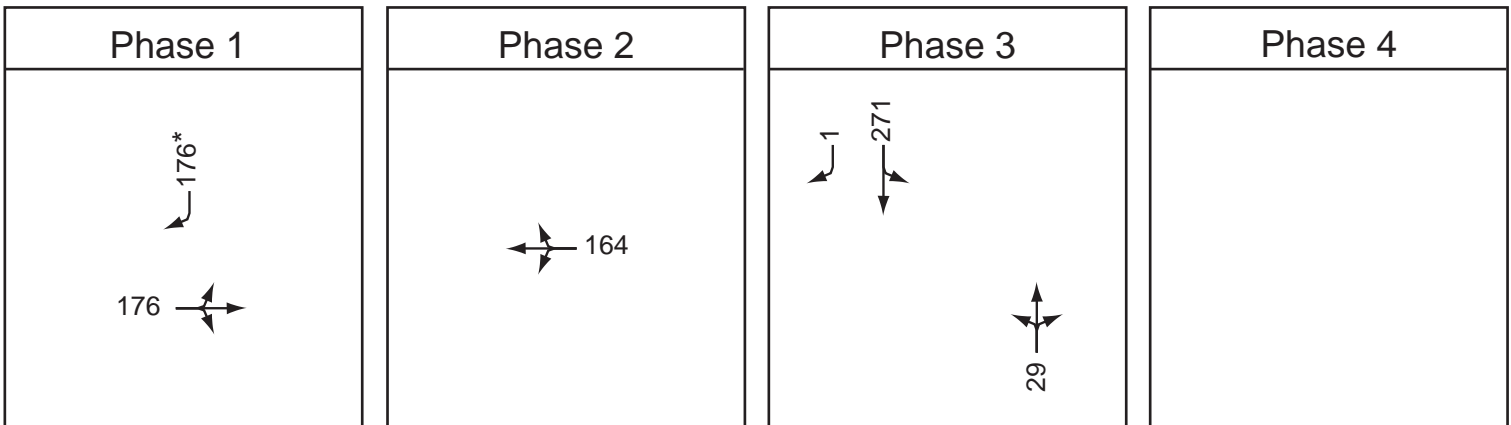
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
176	164	271	

Total Operating Level (ILV/hr):

Σ
611

- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

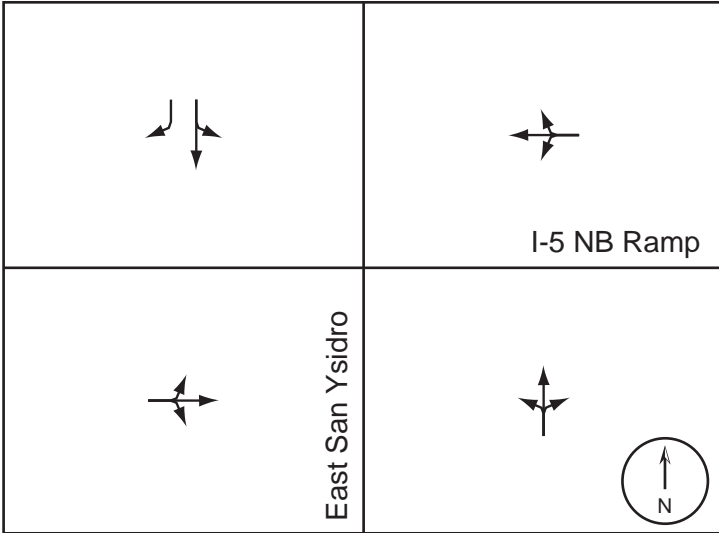
Remarks:

*Right-Turn Overlap

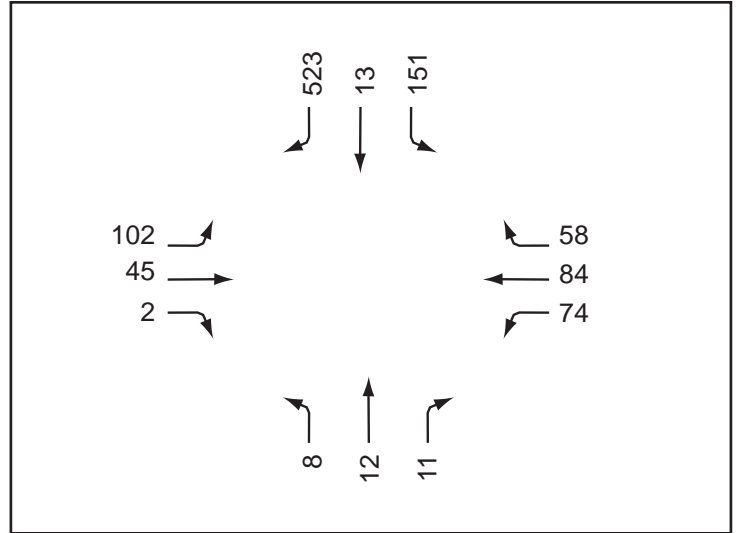
ILV Calculation

7: East San Ysidro Boulevard & I-5 NB Ramp
Existing PM Peak Hour

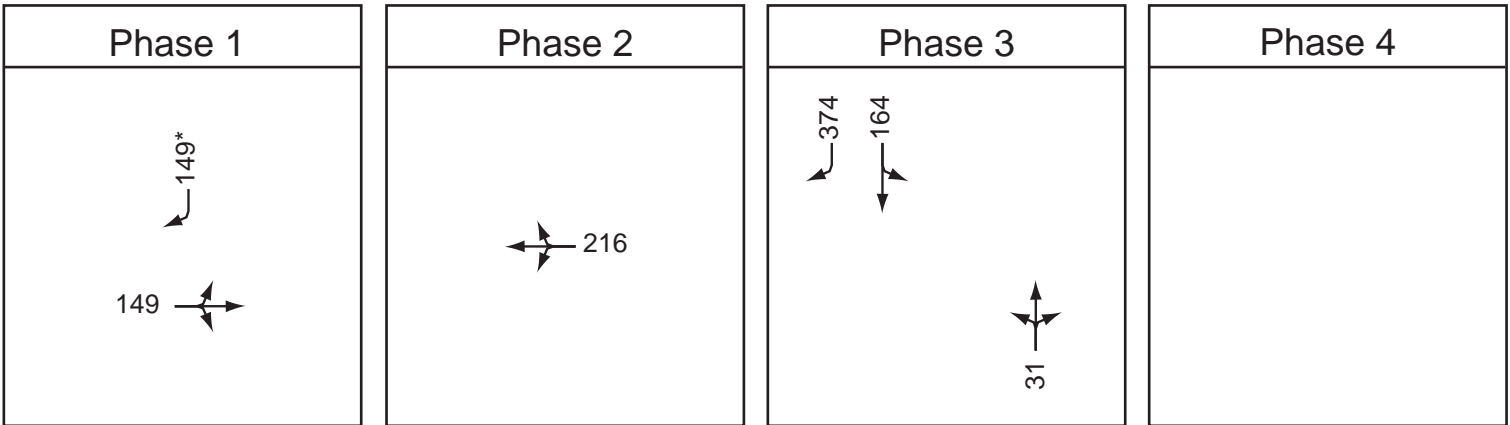
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
149	216	374	

Total Operating Level (ILV/hr):

Σ
739

- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

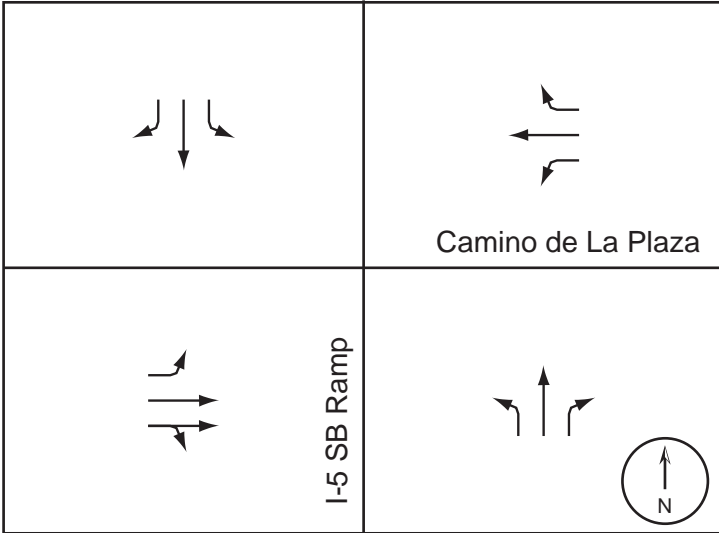
Remarks:

*Right-Turn Overlap

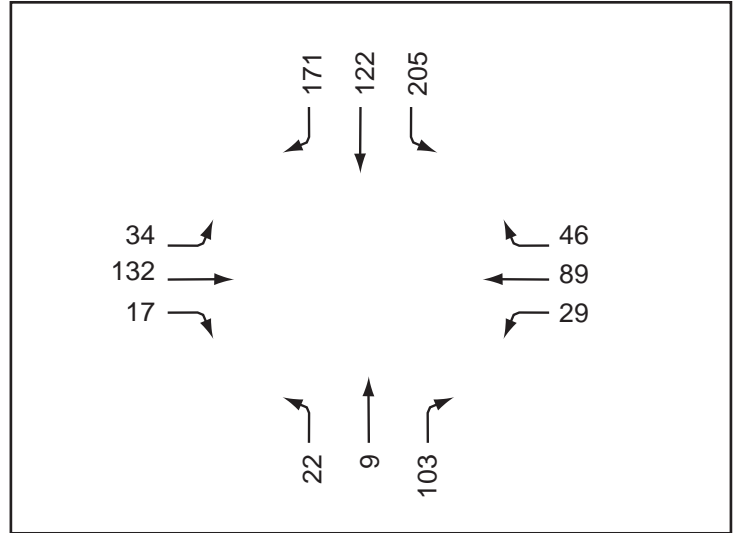
ILV Calculation

8: Camino de la Plaza & I-5 SB Ramp
Existing AM Peak Hour

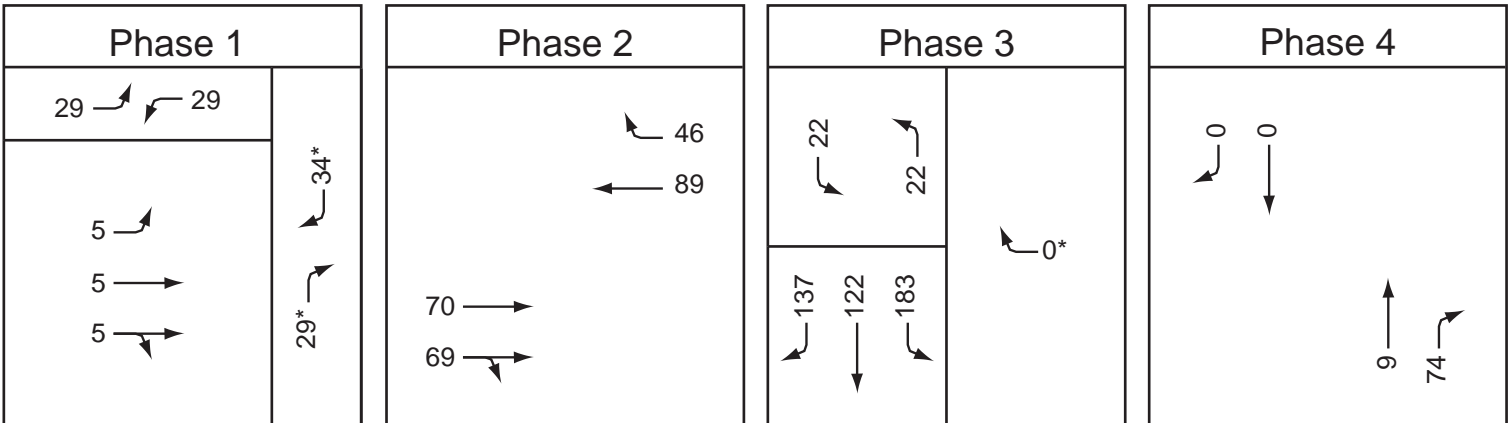
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
34	89	183	74

Total Operating Level (ILV/hr):

Σ
380

- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

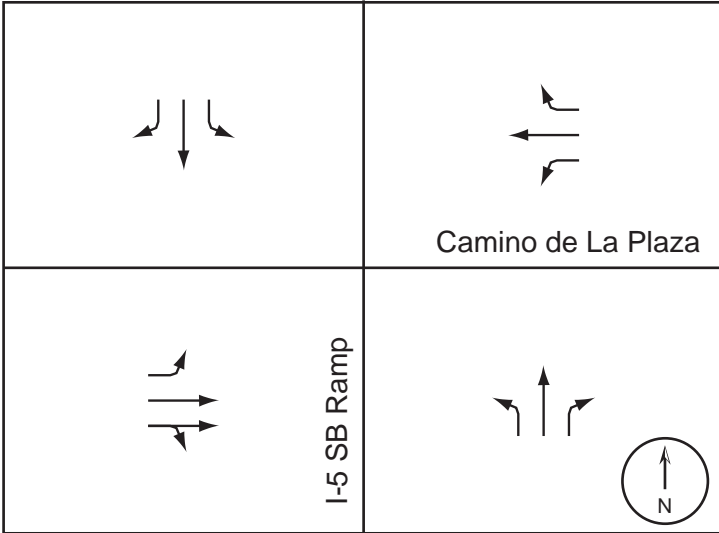
Remarks:

*Right-Turn Overlap

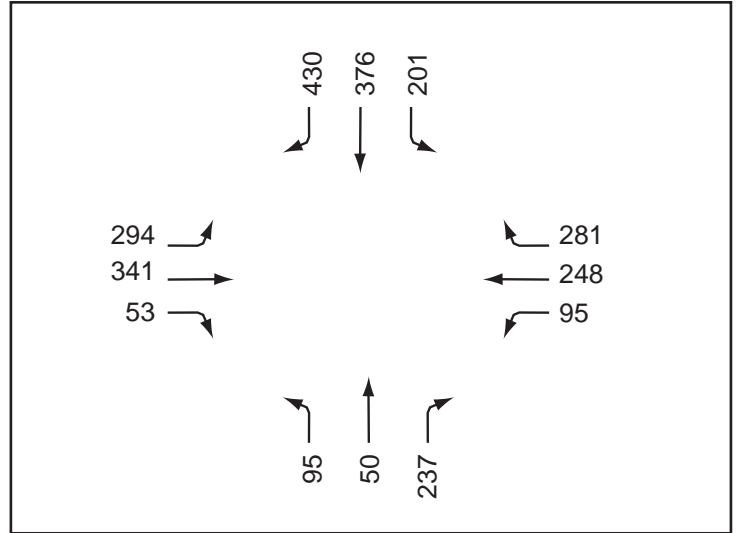
ILV Calculation

8: Camino de la Plaza & I-5 SB Ramp
Existing PM Peak Hour

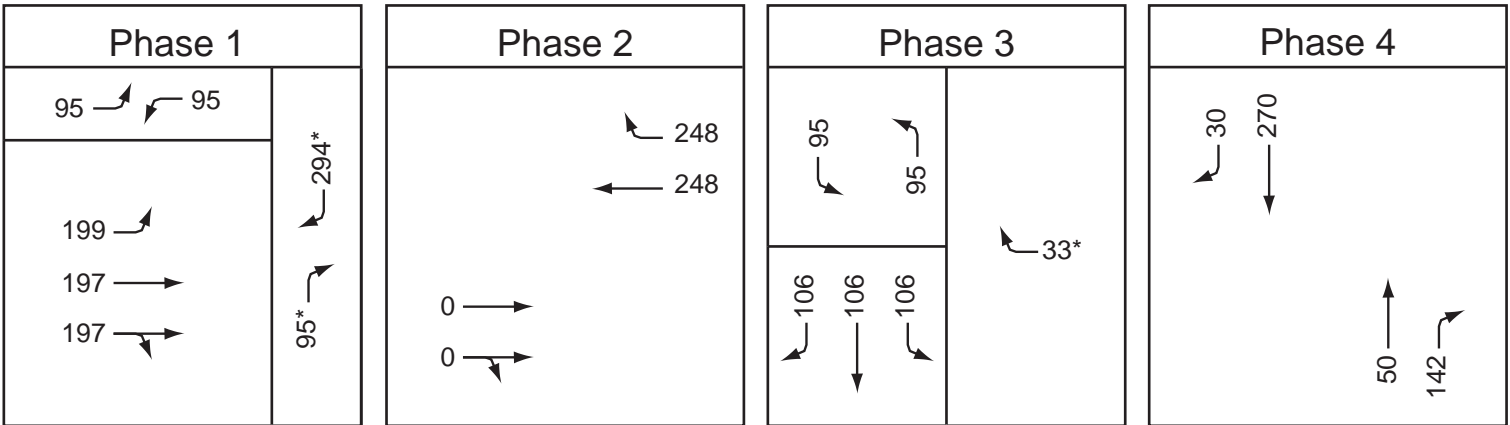
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
294	248	201	270

Total Operating Level (ILV/hr):

Σ
1013

- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

Remarks:

*Right-Turn Overlap

APPENDIX E

PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS NEAR-TERM CONDITIONS

NT AM Wed Jul 23, 2008 09:47:01 Page 1-1

 Scenario: NT AM
 Command: Default
 Volume: NT AM
 Geometry: Existing
 Impact Fee: Default
 Trip Generation: Cum AM
 Trip Distribution: Project
 Paths: Project
 Routes: Default
 Configuration: Default

NT AM Wed Jul 23, 2008 09:47:06 Page 2-1

Intersection		Base	Future		Change
			V/ C	Del/ Veh C	
# 1	Via de San Ysidro at Calle Pri	C 31.8 0.735	C 32.3	0.744	+ 0.470 D/V
# 2	Via de San Ysidro at I-5 S/B R	C 23.4 0.322	C 24.1	0.358	+ 0.712 D/V
# 3	Via de San Ysidro at I-5 N/B R	C 15.4 0.000	C 17.3	0.000	+ 1.925 D/V
# 6	West San Ysidro Blvd at I-805	C 20.6 0.413	C 20.7	0.525	+ 0.038 D/V
# 7	Esat San Ysidro at I-805 N/B r	C 22.7 0.476	C 23.9	0.542	+ 1.204 D/V
# 11	East San Ysidro at East Beyer/	B 17.4 0.550	B 17.6	0.583	+ 0.231 D/V
# 12	East San Ysidro at I-5 N/B Ram	C 23.3 0.614	C 22.9	0.616	-0.434 D/V
# 13	Camino de la Plaza at I-5 S/B	C 23.7 0.274	C 24.8	0.277	+ 1.130 D/V
# 14	Camino de la Plaza at Virginia	B 12.4 0.000	B 12.9	0.000	+ 0.482 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Page 3-1
NT AM Wed Jul 23, 2008 09:47:06

Intersection #1 Via de San Ysidro at Calle Primera
Cycle (sec): 70 Critical Vol./Cap.(X): 0.744
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 32.3
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: Via de San Ysidro Calle Primera
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1 0
Volume Module:
Base Vol: 5 25 6 215 6 117 141 42 9 2 41 364
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 6 29 7 248 7 135 163 49 10 2 47 420
Added Vol: 0 0 0 2 0 0 0 2 0 0 7 8
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 6 29 7 250 7 135 163 51 10 2 54 428
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 6 30 7 264 7 142 171 53 11 2 57 451
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 6 30 7 264 7 142 171 53 11 2 57 451
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 6 30 7 264 7 142 171 53 11 2 57 451
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.96 1.21 1.14 1.05 0.98 0.95 0.84 0.99 0.98 0.95 0.95 0.75
Lanes: 1.00 0.80 0.20 1.00 0.05 0.95 1.00 0.83 0.17 0.04 0.96 1.00
Final Sat.: 1827 1828 439 2004 88 1723 1592 1553 320 73 1724 1418
Capacity Analysis Module:
Vol/Sat: 0.00 0.02 0.02 0.13 0.08 0.08 0.11 0.03 0.03 0.03 0.03 0.32
Crit Moves: ****
Green/Cycle: 0.07 0.07 0.07 0.17 0.17 0.17 0.14 0.14 0.14 0.40 0.40 0.40
Volume/Cap: 0.05 0.23 0.23 0.80 0.50 0.50 0.80 0.25 0.25 0.08 0.08 0.80
Delay/Veh: 30.4 31.4 31.4 40.7 27.9 27.9 47.7 27.6 27.6 13.1 13.1 26.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 30.4 31.4 31.4 40.7 27.9 27.9 47.7 27.6 27.6 13.1 13.1 26.2
LOS by Move: C C C D C C D C B B C
HCM2kAvgQ: 0 1 1 6 3 3 6 1 1 1 1 11
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Page 4-1
NT AM Wed Jul 23, 2008 09:47:06

Intersection #2 Via de San Ysidro at I-5 S/B Ramp
Cycle (sec): 90 Critical Vol./Cap.(X): 0.358
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 24.1
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: Via de San Ysidro I-5 S/B Ramp
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 2 0 0 0 0 2 0 0 1 0 0 0 0 0
Volume Module:
Base Vol: 0 527 0 0 207 0 118 0 119 0 0 0
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 0 609 0 0 239 0 136 0 137 0 0 0
Added Vol: 0 8 0 0 0 0 67 0 2 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 617 0 0 239 0 203 0 139 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 649 0 0 252 0 214 0 147 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 649 0 0 252 0 214 0 147 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 649 0 0 252 0 214 0 147 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.33 1.00 1.00 1.09 1.00 0.93 1.00 0.83 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 0 5070 0 0 4129 0 1769 0 1584 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.13 0.00 0.00 0.06 0.00 0.12 0.00 0.09 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.36 0.00 0.00 0.17 0.00 0.34 0.00 0.34 0.00 0.00 0.00
Volume/Cap: 0.00 0.36 0.00 0.00 0.36 0.00 0.36 0.00 0.27 0.00 0.00 0.00
Delay/Veh: 0.0 21.4 0.0 0.0 33.3 0.0 22.8 0.0 22.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 21.4 0.0 0.0 33.3 0.0 22.8 0.0 22.0 0.0 0.0 0.0
LOS by Move: A C A A C A C A C A A
HCM2kAvgQ: 0 7 0 0 3 0 5 0 3 0 0 0
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

 Intersection #3 Via de San Ysidro at I-5 N/B Ramps

 Average Delay (sec/veh): 3.9 Worst Case Level Of Service: C [17.3]

 Street Name: Vis de San Ysidro I-5 N/B Ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 1
 Volume Module:
 Base Vol: 215 437 0 0 161 164 0 0 0 25 0 140
 Growth Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
 Initial Bse: 222 451 0 0 166 169 0 0 0 26 0 144
 Added Vol: 0 8 67 0 0 0 145 0 0 0 0 0 22
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 230 518 0 0 166 314 0 0 0 26 0 166
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 242 545 0 0 175 331 0 0 0 27 0 175
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 242 545 0 0 175 331 0 0 0 27 0 175
 Critical Gap Module:
 Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 6.5 6.2
 FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3
 Capacity Module:
 Cnflct Vol: 516 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1137 1555 565
 Potent Cap.: 1050 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 223 113 524
 Move Cap.: 1041 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 180 85 514
 Volume/Cap: 0.23 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.15 0.00 0.34
 Level Of Service Module:
 2Way95thQ: 0.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1.5
 Control Del: 9.5 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 15.6
 LOS by Move: A * * * * * * * * * * * * * * * * C
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 180 xxxxx xxxxx
 SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.5 xxxxx xxxxx
 Shrd CnDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 28.5 xxxxx xxxxx
 Shared LOS: * * * * * * * * * * * * * * * * D * * * * *
 ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx 17.3
 ApproachLOS: * * * * * * * * * * * * C

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

 Intersection #6 West San Ysidro Blvd at I-805 S/B Ramps

 Cycle (sec): 90 Critical Vol./Cap.(X): 0.525
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 20.7
 Optimal Cycle: OPTIMIZED Level Of Service: C

 Street Name: I-805 S/B Ramps San Ysidro Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Split Phase Split Phase Protected Protected
 Rights: Include Include Include Include
 Min. Green: 5 5 5 5 5 5 5 5 5 5
 Lanes: 0 0 0 0 0 1 0 1 0 1 0 0 1 1 0 2 0 2 0 0
 Volume Module:
 Base Vol: 0 0 0 243 1 240 0 488 119 38 224 0
 Growth Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
 Initial Bse: 0 251 1 248 0 504 123 39 231 0
 Added Vol: 0 0 0 0 0 77 0 149 101 0 32 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 251 1 325 0 653 224 39 263 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 0 0 0 264 1 342 0 687 236 41 277 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 264 1 342 0 687 236 41 277 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 264 1 342 0 687 236 41 277 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 0.84 0.84 0.83 1.00 0.90 1.26 0.87 0.96 1.00
 Lanes: 0.00 0.00 0.00 1.43 0.01 1.56 0.00 1.61 0.39 2.00 2.00 0.00
 Final Sat.: 0 0 0 2285 6 2479 0 2736 938 3318 3655 0
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.12 0.19 0.14 0.00 0.25 0.25 0.01 0.08 0.00
 Crit Moves: **** * * * * * * * * * * * * * * * *
 Green/Cycle: 0.00 0.00 0.00 0.35 0.35 0.35 0.00 0.46 0.46 0.06 0.30 0.00
 Volume/Cap: 0.00 0.00 0.00 0.33 0.55 0.39 0.00 0.55 0.55 0.22 0.25 0.00
 Delay/Veh: 0.0 0.0 0.0 21.6 24.0 22.2 0.0 17.9 17.9 41.3 24.1 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 21.6 24.0 22.2 0.0 17.9 17.9 41.3 24.1 0.0
 LOS by Move: A A A C C C A B B D C A
 HCM2kAvgQ: 0 0 0 4 7 5 0 9 13 1 3 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT AM Wed Jul 23, 2008 09:47:06 Page 7-1

Intersection #7 Esat San Ysidro at I-805 N/B ramps
Cycle (sec): 94 Critical Vol./Cap.(X): 0.542
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 23.9
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-805 N/B Ramps East San Ysidro
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 1 0 0 1 0 0 0 0 0 2 0 2 0 0 0 0 1 1 0 0
Volume Module:
Base Vol: 70 0 155 0 0 0 223 434 0 0 235 220
Growth Adj: 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21
Initial Bse: 84 0 187 0 0 0 269 524 0 0 284 266
Added Vol: 32 0 0 0 0 0 149 0 0 0 0 13
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 116 0 187 0 0 0 418 524 0 0 284 279
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 123 0 197 0 0 0 440 551 0 0 299 293
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 123 0 197 0 0 0 440 551 0 0 299 293
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 123 0 197 0 0 0 440 551 0 0 299 293
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.82 1.00 1.00 1.00 0.90 0.93 1.00 1.00 0.86 0.71
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 2.00 2.00 0.00 0.00 1.00 1.00
Final Sat.: 1773 0 1553 0 0 0 3432 3538 0 0 1638 1347
Capacity Analysis Module:
Vol/Sat: 0.07 0.00 0.13 0.00 0.00 0.00 0.13 0.16 0.00 0.00 0.18 0.22
Crit Moves: ****
Green/Cycle: 0.23 0.00 0.23 0.00 0.00 0.00 0.24 0.48 0.00 0.00 0.40 0.40
Volume/Cap: 0.30 0.00 0.54 0.00 0.00 0.00 0.54 0.33 0.00 0.00 0.45 0.54
Delay/Veh: 30.0 0.0 33.3 0.0 0.0 0.0 32.2 15.4 0.0 0.0 20.8 22.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 30.0 0.0 33.3 0.0 0.0 0.0 32.2 15.4 0.0 0.0 20.8 22.1
LOS by Move: C A C A A A C B A A C C
HCM2kAvgQ: 3 0 6 0 0 0 6 5 0 0 7 7
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT AM Wed Jul 23, 2008 09:47:06 Page 8-1

Intersection #11 East San Ysidro at East Beyer/Camino de la Plaza
Cycle (sec): 60 Critical Vol./Cap.(X): 0.583
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 17.6
Optimal Cycle: OPTIMIZED Level Of Service: B
Street Name: East San Ysidro East Beyer/Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Ignore Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 1 0 0 1 0 1 0 0 2 1 0 2 0 2 1 0 1 1 0 0
Volume Module:
Base Vol: 119 46 332 5 40 21 21 115 73 51 116 11
Growth Adj: 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21
Initial Bse: 144 56 401 6 48 25 25 139 88 62 140 13
Added Vol: 13 0 31 0 0 0 0 1 0 2 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 157 56 432 6 48 25 25 140 88 64 140 13
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 165 58 454 6 51 0 27 147 93 67 147 14
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 165 58 454 6 51 0 27 147 93 67 147 14
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 165 58 454 6 51 0 27 147 93 67 147 14
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.88 0.76 1.01 0.97 0.88 0.96 0.87 0.44 0.96 0.95 1.80
Lanes: 1.52 0.48 1.00 0.11 0.89 2.00 1.00 2.00 2.00 1.00 1.90 0.10
Final Sat.: 2272 805 1440 206 1651 3344 1827 3301 1659 1827 3435 326
Capacity Analysis Module:
Vol/Sat: 0.07 0.07 0.32 0.03 0.03 0.00 0.01 0.04 0.06 0.04 0.04 0.04
Crit Moves: ****
Green/Cycle: 0.48 0.48 0.48 0.08 0.08 0.00 0.08 0.08 0.57 0.08 0.08 0.08
Volume/Cap: 0.15 0.15 0.65 0.37 0.37 0.00 0.18 0.54 0.10 0.44 0.51 0.51
Delay/Veh: 8.7 8.7 13.9 27.5 27.5 0.0 26.1 28.4 6.0 28.2 27.8 27.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.7 8.7 13.9 27.5 27.5 0.0 26.1 28.4 6.0 28.2 27.8 27.8
LOS by Move: A A B C C A C C A C C C
HCM2kAvgQ: 1 1 7 1 1 0 0 1 0 1 1 3
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT AM Wed Jul 23, 2008 09:47:06 Page 9-1

Intersection #12 East San Ysidro at I-5 N/B Ramps

Cycle (sec): 90 Critical Vol./Cap.(X): 0.616
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 22.9
Optimal Cycle: OPTIMIZED Level Of Service: C

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include East San Ysidro and I-5 N/B Ramps.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT AM Wed Jul 23, 2008 09:47:06 Page 10-1

Intersection #13 Camino de la Plaza at I-5 S/B Ramps

Cycle (sec): 90 Critical Vol./Cap.(X): 0.277
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 24.8
Optimal Cycle: OPTIMIZED Level Of Service: C

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include I-5 N/B ramps and Camino de la Plaza.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
NT AM Wed Jul 23, 2008 09:47:06 Page 11-1

Intersection #14 Camino de la Plaza at Virginia

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[12.9]

Street Name: Virginia Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 1 0 0 0 0 1 0 1 1 0 1 0 0 1 0
Volume Module:
Base Vol: 2 0 8 2 0 0 0 160 1 13 265 3
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 9 2 0 0 0 185 1 15 306 3
Added Vol: 0 0 0 0 0 0 0 51 0 0 13 0
PasserByVol: 2 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 9 2 0 0 0 236 1 15 319 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 2 0 10 2 0 0 0 248 1 16 336 4
Reduct Vol: 2 0 10 0 0 0 0 0 0 0 0 0
FinalVolume: 2 0 10 2 0 0 0 248 1 16 336 4
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflct Vol: 638 640 145 513 xxxx xxxxx xxxx xxxx xxxxx 259 xxxx xxxxx
Potent Cap.: 392 396 908 475 xxxx xxxxx xxxx xxxx xxxxx 1305 xxxx xxxxx
Move Cap.: 382 385 893 457 xxxx xxxxx xxxx xxxx xxxxx 1294 xxxx xxxxx
Volume/Cap: 0.01 0.00 0.01 0.01 xxxx xxxxx xxxx xxxx xxxxx 0.01 xxxx xxxxx
Level Of Service Module:
2Way95thQ: 0.0 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx
Control Del: 14.5 xxxx xxxxx 12.9 xxxx xxxxx xxxxx xxxx xxxxx 7.8 xxxx xxxxx
LOS by Move: B * * B * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx 893 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx 0.0 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxx 9.1 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: A * * * * * * * * * *
ApproachDel: 10.2 12.9 xxxxxxxx xxxxxxxx
ApproachLOS: B B * *

Note: Queue reported is the number of cars per lane.

NT PM Wed Jul 23, 2008 09:48:12 Page 1-1

Scenario: NT PM
Command: Default
Volume: NT PM
Geometry: Existing
Impact Fee: Default
Trip Generation: Cum PM
Trip Distribution: Project
Paths: Project
Routes: Default
Configuration: Default

Intersection	Base	V/ C	Future Del/ Veh	V/ C	Change in
# 1 Via de San Ysidro at Calle Pri	E 67.9	0.958	E 69.5	0.967	+ 1.638 D/V
# 2 Via de San Ysidro at I-5 S/B	R C 27.7	0.579	C 29.0	0.703	+ 1.320 D/V
# 3 Via de San Ysidro at I-5 N/B	R E 40.2	0.000	F 64.1	0.000	+23.934 D/V
# 6 West San Ysidro Blvd at I-805	C 26.1	0.786	D 36.5	0.978	+10.426 D/V
# 7 East San Ysidro at I-805 N/B	R C 24.2	0.747	C 27.7	0.811	+ 3.506 D/V
# 11 East San Ysidro at East Beyer/	A 9.1	0.611	A 9.1	0.617	-0.040 D/V
# 12 East San Ysidro at I-5 N/B	Ram C 23.0	0.719	C 23.4	0.733	+ 0.448 D/V
# 13 Camino de la Plaza at I-5 S/B	D 35.1	0.832	D 36.3	0.840	+ 1.172 D/V
# 14 Camino de la Plaza at Virginia	D 30.1	0.000	D 33.1	0.000	+ 3.020 D/V

Level Of Service Computation Report

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*****
Intersection #1 Via de San Ysidro at Calle Primera
*****
Cycle (sec):          105          Critical Vol./Cap.(X):      0.967
Loss Time (sec):      16 (Y+R=4.0 sec)  Average Delay (sec/veh):    69.5
Optimal Cycle: OPTIMIZED          Level Of Service:          E
*****
Street Name:          Via de San Ysidro          Calle Primera
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|-----|-----|-----|-----|
Control:              Split Phase          Split Phase          Split Phase          Split Phase
Rights:               Include              Include              Include              Include
Min. Green:           5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Lanes:                1 0 0 1 0 1 0 0 1 0 1 0 0 1 0 1
-----|-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:             5 35 3 421 9 285 227 58 10 0 26 382
Growth Adj:           1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse:          6 40 3 486 10 329 262 67 12 0 30 441
Added Vol:            0 0 0 8 0 0 0 8 0 0 3 4
PasserByVol:          0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:          6 40 3 494 10 329 262 75 12 0 33 445
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:           6 43 4 520 11 347 276 79 12 0 35 469
Reduct Vol:           0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:          6 43 4 520 11 347 276 79 12 0 35 469
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:          6 43 4 520 11 347 276 79 12 0 35 469
-----|-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:           0.96 1.23 1.21 1.05 0.98 0.93 0.84 0.99 0.99 1.00 0.95 0.67
Lanes:                1.00 0.92 0.08 1.00 0.03 0.97 1.00 0.87 0.13 0.00 1.00 1.00
Final Sat.:           1827 2144 184 2004 54 1724 1592 1632 251 0 1801 1278
-----|-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.00 0.02 0.02 0.26 0.20 0.20 0.17 0.05 0.05 0.00 0.02 0.37
Crit Moves:          ****              ****              ****
Green/Cycle:          0.05 0.05 0.05 0.26 0.26 0.26 0.17 0.17 0.17 0.00 0.37 0.37
Volume/Cap:           0.07 0.42 0.42 1.00 0.77 0.77 1.00 0.28 0.28 0.00 0.05 1.00
Delay/Veh:            48.1 51.1 51.1 78.2 44.0 44.0 97.4 38.2 38.2 0.0 21.5 74.7
User DelAdj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:           48.1 51.1 51.1 78.2 44.0 44.0 97.4 38.2 38.2 0.0 21.5 74.7
LOS by Move:          D D D E D D F D D A C E
HCM2kAvgQ:            0 2 2 20 11 11 14 3 3 0 1 21
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT PM Wed Jul 23, 2008 09:48:17 Page 4-1

Intersection #2 Via de San Ysidro at I-5 S/B Ramp
Cycle (sec): 90 Critical Vol./Cap.(X): 0.703
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 29.0
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: Via de San Ysidro I-5 S/B Ramp
Approach: North Bound South Bound East Bound West Bound
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 2 0 0 0 0 2 0 0 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 648 0 0 415 0 281 0 290 0 0 0 0
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 0 748 0 0 479 0 325 0 335 0 0 0 0
Added Vol: 0 0 4 0 0 0 0 232 0 8 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 752 0 0 479 0 557 0 343 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 792 0 0 505 0 586 0 361 0 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 792 0 0 505 0 586 0 361 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 792 0 0 505 0 586 0 361 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.33 1.00 1.00 1.09 1.00 0.93 1.00 0.83 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00
Final Sat.: 0 5070 0 0 4129 0 1769 0 1573 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.00 0.00 0.12 0.00 0.33 0.00 0.23 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.22 0.00 0.00 0.17 0.00 0.47 0.00 0.47 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.70 0.00 0.00 0.70 0.00 0.70 0.00 0.49 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 34.3 0.0 0.0 38.2 0.0 21.6 0.0 16.9 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 34.3 0.0 0.0 38.2 0.0 21.6 0.0 16.9 0.0 0.0 0.0 0.0
LOS by Move: A C A A D A C A B A A A
HCM2kAvgQ: 0 11 0 0 7 0 14 0 7 0 0 0 0
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
NT PM Wed Jul 23, 2008 09:48:17 Page 5-1

Intersection #3 Via de San Ysidro at I-5 N/B Ramps
Average Delay (sec/veh): 8.1 Worst Case Level Of Service: F[64.1]
Street Name: Vis de San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 0 1 0 0 1
Volume Module:
Base Vol: 291 618 0 0 345 205 0 0 0 49 0 79
Growth Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
Initial Bse: 300 638 0 0 356 212 0 0 0 51 0 82
Added Vol: 0 4 232 0 0 0 161 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 304 870 0 0 356 373 0 0 0 51 0 159
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 320 916 0 0 375 392 0 0 0 53 0 167
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 320 916 0 0 375 392 0 0 0 53 0 167
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 6.5 6.2
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3
Capacity Module:
Conflict Vol: 777 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1764 2343 936
Potent Cap.: 839 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 92 36 322
Move Cap.: 832 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 64 22 316
Volume/Cap: 0.38 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.84 0.00 0.53
Level Of Service Module:
2Way95thQ: 1.8 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 2.9
Control Del: 12.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 28.5
LOS by Move: B * * * * * * * * * * * * * * * * * * D
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 64 xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.9 xxxxx xxxxx
Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 175.8 xxxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * * * * * F * * *
ApproachDel: xxxxxx xxxxxxx xxxxxxx xxxxxxx 64.1
ApproachLOS: * * * * * * * * * * * * * * * * * * F
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Page 6-1
NT PM Wed Jul 23, 2008 09:48:17

Intersection #6 West San Ysidro Blvd at I-805 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.978
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 36.5
Optimal Cycle: OPTIMIZED Level Of Service: D
Street Name: I-805 S/B Ramps San Ysidro Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 0 0 1 0 1 0 1 0 0 1 1 0 2 0 2 0 0
Volume Module:
Base Vol: 0 0 0 406 13 490 0 655 412 173 478 0
Growth Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
Initial Bse: 0 419 13 506 0 676 425 179 493 0
Added Vol: 0 0 0 0 0 240 0 175 121 0 86 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 419 13 746 0 851 546 179 579 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 441 14 785 0 896 575 188 610 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 441 14 785 0 896 575 188 610 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 441 14 785 0 896 575 188 610 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.84 0.84 0.82 1.00 0.88 1.22 0.87 0.96 1.00
Lanes: 0.00 0.00 0.00 1.35 0.02 1.63 0.00 1.37 0.63 2.00 2.00 0.00
Final Sat.: 0 0 0 2150 35 2549 0 2279 1463 3318 3655 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.21 0.40 0.31 0.00 0.39 0.39 0.06 0.17 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.41 0.41 0.41 0.00 0.40 0.40 0.06 0.34 0.00
Volume/Cap: 0.00 0.00 0.00 0.50 0.98 0.76 0.00 0.98 0.98 0.98 0.48 0.00
Delay/Veh: 0.0 0.0 0.0 20.1 46.4 24.9 0.0 44.7 44.7 100.7 23.5 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 20.1 46.4 24.9 0.0 44.7 44.7 100.7 23.5 0.0
LOS by Move: A A A C D C A D D F C A
HCM2kAvgQ: 0 0 0 7 24 13 0 25 33 3 7 0
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Page 7-1
NT PM Wed Jul 23, 2008 09:48:17

Intersection #7 Esat San Ysidro at I-805 N/B ramps
Cycle (sec): 94 Critical Vol./Cap.(X): 0.811
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 27.7
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-805 N/B Ramps East San Ysidro
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 1 0 0 1 0 0 0 0 0 2 0 2 0 0 0 0 1 1 0
Volume Module:
Base Vol: 120 0 229 0 0 0 250 776 0 0 517 403
Growth Adj: 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21
Initial Bse: 145 0 276 0 0 0 302 937 0 0 624 486
Added Vol: 86 0 0 0 0 0 175 0 0 0 0 0 6
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 231 0 276 0 0 0 477 937 0 0 624 492
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 243 0 291 0 0 0 502 986 0 0 657 518
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 243 0 291 0 0 0 502 986 0 0 657 518
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 243 0 291 0 0 0 502 986 0 0 657 518
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.82 1.00 1.00 1.00 0.90 0.93 1.00 1.00 0.87 0.78
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 2.00 2.00 0.00 0.00 1.06 0.94
Final Sat.: 1773 0 1553 0 0 0 3432 3538 0 0 1755 1385
Capacity Analysis Module:
Vol/Sat: 0.14 0.00 0.19 0.00 0.00 0.00 0.15 0.28 0.00 0.00 0.37 0.37
Crit Moves: ****
Green/Cycle: 0.23 0.00 0.23 0.00 0.00 0.00 0.18 0.54 0.00 0.00 0.46 0.46
Volume/Cap: 0.59 0.00 0.81 0.00 0.00 0.00 0.81 0.52 0.00 0.00 0.81 0.81
Delay/Veh: 34.6 0.0 47.3 0.0 0.0 0.0 45.0 14.1 0.0 0.0 25.4 25.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 34.6 0.0 47.3 0.0 0.0 0.0 45.0 14.1 0.0 0.0 25.4 25.4
LOS by Move: C A D A A A D B A A C C
HCM2kAvgQ: 7 0 10 0 0 0 7 9 0 0 18 17
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Page 8-1
NT PM Wed Jul 23, 2008 09:48:17

Intersection #11 East San Ysidro at East Beyer/Camino de la Plaza
Cycle (sec): 60 Critical Vol./Cap.(X): 0.617
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 9.1
Optimal Cycle: OPTIMIZED Level Of Service: A
Street Name: East San Ysidro East Beyer/Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Ignore Ovl Include
Min. Green: 5 5 5 5 5 5 5 5
Lanes: 1 1 0 0 1 0 1 0 0 2 1 0 2 0 2 1 0 1 1 0

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Page 9-1
NT PM Wed Jul 23, 2008 09:48:17

Intersection #12 East San Ysidro at I-5 N/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.733
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 23.4
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: East San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Ovl Include
Min. Green: 5 5 5 5 5 5 5 5
Lanes: 0 0 1 0 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT PM Wed Jul 23, 2008 09:48:17 Page 10-1

Intersection #13 Camino de la Plaza at I-5 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.840
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 36.3
Optimal Cycle: OPTIMIZED Level Of Service: D
Street Name: I-5 N/B ramps Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1
Volume Module:
Base Vol: 95 50 237 201 376 430 294 341 53 95 248 281
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 110 58 274 232 434 497 340 394 61 110 286 325
Added Vol: 0 0 0 0 0 47 3 21 0 0 8 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 110 58 274 232 434 544 343 415 61 110 294 325
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 116 61 288 244 457 572 361 437 64 116 310 342
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 116 61 288 244 457 572 361 437 64 116 310 342
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 116 61 288 244 457 572 361 437 64 116 310 342
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.91 0.67 0.96 0.98 0.65 0.90 0.91 0.90 0.93 0.98 0.84
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.74 0.26 1.00 1.00 1.00
Final Sat.: 1711 1737 1280 1827 1862 1242 1711 3019 445 1769 1862 1602
Capacity Analysis Module:
Vol/Sat: 0.07 0.03 0.23 0.13 0.25 0.46 0.21 0.14 0.14 0.07 0.17 0.21
Crit Moves: ****
Green/Cycle: 0.08 0.20 0.34 0.17 0.29 0.54 0.25 0.31 0.31 0.14 0.20 0.37
Volume/Cap: 0.84 0.17 0.66 0.79 0.84 0.85 0.84 0.47 0.47 0.47 0.84 0.58
Delay/Veh: 75.3 29.9 28.7 48.4 41.0 27.2 45.7 25.4 25.4 37.0 50.3 24.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 75.3 29.9 28.7 48.4 41.0 27.2 45.7 25.4 25.4 37.0 50.3 24.3
LOS by Move: E C C D D C D C D D C
HCM2kAvgQ: 6 1 8 9 15 16 10 6 6 3 9 8
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
NT PM Wed Jul 23, 2008 09:48:17 Page 11-1

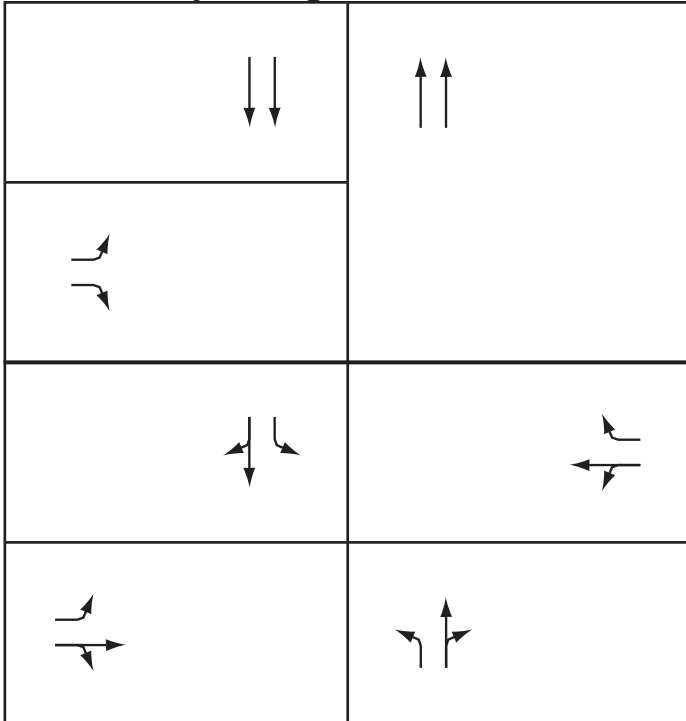
Intersection #14 Camino de la Plaza at Virginia
Average Delay (sec/veh): 0.6 Worst Case Level Of Service: D [33.1]
Street Name: Virginia Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 0 0 0 1 0 0 1 0 1 1 0 1 0 0 1 0
Volume Module:
Base Vol: 0 0 36 4 0 3 3 639 2 26 739 5
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 0 0 0 5 0 3 3 738 2 30 854 6
Added Vol: 0 0 0 0 0 0 0 0 24 0 0 55 0 0
PasserByVol: 0 0 42 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 42 5 0 3 3 762 2 30 909 6
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 44 5 0 4 4 802 2 32 956 6
Reduced Vol: 0 0 44 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 44 5 0 4 4 802 2 32 956 6
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Conflict Vol: 1855 1856 422 1451 1855 979 972 xxxx xxxxx 815 xxxx xxxxx
Potent Cap.: 57 74 636 110 75 306 709 xxxx xxxxx 813 xxxx xxxxx
Move Cap.: 54 70 625 97 70 301 703 xxxx xxxxx 806 xxxx xxxxx
Volume/Cap: 0.00 0.00 0.07 0.05 0.00 0.01 0.01 xxxx xxxxx 0.04 xxxx xxxxx
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx 0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 10.1 xxxx xxxxx 9.6 xxxx xxxxx
LOS by Move: * * * * * B * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx 625 xxxx 137 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx 0.2 xxxxx 0.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxx 11.2 xxxxx 33.1 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: B * D * * * * *
ApproachDel: 11.2 33.1
ApproachLOS: B D * *
Note: Queue reported is the number of cars per lane.

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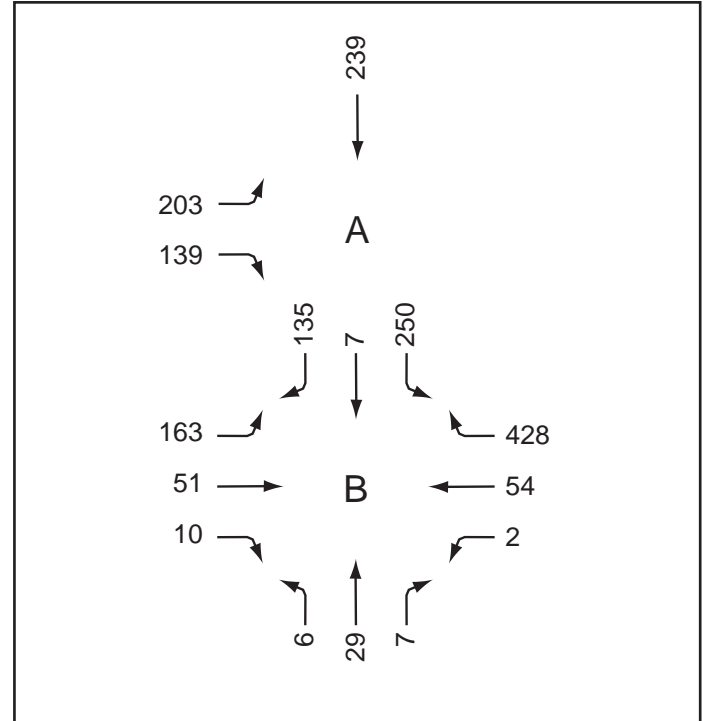
ILV Calculation

1&2: Via de San Ysidro & I-5 SB Ramp
Near Term AM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
<p>A</p> <p>120</p> <p>119</p>	<p>A</p> <p>203</p> <p>139</p>	<p>A</p> <p>163</p>	<p>A</p> <p>308</p>	<p>A</p> <p>29</p>
<p>B</p> <p>120</p> <p>120</p> <p>120</p>	<p>B</p> <p>22</p> <p>130</p>	<p>B</p> <p>163</p> <p>61</p>	<p>B</p> <p>308</p> <p>56</p>	<p>B</p> <p>6</p> <p>36</p>

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
120	203	163	308	36

Total Operating Level (ILV/hr):

Σ
830

Is...

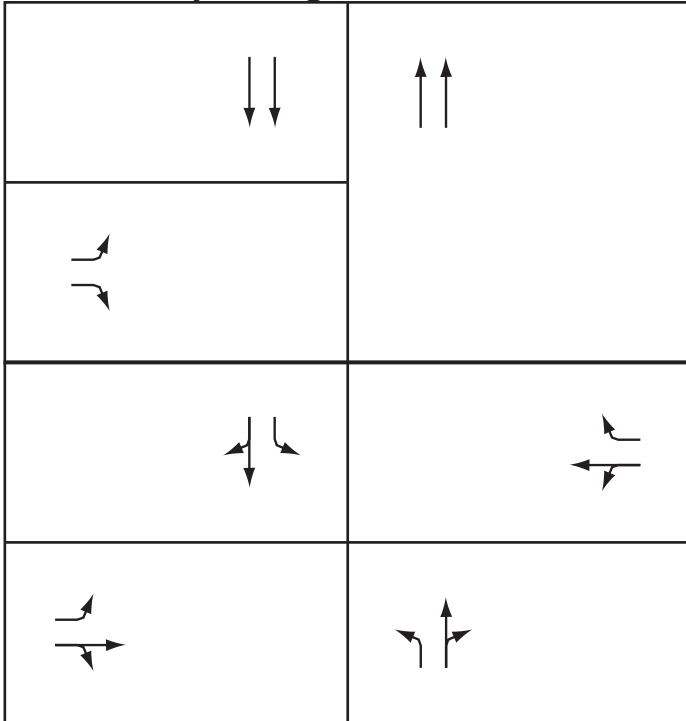
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

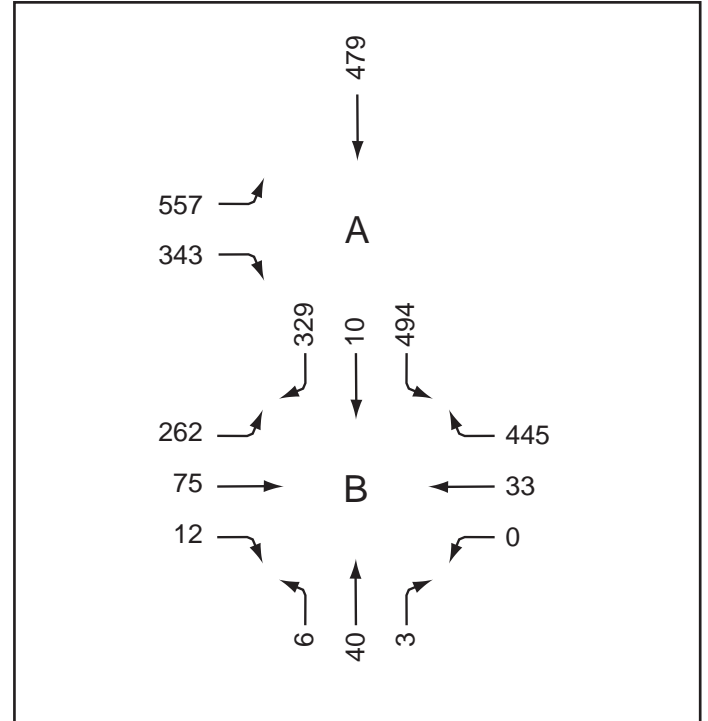
ILV Calculation

1&2: Via de San Ysidro & I-5 SB Ramp
Near Term PM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
<p>A</p> <p>240</p> <p>239</p>	<p>A</p> <p>557</p> <p>343</p>	<p>A</p> <p>262</p>	<p>A</p> <p>205</p>	<p>A</p> <p>40</p>
<p>B</p> <p>240</p> <p>240</p> <p>240</p>	<p>B</p> <p>99</p> <p>254</p>	<p>B</p> <p>262</p> <p>87</p>	<p>B</p> <p>205</p> <p>33</p>	<p>B</p> <p>6</p> <p>43</p>

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
240	557	262	205	43

Total Operating Level (ILV/hr):

Σ
1307

Is...

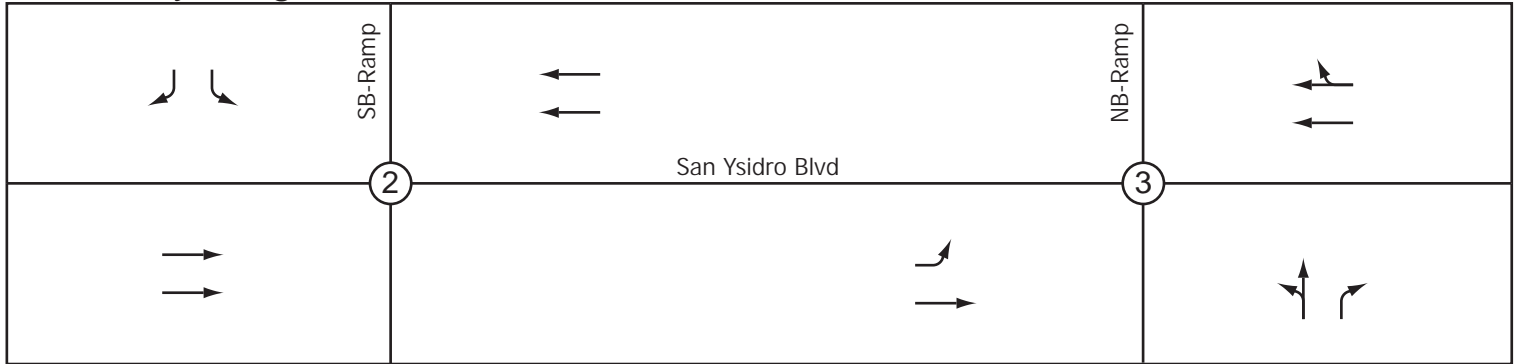
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

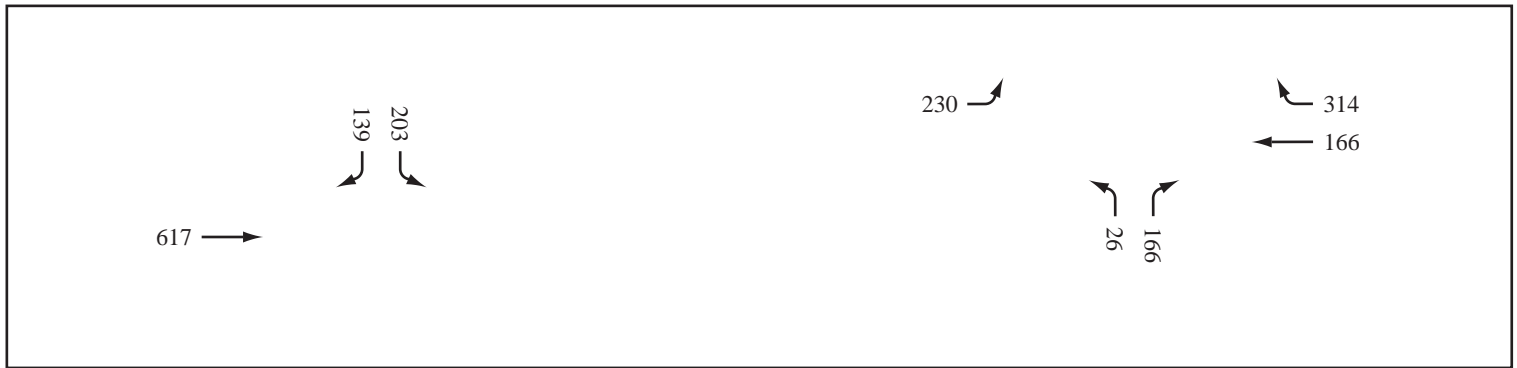
ILV Calculation

2&3: Via de San Ysidro & I-5 SB & NB Ramps
Near Term AM Peak Hour

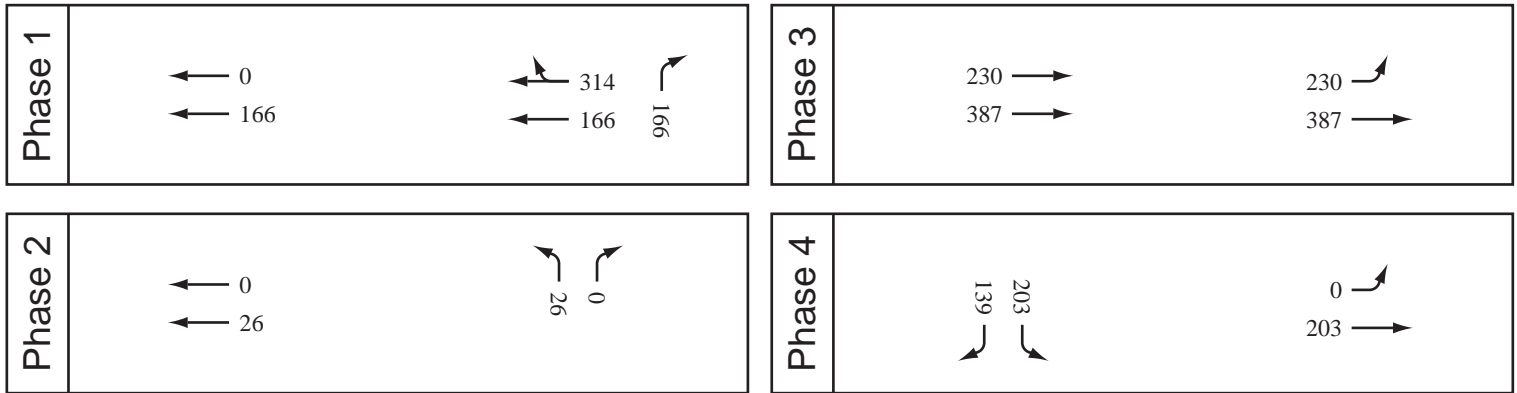
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
314	26	387	203

Total Operating Level (ILV/hr):

Σ
930

Is...

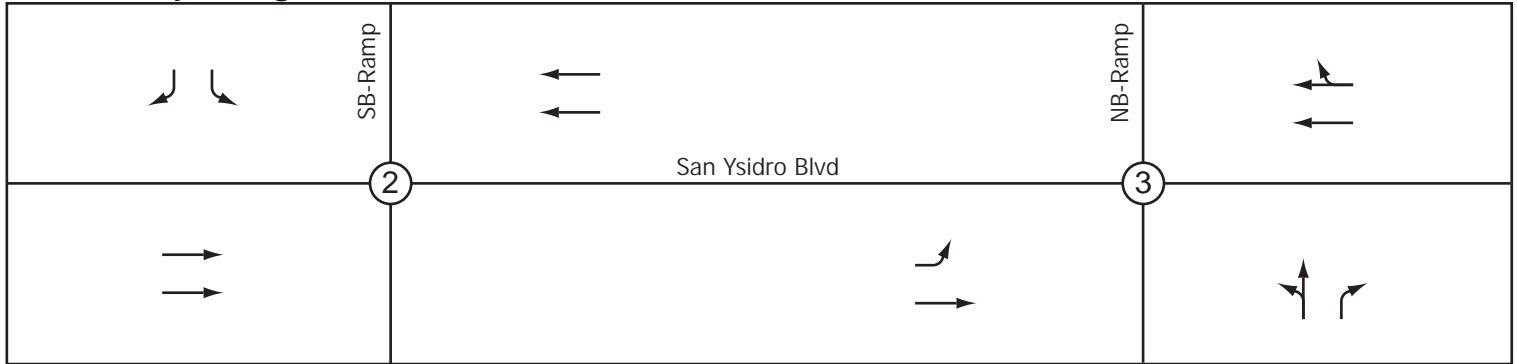
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

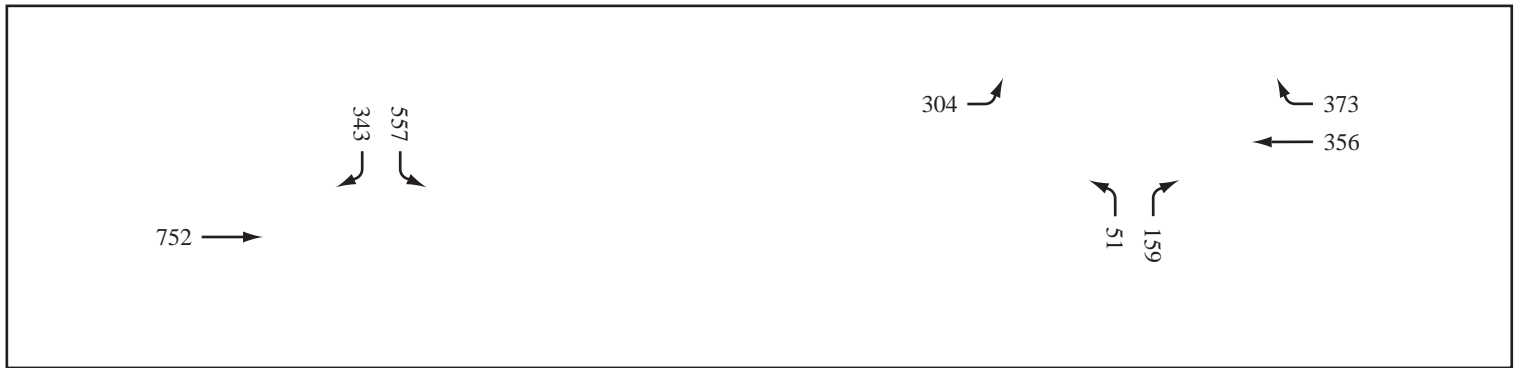
ILV Calculation

2&3: Via de San Ysidro & I-5 SB & NB Ramps
Near Term PM Peak Hour

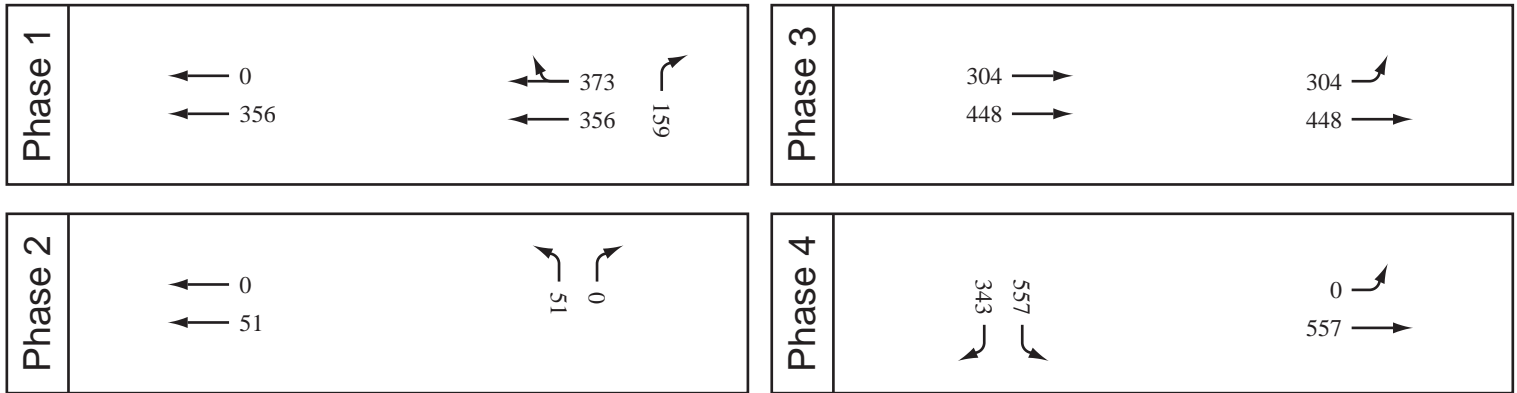
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
373	51	448	557

Total Operating Level (ILV/hr):

Σ
1429

Is...

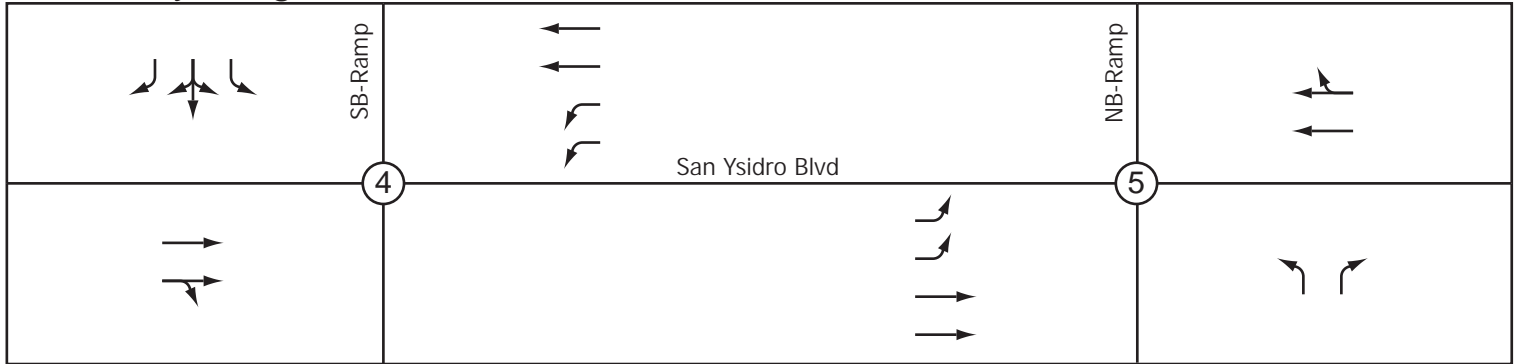
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

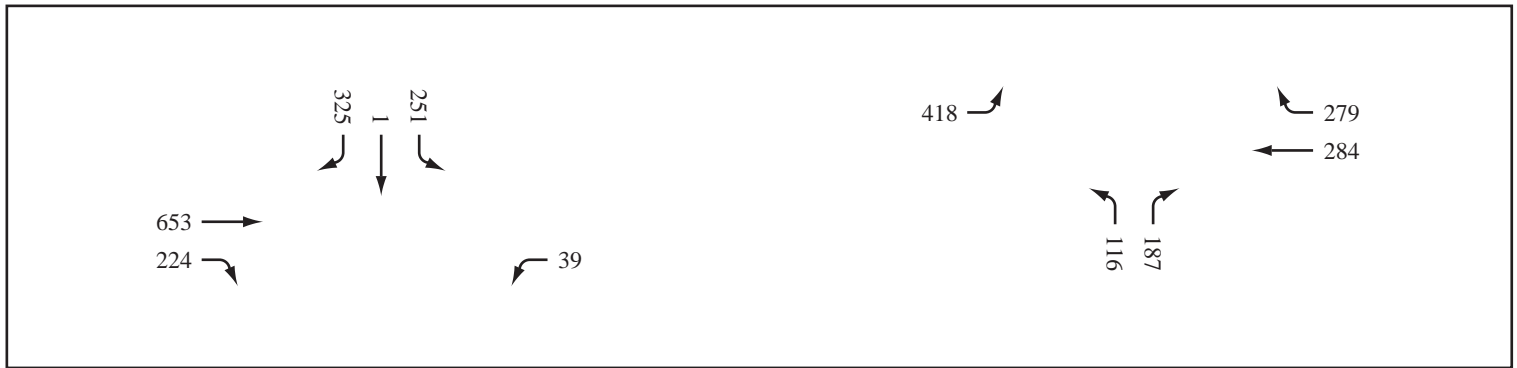
ILV Calculation

4&5: San Ysidro Boulevard & I-805 SB & NB Ramps
Near Term AM Peak Hour

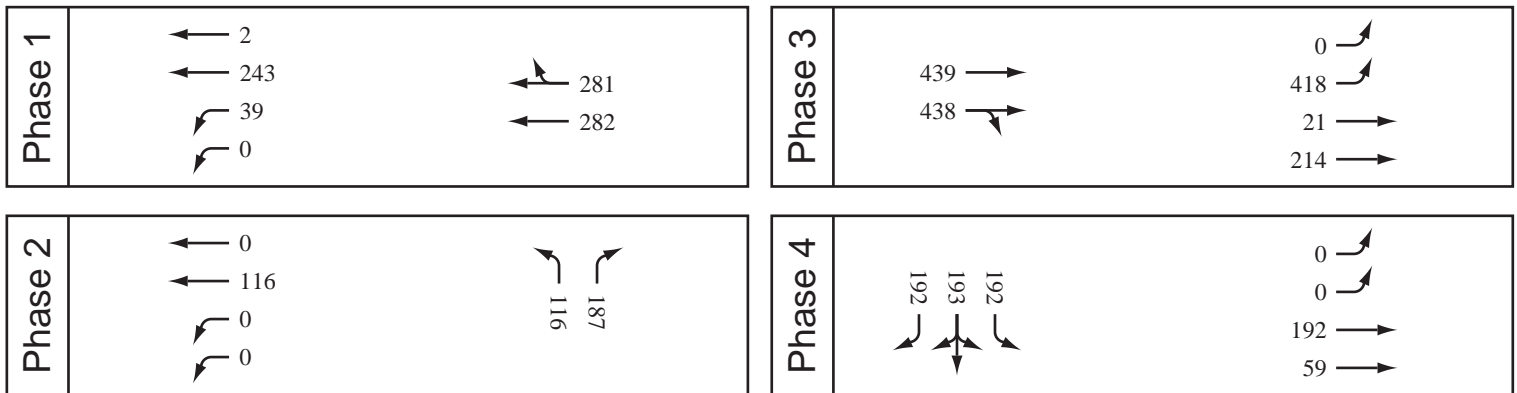
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
282	187	439	193

Total Operating Level (ILV/hr):

Σ
1101

Is...

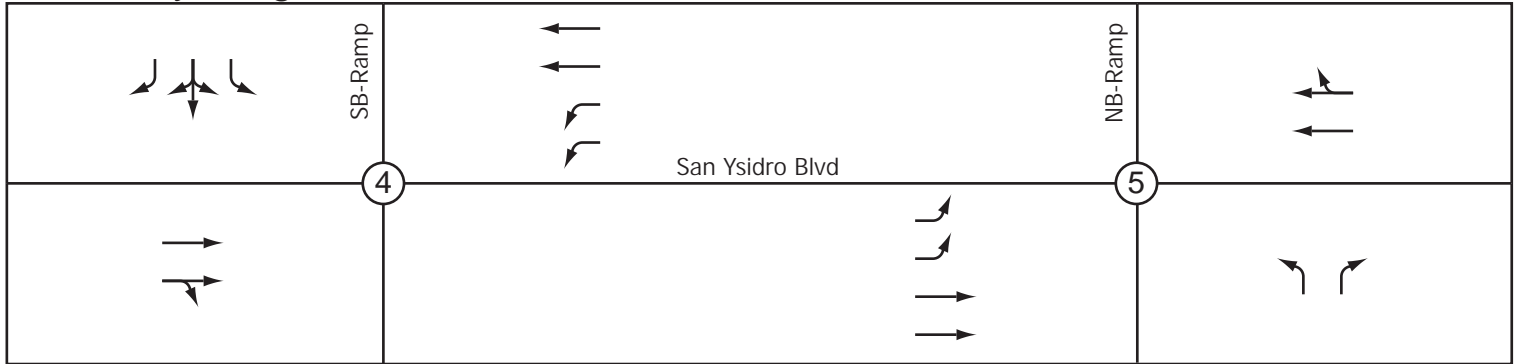
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

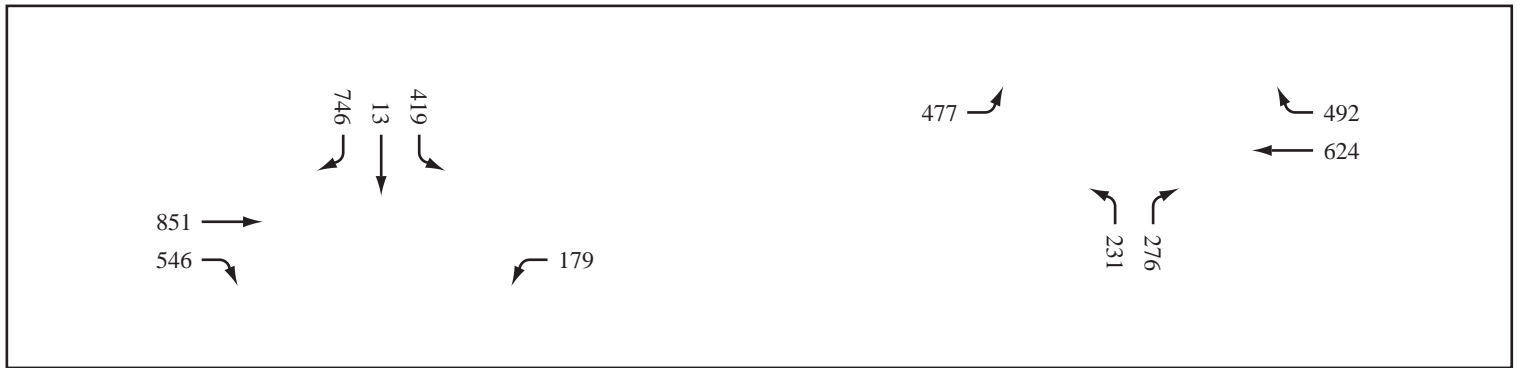
ILV Calculation

4&5: San Ysidro Boulevard & I-805 SB & NB Ramps
Near Term PM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase	Volume	Volume	Volume	Volume
Phase 1	← 66	← 379	↪ 179	↪ 0
	↪ 558	← 558		
Phase 2	← 0	← 231	↪ 0	↪ 0
	↪ 276	↪ 231		
Phase 3	→ 699	↪ 698		
	↪ 0	↪ 477	→ 222	→ 152
Phase 4	↪ 0	↪ 0	→ 392	→ 27
	↪ 392	↪ 393	↪ 392	

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
558	276	699	393

Total Operating Level (ILV/hr):

Σ
1926

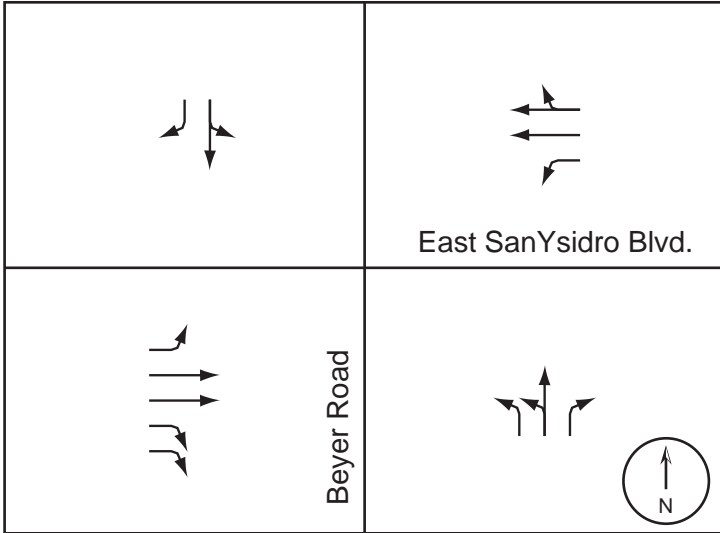
- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

Remarks:

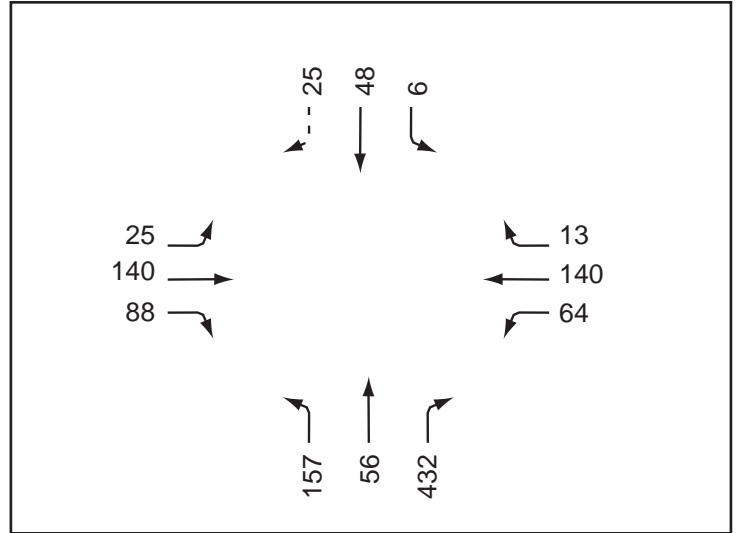
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Near Term AM Peak Hour

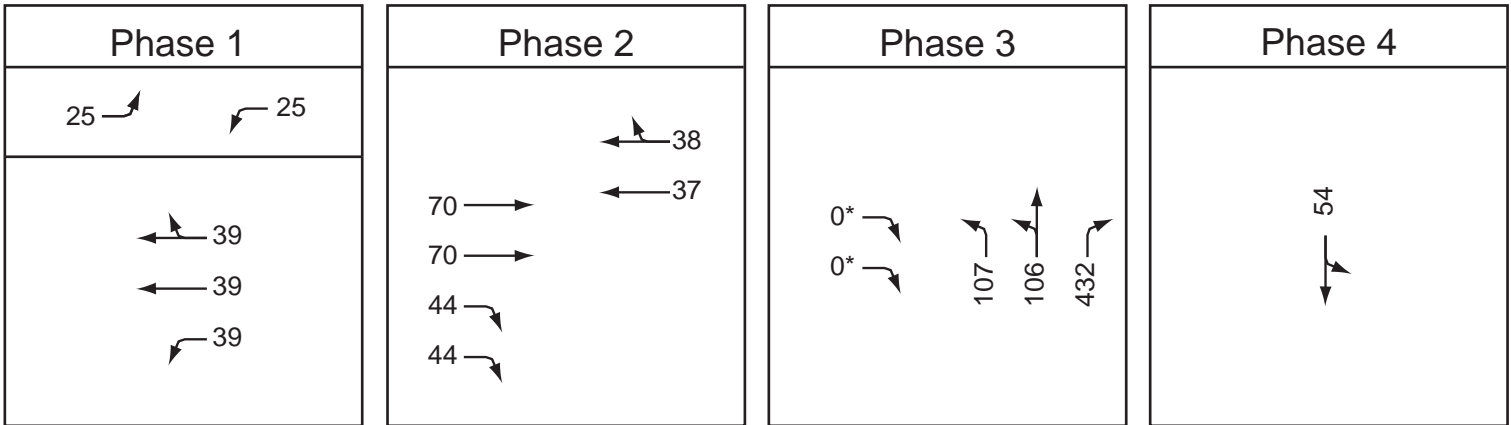
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
64	70	432	54

Total Operating Level (ILV/hr):

Σ
556

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

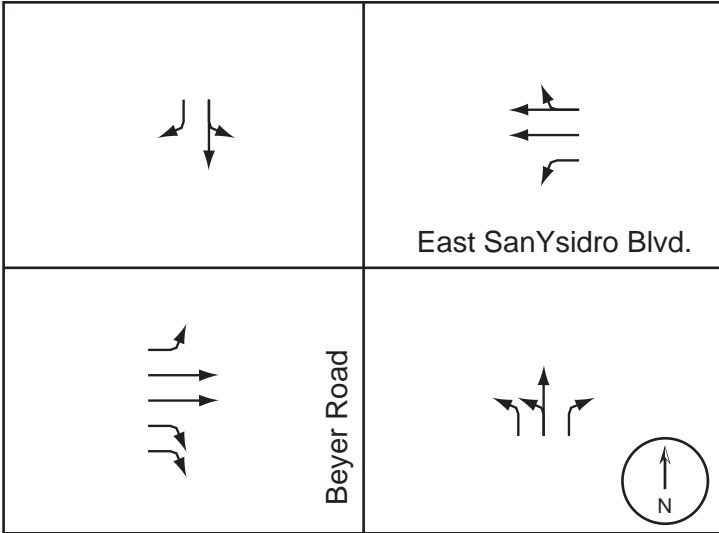
Free Right

*Right-Turn Overlap

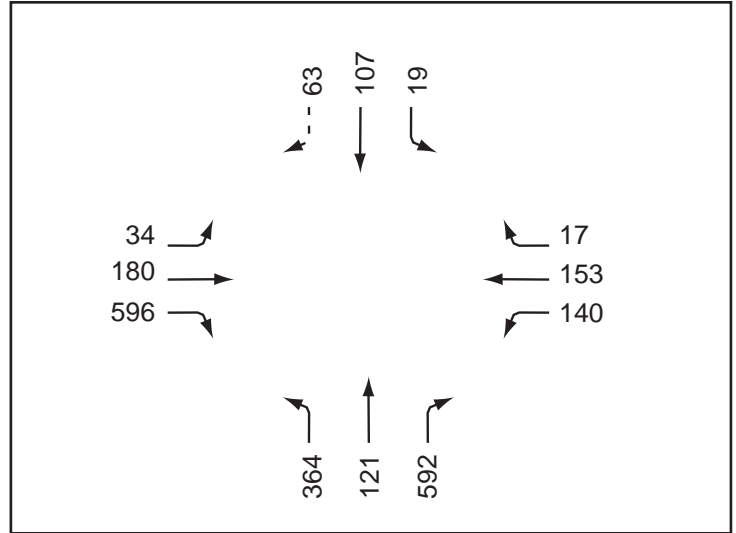
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Near Term PM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
34 ↗ ↖ 34 ← 85 ← 85 ↘ 106	← 0 ← 0 90 → 90 → 90 ↘ 90 ↘	208* ↘ 243 ↗ 242 ↗ 592 ↘ 208* ↘	← 126

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
106	90	592	126

Total Operating Level (ILV/hr):

Σ
914

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

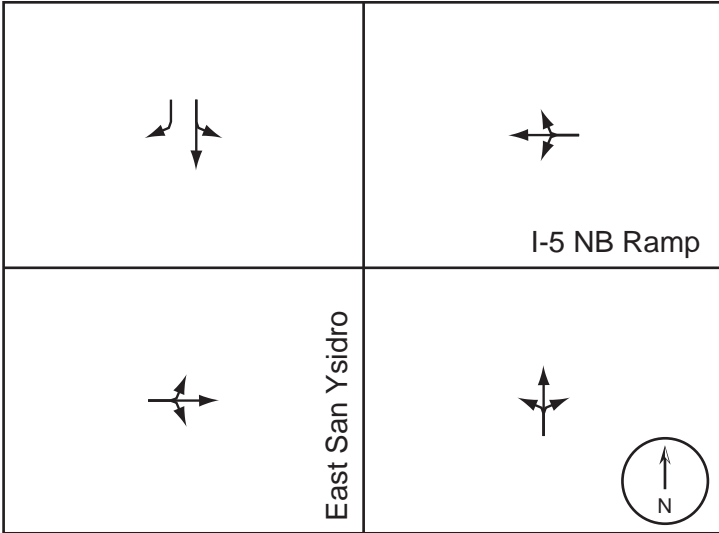
Free Right

*Right-Turn Overlap

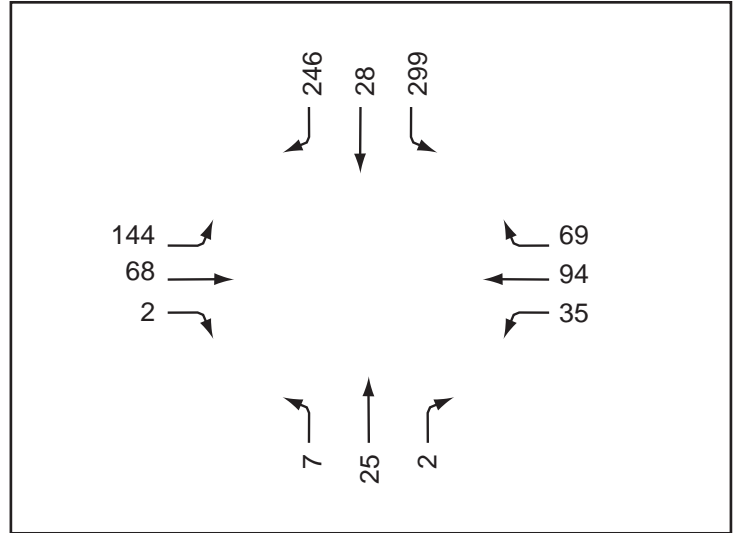
ILV Calculation

7: East San Ysidro Boulevard & I-5 NB Ramp
Near Term AM Peak Hour

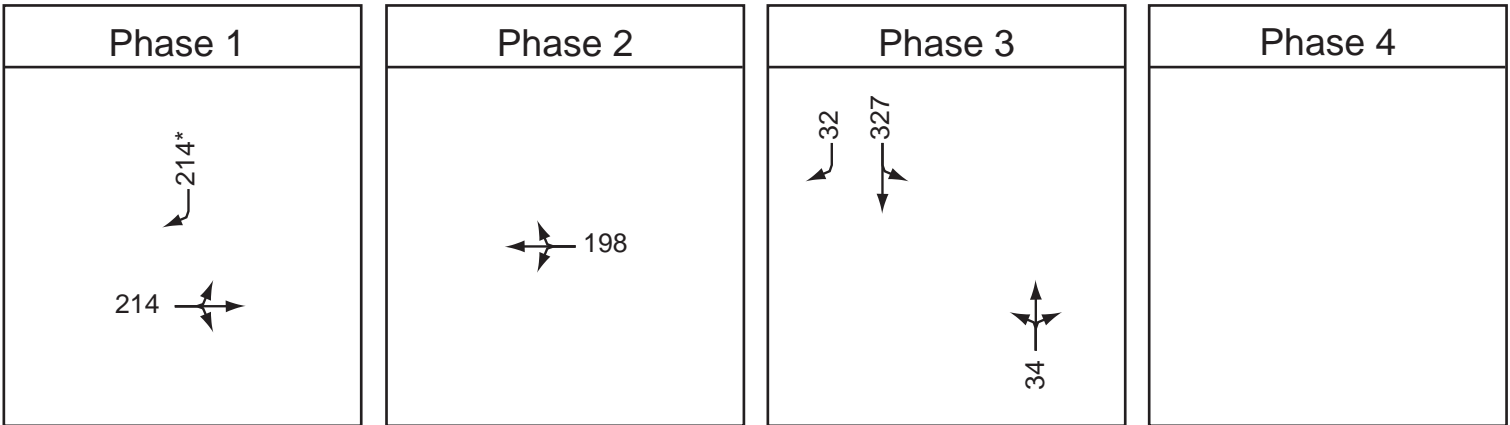
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
214	198	327	

Total Operating Level (ILV/hr):

Σ
739

- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

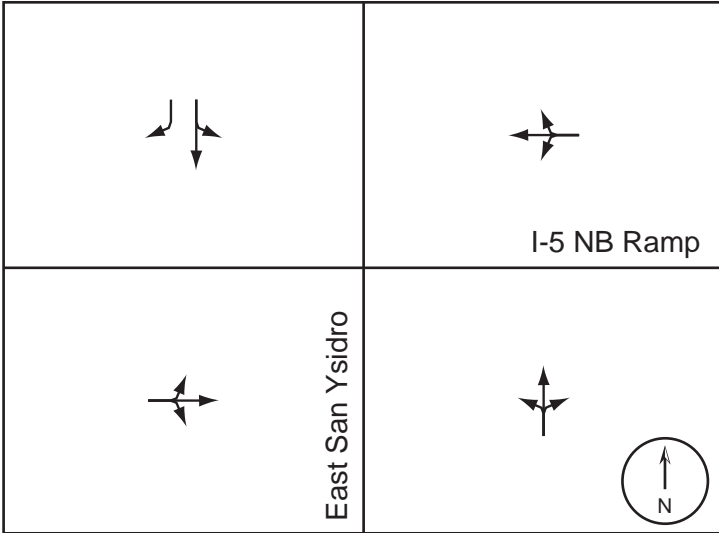
Remarks:

*Right-Turn Overlap

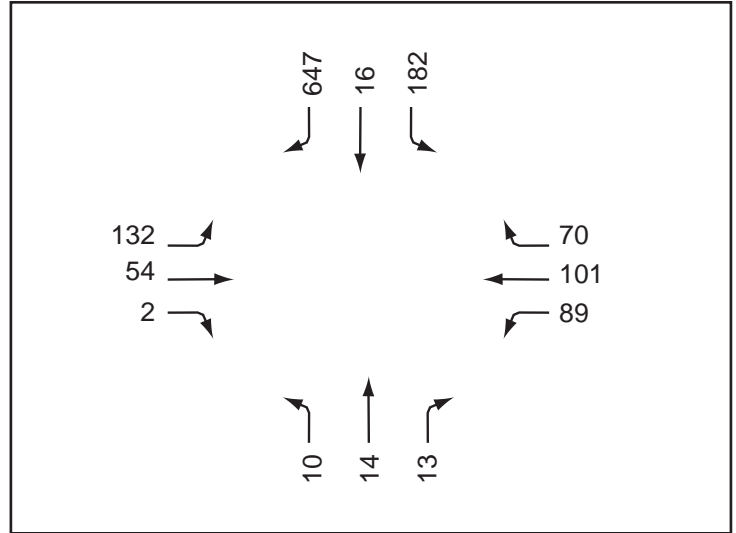
ILV Calculation

7: East San Ysidro Boulevard & I-5 NB Ramp
Near Term PM Peak Hour

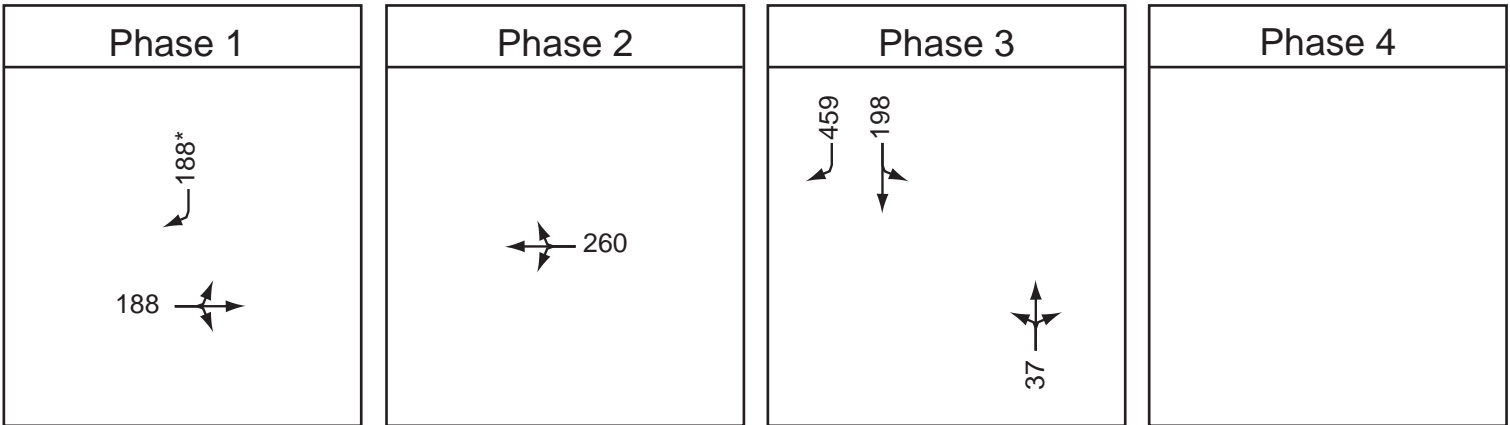
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
188	260	459	

Total Operating Level (ILV/hr):

Σ
907

- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

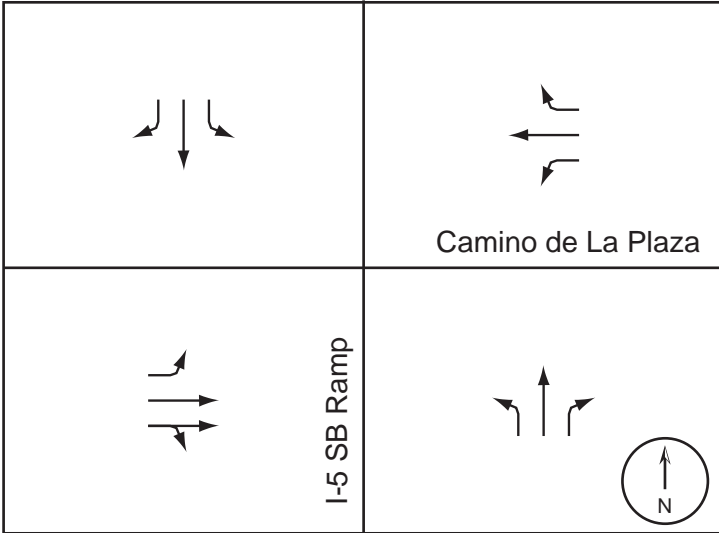
Remarks:

*Right-Turn Overlap

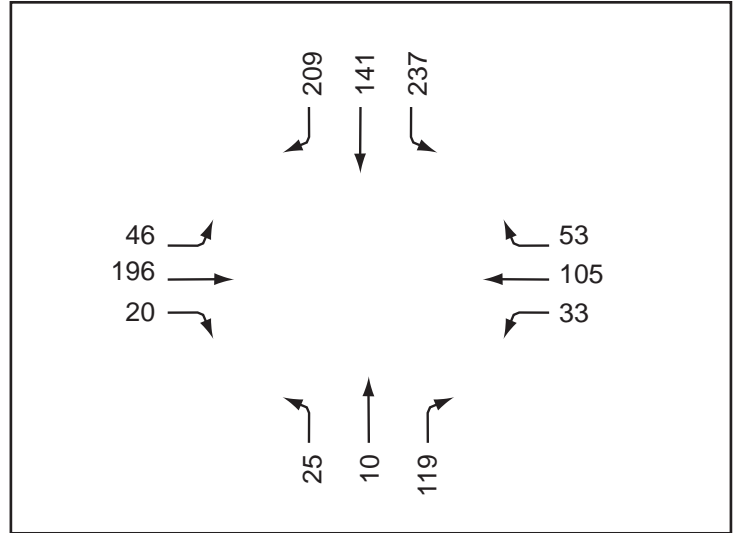
ILV Calculation

8: Camino de la Plaza & I-5 SB Ramp
Near Term AM Peak Hour

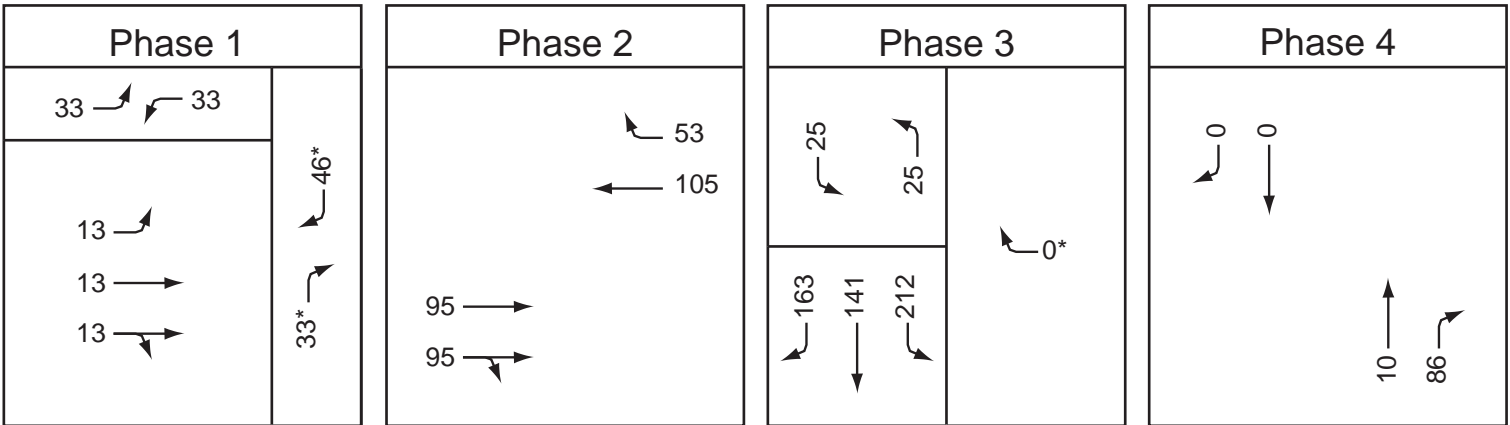
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
46	105	237	86

Total Operating Level (ILV/hr):

Σ
474

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

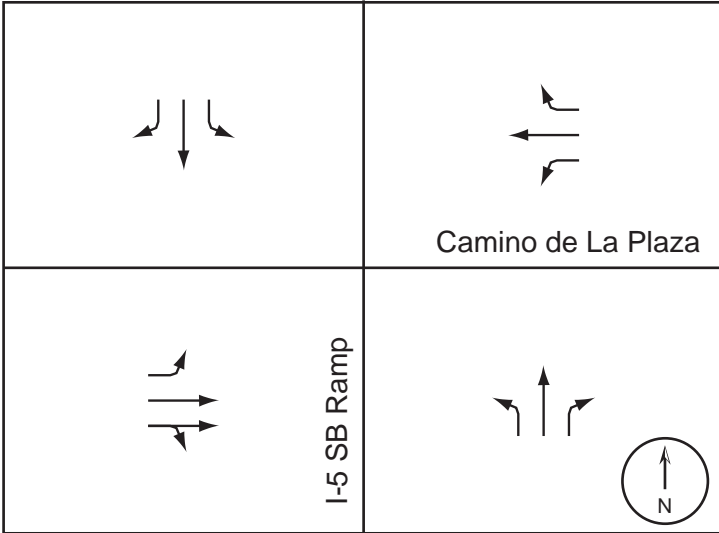
Remarks:

*Right-Turn Overlap

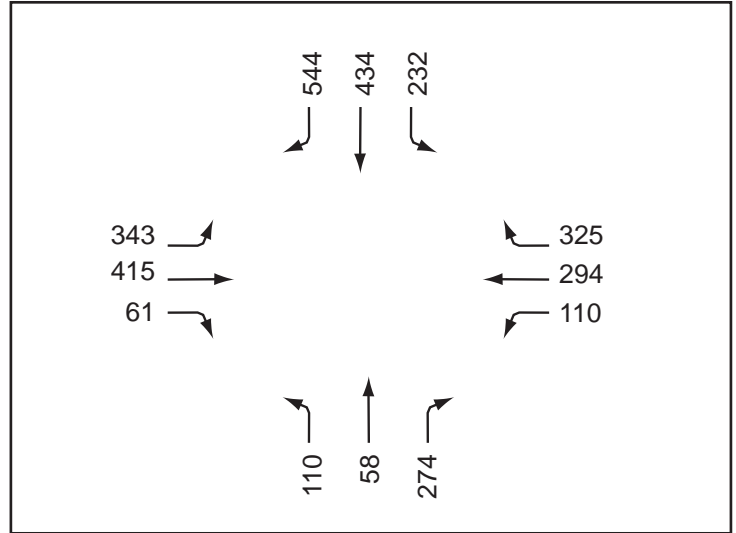
ILV Calculation

8: Camino de la Plaza & I-5 SB Ramp
Near Term PM Peak Hour

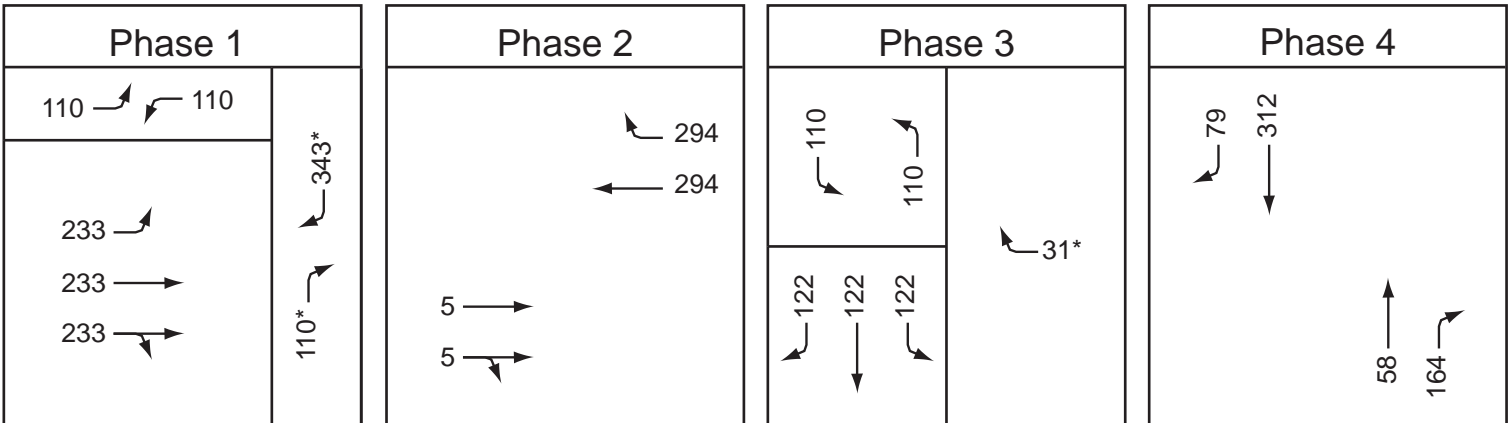
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
343	294	232	312

Total Operating Level (ILV/hr):

Σ
1181

- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

Remarks:

*Right-Turn Overlap

Scenario: NT plus Proj AM

Command: Default
Volume: NT AM W/ Proj
Geometry: Existing
Impact Fee: Default
Trip Generation: Cum 2014 AM
Trip Distribution: Project
Paths: Project
Routes: Default
Configuration: Default

Intersection		Base	Future		Change
			V/ C	Del/ Veh C	
# 1	Via de San Ysidro at Calle Pri	C 31.8 0.735	C 32.3 0.744	+ 0.470	D/V
# 2	Via de San Ysidro at I-5 S/B R	C 23.4 0.322	C 24.1 0.358	+ 0.712	D/V
# 3	Via de San Ysidro at I-5 N/B R	C 15.4 0.270	C 17.8 0.388	+ 2.434	D/V
# 6	West San Ysidro Blvd at I-805	C 20.6 0.413	C 20.7 0.532	+ 0.115	D/V
# 7	Esat San Ysidro at I-805 N/B r	C 22.7 0.476	C 24.8 0.563	+ 2.078	D/V
# 11	East San Ysidro at East Beyer/	B 17.4 0.550	B 19.0 0.603	+ 1.612	D/V
# 12	East San Ysidro at I-5 N/B Ram	C 23.3 0.614	C 24.8 0.663	+ 1.457	D/V
# 13	Camino de la Plaza at I-5 S/B	C 23.4 0.273	C 23.1 0.344	-0.248	D/V
# 14	Camino de la Plaza at Virginia	B 12.4 0.012	C 16.3 0.075	+ 3.885	D/V

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj AM Wed Mar 25, 2009 13:28:27 Page 3-1

Intersection #1 Via de San Ysidro at Calle Primera
Cycle (sec): 70 Critical Vol./Cap.(X): 0.744
Loss Time (sec): 16 Average Delay (sec/veh): 32.3
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: Via de San Ysidro Calle Primera
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj AM Wed Mar 25, 2009 13:28:27 Page 4-1

Intersection #2 Via de San Ysidro at I-5 S/B Ramp
Cycle (sec): 90 Critical Vol./Cap.(X): 0.358
Loss Time (sec): 12 Average Delay (sec/veh): 24.1
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: Via de San Ysidro I-5 S/B Ramp
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 0 0 0 2 0 0 1 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

Intersection #3 Via de San Ysidro at I-5 N/B Ramps

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: C [17.8]

Street Name: Vis de San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 1
Volume Module:
Base Vol: 215 437 0 0 161 164 0 0 0 25 0 140
Growth Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
Initial Bse: 222 451 0 0 166 169 0 0 0 26 0 144
Added Vol: 0 8 67 0 0 0 145 0 0 0 0 0 45
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 230 518 0 0 166 314 0 0 0 26 0 189
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 242 545 0 0 175 331 0 0 0 27 0 199
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 242 545 0 0 175 331 0 0 0 27 0 199
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 6.5 6.2
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3
Capacity Module:
Cnflct Vol: 516 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1137 1555 565
Potent Cap.: 1050 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 223 113 524
Move Cap.: 1041 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 180 85 514
Volume/Cap: 0.23 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.15 0.00 0.39
Level Of Service Module:
2Way95thQ: 0.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1.8
Control Del: 9.5 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 16.4
LOS by Move: * C
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 180 xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.5 xxxxx xxxxx
Shrd CnDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 28.5 xxxxx xxxxx
Shared LOS: * D * * *
ApproachDel: xxxxxxx xxxxxxx xxxxxxx xxxxxxx 17.8
ApproachLOS: * C

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

Intersection #6 West San Ysidro Blvd at I-805 S/B Ramps

Cycle (sec): 90 Critical Vol./Cap.(X): 0.532
Loss Time (sec): 12 Average Delay (sec/veh): 20.7
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name: I-805 S/B Ramps San Ysidro Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 1 0 1 0 0 1 1 0 2 0 2 0 0
Volume Module:
Base Vol: 0 0 0 243 1 240 0 488 119 38 224 0
Growth Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
Initial Bse: 0 251 1 248 0 504 123 39 231 0
Added Vol: 0 0 0 0 0 77 0 149 114 10 48 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 251 1 325 0 653 237 49 279 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 264 1 342 0 687 249 52 294 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 264 1 342 0 687 249 52 294 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 264 1 342 0 687 249 52 294 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.84 0.84 0.83 1.00 0.89 1.26 0.87 0.96 1.00
Lanes: 0.00 0.00 0.00 1.43 0.01 1.56 0.00 1.59 0.41 2.00 2.00 0.00
Final Sat.: 0 0 0 2285 6 2479 0 2699 980 3318 3655 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.12 0.19 0.14 0.00 0.25 0.25 0.02 0.08 0.00
Crit Moves: *****
Green/Cycle: 0.00 0.00 0.00 0.35 0.35 0.35 0.00 0.46 0.46 0.06 0.31 0.00
Volume/Cap: 0.00 0.00 0.00 0.33 0.55 0.40 0.00 0.55 0.55 0.28 0.26 0.00
Delay/Veh: 0.0 0.0 0.0 21.7 24.2 22.4 0.0 17.8 17.8 41.6 23.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 21.7 24.2 22.4 0.0 17.8 17.8 41.6 23.6 0.0
LOS by Move: A C C C A B B D C A
HCM2kAvgQ: 0 0 0 4 7 5 0 9 13 1 3 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj AM Wed Mar 25, 2009 13:28:27 Page 7-1

Intersection #7 Esat San Ysidro at I-805 N/B ramps
Cycle (sec): 94 Critical Vol./Cap.(X): 0.563
Loss Time (sec): 12 Average Delay (sec/veh): 24.8
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-805 N/B Ramps East San Ysidro
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 1 0 0 1 0 0 0 0 0 2 0 2 0 0 0 0 0 1 1 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj AM Wed Mar 25, 2009 13:28:27 Page 8-1

Intersection #11 East San Ysidro at East Beyer/Camino de la Plaza
Cycle (sec): 60 Critical Vol./Cap.(X): 0.603
Loss Time (sec): 16 Average Delay (sec/veh): 19.0
Optimal Cycle: OPTIMIZED Level Of Service: B
Street Name: East San Ysidro East Beyer/Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Ignore Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 1 0 0 1 0 1 0 0 2 1 0 2 0 2 1 0 1 1 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj AM Wed Mar 25, 2009 13:28:27 Page 9-1

Intersection #12 East San Ysidro at I-5 N/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.663
Loss Time (sec): 12 Average Delay (sec/veh): 24.8
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: East San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1:0 0 0 1 0 0 1 0 0 1:0 0 0 0 0 1:0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj AM Wed Mar 25, 2009 13:28:27 Page 10-1

Intersection #13 Camino de la Plaza at I-5 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.344
Loss Time (sec): 16 Average Delay (sec/veh): 23.1
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-5 N/B ramps Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Ovl
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1 0 1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
NT plus Proj AM Wed Mar 25, 2009 13:28:27 Page 11-1

Intersection #14 Camino de la Plaza at Virginia
Average Delay (sec/veh): 2.3 Worst Case Level Of Service: C [16.3]
Street Name: Virginia Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 1 0 0 0 0 1 0 1 1 0 1 0 0 1 0
Volume Module:
Base Vol: 2 0 8 2 0 0 0 160 1 13 265 3
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 9 2 0 0 0 185 1 15 306 3
Added Vol: 0 0 0 0 0 0 0 59 0 0 35 0
PasserByVol: 13 0 55 0 0 0 0 -23 10 78 -23 0
Initial Fut: 15 0 64 2 0 0 0 221 11 93 318 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 16 0 68 2 0 0 0 232 12 98 335 4
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 16 0 68 2 0 0 0 232 12 98 335 4
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflct Vol: 791 793 142 669 xxxx xxxxx xxxx xxxx xxxxx 254 xxxx xxxxx
Potent Cap.: 310 324 911 374 xxxx xxxxx xxxx xxxx xxxxx 1311 xxxx xxxxx
Move Cap.: 287 294 896 321 xxxx xxxxx xxxx xxxx xxxxx 1300 xxxx xxxxx
Volume/Cap: 0.06 0.00 0.08 0.01 xxxx xxxxx xxxx xxxx xxxxx 0.08 xxxx xxxxx
Level Of Service Module:
2Way95thQ: 0.2 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx 0.2 xxxx xxxxx
Control Del: 18.3 xxxxx xxxxx 16.3 xxxx xxxxx xxxxx xxxx xxxxx 8.0 xxxx xxxxx
LOS by Move: * C * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx 896 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx 0.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd CnDel:xxxxx xxxx 9.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * A * * * * * * * *
ApproachDel: 11.1 * 16.3 * xxxxxxxx * xxxxxxx
ApproachLOS: B C * *
Note: Queue reported is the number of cars per lane.

NT plus Proj PM Tue Mar 31, 2009 12:01:05 Page 1-1

Scenario: NT plus Proj PM
Command: Default
Volume: NT PM W/ Proj
Geometry: Existing
Impact Fee: Default
Trip Generation: Cum 2014 PM
Trip Distribution: Project
Paths: Project
Routes: Default
Configuration: Default

Intersection	Base	V/ C	Future Del/ Veh	V/ C	Change in
# 1 Via de San Ysidro at Calle Pri	E 67.9	0.958	E 69.5	0.967	+ 1.638 D/V
# 2 Via de San Ysidro at I-5 S/B R	C 27.7	0.579	C 29.0	0.703	+ 1.320 D/V
# 3 Via de San Ysidro at I-5 N/B R	E 40.2	0.550	F 63.7	0.838	+23.441 D/V
# 6 West San Ysidro Blvd at I-805	C 26.1	0.786	D 39.1	0.997	+13.065 D/V
# 7 East San Ysidro at I-805 N/B R	C 24.2	0.747	C 29.2	0.838	+ 4.992 D/V
# 11 East San Ysidro at East Beyer/	A 9.1	0.611	B 10.4	0.657	+ 1.208 D/V
# 12 East San Ysidro at I-5 N/B Ram	C 23.0	0.719	C 24.3	0.741	+ 1.336 D/V
# 13 Camino de la Plaza at I-5 S/B	C 33.0	0.782	D 51.7	1.023	+18.676 D/V
# 14 Camino de la Plaza at Virginia	D 30.1	0.069	F 89.4	1.189	+59.291 D/V

Level Of Service Computation Report

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*****
Intersection #1 Via de San Ysidro at Calle Primera
*****
Cycle (sec):      105          Critical Vol./Cap.(X):      0.967
Loss Time (sec):  16           Average Delay (sec/veh):    69.5
Optimal Cycle:   OPTIMIZED     Level Of Service:          E
*****
Street Name:      Via de San Ysidro          Calle Primera
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:        L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:         Split Phase          Split Phase          Split Phase          Split Phase
Rights:          Include             Include             Include             Include
Min. Green:      5 5 5 5 5 5 5 5 5 5 5 5
Y+R:             4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:           1 0 0 1 0 1 0 0 1 0 1 0 0 1 0 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:        5 35 3 421 9 285 227 58 10 0 26 382
Growth Adj:     1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse:    6 40 3 486 10 329 262 67 12 0 30 441
Added Vol:      0 0 0 8 0 0 0 8 0 0 3 4
PasserByVol:    0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:    6 40 3 494 10 329 262 75 12 0 33 445
User Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:        0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:     6 43 4 520 11 347 276 79 12 0 35 469
Reduct Vol:     0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:    6 43 4 520 11 347 276 79 12 0 35 469
PCE Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:    6 43 4 520 11 347 276 79 12 0 35 469
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:       1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:     0.96 1.23 1.21 1.05 0.98 0.93 0.84 0.99 0.99 1.00 0.95 0.67
Lanes:          1.00 0.92 0.08 1.00 0.03 0.97 1.00 0.87 0.13 0.00 1.00 1.00
Final Sat.:    1827 2144 184 2004 54 1724 1592 1632 251 0 1801 1278
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:        0.00 0.02 0.02 0.26 0.20 0.20 0.17 0.05 0.05 0.00 0.02 0.37
Crit Moves:     ****          ****          ****          ****
Green/Cycle:    0.05 0.05 0.05 0.26 0.26 0.26 0.17 0.17 0.17 0.00 0.37 0.37
Volume/Cap:     0.07 0.42 0.42 1.00 0.77 0.77 1.00 0.28 0.28 0.00 0.05 1.00
Delay/Veh:      48.1 51.1 51.1 78.2 44.0 44.0 97.4 38.2 38.2 0.0 21.5 74.7
User DelAdj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:    48.1 51.1 51.1 78.2 44.0 44.0 97.4 38.2 38.2 0.0 21.5 74.7
LOS by Move:    D E D D F D D A C E
HCM2kAvgQ:      0 2 2 20 11 11 14 3 3 0 1 21
*****
Note: Queue reported is the number of cars per lane.
*****
Traffic 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KOA CORP, SAN DIEGO

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Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj PM Tue Mar 31, 2009 12:01:12 Page 6-1

Intersection #6 West San Ysidro Blvd at I-805 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.997
Loss Time (sec): 12 Average Delay (sec/veh): 39.1
Optimal Cycle: OPTIMIZED Level Of Service: D
Street Name: I-805 S/B Ramps San Ysidro Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 1 0 1 0 1 0 0 1 1 0 2 0 2 0 0 0
Volume Module:
Base Vol: 0 0 0 406 13 490 0 655 412 173 478 0
Growth Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
Initial Bse: 0 419 13 506 0 676 425 179 493 0
Added Vol: 0 0 0 0 0 240 0 175 153 24 98 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 419 13 746 0 851 578 203 591 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 441 14 785 0 896 609 213 622 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 441 14 785 0 896 609 213 622 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 441 14 785 0 896 609 213 622 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.84 0.84 0.82 1.00 0.87 1.22 0.87 0.96 1.00
Lanes: 0.00 0.00 0.00 1.35 0.02 1.63 0.00 1.34 0.66 2.00 2.00 0.00
Final Sat.: 0 0 0 2150 35 2549 0 2232 1517 3318 3655 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.21 0.40 0.31 0.00 0.40 0.40 0.06 0.17 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.40 0.40 0.40 0.00 0.40 0.40 0.06 0.35 0.00
Volume/Cap: 0.00 0.00 0.00 0.51 1.00 0.77 0.00 1.00 1.00 1.00 0.48 0.00
Delay/Veh: 0.0 0.0 0.0 20.6 51.6 25.8 0.0 49.1 49.1 102.6 23.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 20.6 51.6 25.8 0.0 49.1 49.1 102.6 23.0 0.0
LOS by Move: A C D C A D D F C A
HCM2kAvgQ: 0 0 0 7 25 13 0 27 35 4 7 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj PM Tue Mar 31, 2009 12:01:12 Page 7-1

Intersection #7 Esat San Ysidro at I-805 N/B ramps
Cycle (sec): 94 Critical Vol./Cap.(X): 0.838
Loss Time (sec): 12 Average Delay (sec/veh): 29.2
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-805 N/B Ramps East San Ysidro
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 1 0 0 1 0 0 0 0 0 2 0 2 0 0 0 0 1 1 0
Volume Module:
Base Vol: 120 0 229 0 0 0 250 776 0 0 517 403
Growth Adj: 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21 1.21
Initial Bse: 145 0 276 0 0 0 302 937 0 0 624 486
Added Vol: 0 0 24 0 0 0 175 0 0 0 24 6
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 243 0 300 0 0 0 477 937 0 0 648 492
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 256 0 316 0 0 0 502 986 0 0 682 518
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 256 0 316 0 0 0 502 986 0 0 682 518
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 256 0 316 0 0 0 502 986 0 0 682 518
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.82 1.00 1.00 1.00 0.90 0.93 1.00 1.00 0.87 0.78
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 2.00 2.00 0.00 0.00 1.08 0.92
Final Sat.: 1773 0 1553 0 0 0 3432 3538 0 0 1790 1360
Capacity Analysis Module:
Vol/Sat: 0.14 0.00 0.20 0.00 0.00 0.00 0.15 0.28 0.00 0.00 0.38 0.38
Crit Moves: ****
Green/Cycle: 0.24 0.00 0.24 0.00 0.00 0.00 0.17 0.53 0.00 0.00 0.45 0.45
Volume/Cap: 0.59 0.00 0.84 0.00 0.00 0.00 0.84 0.53 0.00 0.00 0.84 0.84
Delay/Veh: 33.7 0.0 48.9 0.0 0.0 0.0 47.6 14.8 0.0 0.0 27.1 27.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 33.7 0.0 48.9 0.0 0.0 0.0 47.6 14.8 0.0 0.0 27.1 27.1
LOS by Move: D A A A D B A A C C
HCM2kAvgQ: 7 0 11 0 0 0 7 9 0 0 19 18

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj PM Tue Mar 31, 2009 12:01:12 Page 8-1

Table for Intersection #11 East San Ysidro at East Beyer/Camino de la Plaza. Includes Cycle (sec): 60, Loss Time (sec): 16, Critical Vol./Cap.(X): 0.657, Average Delay (sec/veh): 10.4, Level Of Service: B. Detailed traffic volume and saturation flow data.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj PM Tue Mar 31, 2009 12:01:12 Page 9-1

Table for Intersection #12 East San Ysidro at I-5 N/B Ramps. Includes Cycle (sec): 90, Loss Time (sec): 12, Critical Vol./Cap.(X): 0.741, Average Delay (sec/veh): 24.3, Level Of Service: C. Detailed traffic volume and saturation flow data.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
NT plus Proj PM Tue Mar 31, 2009 12:01:12 Page 10-1

Intersection #13 Camino de la Plaza at I-5 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 1.023
Loss Time (sec): 16 Average Delay (sec/veh): 51.7
Optimal Cycle: OPTIMIZED Level Of Service: D
Street Name: I-5 N/B ramps Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Ovl
Min. Green: 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1
Volume Module:
Base Vol: 95 50 237 201 376 430 294 341 53 95 248 281
Growth Adj: 1.00 1.00 1.00 1.16 1.00 1.16 1.16 1.16 1.00 1.00 1.16 1.16
Initial Bse: 95 50 237 232 376 497 340 394 53 95 286 325
Added Vol: 0 0 0 0 0 47 22 21 0 0 27 36
PasserByVol: -29 -22 -103 0 -164 164 22 103 -22 -41 41 0
Initial Fut: 66 28 134 232 212 708 384 518 31 54 354 361
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 69 29 141 244 223 745 404 545 33 57 373 380
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 69 29 141 244 223 745 404 545 33 57 373 380
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 69 29 141 244 223 745 404 545 33 57 373 380
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.91 0.67 0.96 0.98 0.65 0.90 0.92 0.92 0.93 0.98 0.84
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.89 0.11 1.00 1.00 1.00
Final Sat.: 1711 1737 1280 1827 1862 1242 1711 3310 198 1769 1862 1602
Capacity Analysis Module:
Vol/Sat: 0.04 0.02 0.11 0.13 0.12 0.60 0.24 0.16 0.16 0.03 0.20 0.24
Crit Moves: ****
Green/Cycle: 0.06 0.15 0.25 0.26 0.35 0.57 0.23 0.31 0.31 0.11 0.19 0.45
Volume/Cap: 0.73 0.11 0.43 0.52 0.34 1.04 1.04 0.53 0.53 0.30 1.04 0.53
Delay/Veh: 66.8 33.3 29.0 29.9 22.0 64.8 92.5 25.9 25.9 38.1 95.9 18.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 66.8 33.3 29.0 29.9 22.0 64.8 92.5 25.9 25.9 38.1 95.9 18.8
LOS by Move: C C C E F C C D F B
HCM2kAvgQ: 3 1 4 6 5 30 16 7 7 1 15 7
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

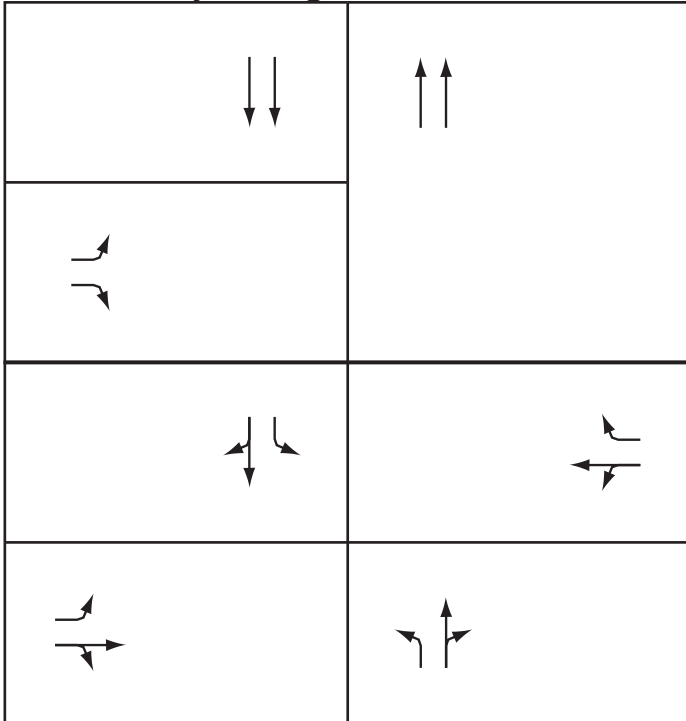
2000 HCM Unsignalized Method (Future Volume Alternative)
NT plus Proj PM Tue Mar 31, 2009 12:01:12 Page 11-1

Intersection #14 Camino de la Plaza at Virginia
Average Delay (sec/veh): 9.0 Worst Case Level Of Service: F [89.4]
Street Name: Virginia Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 0 0 1 0 0 1 0 1 1 0 1 0 0 1 0
Volume Module:
Base Vol: 0 0 36 4 0 3 3 639 2 26 739 5
Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16
Initial Bse: 0 0 0 5 0 3 3 738 2 30 854 6
Added Vol: 0 0 0 0 0 0 0 43 0 0 74 0
PasserByVol: 29 0 100 0 0 0 0 -51 22 181 -51 0
Initial Fut: 29 0 142 5 0 3 3 730 24 211 877 6
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 31 0 149 5 0 4 4 768 26 222 923 6
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 31 0 149 5 0 4 4 768 26 222 923 6
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Conflict Vol: 2180 2182 417 1782 2191 946 939 xxxx xxxxx 804 xxxx xxxxx
Potent Cap.: 34 47 640 64 46 320 730 xxxx xxxxx 820 xxxx xxxxx
Move Cap.: 26 33 629 38 33 315 724 xxxx xxxxx 813 xxxx xxxxx
Volume/Cap: 1.19 0.00 0.24 0.13 0.00 0.01 0.01 xxxx xxxxx 0.27 xxxx xxxxx
Level Of Service Module:
2Way95thQ: 3.7 xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx 1.1 xxxx xxxxx
Control Del: 464.7 xxx xxxxxx xxxxxx xxxx xxxxxx 10.0 xxxx xxxxxx 11.1 xxxx xxxxxx
LOS by Move: * * * * A * * * B * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx 629 xxxx 61 xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx
SharedQueue: xxxx xxxx 0.9 xxxxx 0.5 xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Shrd ConDel: xxxx xxxx 12.5 xxxxxx 73.3 xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Shared LOS: * * B * * F * * * * * * * *
ApproachDel: 89.4 73.3 xxxxxxxx xxxxxxxx
ApproachLOS: F F * *
Note: Queue reported is the number of cars per lane.

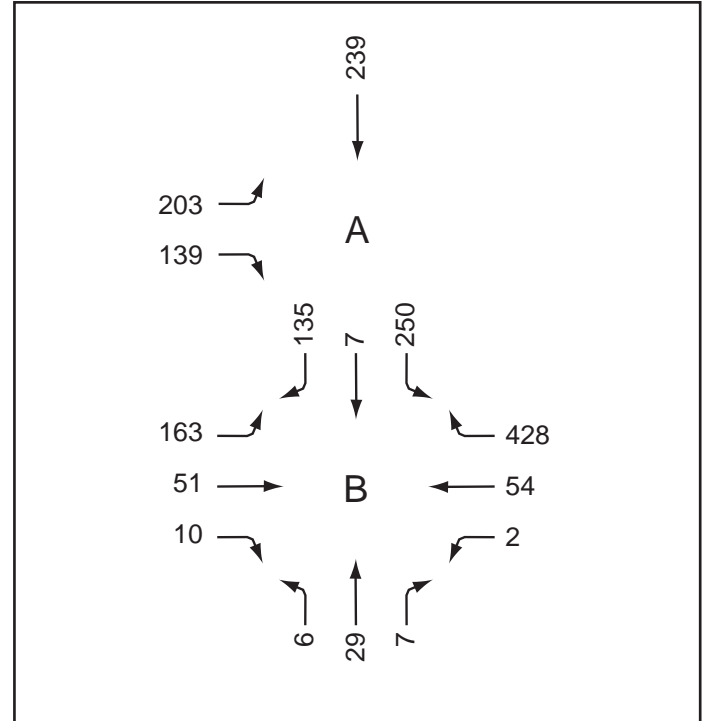
ILV Calculation

1&2: Via de San Ysidro & I-5 SB Ramp
Near Term AM With Project Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
<p>A</p> <p>120</p> <p>119</p>	<p>A</p> <p>203</p> <p>139</p>	<p>A</p> <p>163</p>	<p>A</p> <p>308</p>	<p>A</p> <p>29</p>
<p>B</p> <p>120</p> <p>120</p> <p>120</p>	<p>B</p> <p>22</p> <p>130</p>	<p>B</p> <p>163</p> <p>61</p>	<p>B</p> <p>308</p> <p>56</p>	<p>B</p> <p>6</p> <p>36</p>

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
120	203	163	308	36

Total Operating Level (ILV/hr):

Σ
830

Is...

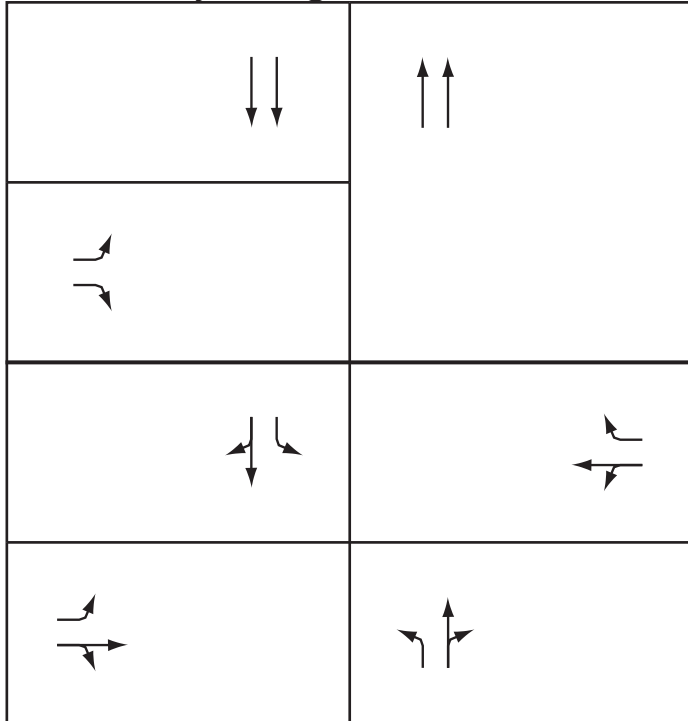
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

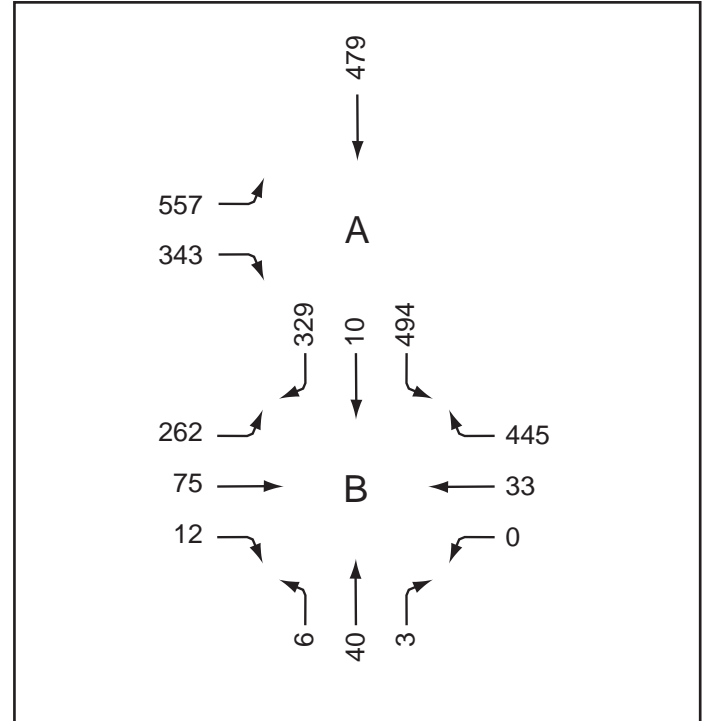
ILV Calculation

1&2: Via de San Ysidro & I-5 SB Ramp
Near Term PM With Project Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
A 240 239	A 557 343	A 262	A 205	A 40
B 240 240 240	B 99 254	B 262 87	B 205 33	B 6 43

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
240	557	262	205	43

Total Operating Level (ILV/hr):

Σ
1307

Is...

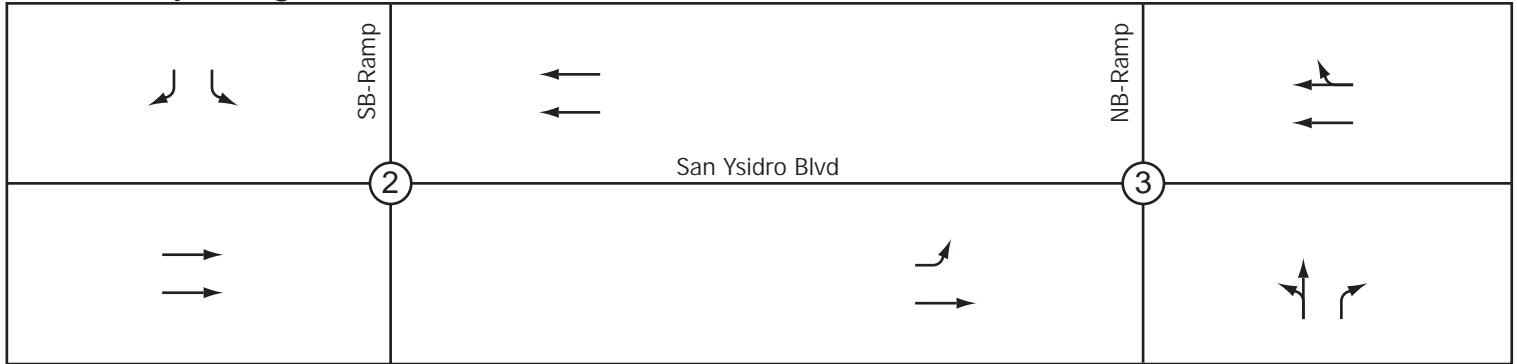
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

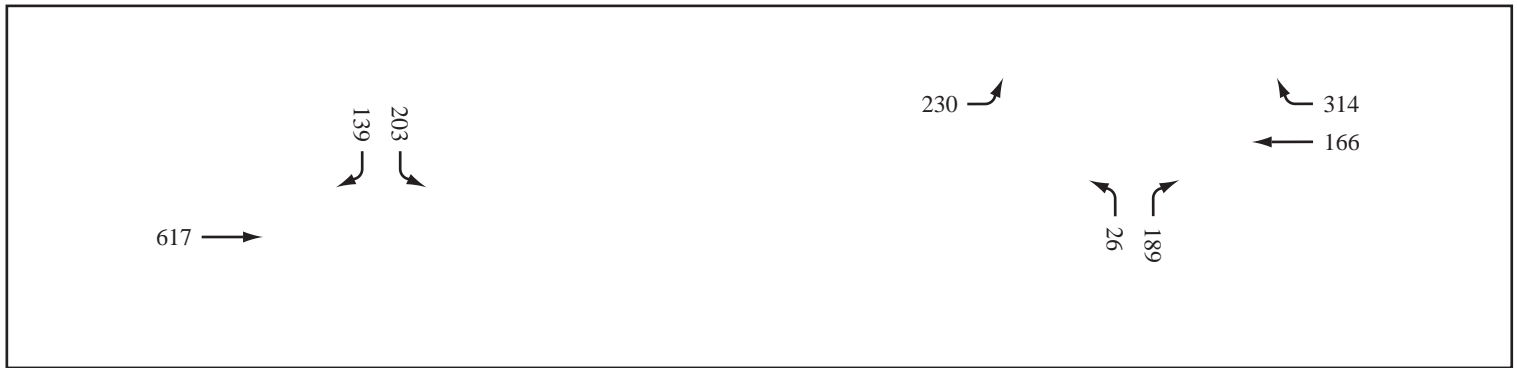
ILV Calculation

2&3: Via de San Ysidro & I-5 SB & NB Ramps
Near Term AM Peak Hour With Project

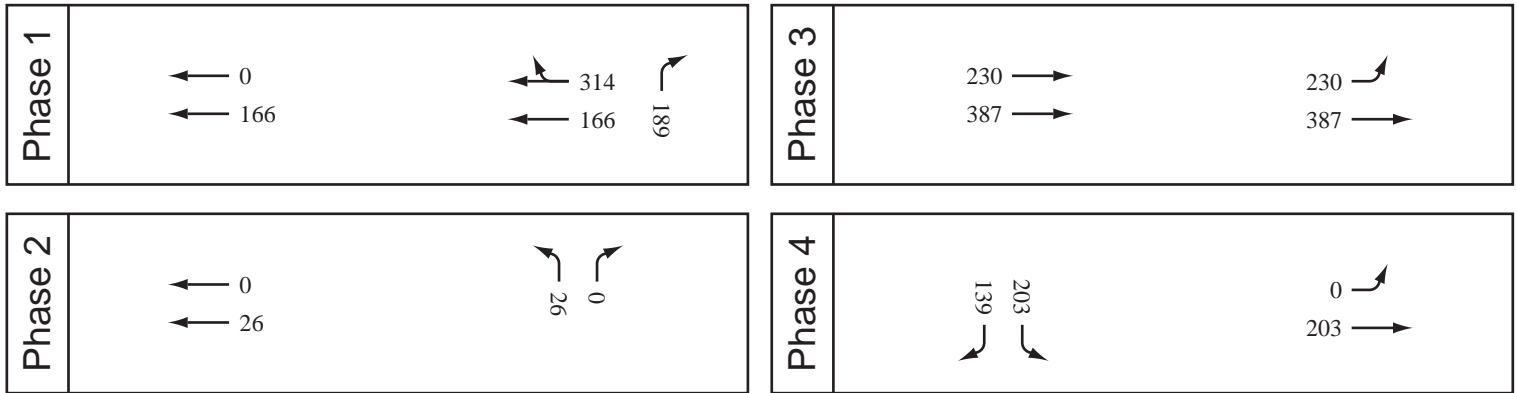
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
314	26	387	203

Total Operating Level (ILV/hr):

Σ
930

Is...

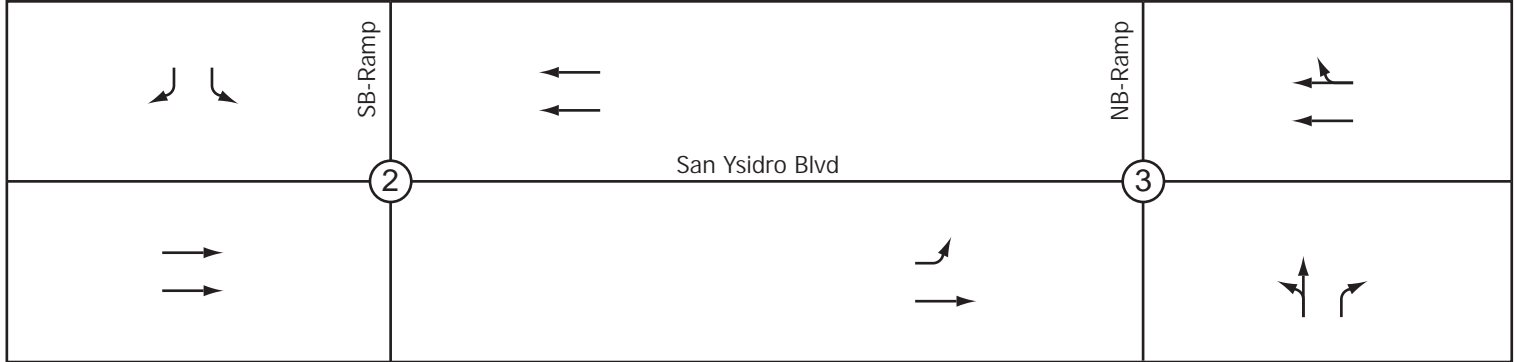
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

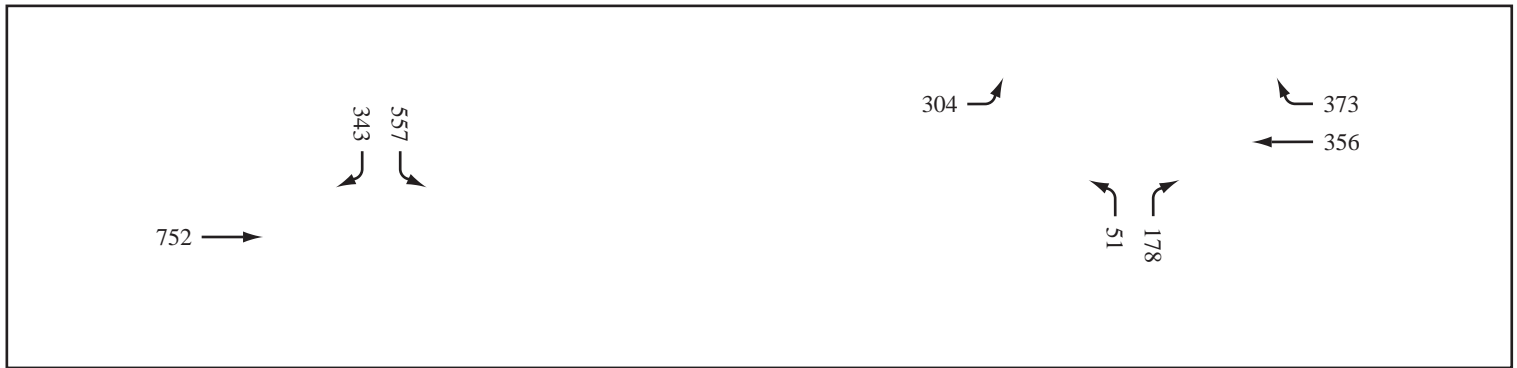
ILV Calculation

2&3: Via de San Ysidro & I-5 SB & NB Ramps
Near Term PM Peak Hour With Project

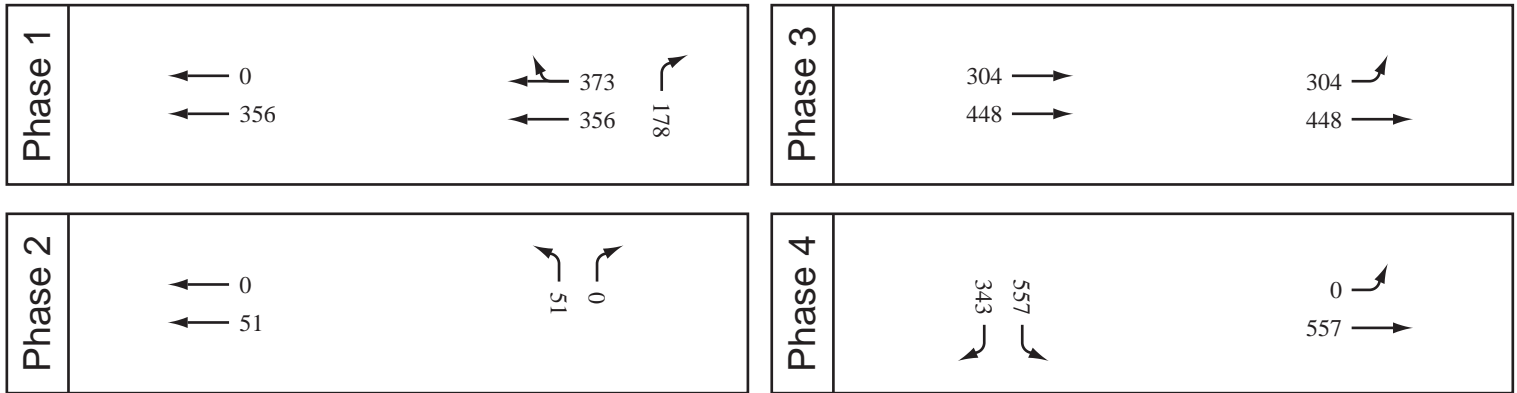
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
373	51	448	557

Total Operating Level (ILV/hr):

Σ
1429

Is...

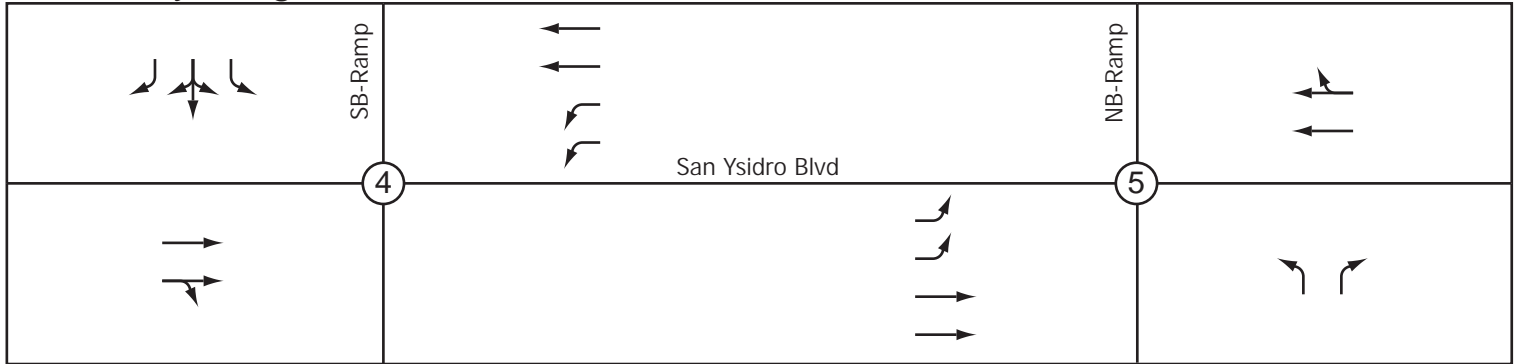
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

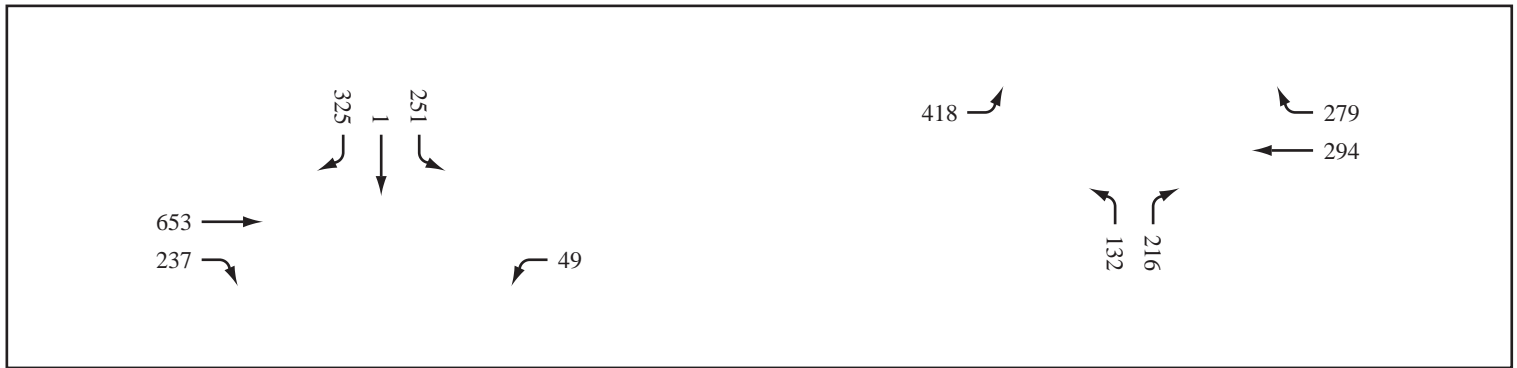
ILV Calculation

4&5: San Ysidro Boulevard & I-805 SB & NB Ramps
Near Term AM Peak Hour With Project

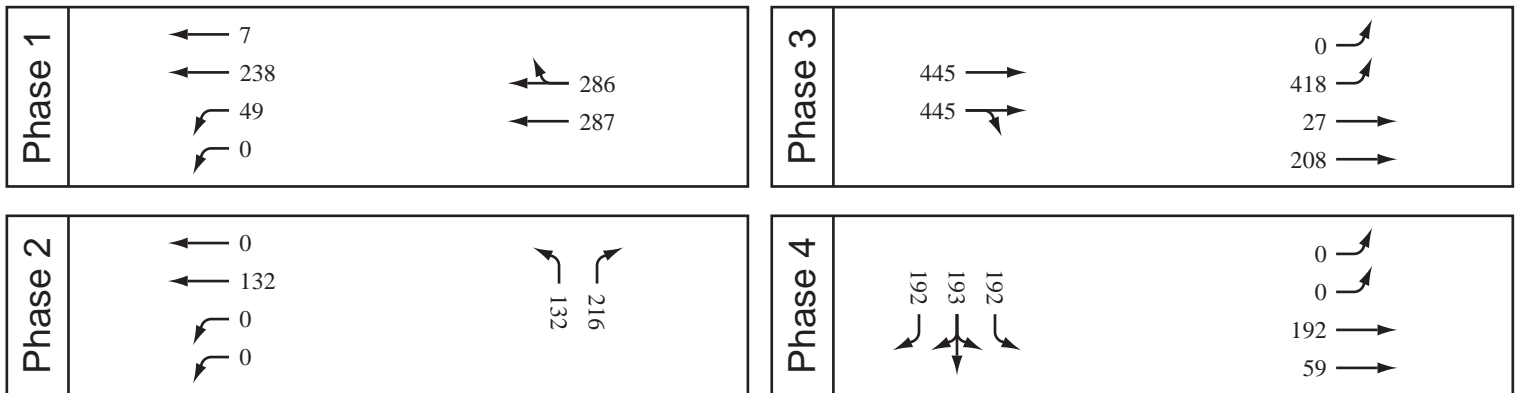
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
287	216	445	193

Total Operating Level (ILV/hr):

Σ
1141

Is...

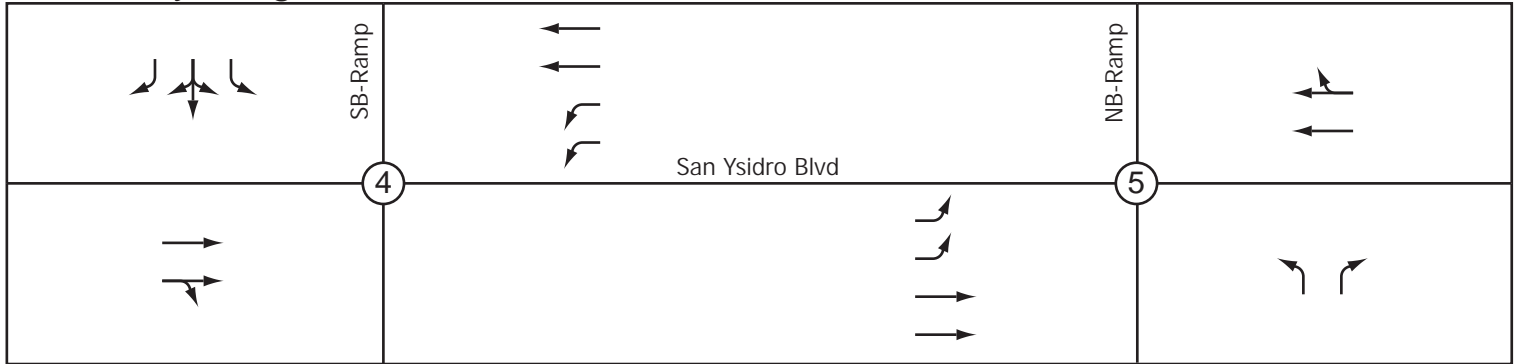
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

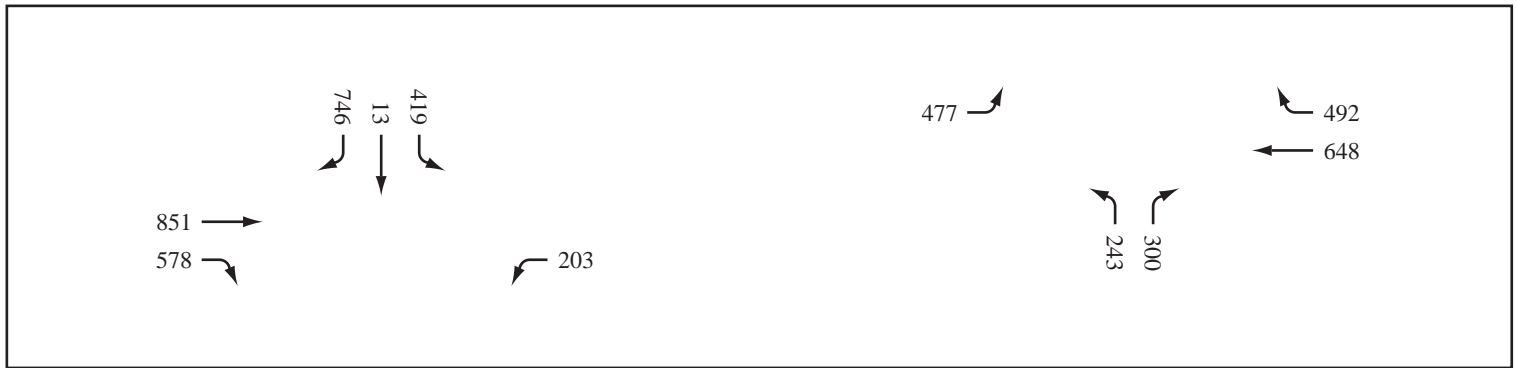
ILV Calculation

4&5: San Ysidro Boulevard & I-805 SB & NB Ramps
Near Term PM Peak Hour With Project

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase	Left Lane	Through Lane	Right Lane
Phase 1	78 367 203 0	570 570	0 477 238 136
Phase 2	0 243 0 0	300 243	0 0 392 27
Phase 3	715 714	392 393 393	0 0 392 27
Phase 4	0 0 392 27	392 393 393	0 0 392 27

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
570	300	715	393

Total Operating Level (ILV/hr):

Σ
1978

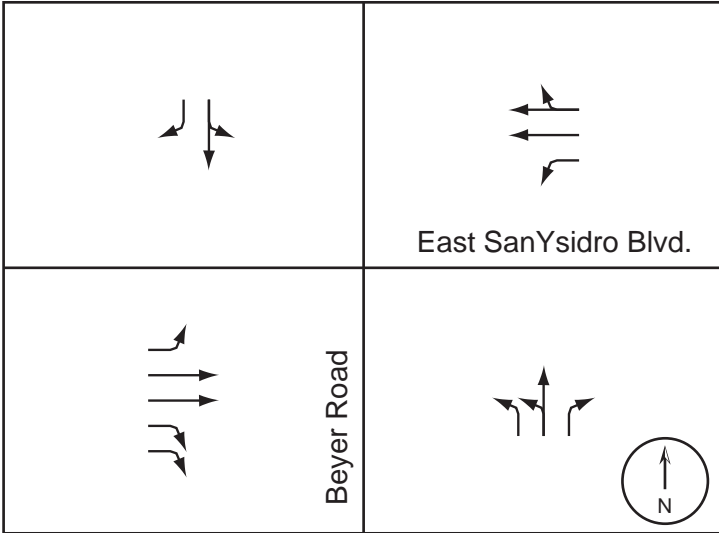
- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

Remarks:

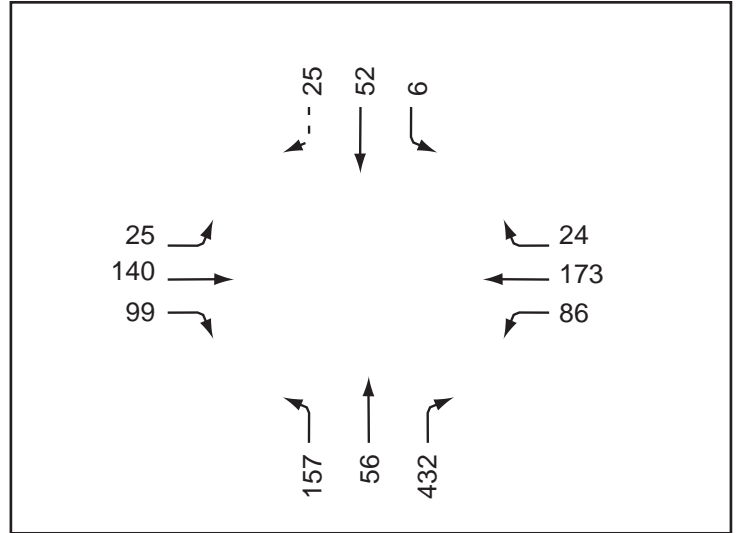
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Near Term With Project AM Peak Hour

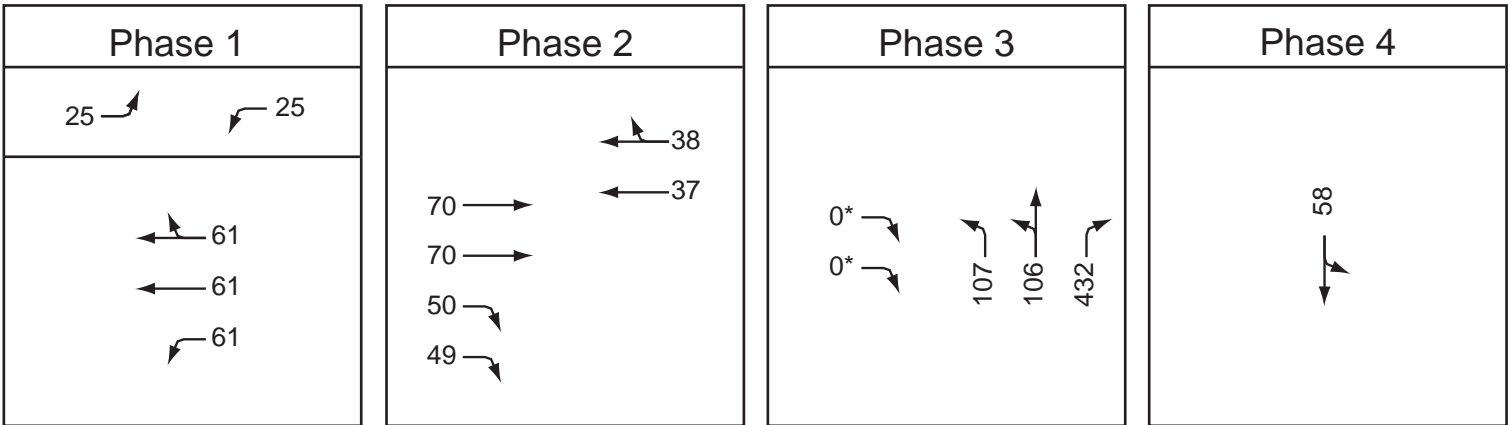
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
86	70	432	58

Total Operating Level (ILV/hr):

Σ
646

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

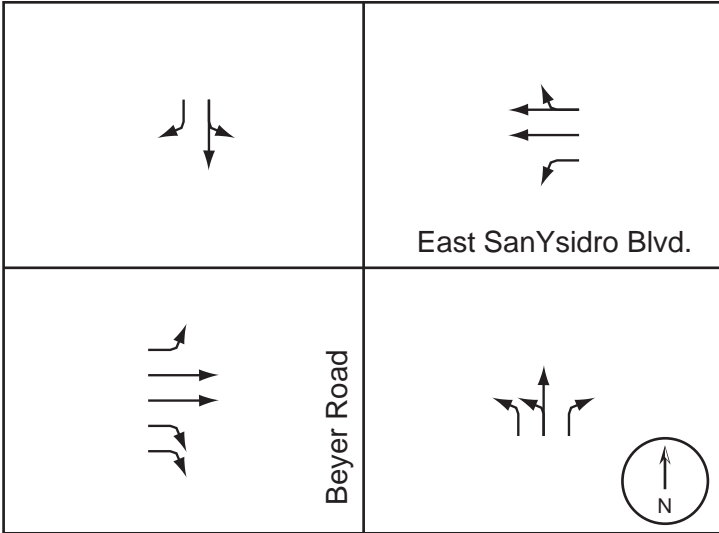
Free Right

*Right-Turn Overlap

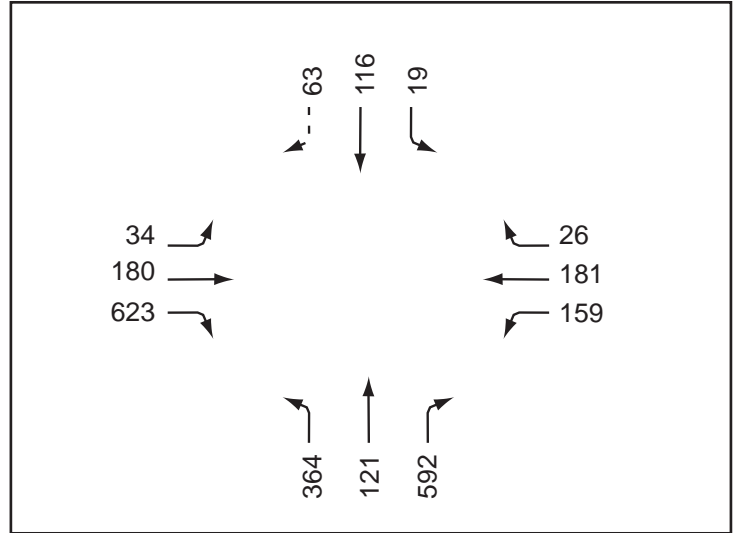
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Near Term With Project PM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
34 → ↘ 34 ← ↘ 104 ← 103 ↘ 125	← 0 ← 0 90 → 90 → 90 ↘ 90 ↘	222* ↘ 221* ↘ 243 ↘ 242 ↘ 592 ↘	↘ 135

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
159	90	592	135

Total Operating Level (ILV/hr):

Σ
976

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

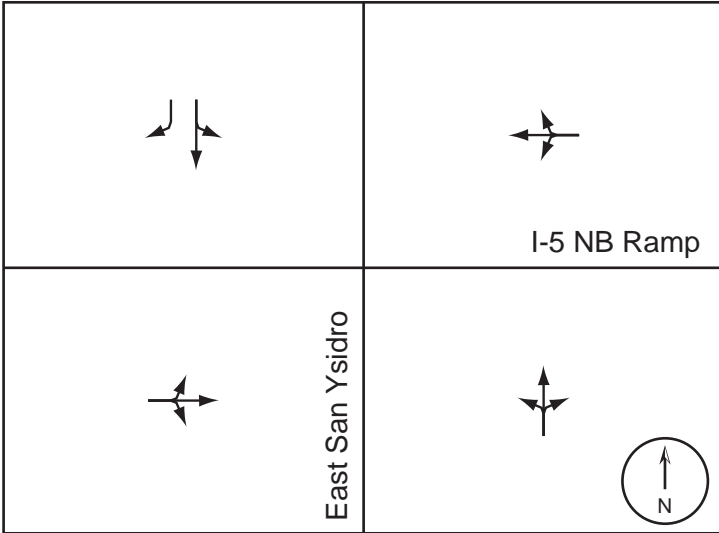
Free Right

*Right-Turn Overlap

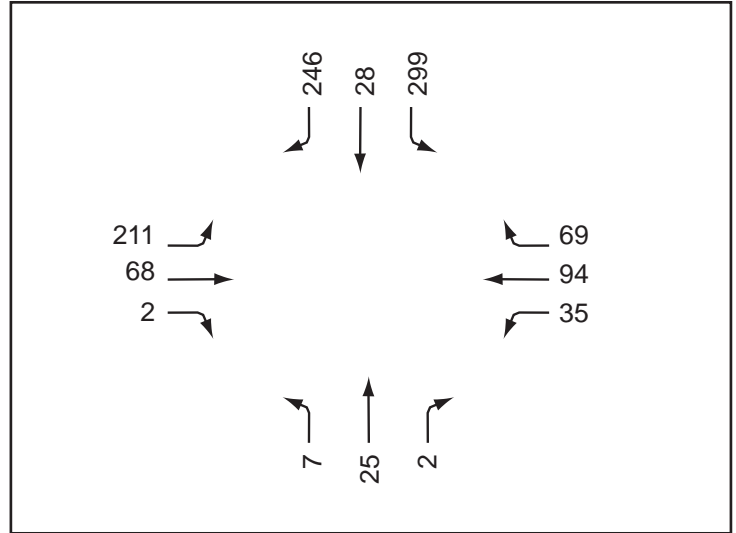
ILV Calculation

7: East San Ysidro Boulevard & I-5 NB Ramp
Near Term AM With Project Peak Hour

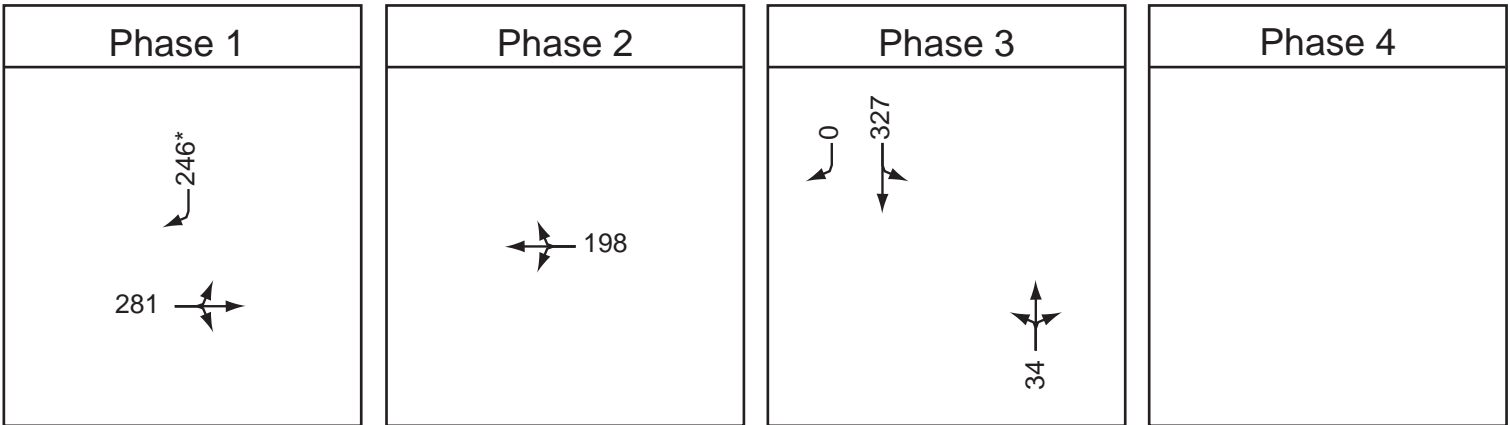
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
281	198	327	

Total Operating Level (ILV/hr):

Σ
806

- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

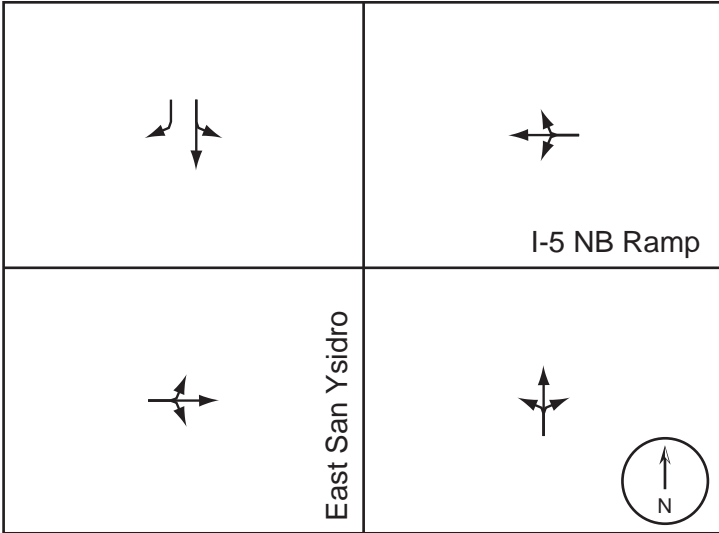
Remarks:

*Right-Turn Overlap

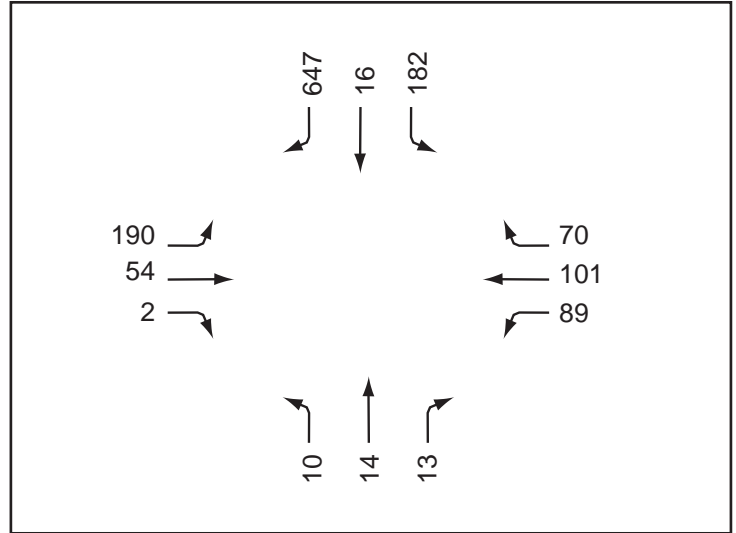
ILV Calculation

7: East San Ysidro Boulevard & I-5 NB Ramp
Near Term With Project PM Peak Hour

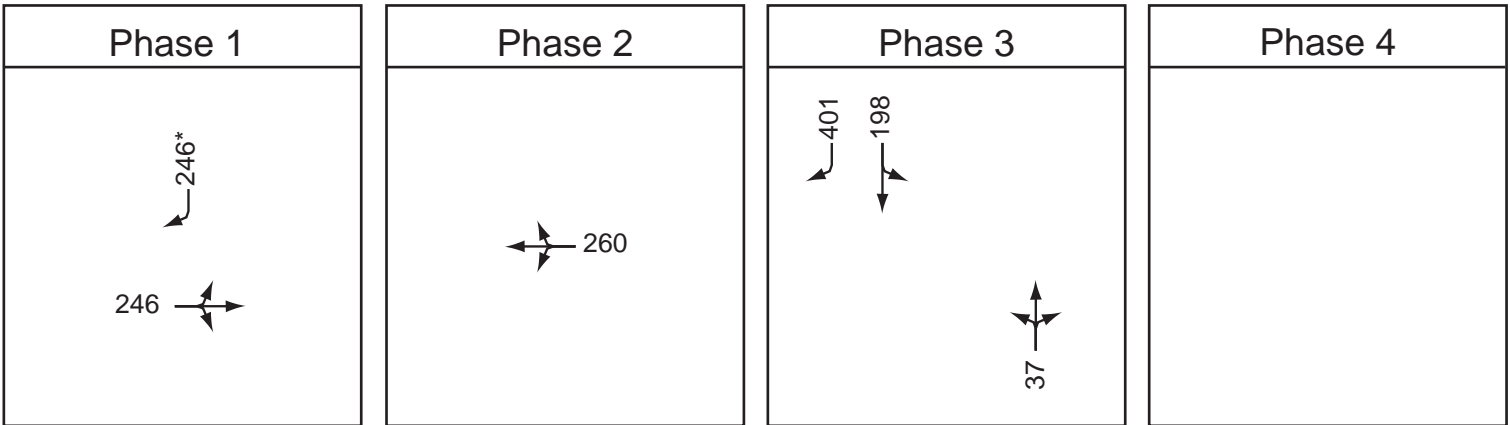
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
246	260	401	

Total Operating Level (ILV/hr):

Σ
907

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

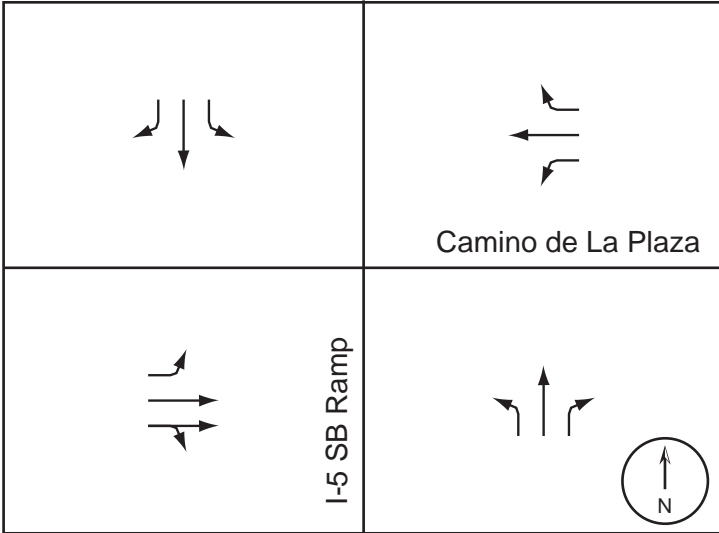
Remarks:

*Right-Turn Overlap

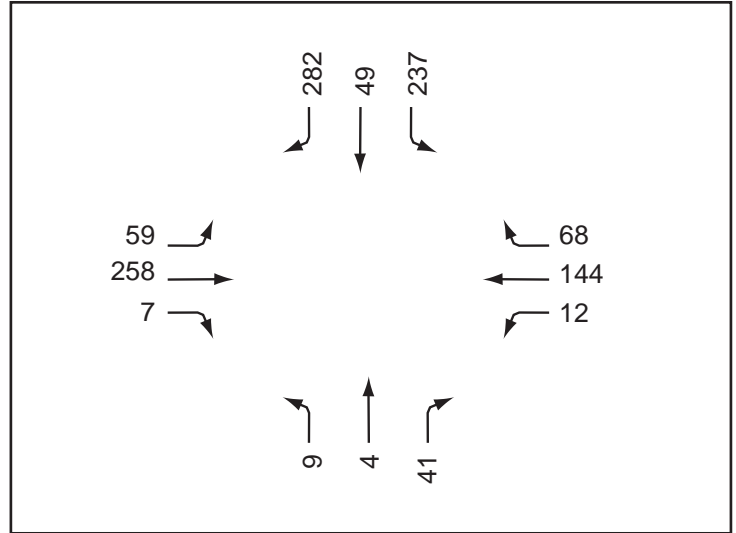
ILV Calculation

8: Camino de la Plaza & I-5 SB Ramp
Near Term AM With Project Peak Hour

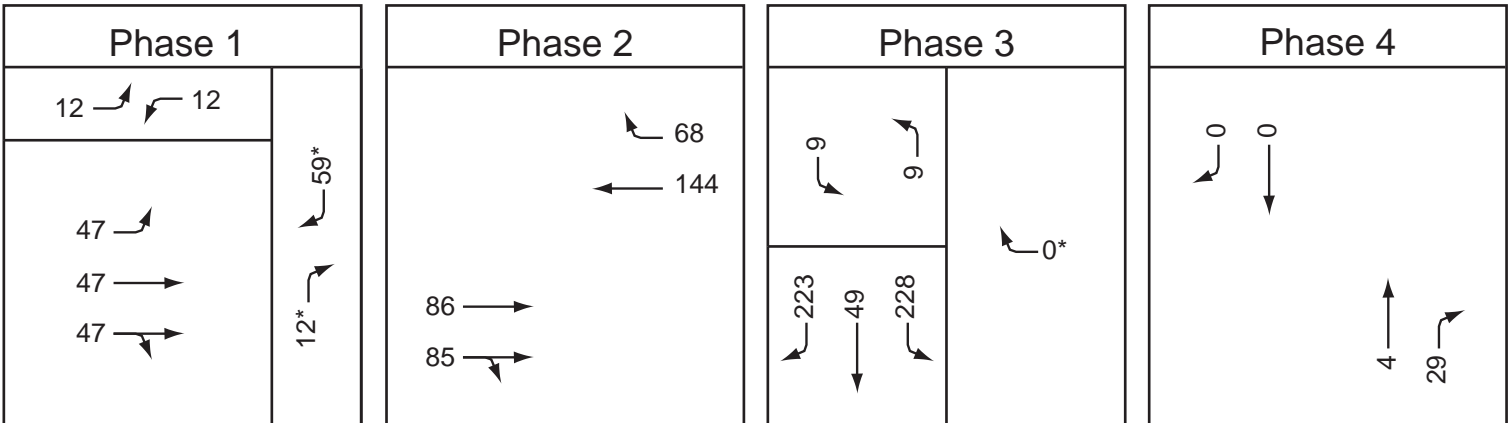
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
59	144	237	29

Total Operating Level (ILV/hr):

Σ
469

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

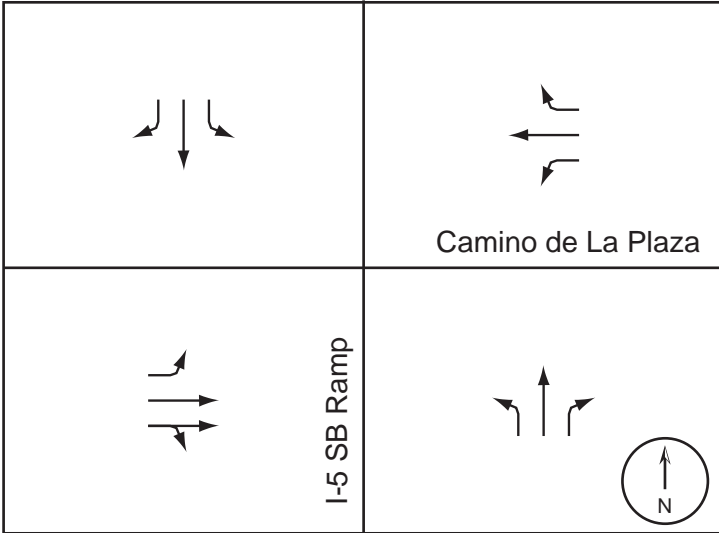
Remarks:

*Right-Turn Overlap

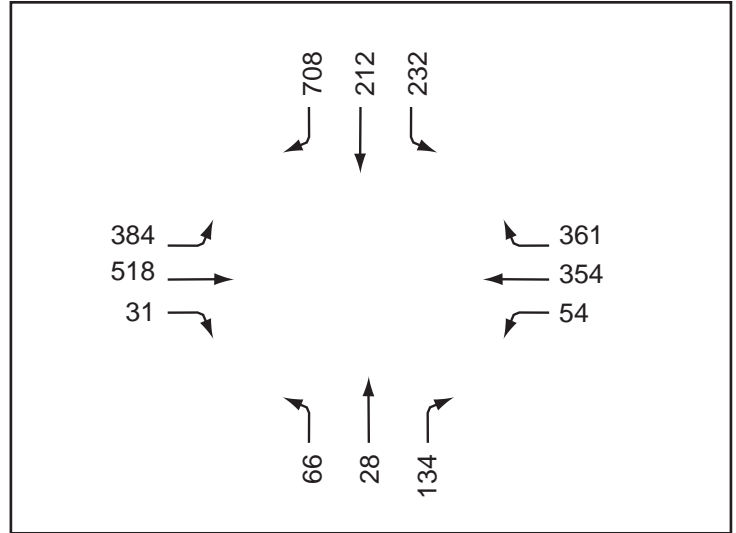
ILV Calculation

8: Camino de la Plaza & I-5 SB Ramp
Near Term PM With Project Peak Hour

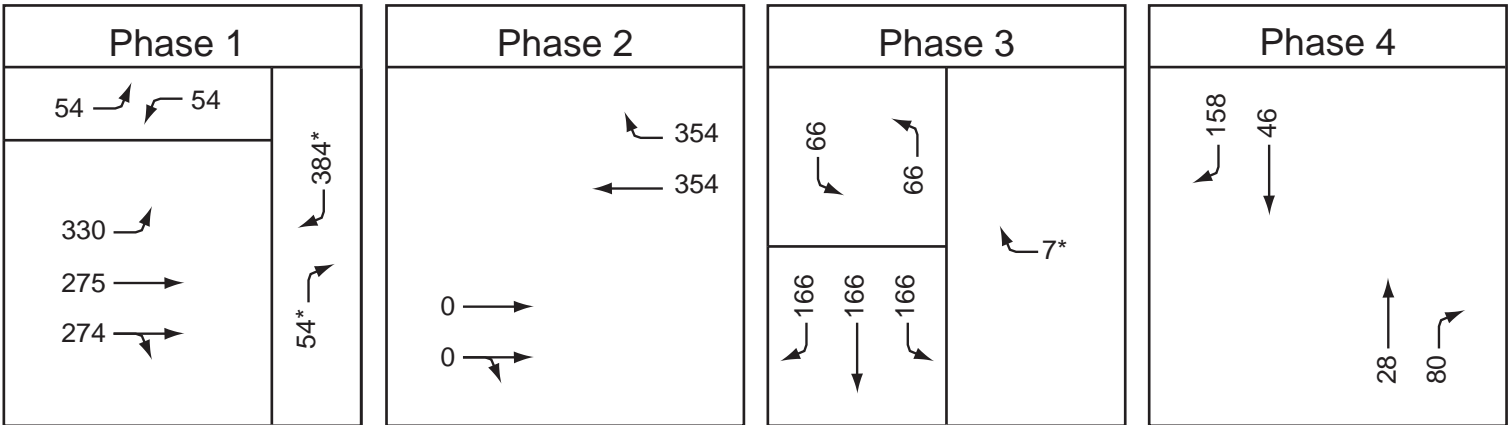
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
384	354	232	158

Total Operating Level (ILV/hr):

Σ
1128

- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

Remarks:

*Right-Turn Overlap

APPENDIX F

**PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS HORIZON YEAR
CONDITIONS**

LT AM Wed Jul 23, 2008 10:22:19 Page 1-1

Scenario: LT AM
 Command: Default
 Volume: LT AM
 Geometry: Existing
 Impact Fee: Default
 Trip Generation: none
 Trip Distribution: Project
 Paths: Project
 Routes: Default
 Configuration: Default

LT AM Wed Jul 23, 2008 10:22:21 Page 2-1

Intersection		Base		Future		Change in			
		V/ C	LOS	Del/ Veh	V/ C				
# 1	Via de San Ysidro at Calle Pri	D	48.7	0.869	D	48.7	0.869	+ 0.000	D/V
# 2	Via de San Ysidro at I-5 S/B R	C	24.1	0.404	C	24.1	0.404	+ 0.000	D/V
# 3	Via de San Ysidro at I-5 N/B R	C	17.1	0.000	C	17.1	0.000	+ 0.000	D/V
# 6	West San Ysidro Blvd at I-805	C	20.8	0.456	C	20.8	0.456	+ 0.000	D/V
# 7	Esat San Ysidro at I-805 N/B r	C	24.2	0.641	C	24.2	0.641	+ 0.000	D/V
# 11	East San Ysidro at East Beyer/	C	22.1	0.740	C	22.1	0.740	+ 0.000	D/V
# 12	East San Ysidro at I-5 N/B Ram	C	32.9	0.831	C	32.9	0.831	+ 0.000	D/V
# 13	Camino de la Plaza at I-5 S/B	C	26.1	0.438	C	26.1	0.438	+ 0.000	D/V
# 14	Camino de la Plaza at Virginia	B	13.9	0.000	B	13.9	0.000	+ 0.000	D/V

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT AM Wed Jul 23, 2008 10:22:21 Page 3-1

Intersection #1 Via de San Ysidro at Calle Primera

Cycle (sec): 95 Critical Vol./Cap.(X): 0.869
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 48.7
Optimal Cycle: OPTIMIZED Level Of Service: D

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include North Bound, South Bound, East Bound, and West Bound.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT AM Wed Jul 23, 2008 10:22:21 Page 4-1

Intersection #2 Via de San Ysidro at I-5 S/B Ramp

Cycle (sec): 90 Critical Vol./Cap.(X): 0.404
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 24.1
Optimal Cycle: OPTIMIZED Level Of Service: C

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include North Bound, South Bound, East Bound, and West Bound.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. for Saturation Flow Module.

Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ for Capacity Analysis Module.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

Intersection #3 Via de San Ysidro at I-5 N/B Ramps

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: C [17.1]

Street Name: Vis de San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 1

Volume Module:
Base Vol: 215 437 0 0 0 161 164 0 0 0 25 0 140
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 245 497 0 0 0 183 187 0 0 0 28 0 159
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 245 497 0 0 0 183 187 0 0 0 28 0 159
Initial Fut: 245 497 0 0 0 183 187 0 0 0 28 0 159
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 258 523 0 0 0 193 196 0 0 0 30 0 168
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 258 523 0 0 0 193 196 0 0 0 30 0 168

Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 6.5 6.2
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 399 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1155 1448 543
Potent Cap.: 1159 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 218 131 539
Move Cap.: 1150 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 177 100 529
Volume/Cap: 0.22 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.17 0.00 0.32

Level Of Service Module:
2Way95thQ: 0.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1.4
Control Del: 9.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 14.9
LOS by Move: A * B
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 177 xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.6 xxxxx xxxxx
Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 29.5 xxxxx xxxxx
Shared LOS: * D * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx 17.1
ApproachLOS: * * * * * C

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

Intersection #6 West San Ysidro Blvd at I-805 S/B Ramps

Cycle (sec): 90 Critical Vol./Cap.(X): 0.456
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 20.8
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name: I-805 S/B Ramps San Ysidro Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 0 0 0 1 0 1 0 1 0 0 1 1 0 2 0 2 0 0

Volume Module:
Base Vol: 0 0 0 243 1 240 0 488 119 38 224 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 277 1 273 0 555 135 43 255 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 277 1 273 0 555 135 43 255 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 291 1 287 0 585 143 46 268 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 291 1 287 0 585 143 46 268 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 291 1 287 0 585 143 46 268 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.84 0.84 0.84 1.00 0.90 1.28 0.87 0.96 1.00
Lanes: 0.00 0.00 0.00 1.50 0.01 1.49 0.00 1.71 0.29 2.00 2.00 0.00
Final Sat.: 0 0 0 2395 7 2390 0 2930 714 3318 3655 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.12 0.18 0.12 0.00 0.20 0.20 0.01 0.07 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.39 0.39 0.39 0.00 0.42 0.42 0.06 0.27 0.00
Volume/Cap: 0.00 0.00 0.00 0.31 0.47 0.31 0.00 0.47 0.47 0.25 0.27 0.00
Delay/Veh: 0.0 0.0 0.0 19.4 21.0 19.3 0.0 18.9 18.9 41.4 25.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 19.4 21.0 19.3 0.0 18.9 18.9 41.4 25.8 0.0
LOS by Move: A A A B C B A B B D C A
HCM2kAvgQ: 0 0 0 4 6 4 0 7 10 1 3 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT AM Wed Jul 23, 2008 10:22:21 Page 7-1

Intersection #7 Esat San Ysidro at I-805 N/B ramps
Cycle (sec): 94 Critical Vol./Cap.(X): 0.641
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 24.2
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-805 N/B Ramps East San Ysidro
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 1 0 0 1 0 0 0 0 0 2 0 2 0 0 0 0 1 1 0 0
Volume Module:
Base Vol: 70 0 155 0 0 0 223 434 0 0 235 220
Growth Adj: 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62
Initial Bse: 114 0 252 0 0 0 362 705 0 0 382 357
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 114 0 252 0 0 0 362 705 0 0 382 357
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 120 0 265 0 0 0 381 742 0 0 402 376
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 120 0 265 0 0 0 381 742 0 0 402 376
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 120 0 265 0 0 0 381 742 0 0 402 376
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.82 1.00 1.00 1.00 0.90 0.93 1.00 1.00 0.86 0.71
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 2.00 2.00 0.00 0.00 1.00 1.00
Final Sat.: 1773 0 1553 0 0 0 3432 3538 0 0 1640 1355
Capacity Analysis Module:
Vol/Sat: 0.07 0.00 0.17 0.00 0.00 0.00 0.11 0.21 0.00 0.00 0.24 0.28
Crit Moves: ****
Green/Cycle: 0.27 0.00 0.27 0.00 0.00 0.00 0.17 0.48 0.00 0.00 0.43 0.43
Volume/Cap: 0.25 0.00 0.64 0.00 0.00 0.00 0.64 0.43 0.00 0.00 0.57 0.64
Delay/Veh: 27.4 0.0 33.9 0.0 0.0 0.0 38.5 16.0 0.0 0.0 20.6 22.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 27.4 0.0 33.9 0.0 0.0 0.0 38.5 16.0 0.0 0.0 20.6 22.1
LOS by Move: C A C A A A D B A A C C
HCM2kAvgQ: 3 0 8 0 0 0 5 7 0 0 10 10
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT AM Wed Jul 23, 2008 10:22:21 Page 8-1

Intersection #11 East San Ysidro at East Beyer/Camino de la Plaza
Cycle (sec): 60 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 22.1
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: East San Ysidro East Beyer/Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Ignore Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 1 0 0 1 0 1 0 0 2 1 0 2 0 2 1 0 1 1 0 0
Volume Module:
Base Vol: 119 46 332 5 40 21 21 115 73 51 116 11
Growth Adj: 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62
Initial Bse: 193 75 539 8 65 34 34 187 119 83 188 18
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 193 75 539 8 65 34 34 187 119 83 188 18
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 203 79 568 9 68 0 36 197 125 87 198 19
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 203 79 568 9 68 0 36 197 125 87 198 19
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 203 79 568 9 68 0 36 197 125 87 198 19
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.88 0.76 1.01 0.97 0.88 0.96 0.87 0.44 0.96 0.95 1.80
Lanes: 1.49 0.51 1.00 0.11 0.89 2.00 1.00 2.00 2.00 1.00 1.90 0.10
Final Sat.: 2225 860 1440 206 1651 3344 1827 3301 1659 1827 3435 326
Capacity Analysis Module:
Vol/Sat: 0.09 0.09 0.39 0.04 0.04 0.00 0.02 0.06 0.08 0.05 0.06 0.06
Crit Moves: ****
Green/Cycle: 0.48 0.48 0.48 0.08 0.08 0.00 0.08 0.08 0.57 0.08 0.08 0.08
Volume/Cap: 0.19 0.19 0.82 0.50 0.50 0.00 0.24 0.71 0.13 0.57 0.69 0.69
Delay/Veh: 8.9 8.9 20.6 28.8 28.8 0.0 26.5 35.4 6.2 31.7 33.3 33.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.9 8.9 20.6 28.8 28.8 0.0 26.5 35.4 6.2 31.7 33.3 33.3
LOS by Move: A A C C C A C D A C C C
HCM2kAvgQ: 1 2 10 2 2 0 1 2 1 2 2 4
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT AM Wed Jul 23, 2008 10:22:21 Page 9-1

Intersection #12 East San Ysidro at I-5 N/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.831
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 32.9
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: East San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 1 0 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT AM Wed Jul 23, 2008 10:22:21 Page 10-1

Intersection #13 Camino de la Plaza at I-5 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.438
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 26.1
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-5 N/B ramps Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Ovl
Min. Green: 5 5 5 5 5 5 5 5 5 5
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1 1 0 1 1

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
LT AM Wed Jul 23, 2008 10:22:21 Page 11-1

Intersection #14 Camino de la Plaza at Virginia

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[13.9]

Street Name: Virginia Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 1 0 0 0 0 1 0 1 1 0 1 0 0 1 0
Volume Module:
Base Vol: 2 0 8 2 0 0 0 160 1 13 265 3
Growth Adj: 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45
Initial Bse: 3 0 0 3 0 0 0 232 1 19 384 4
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 3 0 12 0 0 0 0 0 0 0 0 0
Initial Fut: 3 0 0 3 0 0 0 232 1 19 384 4
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 3 0 12 3 0 0 0 244 2 20 404 5
Reduct Vol: 3 0 12 0 0 0 0 0 0 0 0 0
FinalVolume: 3 0 12 3 0 0 0 244 2 20 404 5
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflct Vol: 711 714 143 589 xxxx xxxxx xxxx xxxx xxxxx 256 xxxx xxxxx
Potent Cap.: 350 359 910 423 xxxx xxxxx xxxx xxxx xxxxx 1309 xxxx xxxxx
Move Cap.: 340 348 895 406 xxxx xxxxx xxxx xxxx xxxxx 1298 xxxx xxxxx
Volume/Cap: 0.01 0.00 0.01 0.01 xxxx xxxxx xxxx xxxx xxxxx 0.02 xxxx xxxxx
Level Of Service Module:
2Way95thQ: 0.0 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx
Control Del: 15.7 xxxx xxxxx 13.9 xxxx xxxxx xxxxx xxxx xxxxx 7.8 xxxx xxxxx
LOS by Move: C * * B * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx 895 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx 0.0 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:xxxxx xxx 9.1 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: A * * * * * * * * * *
ApproachDel: 10.4 13.9 xxxxxxxx xxxxxxxx
ApproachLOS: B B * *

Note: Queue reported is the number of cars per lane.

Scenario: LT PM
Command: Default
Volume: LT PM
Geometry: Existing
Impact Fee: Default
Trip Generation: none
Trip Distribution: Project
Paths: Project
Routes: Default
Configuration: Default

Intersection	Base	Future		Change	
		V/ C	Del/ Veh		V/ C
# 1 Via de San Ysidro at Calle Pri	F 133.6	1.191	F 133.6	1.191	+ 0.000 D/V
# 2 Via de San Ysidro at I-5 S/B R	C 31.0	0.727	C 31.0	0.727	+ 0.000 D/V
# 3 Via de San Ysidro at I-5 N/B R	F 67.4	0.000	F 67.4	0.000	+ 0.000 D/V
# 6 West San Ysidro Blvd at I-805	C 28.7	0.867	C 28.7	0.867	+ 0.000 D/V
# 7 East San Ysidro at I-805 N/B r	D 43.9	1.005	D 43.9	1.005	+ 0.000 D/V
# 11 East San Ysidro at East Beyer/	B 12.7	0.809	B 12.7	0.809	+ 0.000 D/V
# 12 East San Ysidro at I-5 N/B Ram	D 44.9	0.938	D 44.9	0.938	+ 0.000 D/V
# 13 Camino de la Plaza at I-5 S/B	E 60.2	1.044	E 60.2	1.044	+ 0.000 D/V
# 14 Camino de la Plaza at Virginia	F 51.8	0.000	F 51.8	0.000	+ 0.000 D/V

Level Of Service Computation Report

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*****
Intersection #1 Via de San Ysidro at Calle Primera
*****
Cycle (sec):          120          Critical Vol./Cap.(X):          1.191
Loss Time (sec):      16 (Y+R=4.0 sec)  Average Delay (sec/veh):      133.6
Optimal Cycle: OPTIMIZED          Level Of Service:          F
*****
Street Name:          Via de San Ysidro          Calle Primera
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|-----|-----|-----|-----|
Control:              Split Phase          Split Phase          Split Phase          Split Phase
Rights:               Include          Include          Include          Include
Min. Green:           5          5          5          5          5          5          5          5
Lanes:                1 0 0 1 0          1 0 0 1 0          1 0 0 1 0          0 1 0 0 1
-----|-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:             5          35          3          421          9          285          227          58          10          0          26          382
Growth Adj:          1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45
Initial Bse:          7          51          4          610          13          413          329          84          15          0          38          554
Added Vol:           0          0          0          0          0          0          0          0          0          0          0          0
PasserByVol:         0          0          0          0          0          0          0          0          0          0          0          0
Initial Fut:         7          51          4          610          13          413          329          84          15          0          38          554
User Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:             0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:          8          53          5          643          14          435          346          89          15          0          40          583
Reduct Vol:          0          0          0          0          0          0          0          0          0          0          0          0
Reduced Vol:         8          53          5          643          14          435          346          89          15          0          40          583
PCE Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:         8          53          5          643          14          435          346          89          15          0          40          583
-----|-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:            1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:          0.96 1.23 1.21 1.05 0.98 0.93 0.84 0.99 0.98 1.00 0.95 0.65
Lanes:               1.00 0.92 0.08 1.00 0.03 0.97 1.00 0.85 0.15 0.00 1.00 1.00
Final Sat.:         1827 2144 184 2004 54 1713 1592 1603 276 0 1801 1243
-----|-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:             0.00 0.02 0.02 0.32 0.25 0.25 0.22 0.06 0.06 0.00 0.02 0.47
Crit Moves:          ****          ****          ****
Green/Cycle:         0.04 0.04 0.04 0.26 0.26 0.26 0.18 0.18 0.18 0.00 0.38 0.38
Volume/Cap:          0.10 0.60 0.60 1.22 0.97 0.97 1.22 0.31 0.31 0.00 0.06 1.22
Delay/Veh:           55.9 66.4 66.4 159.9 77.0 77.0 176.2 43.4 43.4 0.0 23.3 154.1
User DelAdj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:          55.9 66.4 66.4 159.9 77.0 77.0 176.2 43.4 43.4 0.0 23.3 154.1
LOS by Move:         E E E F E E F D D A C F
HCM2kAvgQ:           0 3 3 38 19 18 23 3 3 0 1 37
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT PM Wed Jul 23, 2008 10:22:48 Page 4-1

Intersection #2 Via de San Ysidro at I-5 S/B Ramp
Cycle (sec): 90 Critical Vol./Cap.(X): 0.727
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 31.0
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: Via de San Ysidro I-5 S/B Ramp
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 2 0 0 0 0 2 0 0 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 648 0 0 415 0 281 0 290 0 0 0
Growth Adj: 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45
Initial Bse: 0 940 0 0 602 0 407 0 421 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 940 0 0 602 0 407 0 421 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 989 0 0 633 0 429 0 443 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 989 0 0 633 0 429 0 443 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 989 0 0 633 0 429 0 443 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.33 1.00 1.00 1.09 1.00 0.93 1.00 0.83 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 0 5070 0 0 4129 0 1769 0 1573 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.20 0.00 0.00 0.15 0.00 0.24 0.00 0.28 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.27 0.00 0.00 0.21 0.00 0.39 0.00 0.39 0.00 0.00 0.00
Volume/Cap: 0.00 0.73 0.00 0.00 0.73 0.00 0.63 0.00 0.73 0.00 0.00 0.00
Delay/Veh: 0.0 31.9 0.0 0.0 36.2 0.0 24.2 0.0 27.9 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 31.9 0.0 0.0 36.2 0.0 24.2 0.0 27.9 0.0 0.0 0.0
LOS by Move: A C A A D A C A C A A A
HCM2kAvgQ: 0 13 0 0 9 0 10 0 12 0 0 0
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
LT PM Wed Jul 23, 2008 10:22:48 Page 5-1

Intersection #3 Via de San Ysidro at I-5 N/B Ramps
Average Delay (sec/veh): 7.5 Worst Case Level Of Service: F[67.4]
Street Name: Vis de San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 0 1 0 0 1
Volume Module:
Base Vol: 291 618 0 0 345 205 0 0 0 49 0 79
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 331 703 0 0 393 233 0 0 0 56 0 90
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 331 703 0 0 393 233 0 0 0 56 0 90
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 349 740 0 0 413 246 0 0 0 59 0 95
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 349 740 0 0 413 246 0 0 0 59 0 95
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 6.5 6.2
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3
Capacity Module:
Cnflct Vol: 669 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1664 2116 760
Potent Cap.: 921 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 107 51 406
Move Cap.: 913 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 73 31 398
Volume/Cap: 0.38 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.80 0.00 0.24
Level Of Service Module:
2Way95thQ: 1.8 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del: 11.4 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 16.8
LOS by Move: B * C
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 73 xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.9 xxxxx xxxxx
Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 149.0 xxxxx xxxxx
Shared LOS: * F * *
ApproachDel: xxxxxx xxxxxxx xxxxxxx xxxxxxx 67.4
ApproachLOS: * F
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT PM Wed Jul 23, 2008 10:22:48 Page 6-1

Intersection #6 West San Ysidro Blvd at I-805 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.867
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 28.7
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-805 S/B Ramps San Ysidro Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 0 0 0 1 0 1 0 1 0 0 1 1 0 2 0 2 0 0 0
Volume Module:
Base Vol: 0 0 0 406 13 490 0 655 412 173 478 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 462 15 558 0 745 469 197 544 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 462 15 558 0 745 469 197 544 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 486 16 587 0 785 494 207 573 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 486 16 587 0 785 494 207 573 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 486 16 587 0 785 494 207 573 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.84 0.84 0.83 1.00 0.88 1.22 0.87 0.96 1.00
Lanes: 0.00 0.00 0.00 1.44 0.03 1.53 0.00 1.38 0.62 2.00 2.00 0.00
Final Sat.: 0 0 0 2297 45 2430 0 2296 1444 3318 3655 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.21 0.35 0.24 0.00 0.34 0.34 0.06 0.16 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.40 0.40 0.40 0.00 0.39 0.39 0.07 0.34 0.00
Volume/Cap: 0.00 0.00 0.00 0.53 0.87 0.60 0.00 0.87 0.87 0.87 0.46 0.00
Delay/Veh: 0.0 0.0 0.0 20.8 31.4 21.9 0.0 30.8 30.8 68.1 23.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 20.8 31.4 21.9 0.0 30.8 30.8 68.1 23.2 0.0
LOS by Move: A A A C C C A C E C A
HCM2kAvgQ: 0 0 0 8 17 9 0 18 24 3 6 0
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT PM Wed Jul 23, 2008 10:22:48 Page 7-1

Intersection #7 Esat San Ysidro at I-805 N/B ramps
Cycle (sec): 94 Critical Vol./Cap.(X): 1.005
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 43.9
Optimal Cycle: OPTIMIZED Level Of Service: D
Street Name: I-805 N/B Ramps East San Ysidro
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 0 1 0 0 1 0 0 0 0 0 2 0 2 0 0 0 0 1 1 0
Volume Module:
Base Vol: 120 0 229 0 0 0 250 776 0 0 517 403
Growth Adj: 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62
Initial Bse: 195 0 372 0 0 0 406 1260 0 0 840 654
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 195 0 372 0 0 0 406 1260 0 0 840 654
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 205 0 391 0 0 0 427 1327 0 0 884 689
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 205 0 391 0 0 0 427 1327 0 0 884 689
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 205 0 391 0 0 0 427 1327 0 0 884 689
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.82 1.00 1.00 1.00 0.90 0.93 1.00 1.00 0.87 0.78
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 2.00 2.00 0.00 0.00 1.07 0.93
Final Sat.: 1773 0 1553 0 0 0 3432 3538 0 0 1766 1376
Capacity Analysis Module:
Vol/Sat: 0.12 0.00 0.25 0.00 0.00 0.00 0.12 0.37 0.00 0.00 0.50 0.50
Crit Moves: ****
Green/Cycle: 0.25 0.00 0.25 0.00 0.00 0.00 0.12 0.54 0.00 0.00 0.50 0.50
Volume/Cap: 0.46 0.00 1.01 0.00 0.00 0.00 1.01 0.69 0.00 0.00 1.01 1.01
Delay/Veh: 30.6 0.0 82.2 0.0 0.0 0.0 86.2 16.7 0.0 0.0 47.7 47.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 30.6 0.0 82.2 0.0 0.0 0.0 86.2 16.7 0.0 0.0 47.7 47.7
LOS by Move: C A F A A A F B A A D D
HCM2kAvgQ: 5 0 17 0 0 0 8 14 0 0 33 30
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT PM Wed Jul 23, 2008 10:22:48 Page 8-1

Intersection #11 East San Ysidro at East Beyer/Camino de la Plaza

Cycle (sec): 65 Critical Vol./Cap.(X): 0.809
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 12.7
Optimal Cycle: OPTIMIZED Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include East San Ysidro and East Beyer/Camino de la Plaza.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT PM Wed Jul 23, 2008 10:22:48 Page 9-1

Intersection #12 East San Ysidro at I-5 N/B Ramps

Cycle (sec): 110 Critical Vol./Cap.(X): 0.938
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 44.9
Optimal Cycle: OPTIMIZED Level Of Service: D

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include East San Ysidro and I-5 N/B Ramps.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT PM Wed Jul 23, 2008 10:22:48 Page 10-1

Intersection #13 Camino de la Plaza at I-5 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 1.044
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): 60.2
Optimal Cycle: OPTIMIZED Level Of Service: E
Street Name: I-5 N/B ramps Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Ovl
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1
Volume Module:
Base Vol: 95 50 237 201 376 430 294 341 53 95 248 281
Growth Adj: 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45
Initial Bse: 138 73 344 291 545 624 426 494 77 138 360 407
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 145 76 362 307 574 656 449 520 81 145 379 429
Reduced Vol: 145 76 362 307 574 656 449 520 81 145 379 429
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 145 76 362 307 574 656 449 520 81 145 379 429
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.91 0.67 0.96 0.98 0.65 0.90 0.91 0.90 0.93 0.98 0.84
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.73 0.27 1.00 1.00 1.00
Final Sat.: 1711 1737 1280 1827 1862 1242 1711 2994 465 1769 1862 1602
Capacity Analysis Module:
Vol/Sat: 0.08 0.04 0.28 0.17 0.31 0.53 0.26 0.17 0.17 0.08 0.20 0.27
Crit Moves: ****
Green/Cycle: 0.08 0.20 0.35 0.17 0.30 0.55 0.25 0.30 0.30 0.14 0.19 0.37
Volume/Cap: 1.04 0.21 0.81 0.98 1.04 0.97 1.04 0.57 0.57 0.57 1.04 0.73
Delay/Veh: 130.0 30.1 37.6 82.2 82.2 46.2 89.1 27.2 27.2 39.2 95.5 29.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 130.0 30.1 37.6 82.2 82.2 46.2 89.1 27.2 27.2 39.2 95.5 29.4
LOS by Move: F C D F F D F C C D F C
HCM2kAvgQ: 8 2 12 13 24 24 17 7 7 4 15 10
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

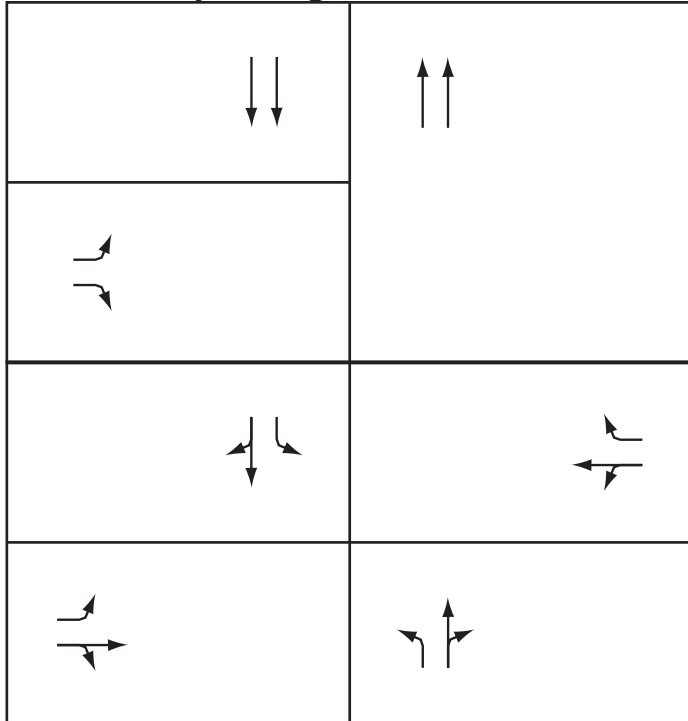
2000 HCM Unsignalized Method (Future Volume Alternative)
LT PM Wed Jul 23, 2008 10:22:48 Page 11-1

Intersection #14 Camino de la Plaza at Virginia
Average Delay (sec/veh): 0.8 Worst Case Level Of Service: F [51.8]
Street Name: Virginia Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 0 0 0 1 0 0 1 0 1 1 0 1 0 0 1 0
Volume Module:
Base Vol: 0 0 36 4 0 3 3 639 2 26 739 5
Growth Adj: 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45
Initial Bse: 0 0 0 6 0 4 4 927 3 38 1072 7
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 52 6 0 4 4 927 3 38 1072 7
Initial Fut: 138 73 344 291 545 624 426 494 77 138 360 407
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 55 6 0 5 5 975 3 40 1128 8
Reduct Vol: 0 0 55 6 0 5 5 975 3 40 1128 8
FinalVolume: 0 0 55 6 0 5 5 975 3 40 1128 8
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Conflict Vol: 2219 2221 509 1728 2219 1152 1146 xxxx xxxxx 988 xxxx xxxxx
Potent Cap.: 32 44 568 70 44 243 610 xxxx xxxxx 699 xxxx xxxxx
Move Cap.: 29 40 559 59 41 239 605 xxxx xxxxx 693 xxxx xxxxx
Volume/Cap: 0.00 0.00 0.10 0.10 0.00 0.02 0.01 xxxx xxxxx 0.06 xxxx xxxxx
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx 0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 11.0 xxxx xxxxx 10.5 xxxx xxxxxx
LOS by Move: * * * * * B * * B * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx 559 xxxxx 87 xxxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx 0.3 xxxxxx 0.4 xxxxxx xxxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx 12.1 xxxxxx 51.8 xxxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxxx
Shared LOS: B * F * * * * * * * * *
ApproachDel: 12.1 51.8 xxxxxx xxxxxx
ApproachLOS: B F * *
Note: Queue reported is the number of cars per lane.

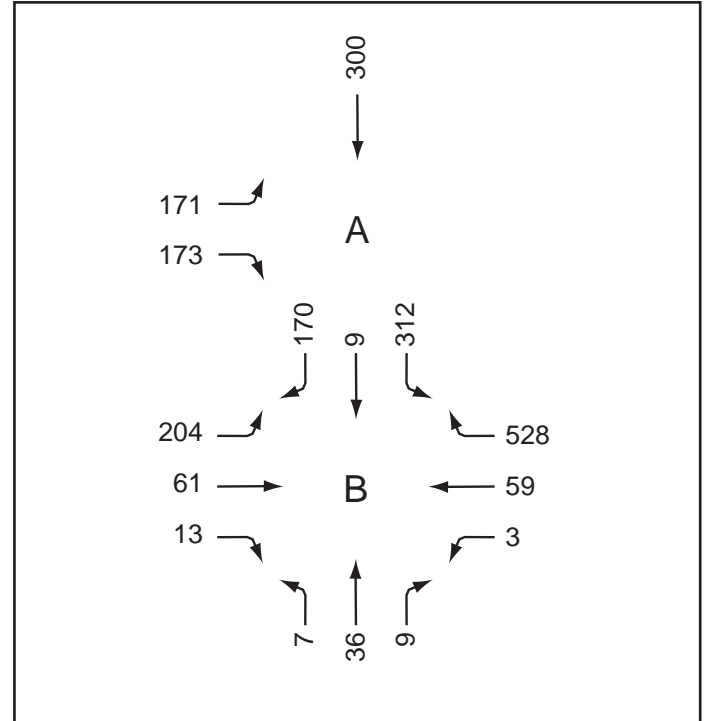
ILV Calculation

1&2: Via de San Ysidro & I-5 SB Ramp
Long Term AM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
<p>A</p> <p>150</p> <p>150</p>	<p>A</p> <p>171</p> <p>173</p>	<p>A</p> <p>204</p>	<p>A</p> <p>378</p>	<p>A</p> <p>36</p>
<p>B</p> <p>150</p> <p>150</p> <p>150</p>	<p>B</p> <p>29</p> <p>162</p>	<p>B</p> <p>204</p> <p>74</p>	<p>B</p> <p>378</p> <p>62</p>	<p>B</p> <p>7</p> <p>45</p>

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
150	173	204	378	45

Total Operating Level (ILV/hr):

Σ
950

Is...

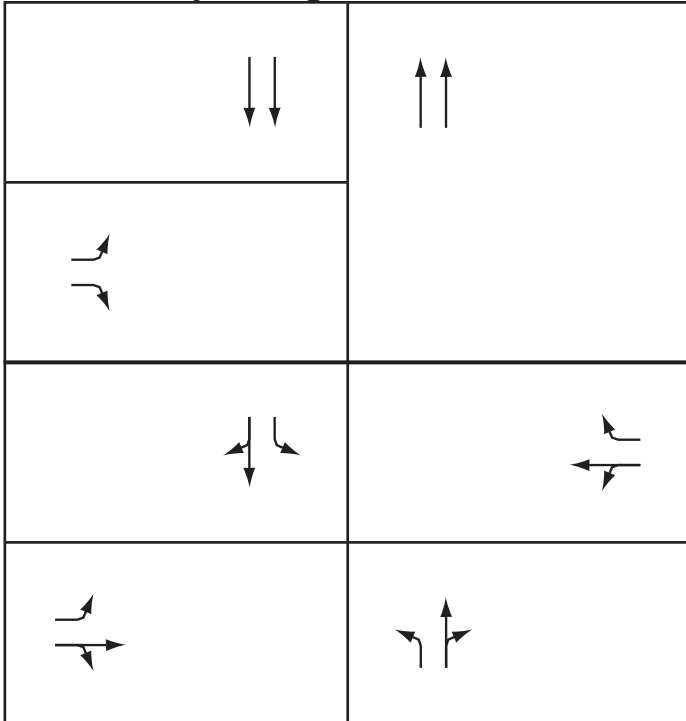
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

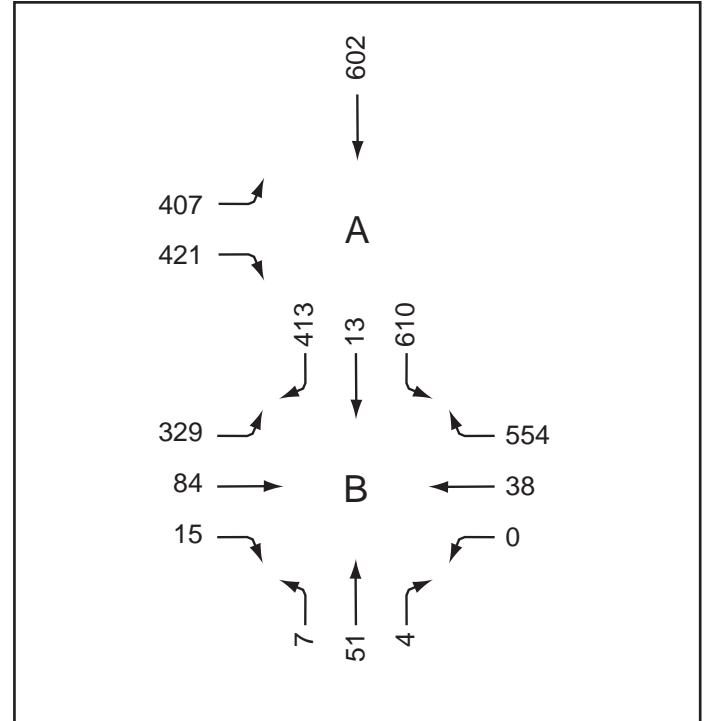
ILV Calculation

1&2: Via de San Ysidro & I-5 SB Ramp
Long Term PM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
<p>A</p> <p>301</p> <p>301</p>	<p>A</p> <p>407</p> <p>421</p>	<p>A</p> <p>329</p>	<p>A</p> <p>253</p>	<p>A</p> <p>51</p>
<p>B</p> <p>301</p> <p>301</p> <p>301</p>	<p>B</p> <p>125</p> <p>309</p>	<p>B</p> <p>329</p> <p>99</p>	<p>B</p> <p>253</p> <p>38</p>	<p>B</p> <p>7</p> <p>55</p>

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
301	421	329	253	55

Total Operating Level (ILV/hr):

Σ
1359

Is...

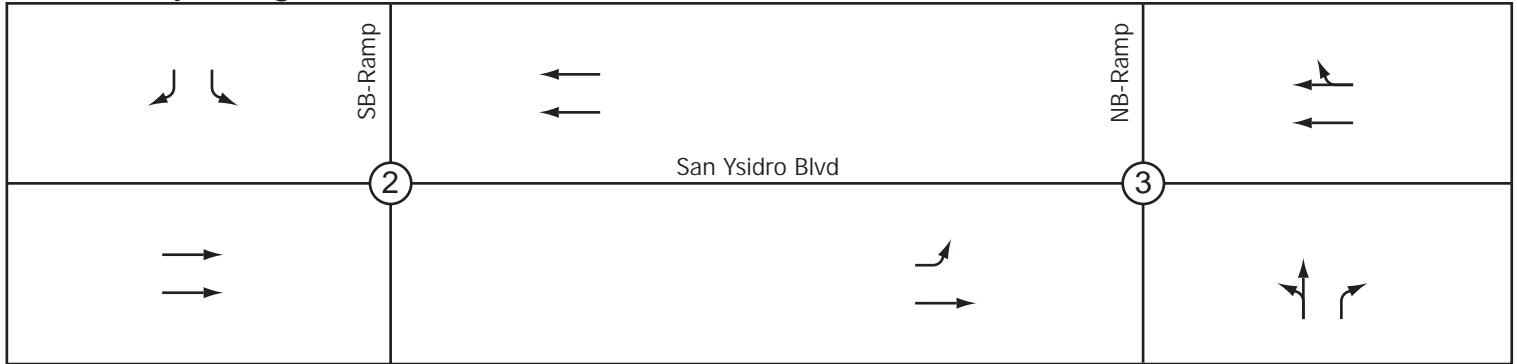
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

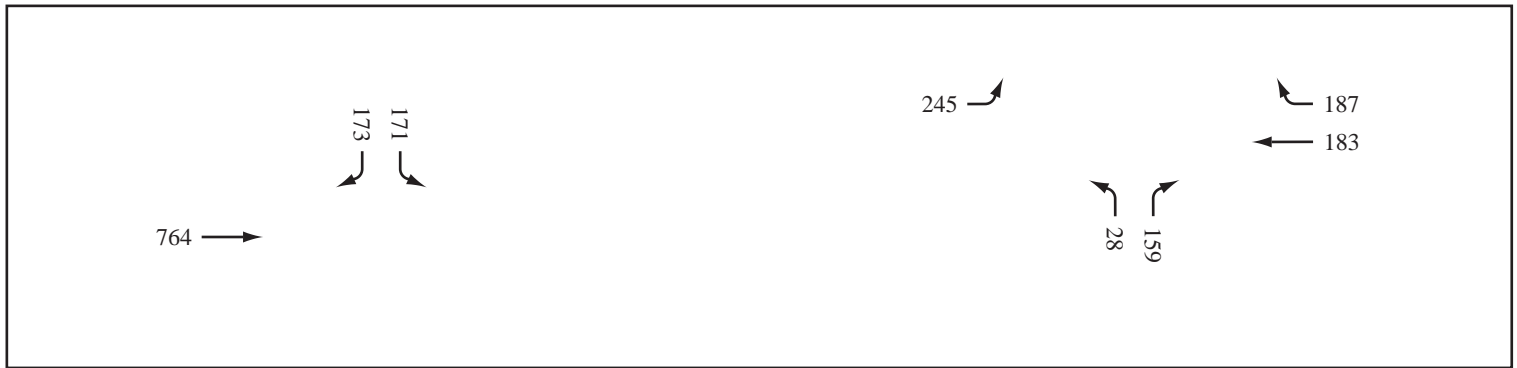
ILV Calculation

2&3: Via de San Ysidro & I-5 SB & NB Ramps
Long Term AM Peak Hour

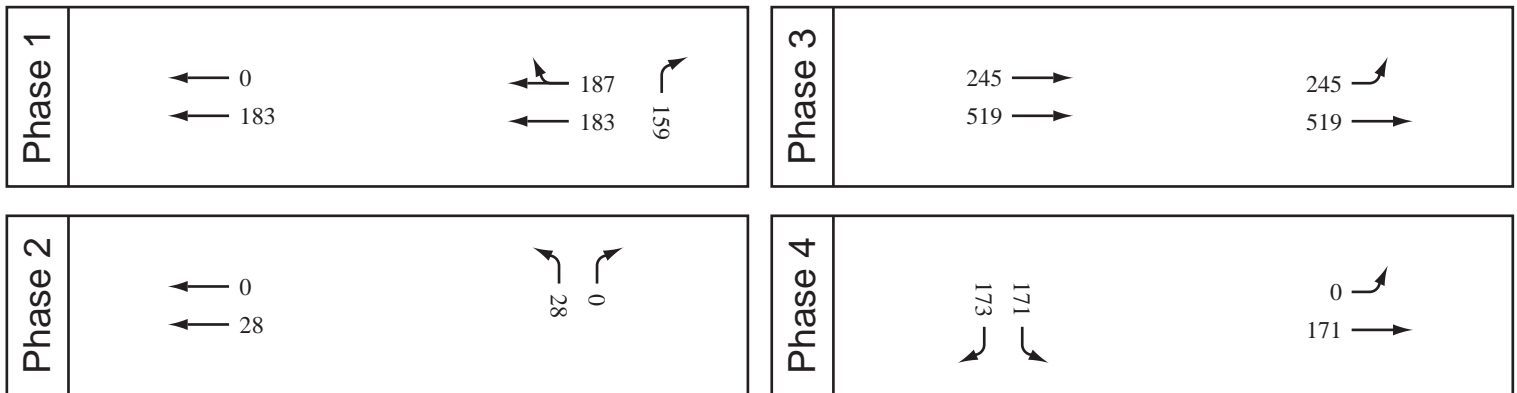
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
187	28	519	173

Total Operating Level (ILV/hr):

Σ
907

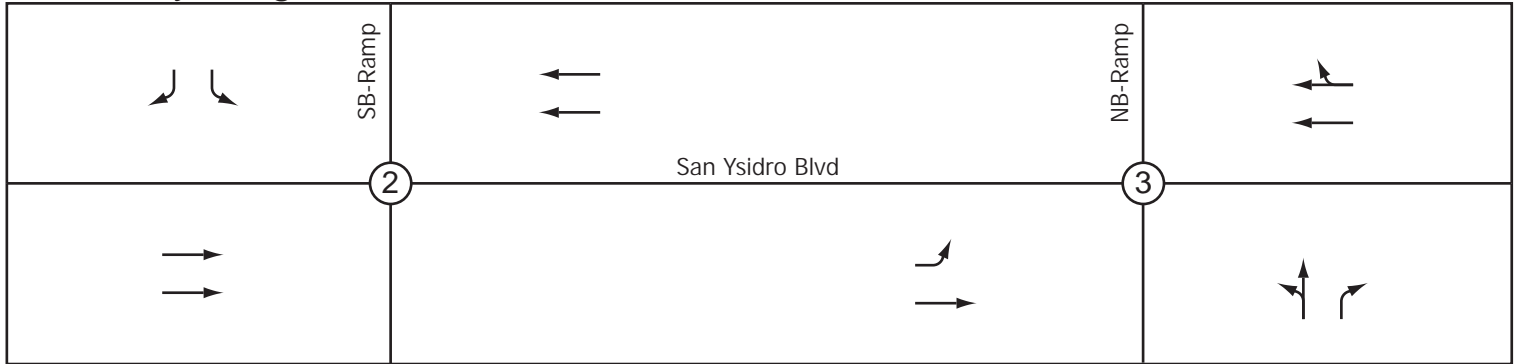
- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

Remarks:

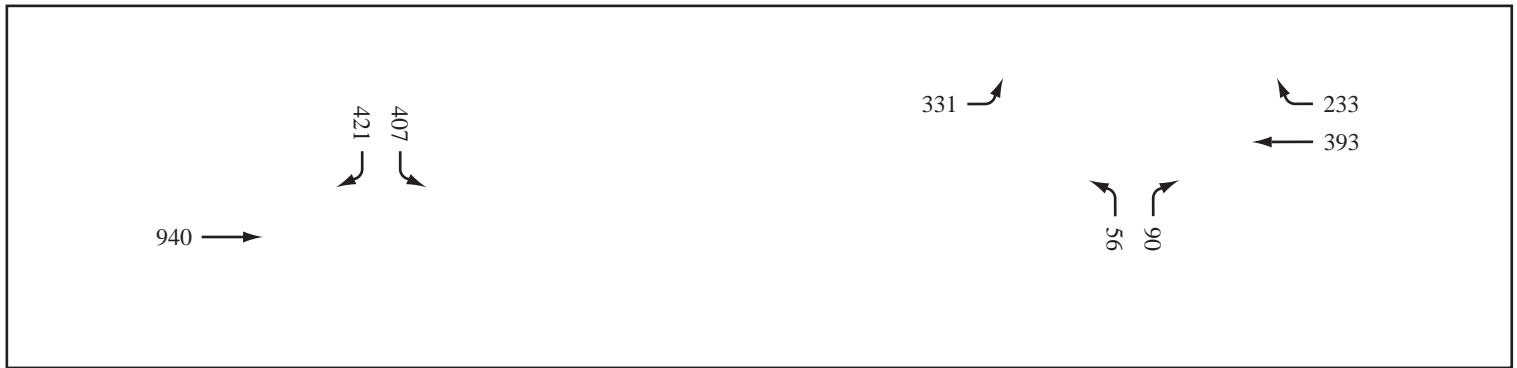
ILV Calculation

2&3: Via de San Ysidro & I-5 SB & NB Ramps
Long Term PM Peak Hour

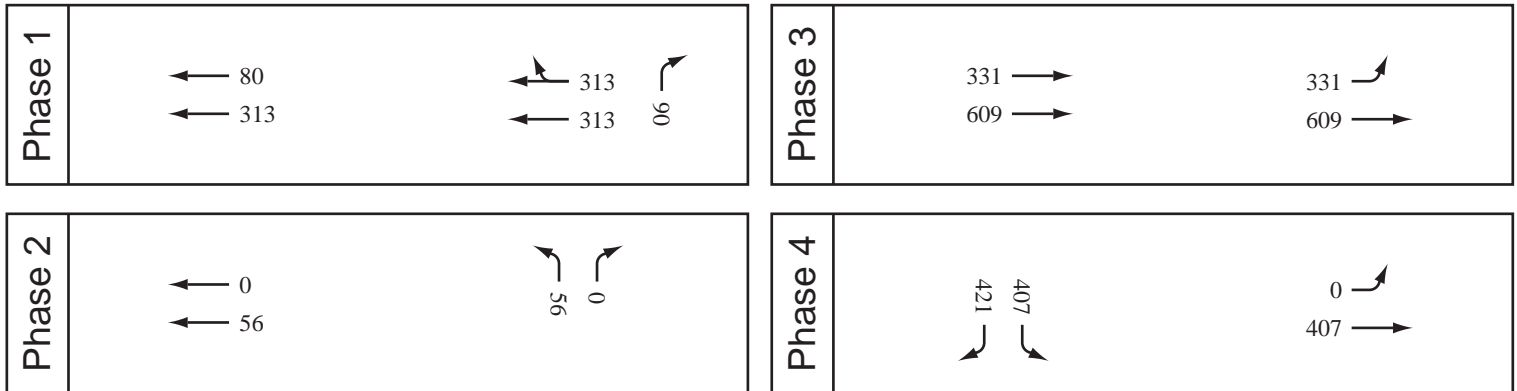
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
313	56	609	421

Total Operating Level (ILV/hr):

Σ
1399

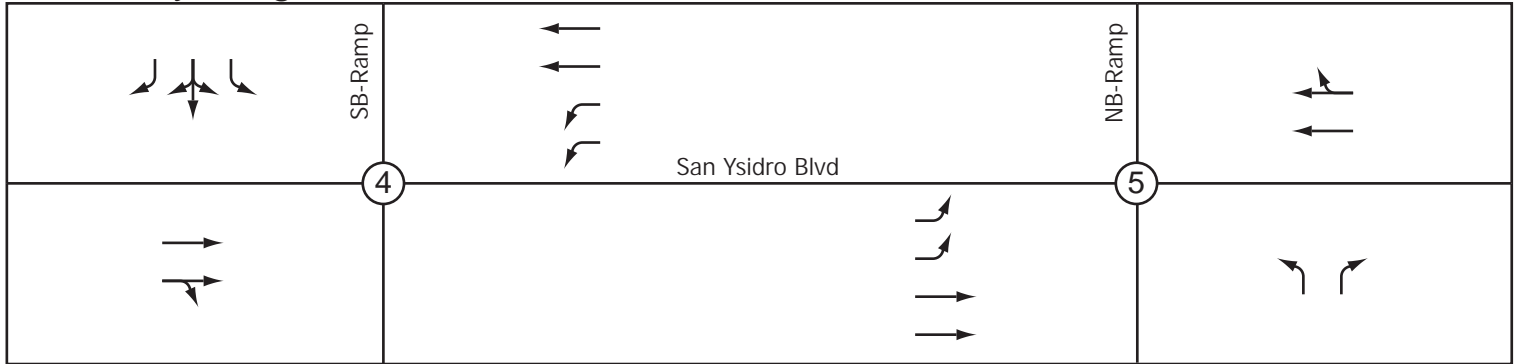
- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

Remarks:

ILV Calculation

4&5: San Ysidro Boulevard & I-805 SB & NB Ramps
Long Term AM Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1
370

Phase 2
252

Phase 3
362

Phase 4
184

Total Operating Level (ILV/hr):

Σ
1168

Is...

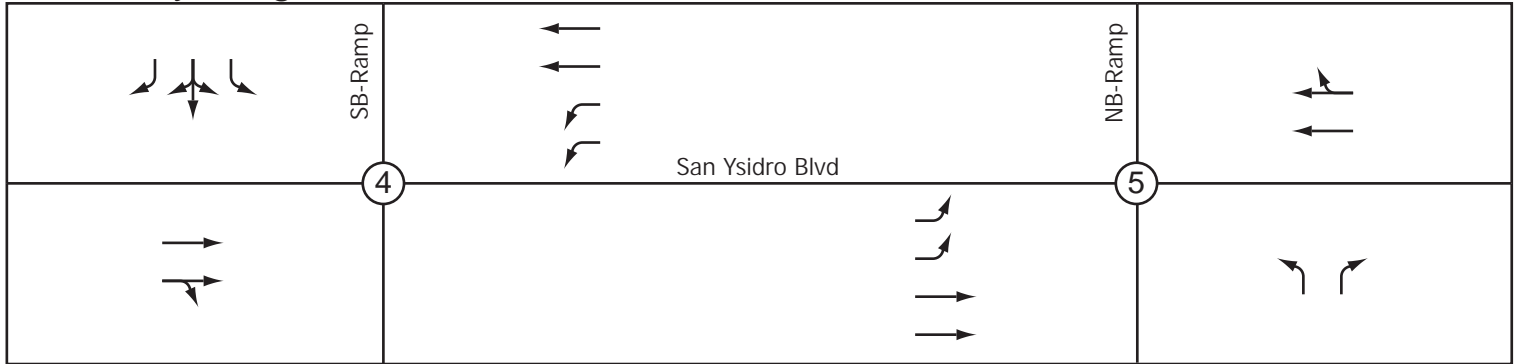
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

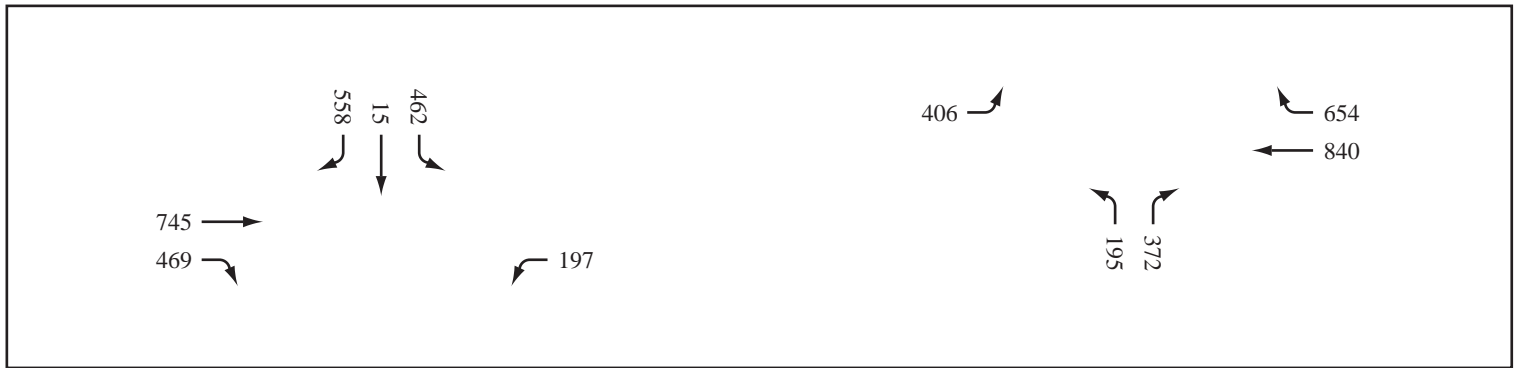
ILV Calculation

4&5: San Ysidro Boulevard & I-805 SB & NB Ramps
Long Term PM Peak Hour

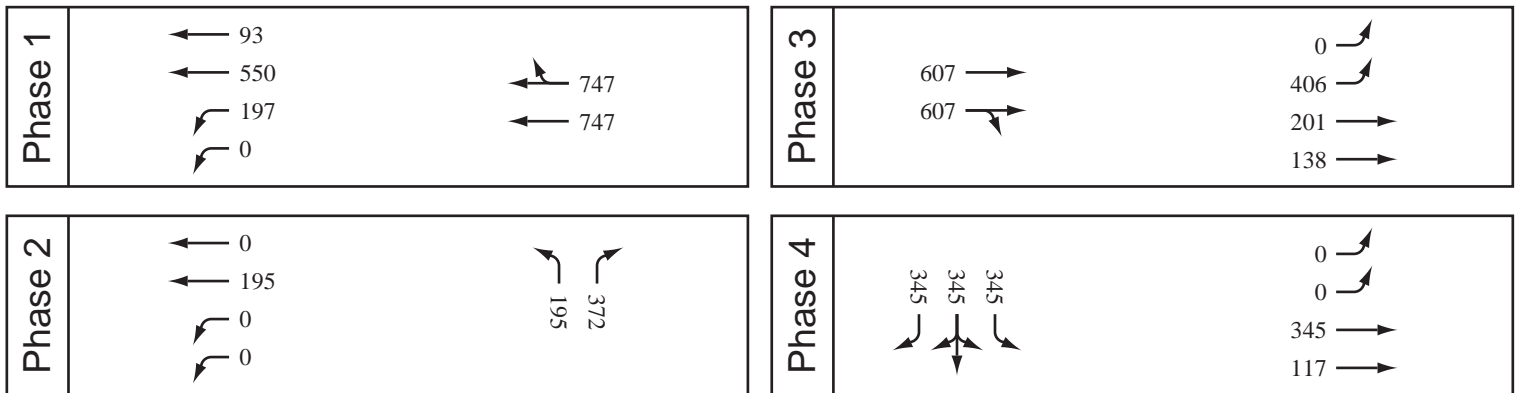
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
747	372	607	345

Total Operating Level (ILV/hr):

Σ
2071

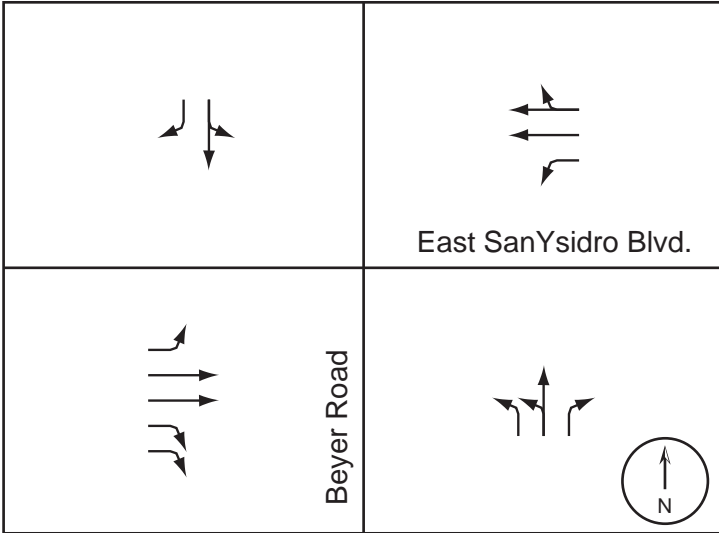
- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

Remarks:

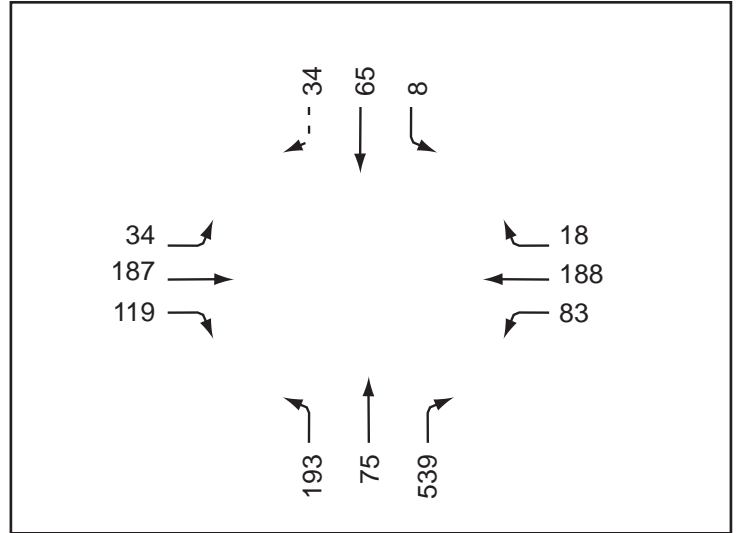
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Long Term AM Peak Hour

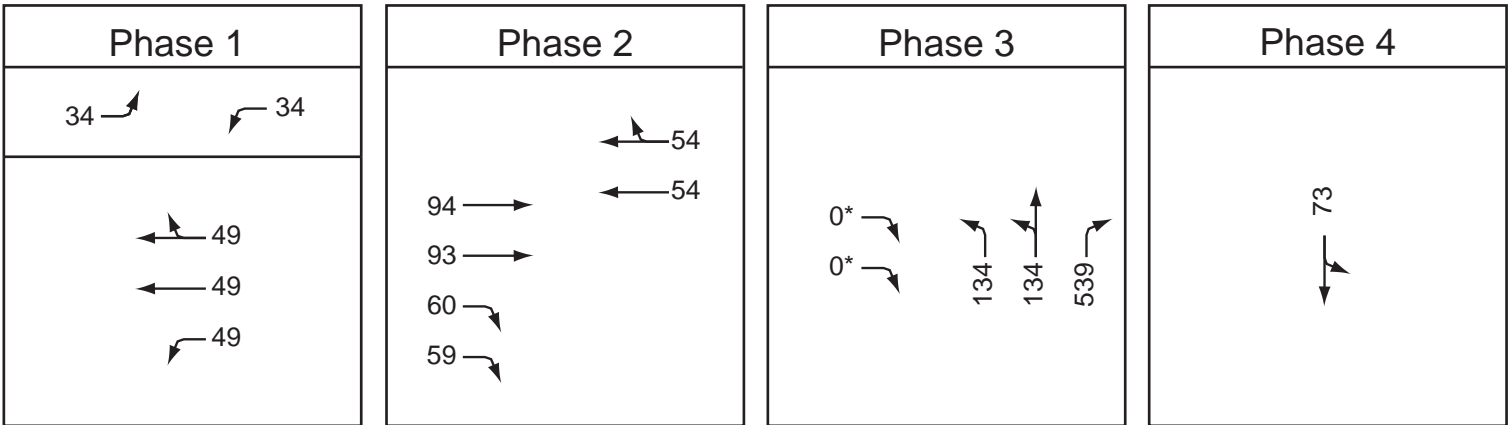
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
73	94	539	73

Total Operating Level (ILV/hr):

Σ
779

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

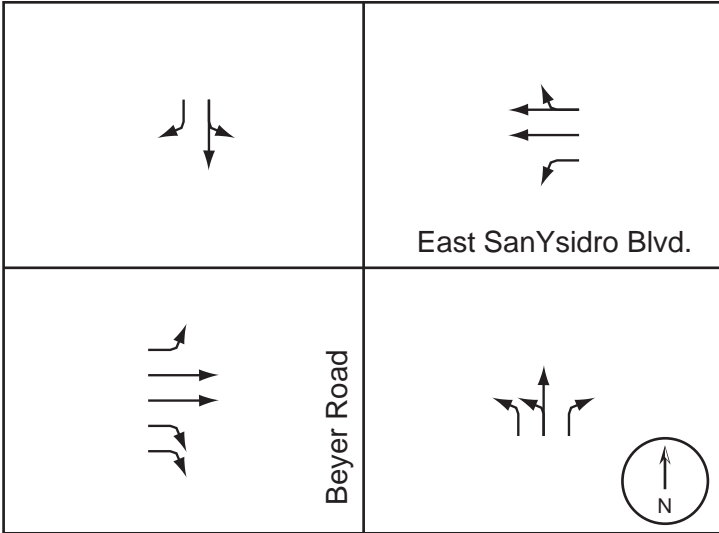
Free Right

*Right-Turn Overlap

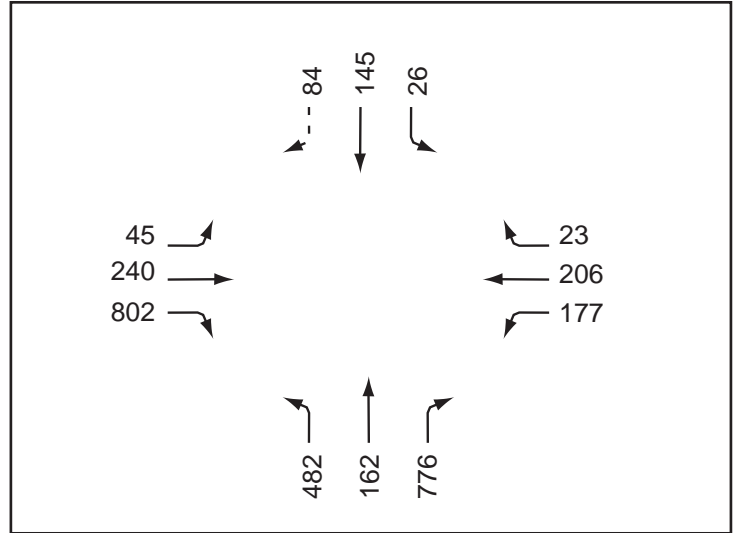
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Long Term PM Peak Hour

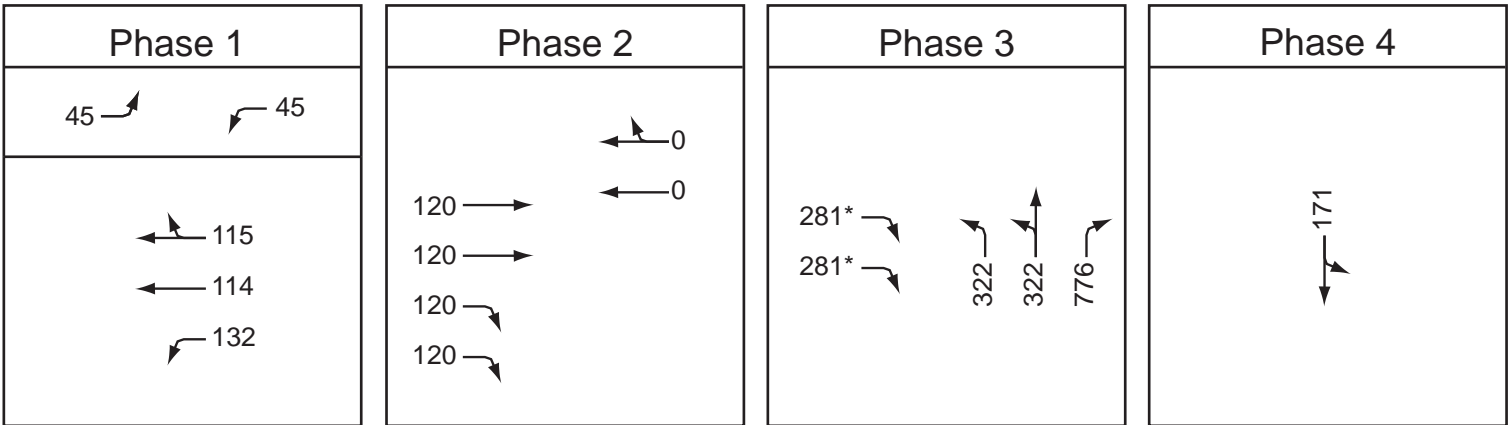
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
177	120	776	171

Total Operating Level (ILV/hr):

Σ
1244

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

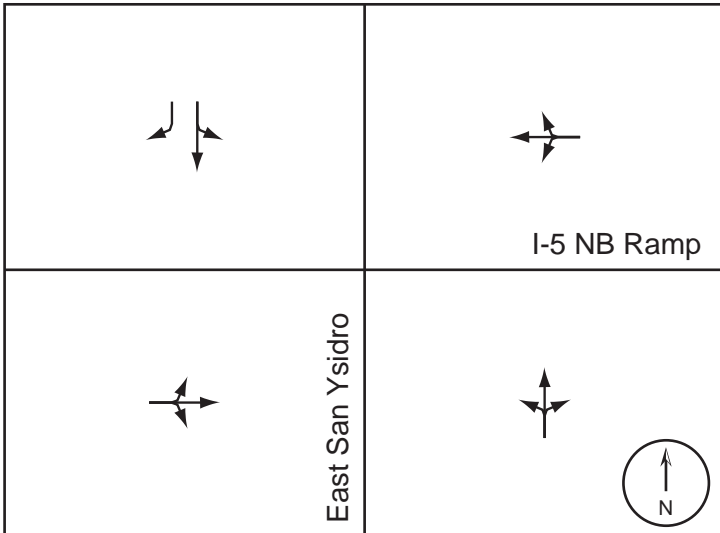
Free Right

*Right-Turn Overlap

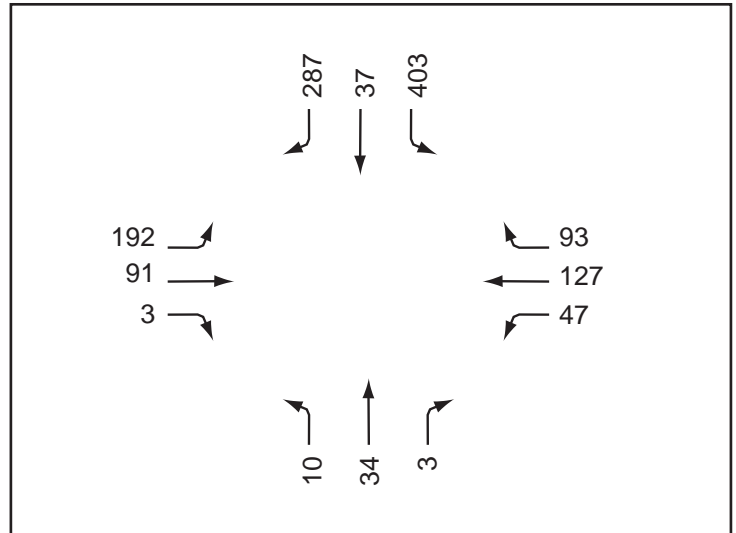
ILV Calculation

7: East San Ysidro Boulevard & I-5 NB Ramp
Long Term AM Peak Hour

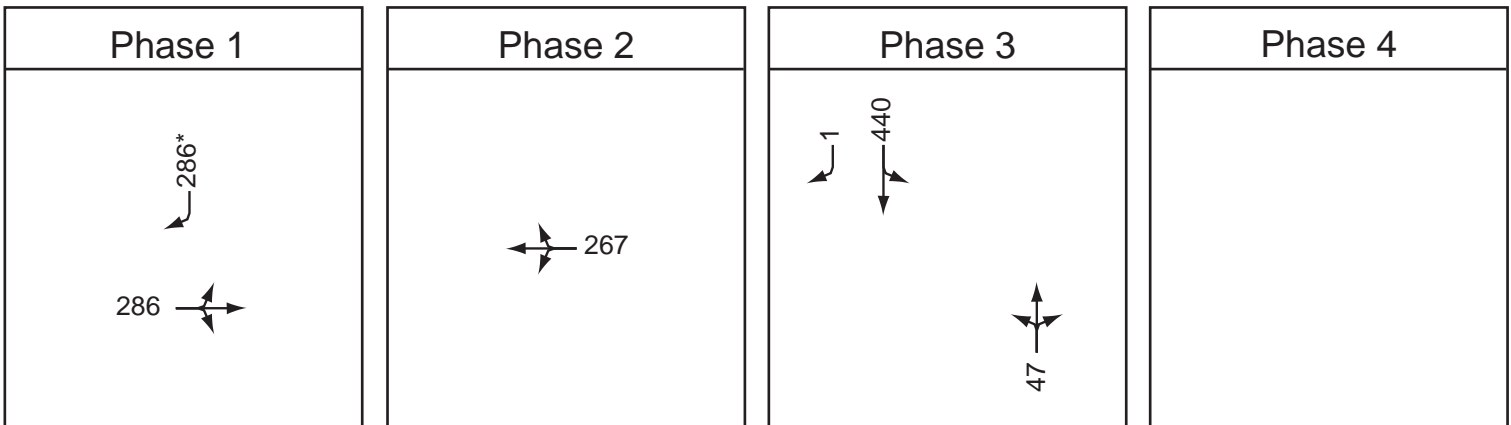
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
286	267	440	

Total Operating Level (ILV/hr):

Σ
993

- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

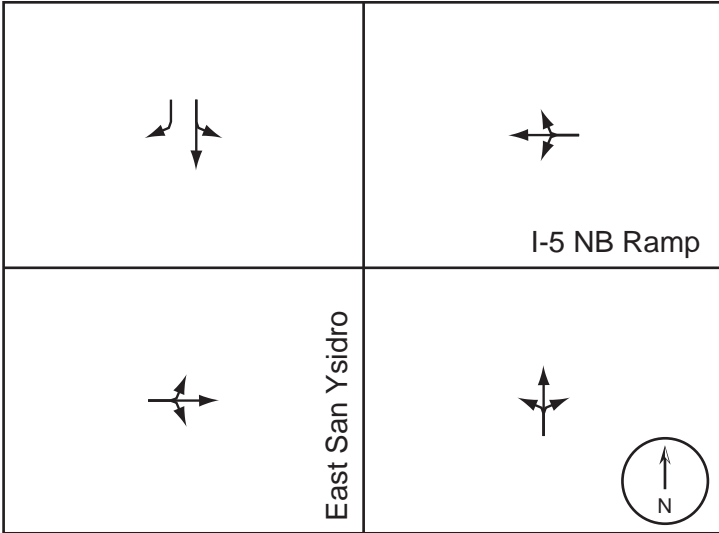
Remarks:

*Right-Turn Overlap

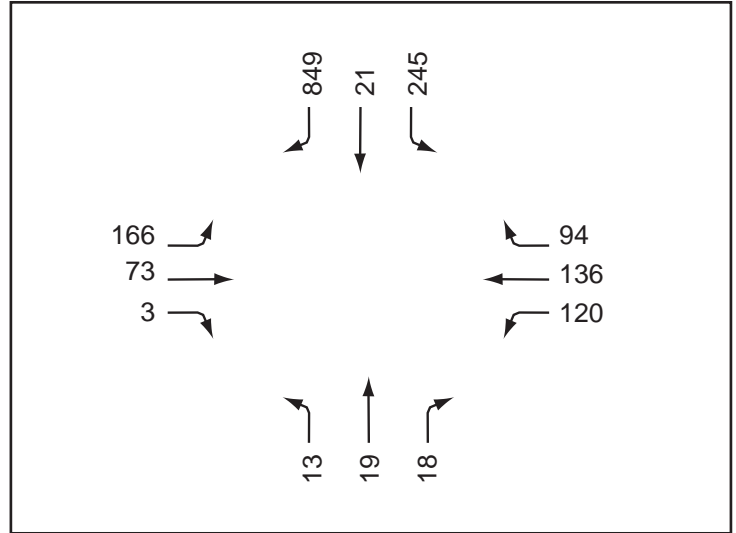
ILV Calculation

7: East San Ysidro Boulevard & I-5 NB Ramp
Long Term PM Peak Hour

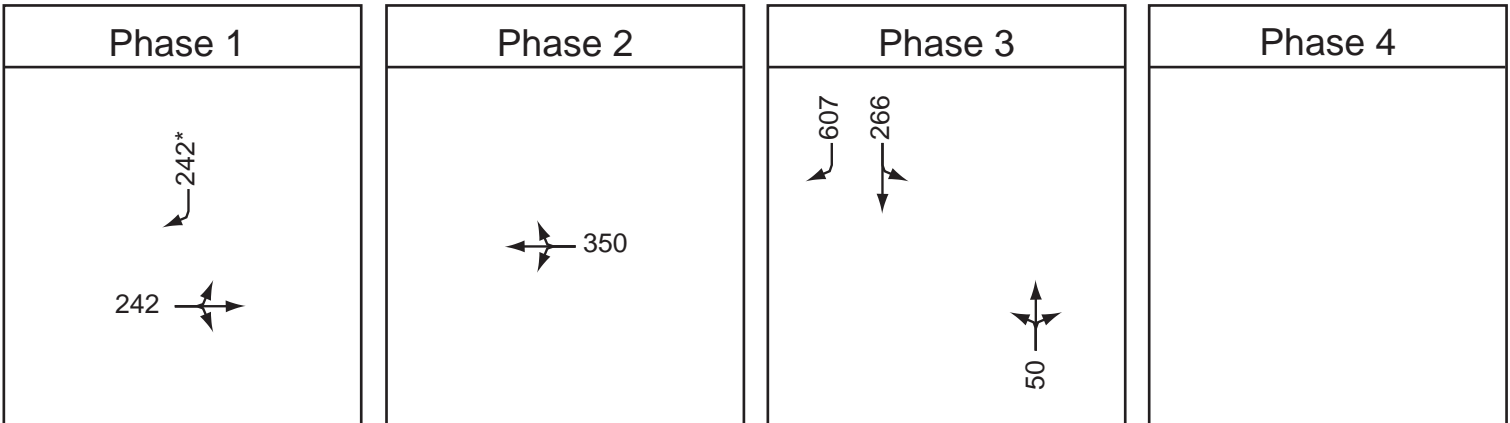
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
242	350	607	

Total Operating Level (ILV/hr):

Σ
1199

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

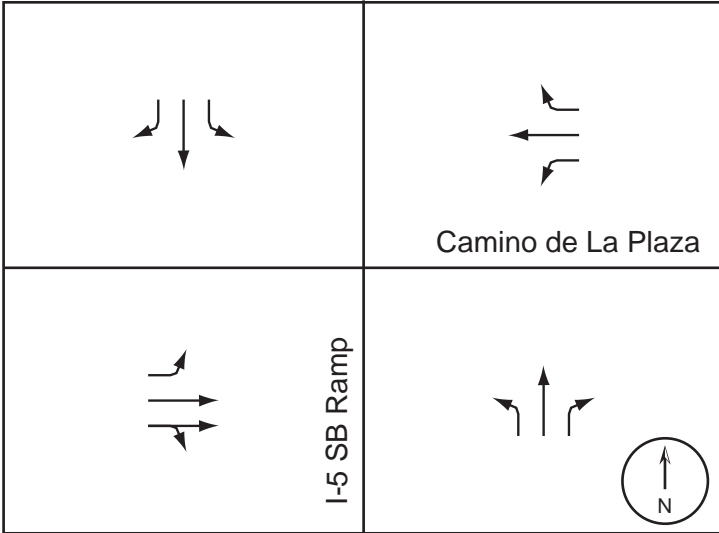
Remarks:

*Right-Turn Overlap

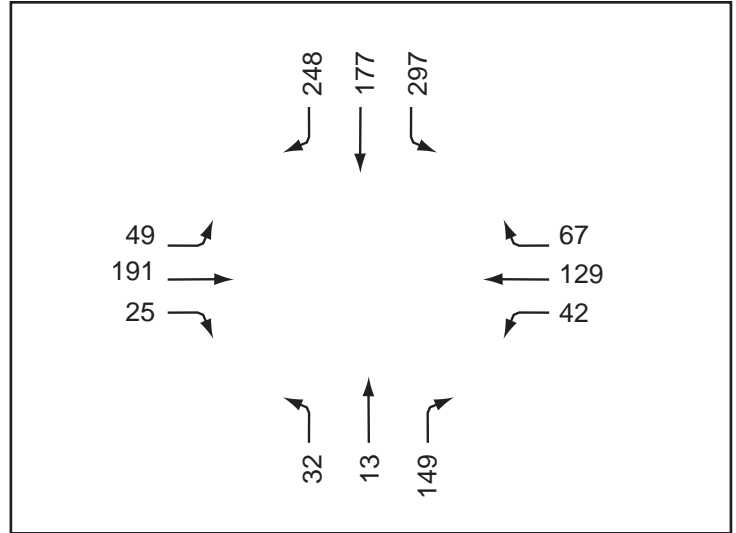
ILV Calculation

8: Camino de la Plaza & I-5 SB Ramp
Long Term AM Peak Hour

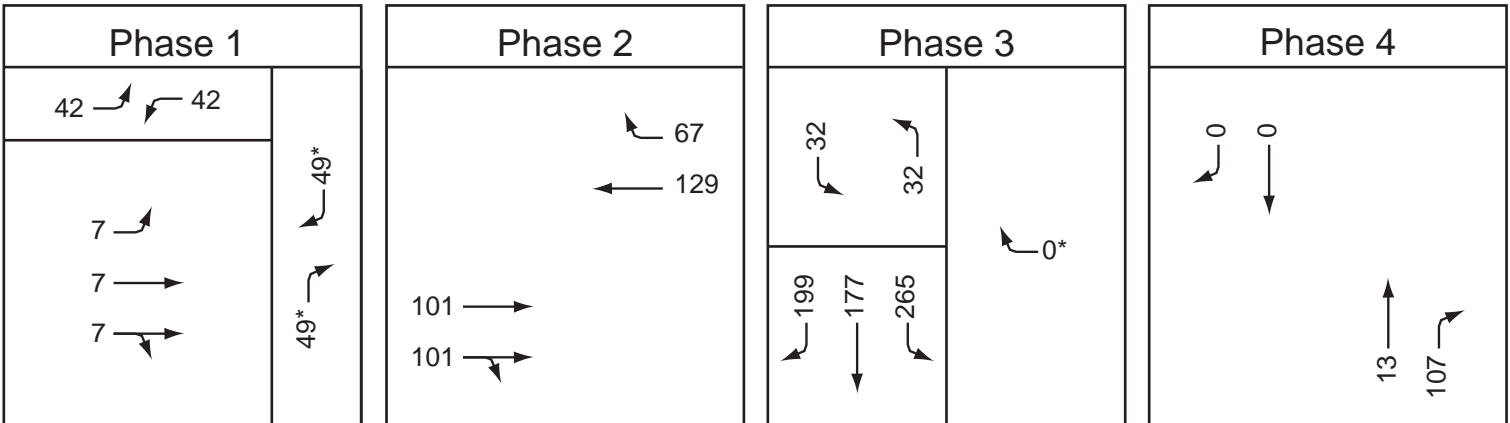
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
49	129	297	107

Total Operating Level (ILV/hr):

Σ
582

- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

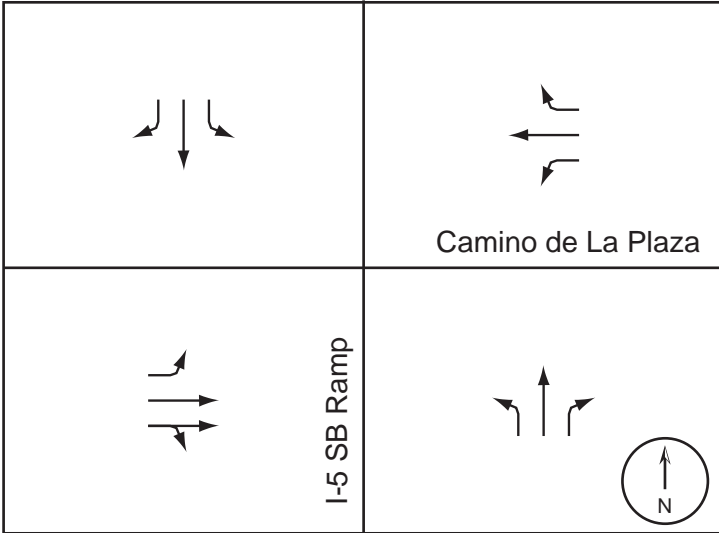
Remarks:

*Right-Turn Overlap

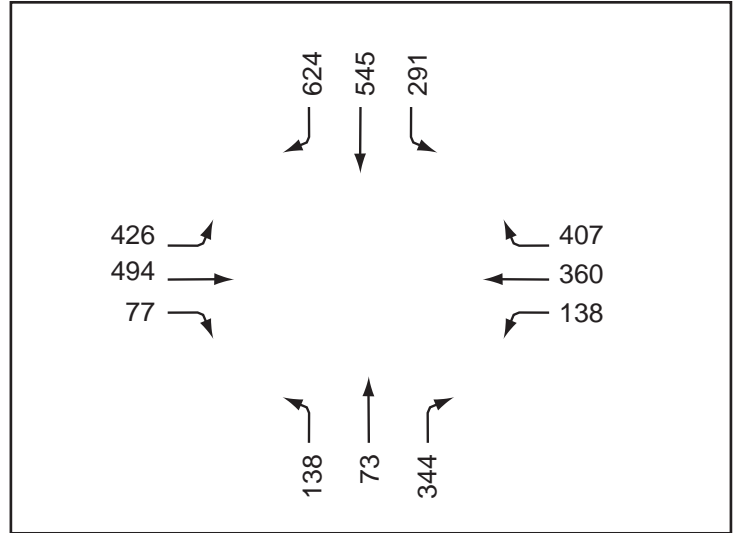
ILV Calculation

8: Camino de la Plaza & I-5 SB Ramp
Long Term PM Peak Hour

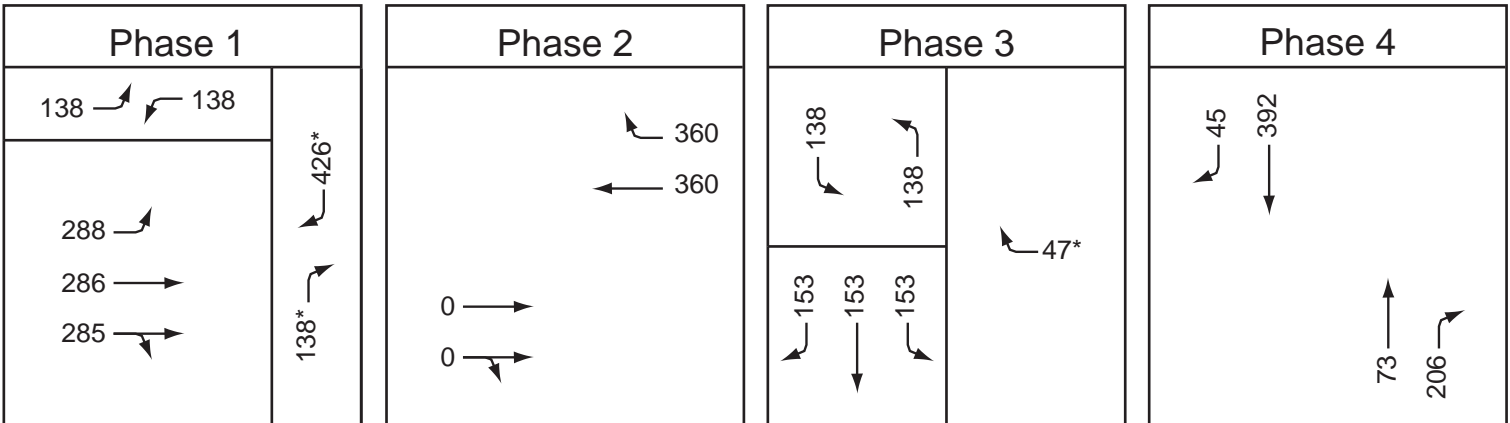
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
426	360	291	392

Total Operating Level (ILV/hr):

Σ
1469

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

*Right-Turn Overlap

Scenario: LT plus AM

Command: Default
 Volume: LT AM W/ Proj
 Geometry: Existing
 Impact Fee: Default
 Trip Generation: 2030 AM
 Trip Distribution: Project
 Paths: Project
 Routes: Default
 Configuration: Default

Intersection		Base		Future		Change in			
		V/ C	LOS	Del/ Veh	V/ C				
# 1	Via de San Ysidro at Calle Pri	D	48.7	0.869	D	48.7	0.869	+ 0.000	D/V
# 2	Via de San Ysidro at I-5 S/B R	C	24.1	0.404	C	24.1	0.404	+ 0.000	D/V
# 3	Via de San Ysidro at I-5 N/B R	C	17.1	0.317	C	17.5	0.367	+ 0.400	D/V
# 6	West San Ysidro Blvd at I-805	C	20.8	0.456	C	20.9	0.464	+ 0.113	D/V
# 7	Esat San Ysidro at I-805 N/B r	C	24.2	0.641	C	25.3	0.664	+ 1.050	D/V
# 11	East San Ysidro at East Beyer/	C	21.6	0.736	C	24.6	0.760	+ 2.942	D/V
# 12	East San Ysidro at I-5 N/B Ram	C	32.9	0.831	D	38.6	0.883	+ 5.744	D/V
# 13	Camino de la Plaza at I-5 S/B	C	23.2	0.341	C	22.9	0.413	-0.234	D/V
# 14	Camino de la Plaza at Virginia	B	13.9	0.015	C	19.0	0.095	+ 5.104	D/V

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus AM Tue Mar 31, 2009 12:12:10 Page 3-1

Intersection #1 Via de San Ysidro at Calle Primera
Cycle (sec): 95 Critical Vol./Cap.(X): 0.869
Loss Time (sec): 16 Average Delay (sec/veh): 48.7
Optimal Cycle: 103 Level Of Service: D
Street Name: Via de San Ysidro Calle Primera
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1
Volume Module:
Base Vol: 5 25 6 215 6 117 141 42 9 2 41 364
Growth Adj: 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45
Initial Bse: 7 36 9 312 9 170 204 61 13 3 59 528
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 7 36 9 312 9 170 204 61 13 3 59 528
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 8 38 9 328 9 179 215 64 14 3 63 556
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 8 38 9 328 9 179 215 64 14 3 63 556
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 8 38 9 328 9 179 215 64 14 3 63 556
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.96 1.21 1.12 1.05 0.98 0.94 0.84 0.99 0.98 0.95 0.95 0.73
Lanes: 1.00 0.80 0.20 1.00 0.05 0.95 1.00 0.82 0.18 0.05 0.95 1.00
Final Sat.: 1827 1822 437 2004 87 1705 1592 1541 330 84 1713 1378
Capacity Analysis Module:
Vol/Sat: 0.00 0.02 0.02 0.16 0.10 0.10 0.14 0.04 0.04 0.04 0.04 0.40
Crit Moves: **** **** ****
Green/Cycle: 0.05 0.05 0.05 0.18 0.18 0.18 0.15 0.15 0.15 0.45 0.45 0.45
Volume/Cap: 0.08 0.40 0.40 0.90 0.58 0.58 0.90 0.28 0.28 0.08 0.08 0.90
Delay/Veh: 43.2 45.7 45.7 62.5 38.1 38.1 72.9 36.3 36.3 15.1 15.1 40.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 43.2 45.7 45.7 62.5 38.1 38.1 72.9 36.3 36.3 15.1 15.1 40.7
LOS by Move: D E D D E D B B D
HCM2kAvgQ: 0 2 2 11 5 5 10 2 2 1 1 19

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus AM Tue Mar 31, 2009 12:12:10 Page 4-1

Intersection #2 Via de San Ysidro at I-5 S/B Ramp
Cycle (sec): 90 Critical Vol./Cap.(X): 0.404
Loss Time (sec): 12 Average Delay (sec/veh): 24.1
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: Via de San Ysidro I-5 S/B Ramp
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 0 0 0 2 0 0 1 0 0 0 0 0
Volume Module:
Base Vol: 0 527 0 0 207 0 118 0 119 0 0 0
Growth Adj: 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45
Initial Bse: 0 764 0 0 300 0 171 0 173 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 764 0 0 300 0 171 0 173 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 804 0 0 316 0 180 0 182 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 804 0 0 316 0 180 0 182 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 804 0 0 316 0 180 0 182 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.33 1.00 1.00 1.09 1.00 0.93 1.00 0.83 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 0 5070 0 0 4129 0 1769 0 1584 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.00 0.00 0.08 0.00 0.10 0.00 0.11 0.00 0.00 0.00
Crit Moves: **** ****
Green/Cycle: 0.00 0.39 0.00 0.00 0.19 0.00 0.28 0.00 0.28 0.00 0.00 0.00
Volume/Cap: 0.00 0.40 0.00 0.00 0.40 0.00 0.36 0.00 0.40 0.00 0.00 0.00
Delay/Veh: 0.0 19.8 0.0 0.0 32.3 0.0 26.1 0.0 26.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 19.8 0.0 0.0 32.3 0.0 26.1 0.0 26.6 0.0 0.0 0.0
LOS by Move: A A C A C A C A C A A A
HCM2kAvgQ: 0 8 0 0 4 0 4 0 4 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative) Page 5-1

Intersection #3 Via de San Ysidro at I-5 N/B Ramps

Average Delay (sec/veh): 4.5 Worst Case Level Of Service: C [17.5]

Street Name: Vis de San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 1
Volume Module:
Base Vol: 215 437 0 0 161 164 0 0 0 25 0 140
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 245 497 0 0 183 187 0 0 0 28 0 159
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 245 497 0 0 183 187 0 0 0 28 0 184
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 258 523 0 0 193 196 0 0 0 30 0 194
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 258 523 0 0 193 196 0 0 0 30 0 194
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 6.5 6.2
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3
Capacity Module:
Cnflct Vol: 399 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1155 1448 543
Potent Cap.: 1159 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 218 131 539
Move Cap.: 1150 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 177 100 529
Volume/Cap: 0.22 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.17 0.00 0.37
Level Of Service Module:
2Way95thQ: 0.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1.7
Control Del: 9.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 15.7
LOS by Move: * C
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 177 xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.6 xxxxx xxxxx
Shrd CnDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 29.5 xxxxx xxxxx
Shared LOS: * D * * * *
ApproachDel: xxxxxxx xxxxxxx xxxxxxx xxxxxxx 17.5
ApproachLOS: * C

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative) Page 6-1

LT plus AM Tue Mar 31, 2009 12:12:10

Intersection #6 West San Ysidro Blvd at I-805 S/B Ramps

Cycle (sec): 90 Critical Vol./Cap.(X): 0.464
Loss Time (sec): 12 Average Delay (sec/veh): 20.9
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name: I-805 S/B Ramps San Ysidro Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 1 0 1 0 0 1 1 0 2 0 2 0 0
Volume Module:
Base Vol: 0 0 0 243 1 240 0 488 119 38 224 0
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 0 277 1 273 0 555 135 43 255 0
Added Vol: 0 0 0 0 0 0 0 0 14 11 17 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 277 1 273 0 555 149 54 272 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 291 1 287 0 585 157 57 286 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 291 1 287 0 585 157 57 286 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 291 1 287 0 585 157 57 286 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.84 0.84 0.84 1.00 0.90 1.27 0.87 0.96 1.00
Lanes: 0.00 0.00 0.00 1.50 0.01 1.49 0.00 1.68 0.32 2.00 2.00 0.00
Final Sat.: 0 0 0 2395 7 2390 0 2876 774 3318 3655 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.12 0.18 0.12 0.00 0.20 0.20 0.02 0.08 0.00
Crit Moves: *****
Green/Cycle: 0.00 0.00 0.00 0.38 0.38 0.38 0.00 0.43 0.43 0.06 0.28 0.00
Volume/Cap: 0.00 0.00 0.00 0.32 0.47 0.31 0.00 0.47 0.47 0.31 0.28 0.00
Delay/Veh: 0.0 0.0 0.0 19.6 21.2 19.6 0.0 18.7 18.7 41.8 25.3 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 19.6 21.2 19.6 0.0 18.7 18.7 41.8 25.3 0.0
LOS by Move: A B C B A B B D C A
HCM2kAvgQ: 0 0 0 4 6 4 0 7 10 1 3 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus AM Tue Mar 31, 2009 12:12:10 Page 7-1

Intersection #7 Esat San Ysidro at I-805 N/B ramps
Cycle (sec): 94 Critical Vol./Cap.(X): 0.664
Loss Time (sec): 12 Average Delay (sec/veh): 25.3
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: I-805 N/B Ramps East San Ysidro
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 1 0 0 1 0 0 0 0 0 2 0 2 0 0 0 0 0 1 1 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus AM Tue Mar 31, 2009 12:12:10 Page 8-1

Intersection #11 East San Ysidro at East Beyer/Camino de la Plaza
Cycle (sec): 60 Critical Vol./Cap.(X): 0.760
Loss Time (sec): 16 Average Delay (sec/veh): 24.6
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: East San Ysidro East Beyer/Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Ignore Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 1 0 0 1 0 1 0 0 2 1 0 2 0 2 1 0 1 1 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus AM Tue Mar 31, 2009 12:12:10 Page 9-1

Intersection #12 East San Ysidro at I-5 N/B Ramps

Cycle (sec): 90 Critical Vol./Cap.(X): 0.883
Loss Time (sec): 12 Average Delay (sec/veh): 38.6
Optimal Cycle: OPTIMIZED Level Of Service: D

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include North Bound, South Bound, East Bound, West Bound for I-5 N/B Ramps.

Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus AM Tue Mar 31, 2009 12:12:10 Page 10-1

Intersection #13 Camino de la Plaza at I-5 S/B Ramps

Cycle (sec): 90 Critical Vol./Cap.(X): 0.413
Loss Time (sec): 16 Average Delay (sec/veh): 22.9
Optimal Cycle: OPTIMIZED Level Of Service: C

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include North Bound, South Bound, East Bound, West Bound for I-5 S/B Ramps.

Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
LT plus AM Tue Mar 31, 2009 12:12:10 Page 11-1

Intersection #14 Camino de la Plaza at Virginia

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: C [19.0]

Street Name: Virginia Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 1 0 0 0 0 1 0 1 1 0 1 0 0 1 0
Volume Module:
Base Vol: 2 0 8 2 0 0 0 160 1 13 265 3
Growth Adj: 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45
Initial Bse: 3 0 0 0 232 1 19 384 4
Added Vol: 0 0 0 0 0 0 0 9 0 0 25 0
PasserByVol: 17 0 69 0 0 0 0 -29 13 99 -29 0
Initial Fut: 20 0 81 3 0 0 0 212 14 118 380 4
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 21 0 85 3 0 0 0 223 15 124 400 5
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 21 0 85 3 0 0 0 223 15 124 400 5
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflct Vol: 901 904 139 782 xxxx xxxxx xxxx xxxx xxxxx 248 xxxx xxxxx
Potent Cap.: 261 279 914 314 xxxx xxxxx xxxx xxxx xxxxx 1317 xxxx xxxxx
Move Cap.: 238 248 899 259 xxxx xxxxx xxxx xxxx xxxxx 1306 xxxx xxxxx
Volume/Cap: 0.09 0.00 0.09 0.01 xxxx xxxxx xxxx xxxx xxxxx 0.09 xxxx xxxxx
Level Of Service Module:
2Way95thQ: 0.3 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx 0.3 xxxx xxxxx
Control Del: 21.6 xxxxx xxxxx 19.0 xxxx xxxxx xxxxx xxxx xxxxx 8.0 xxxx xxxxx
LOS by Move: * C * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx 899 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx 0.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx 9.4 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * A * * * * * * * *
ApproachDel: 11.8 * 19.0 xxxxxxxx xxxxxxxx
ApproachLOS: B C * *

Note: Queue reported is the number of cars per lane.

LT plus PM Wed Mar 25, 2009 13:32:19 Page 1-1

Scenario: LT plus PM
Command: Default
Volume: LT PM W/ Proj
Geometry: Existing
Impact Fee: Default
Trip Generation: 2030 PM
Trip Distribution: Project
Paths: Project
Routes: Default
Configuration: Default

Intersection	Base	V/ C	Future Del/ Veh	V/ C	Change in	Intersection	
						LOS	in
# 1 Via de San Ysidro at Calle Pri	F 171.4	1.285	F 171.4	1.285	+ 0.000	D/V	
# 2 Via de San Ysidro at I-5 S/B R	C 31.0	0.727	C 31.0	0.727	+ 0.000	D/V	
# 3 Via de San Ysidro at I-5 N/B R	F 67.4	0.799	F 61.9	0.799	-5.532	D/V	
# 6 West San Ysidro Blvd at I-805	C 28.7	0.867	C 29.8	0.887	+ 1.148	D/V	
# 7 East San Ysidro at I-805 N/B R	D 43.9	1.005	D 49.3	1.034	+ 5.319	D/V	
# 11 East San Ysidro at East Beyer/	B 12.8	0.822	B 15.2	0.866	+ 2.407	D/V	
# 12 East San Ysidro at I-5 N/B Ram	D 46.5	0.967	D 49.4	0.978	+ 2.876	D/V	
# 13 Camino de la Plaza at I-5 S/B	D 45.6	0.961	F 87.0	1.196	+41.477	D/V	
# 14 Camino de la Plaza at Virginia	F 51.8	0.103	F 319.5	3.507	+267.698	D/V	

Level Of Service Computation Report

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*****
Intersection #1 Via de San Ysidro at Calle Primera
*****
Cycle (sec):          70          Critical Vol./Cap.(X):          1.285
Loss Time (sec):      16          Average Delay (sec/veh):        171.4
Optimal Cycle: OPTIMIZED          Level Of Service:              F
*****
Street Name:          Via de San Ysidro          Calle Primera
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:              Split Phase          Split Phase          Split Phase          Split Phase
Rights:               Include             Include             Include             Include
Min. Green:           5 5 5 5 5 5 5 5 5 5 5 5
Y+R:                  4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:                1 0 0 1 0 1 0 0 1 0 1 0 0 1 0 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:             5 35 3 421 9 285 227 58 10 0 26 382
Growth Adj:           1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45
Initial Bse:          7 51 4 610 13 413 329 84 15 0 38 554
Added Vol:            0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:         0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:          7 51 4 610 13 413 329 84 15 0 38 554
User Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:          8 53 5 643 14 435 346 89 15 0 40 583
Reduct Vol:           0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:          8 53 5 643 14 435 346 89 15 0 40 583
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume:         8 53 5 643 14 435 346 89 15 0 40 583
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:           0.96 1.23 1.22 1.05 0.98 0.95 0.84 0.99 0.99 1.00 0.95 0.72
Lanes:                1.00 0.92 0.08 1.00 0.03 0.97 1.00 0.85 0.15 0.00 1.00 1.00
Final Sat.:           1827 2145 184 2004 55 1749 1592 1604 277 0 1801 1361
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.00 0.02 0.02 0.32 0.25 0.25 0.22 0.06 0.06 0.00 0.02 0.43
Crit Moves:          ****          ****          ****          ****
Green/Cycle:          0.07 0.07 0.07 0.23 0.23 0.23 0.16 0.16 0.16 0.00 0.31 0.31
Volume/Cap:           0.06 0.35 0.35 1.38 1.07 1.07 1.38 0.35 0.35 0.00 0.07 1.38
Delay/Veh:            30.5 32.2 32.2 211.4 91.1 91.1 223.9 27.0 27.0 0.0 17.1 209.9
User DelAdj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:           30.5 32.2 32.2 211.4 91.1 91.1 223.9 27.0 27.0 0.0 17.1 209.9
LOS by Move:          C F F F F F C C A B F
HCM2kAvgQ:            0 2 2 35 15 15 22 2 2 0 1 35
*****
Note: Queue reported is the number of cars per lane.
*****
Traffic 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KOA CORP, SAN DIEGO

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Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus PM Wed Mar 25, 2009 13:32:25 Page 4-1

Intersection #2 Via de San Ysidro at I-5 S/B Ramp
Cycle (sec): 90 Critical Vol./Cap.(X): 0.727
Loss Time (sec): 12 Average Delay (sec/veh): 31.0
Optimal Cycle: OPTIMIZED Level Of Service: C
Street Name: Via de San Ysidro I-5 S/B Ramp
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 0 0 0 2 0 0 1 0 0 0 0 0
Volume Module:
Base Vol: 0 648 0 0 415 0 281 0 290 0 0 0
Growth Adj: 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45 1.45
Initial Bse: 0 940 0 0 602 0 407 0 421 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 940 0 0 602 0 407 0 421 0 0 0
Initial Fut: 0 940 0 0 602 0 407 0 421 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 989 0 0 633 0 429 0 443 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 989 0 0 633 0 429 0 443 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 989 0 0 633 0 429 0 443 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.33 1.00 1.00 1.09 1.00 0.93 1.00 0.83 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 0 5070 0 0 4129 0 1769 0 1573 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.20 0.00 0.00 0.15 0.00 0.24 0.00 0.28 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.27 0.00 0.00 0.21 0.00 0.39 0.00 0.39 0.00 0.00 0.00
Volume/Cap: 0.00 0.73 0.00 0.00 0.73 0.00 0.63 0.00 0.73 0.00 0.00 0.00
Delay/Veh: 0.0 31.9 0.0 0.0 36.2 0.0 24.2 0.0 27.9 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 31.9 0.0 0.0 36.2 0.0 24.2 0.0 27.9 0.0 0.0 0.0
LOS by Move: A A D A C A C A A A
HCM2kAvgQ: 0 13 0 0 9 0 10 0 12 0 0 0
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
LT plus PM Wed Mar 25, 2009 13:32:25 Page 5-1

Intersection #3 Via de San Ysidro at I-5 N/B Ramps
Average Delay (sec/veh): 7.7 Worst Case Level Of Service: F[61.9]
Street Name: Vis de San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 0 1 0 0 1
Volume Module:
Base Vol: 291 618 0 0 345 205 0 0 0 49 0 79
Growth Adj: 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 331 703 0 0 393 233 0 0 0 56 0 90
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 331 703 0 0 393 233 0 0 0 56 0 110
Initial Fut: 331 703 0 0 393 233 0 0 0 56 0 110
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 349 740 0 0 413 246 0 0 0 59 0 116
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 349 740 0 0 413 246 0 0 0 59 0 116
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 6.5 6.2
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3
Capacity Module:
Cnflct Vol: 669 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1664 2116 760
Potent Cap.: 921 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 107 51 406
Move Cap.: 913 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 73 31 398
Volume/Cap: 0.38 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.80 0.00 0.29
Level Of Service Module:
2Way95thQ: 1.8 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1.2
Control Del: 11.4 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 17.7
LOS by Move: * C
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 73 xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.9 xxxxx xxxxx
Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 149.0 xxxxx xxxxx
Shared LOS: * F * * *
ApproachDel: xxxxxx xxxxxxx xxxxxxx xxxxxxx 61.9
ApproachLOS: * F
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus PM Wed Mar 25, 2009 13:32:25 Page 6-1

Table for Intersection #6 West San Ysidro Blvd at I-805 S/B Ramps. Includes Cycle (sec): 90, Loss Time (sec): 12, Critical Vol./Cap.(X): 0.887, Average Delay (sec/veh): 29.8, Level Of Service: C. Detailed traffic volume and delay data for North, South, East, and West bounds.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus PM Wed Mar 25, 2009 13:32:25 Page 7-1

Table for Intersection #7 Esat San Ysidro at I-805 N/B ramps. Includes Cycle (sec): 94, Loss Time (sec): 12, Critical Vol./Cap.(X): 1.034, Average Delay (sec/veh): 49.3, Level Of Service: D. Detailed traffic volume and delay data for North, South, East, and West bounds.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus PM Wed Mar 25, 2009 13:32:25 Page 8-1

Intersection #11 East San Ysidro at East Beyer/Camino de la Plaza
Cycle (sec): 60 Critical Vol./Cap.(X): 0.866
Loss Time (sec): 16 Average Delay (sec/veh): 15.2
Optimal Cycle: OPTIMIZED Level Of Service: B
Street Name: East San Ysidro East Beyer/Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Ignore Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 1 0 0 1 0 1 0 0 2 1 0 2 0 2 1 0 1 1 0
Volume Module:
Base Vol: 297 100 478 16 89 52 28 148 494 109 127 14
Growth Adj: 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62
Initial Bse: 482 162 776 26 145 84 45 240 802 177 206 23
Added Vol: 0 0 0 1 0 10 0 0 1 31 20 30 10
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 482 162 777 26 155 84 45 241 833 197 236 33
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 508 171 818 27 163 0 48 254 877 207 249 34
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 508 171 818 27 163 0 48 254 877 207 249 34
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 508 171 818 27 163 0 48 254 877 207 249 34
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.88 0.76 1.01 0.97 0.88 0.96 0.87 0.55 0.96 0.94 1.77
Lanes: 1.54 0.46 1.00 0.14 0.86 2.00 1.00 2.00 2.00 1.00 1.86 0.14
Final Sat.: 2299 774 1435 267 1590 3344 1827 3301 2091 1827 3342 463
Capacity Analysis Module:
Vol/Sat: 0.22 0.22 0.57 0.10 0.10 0.00 0.03 0.08 0.42 0.11 0.07 0.07
Crit Moves: ****
Green/Cycle: 0.66 0.66 0.66 0.12 0.12 0.00 0.18 0.23 0.89 0.13 0.18 0.18
Volume/Cap: 0.34 0.34 0.87 0.87 0.87 0.00 0.15 0.34 0.47 0.87 0.41 0.41
Delay/Veh: 4.6 4.6 16.7 54.4 54.4 0.0 20.9 19.6 0.8 52.1 22.2 22.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 4.6 4.6 16.7 54.4 54.4 0.0 20.9 19.6 0.8 52.1 22.2 22.2
LOS by Move: B D D A C B A D C C C
HCM2kAvgQ: 3 3 14 7 6 0 1 2 2 4 2 4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus PM Wed Mar 25, 2009 13:32:25 Page 9-1

Intersection #12 East San Ysidro at I-5 N/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 0.978
Loss Time (sec): 12 Average Delay (sec/veh): 49.4
Optimal Cycle: OPTIMIZED Level Of Service: D
Street Name: East San Ysidro I-5 N/B Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Ovl Include
Min. Green: 5 5 5 5 5 5 5 5 5 5
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 0 1 0 0 1 0 0 1! 0 0 0 0 1! 0 0
Volume Module:
Base Vol: 8 12 11 151 13 523 102 45 2 74 84 58
Growth Adj: 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62
Initial Bse: 13 19 18 245 21 849 166 73 3 120 136 94
Added Vol: 0 0 0 0 0 2 59 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 13 19 18 245 21 851 225 73 3 120 136 94
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 14 21 19 258 22 896 236 77 3 127 144 99
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 14 21 19 258 22 896 236 77 3 127 144 99
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 14 21 19 258 22 896 236 77 3 127 144 99
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.84 0.86 0.74 0.51 0.73 0.74 0.96 0.96 0.96 0.93 0.93 0.93
Lanes: 0.25 0.36 0.39 0.94 0.06 1.00 0.75 0.24 0.01 0.34 0.39 0.27
Final Sat.: 397 595 546 915 79 1405 1366 444 20 604 686 474
Capacity Analysis Module:
Vol/Sat: 0.03 0.03 0.03 0.28 0.28 0.64 0.17 0.17 0.17 0.21 0.21 0.21
Crit Moves: ****
Green/Cycle: 0.48 0.48 0.48 0.48 0.48 0.65 0.18 0.18 0.18 0.21 0.21 0.21
Volume/Cap: 0.07 0.07 0.07 0.59 0.59 0.98 0.98 0.98 0.98 0.98 0.98 0.98
Delay/Veh: 12.9 12.9 12.9 19.3 19.3 39.3 80.6 80.6 80.6 75.4 75.4 75.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.9 12.9 12.9 19.3 19.3 39.3 80.6 80.6 80.6 75.4 75.4 75.4
LOS by Move: B B B D F F F F E E E
HCM2kAvgQ: 1 1 1 5 7 26 14 14 14 15 15 15

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
LT plus PM Wed Mar 25, 2009 13:32:25 Page 10-1

Intersection #13 Camino de la Plaza at I-5 S/B Ramps
Cycle (sec): 90 Critical Vol./Cap.(X): 1.196
Loss Time (sec): 16 Average Delay (sec/veh): 87.0
Optimal Cycle: OPTIMIZED Level Of Service: F

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)
LT plus PM Wed Mar 25, 2009 13:32:25 Page 11-1

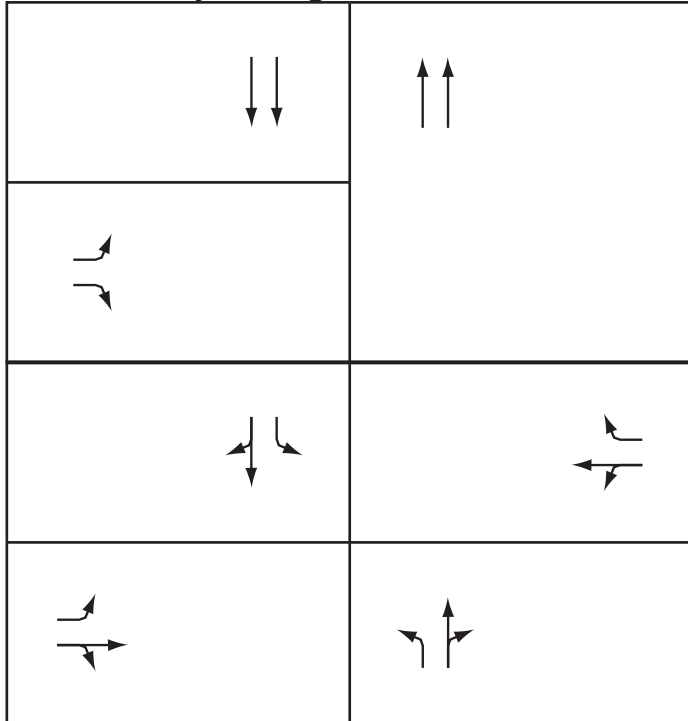
Intersection #14 Camino de la Plaza at Virginia
Average Delay (sec/veh): 30.2 Worst Case Level Of Service: F[319.5]
Street Name: Virginia Camino de la Plaza
Approach: North Bound South Bound East Bound West Bound
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 0 0 1 0 0 1 0 1 1 0 1 0 0 1 0

Note: Queue reported is the number of cars per lane.

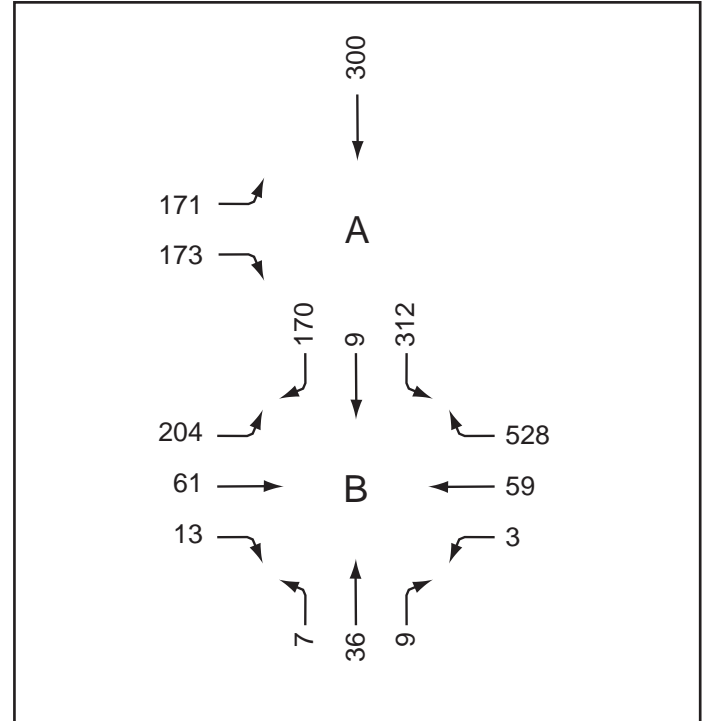
ILV Calculation

1&2: Via de San Ysidro & I-5 SB Ramp
Long Term AM With Project Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
<p>A</p> <p>150 150</p>	<p>A</p> <p>171 173</p>	<p>A</p> <p>204</p>	<p>A</p> <p>378</p>	<p>A</p> <p>36</p>
<p>B</p> <p>150 150 150</p>	<p>B</p> <p>29 162</p>	<p>B</p> <p>204 74</p>	<p>B</p> <p>378 62</p>	<p>B</p> <p>7 45</p>

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
150	173	204	378	45

Total Operating Level (ILV/hr):

Σ
950

Is...

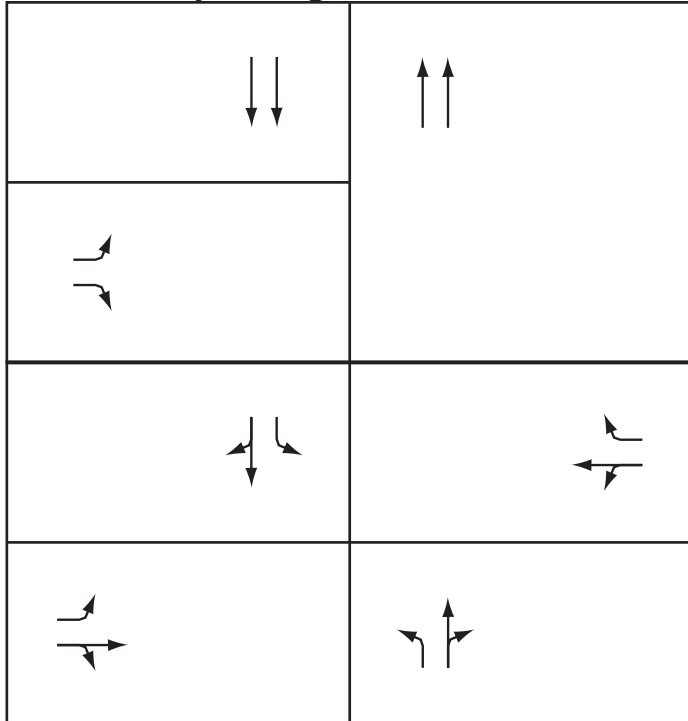
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

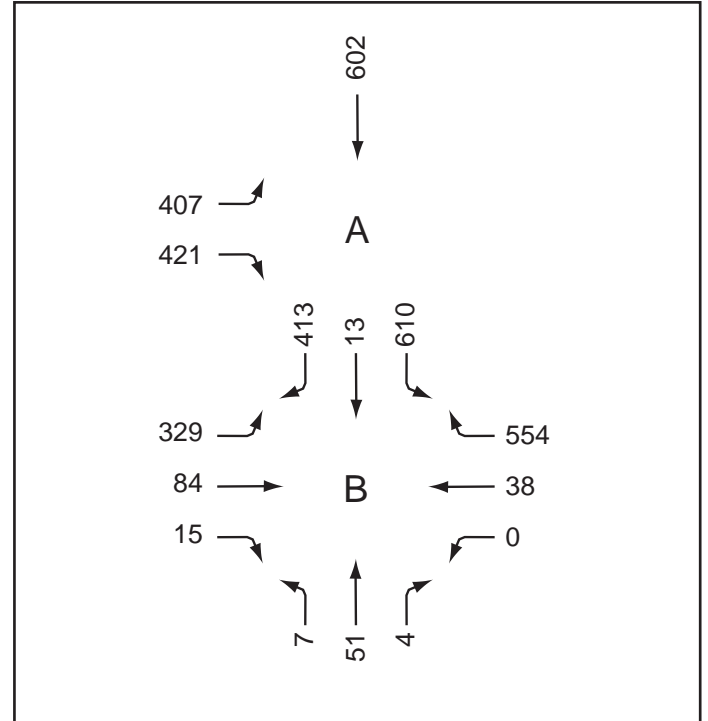
ILV Calculation

1&2: Via de San Ysidro & I-5 SB Ramp
 Long Term PM With Project Peak Hour

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
A 301 301	A 407 421	A 329	A 253	A 51
B 301 301 301	B 125 309	B 329 99	B 253 38	B 7 55

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
301	421	329	253	55

Total Operating Level (ILV/hr):

Σ
1359

Is...

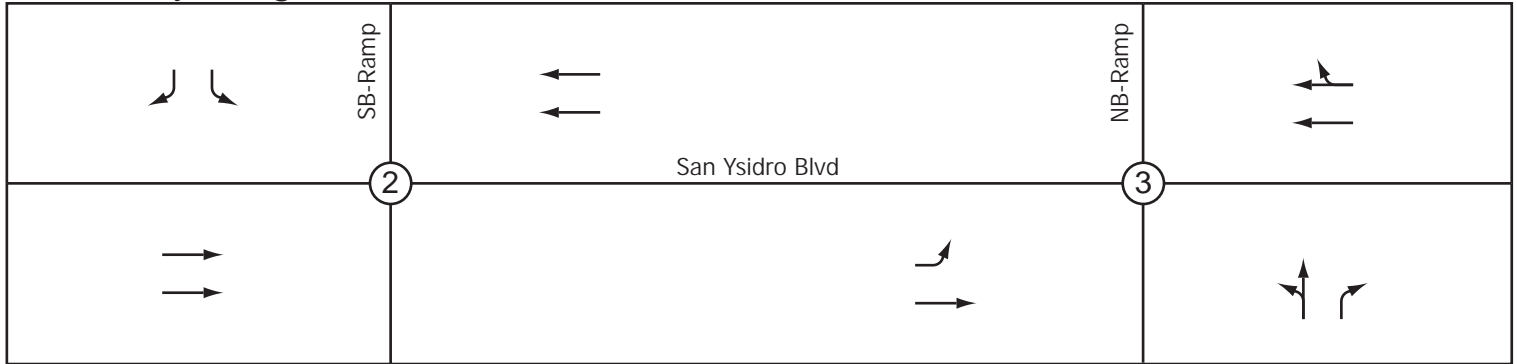
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

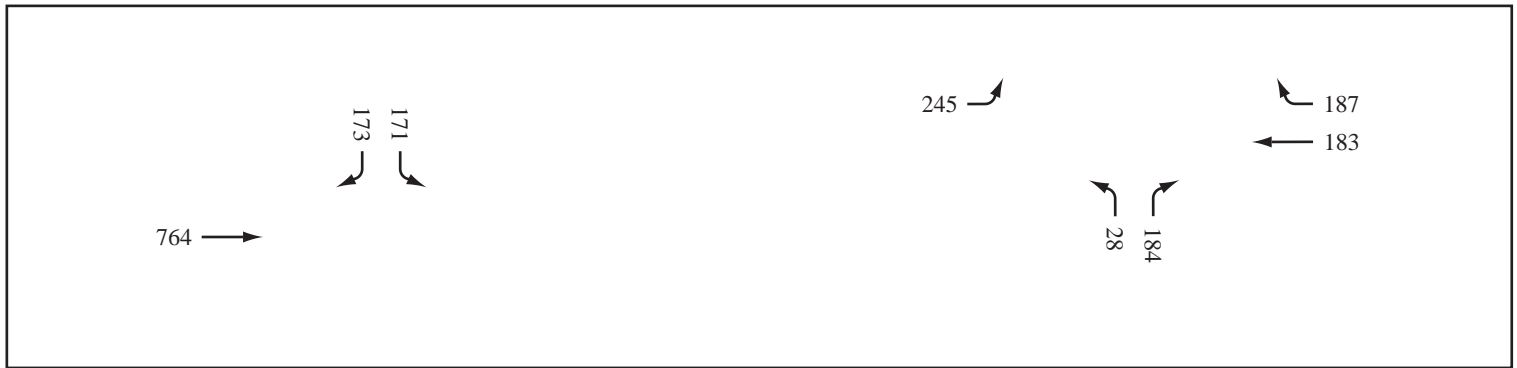
ILV Calculation

2&3: Via de San Ysidro & I-5 SB & NB Ramps
Long Term AM Peak Hour With Project

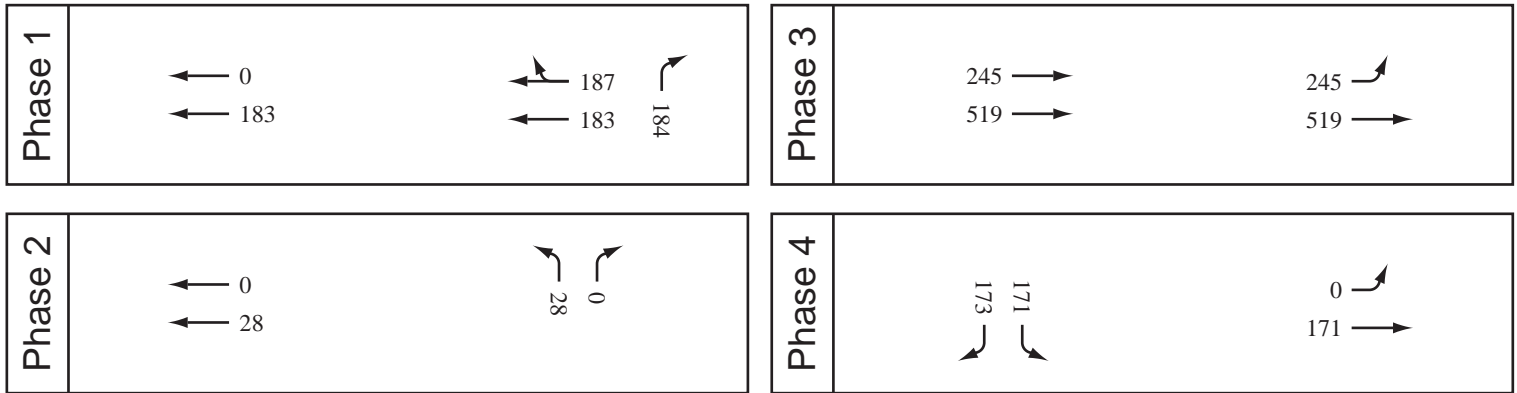
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
187	28	519	173

Total Operating Level (ILV/hr):

Σ
907

Is...

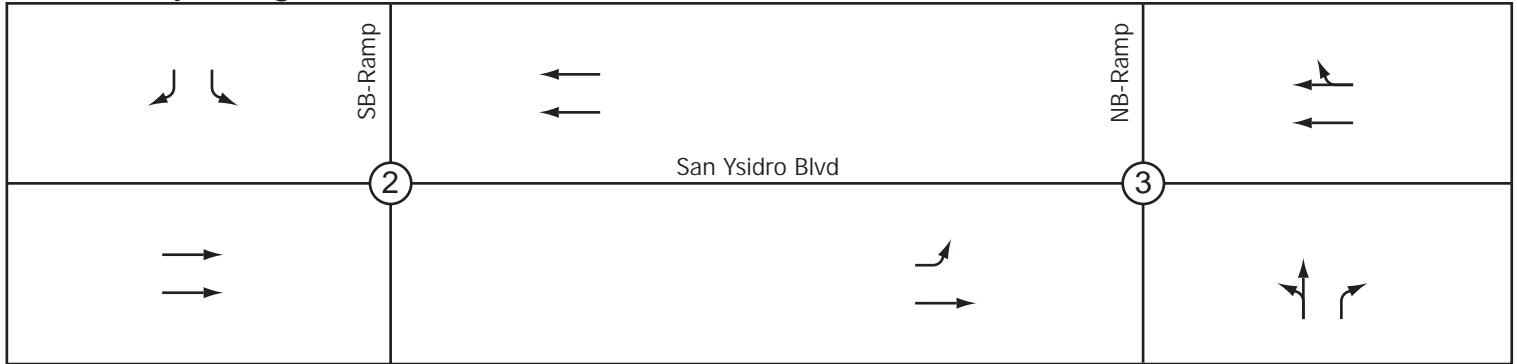
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

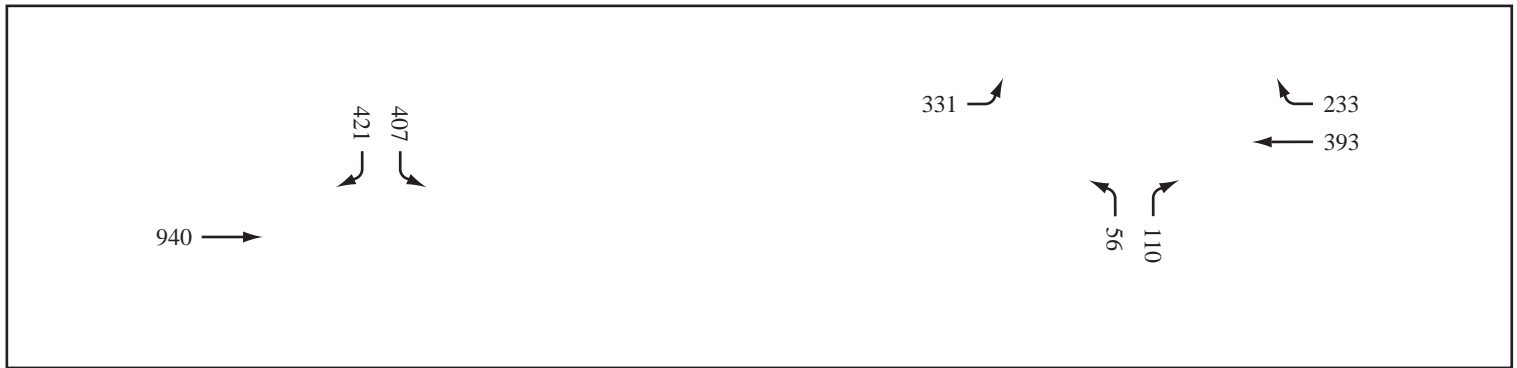
ILV Calculation

2&3: Via de San Ysidro & I-5 SB & NB Ramps
 Long Term PM Peak Hour With Project

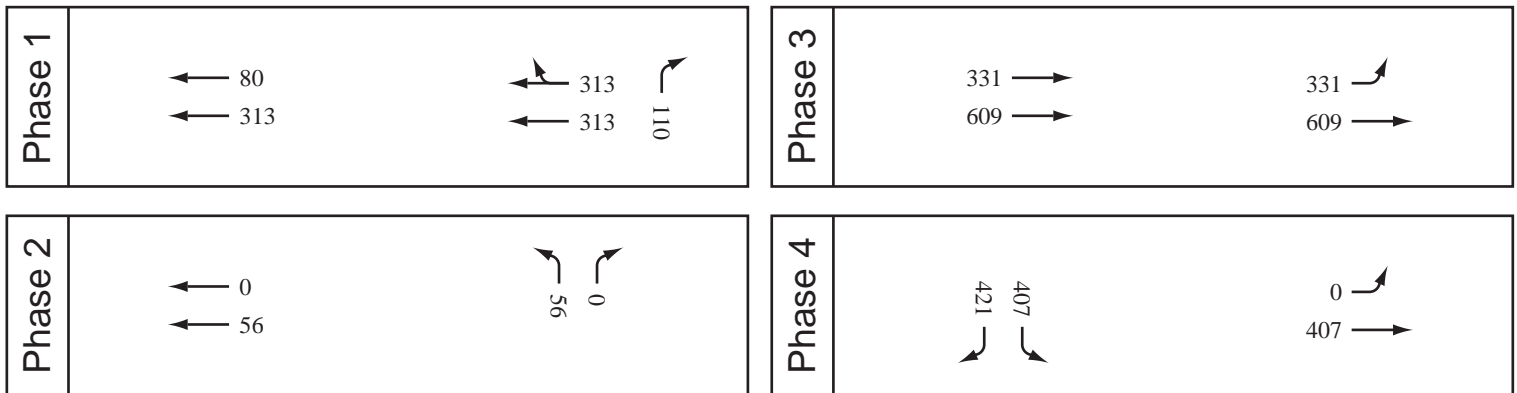
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
313	56	609	421

Total Operating Level (ILV/hr):

Σ
1399

Is...

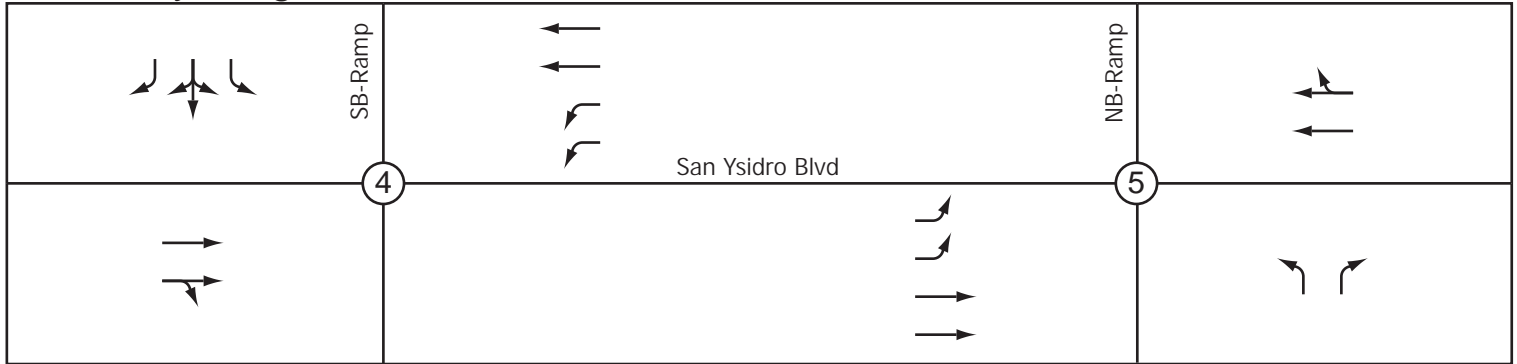
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

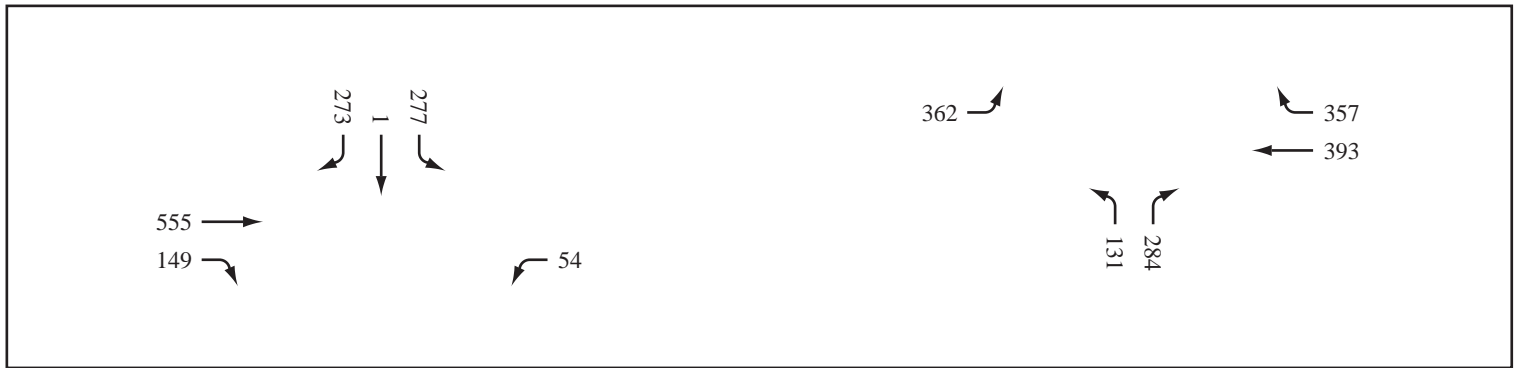
ILV Calculation

4&5: San Ysidro Boulevard & I-805 SB & NB Ramps
Long Term AM Peak Hour With Project

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase	San Ysidro Blvd	I-805 SB-Ramp	I-805 NB-Ramp
Phase 1	18 (left) 321 (through) 54 (right) 0 (left) 0 (right)	375 (left) 375 (right)	362 (left) 342 (right)
Phase 2	0 (left) 131 (right)	131 (left) 284 (right)	0 (left) 362 (right)
Phase 3	183 (left) 184 (through) 184 (right)	183 (left) 184 (right)	0 (left) 10 (right)
Phase 4	183 (left) 184 (right)	183 (left) 184 (right)	183 (left) 94 (right)

Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
375	284	362	184

Total Operating Level (ILV/hr):

Σ
1205

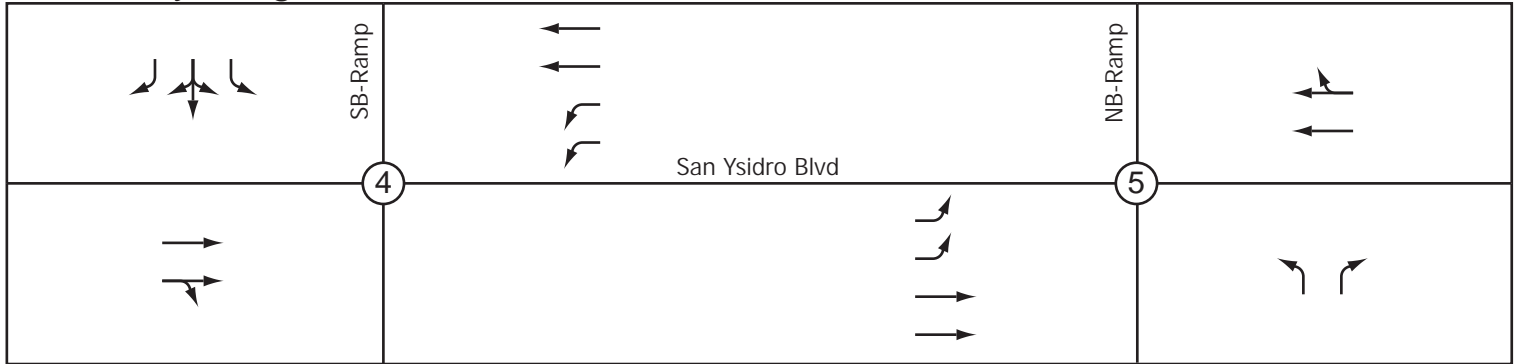
- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

Remarks:

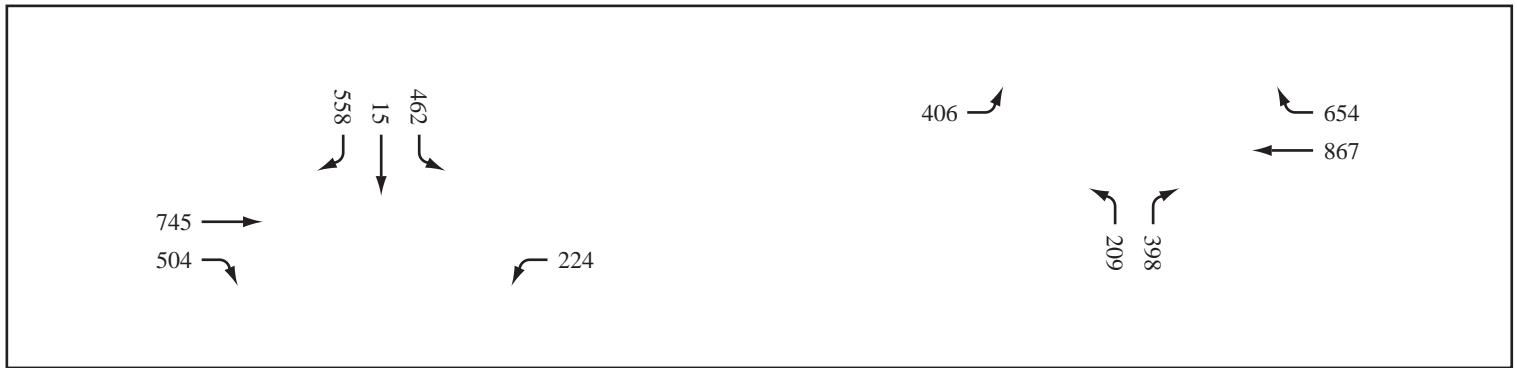
ILV Calculation

4&5: San Ysidro Boulevard & I-805 SB & NB Ramps
 Long Term PM Peak Hour With Project

Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)

Phase 1	← 106	
	← 537	
	↘ 224	← 760
	↘ 0	← 761

Phase 3		↘ 0
	→ 625	↘ 406
	↘ 624	→ 219
		→ 120

Phase 2	← 0	
	← 209	
	↘ 0	↘ 398
	↘ 0	↘ 209

Phase 4		↘ 0
		↘ 0
	→ 345	→ 345
	→ 345	→ 117

Critical Lane Volumes (ILV/Hr)

Phase 1
761

Phase 2
398

Phase 3
625

Phase 4
345

Total Operating Level (ILV/hr):

Σ
2129

Is...

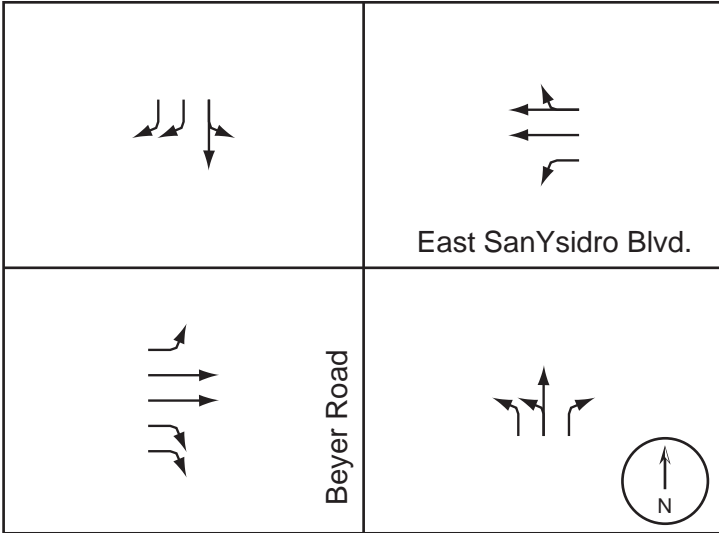
- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

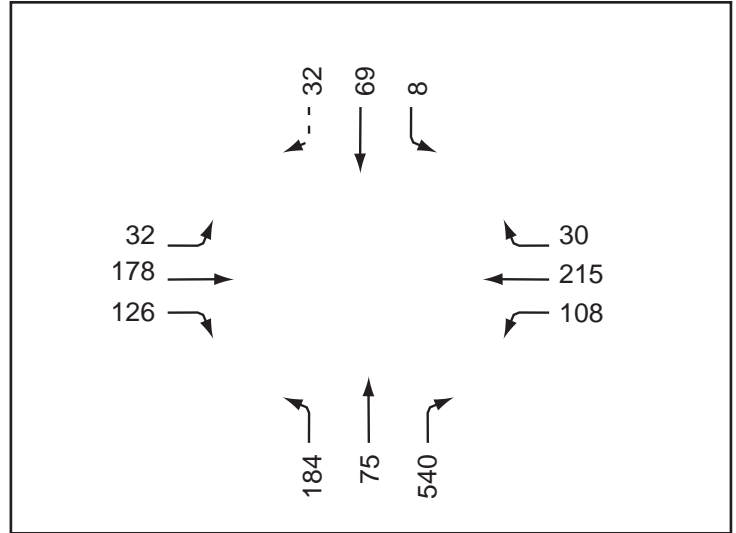
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Long Term Am With Project Peak Hour

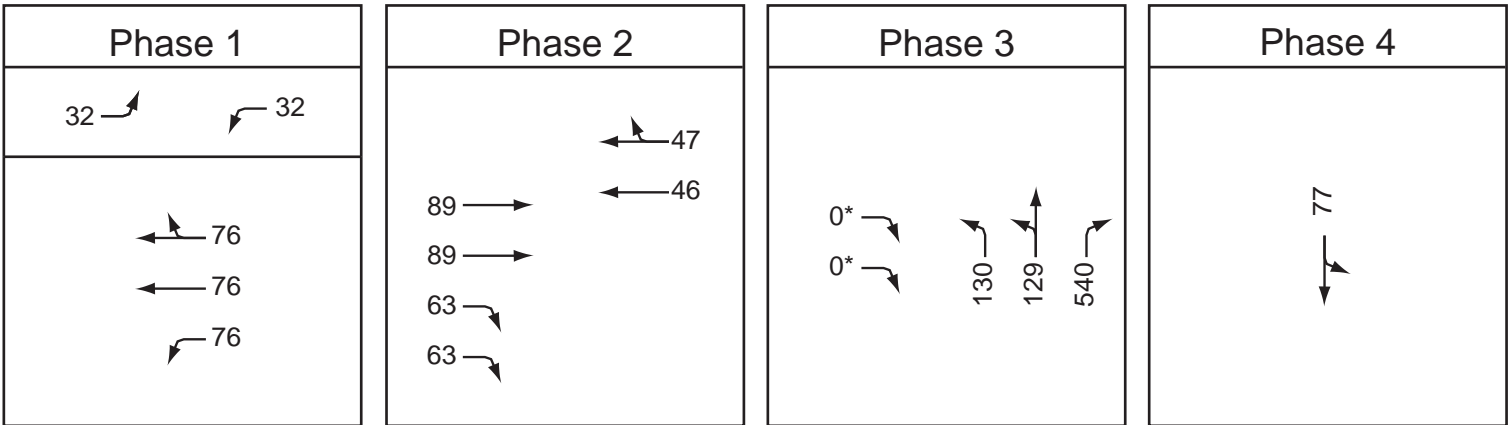
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
108	89	540	77

Total Operating Level (ILV/hr):

Σ
814

- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

Remarks:

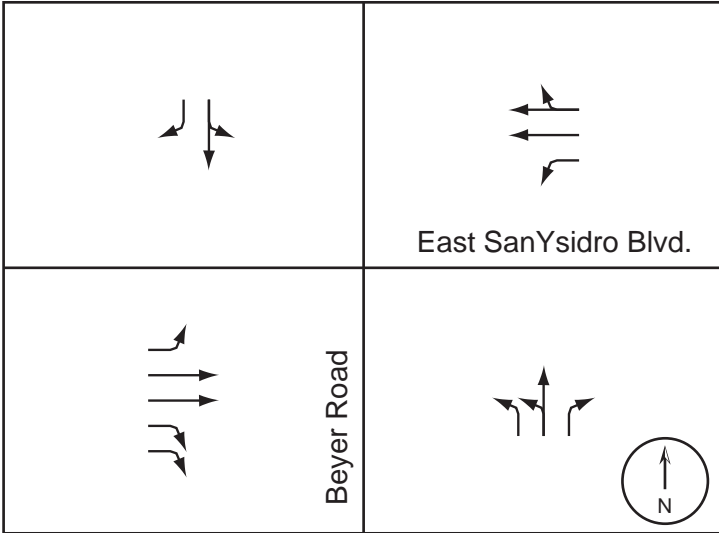
Free Right

*Right-Turn Overlap

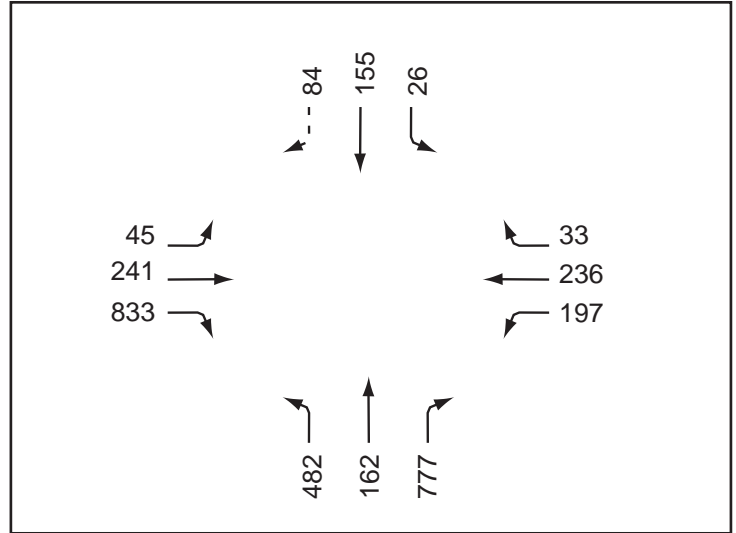
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Long Term PM With Project Peak Hour

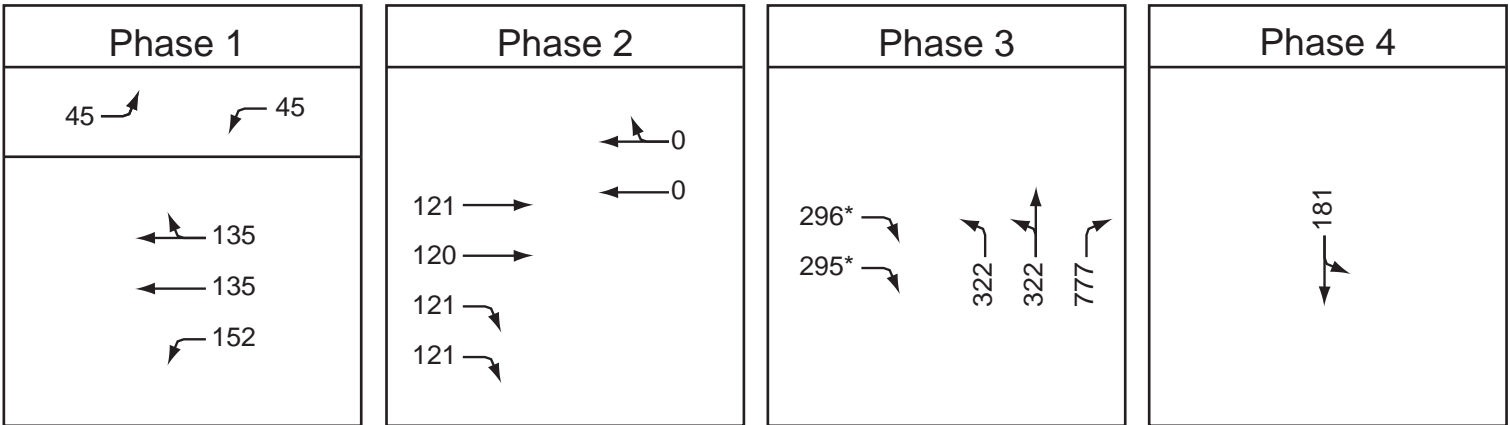
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
197	121	777	181

Total Operating Level (ILV/hr):

Σ
1276

- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

Remarks:

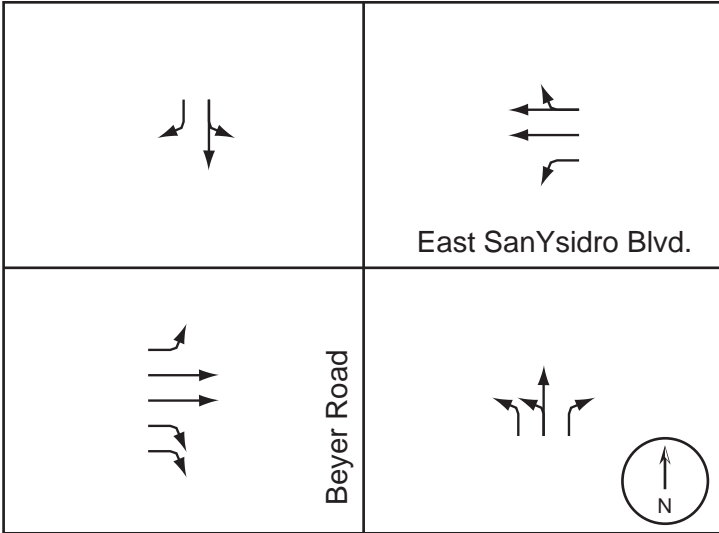
Free Right

*Right-Turn Overlap

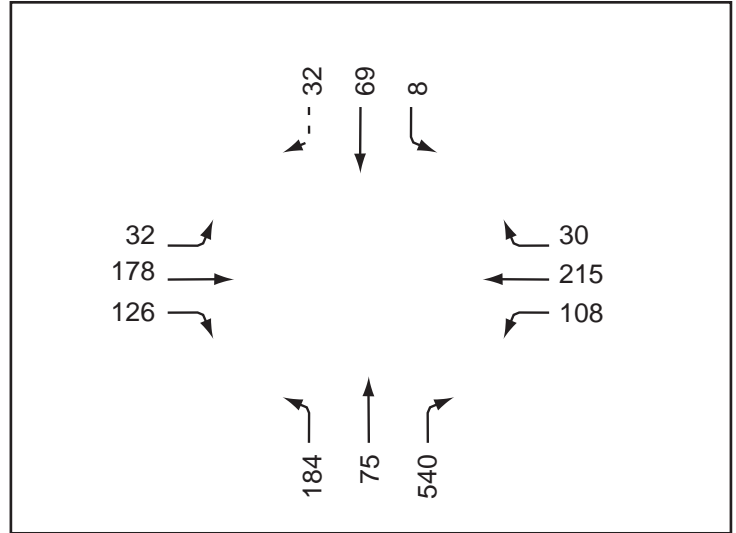
ILV Calculation

6: East San Ysidro & East Beyer Boulevard
Long Term Am With Project Peak Hour

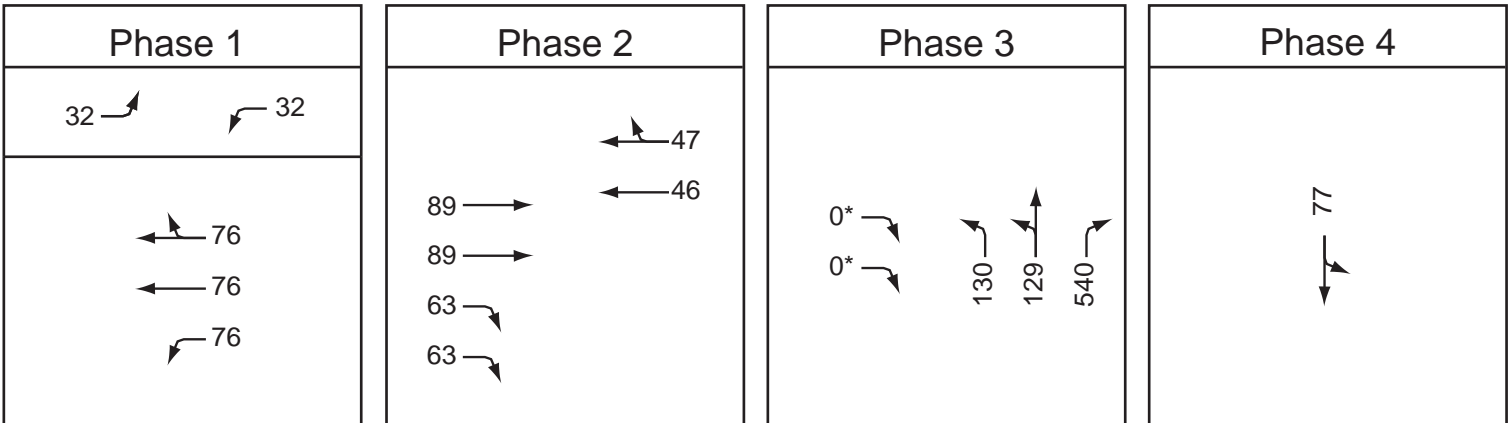
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
108	89	540	77

Total Operating Level (ILV/hr):

Σ
814

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

Remarks:

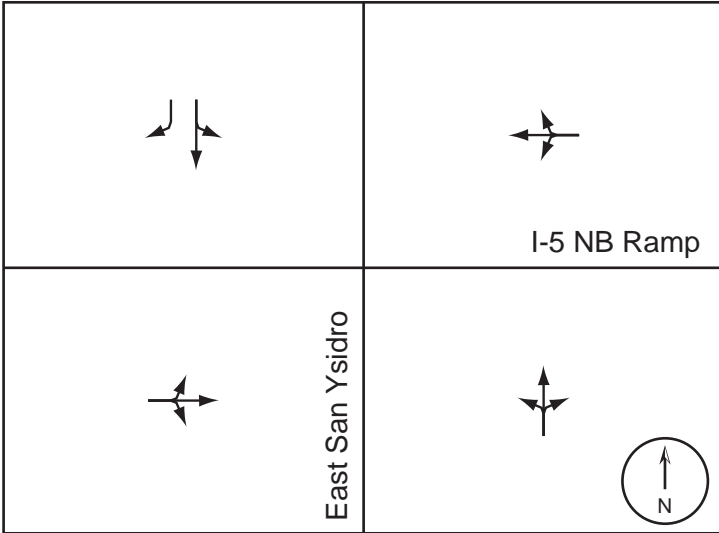
Free Right

*Right-Turn Overlap

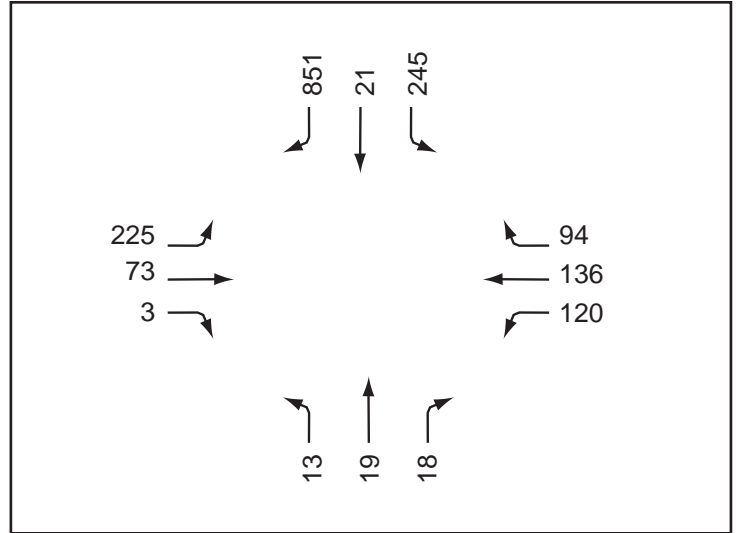
ILV Calculation

7: East San Ysidro Boulevard & I-5 NB Ramp
Long Term PM With Project Peak Hour

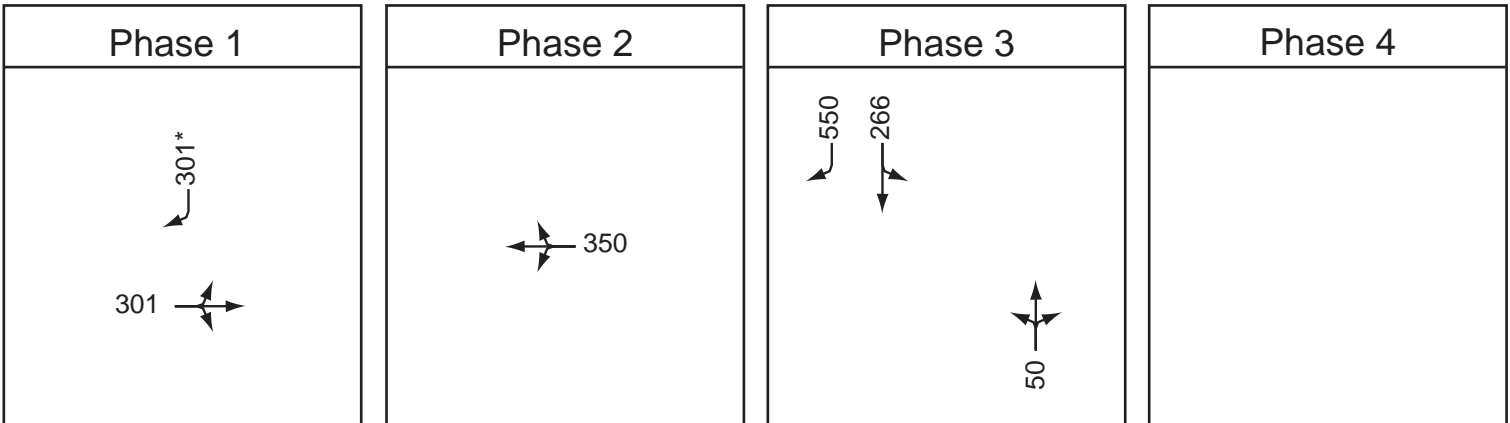
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
301	350	550	

Total Operating Level (ILV/hr):

Σ
1201

- Is... < 1200 ILV/hr
 > 1200 ILV/hr but < 1500 ILV/hr
 > 1500 ILV/hr (CAPACITY)

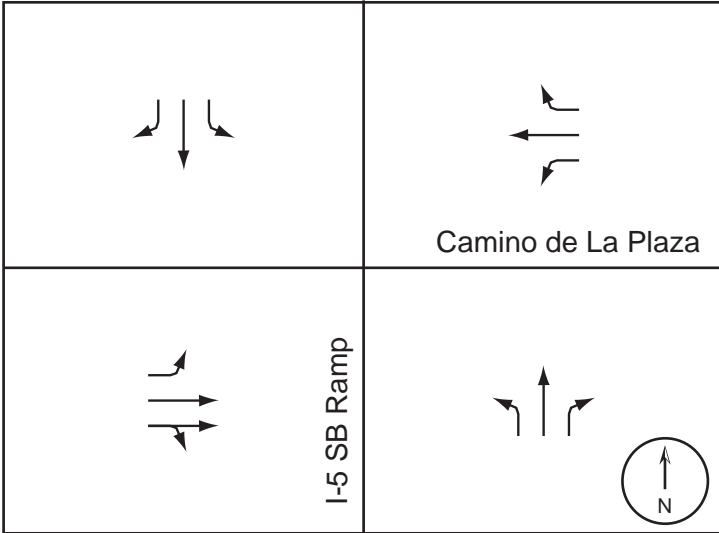
Remarks:

*Right-Turn Overlap

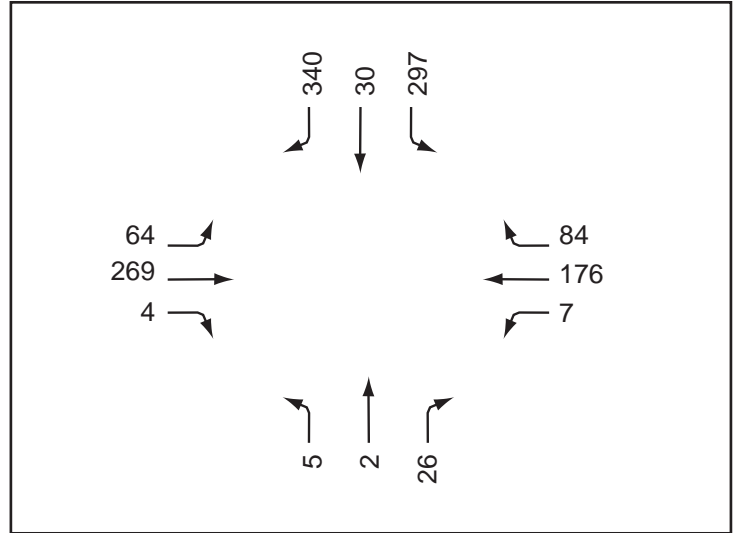
ILV Calculation

8: Camino de la Plaza & I-5 SB Ramp
Long Term AM With Project Peak Hour

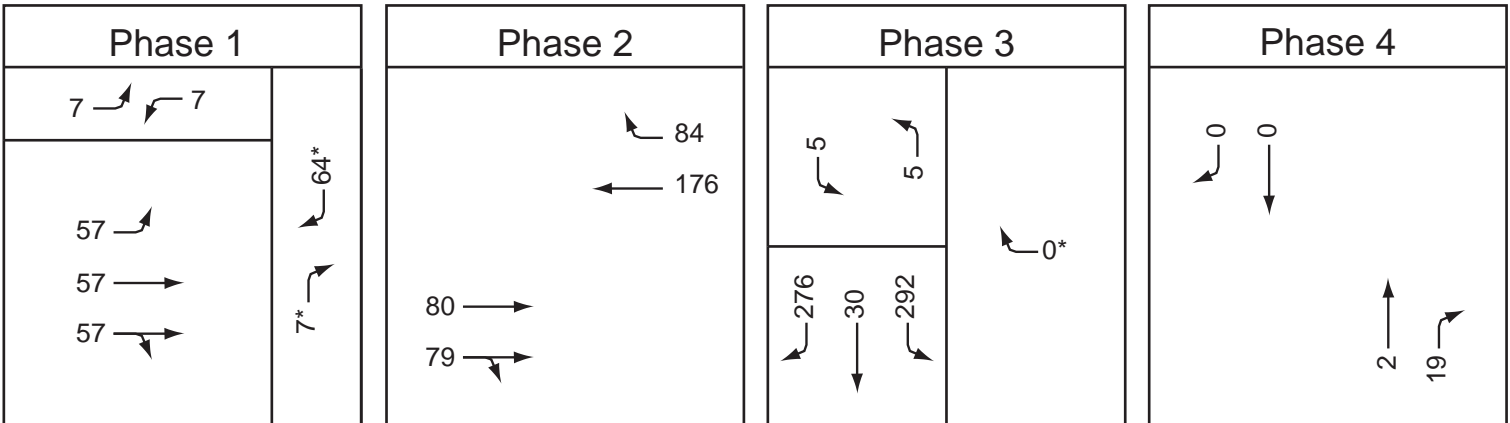
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
64	176	297	19

Total Operating Level (ILV/hr):

Σ
556

Is...

- < 1200 ILV/hr
- > 1200 ILV/hr but < 1500 ILV/hr
- > 1500 ILV/hr (CAPACITY)

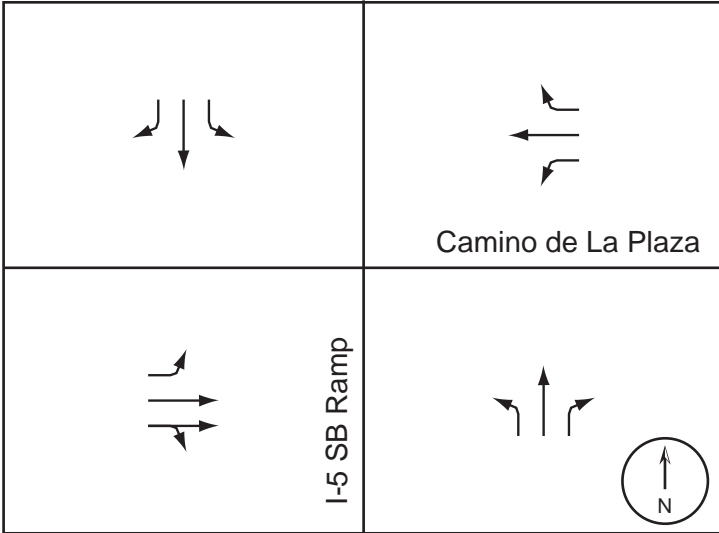
Remarks:

*Right-Turn Overlap

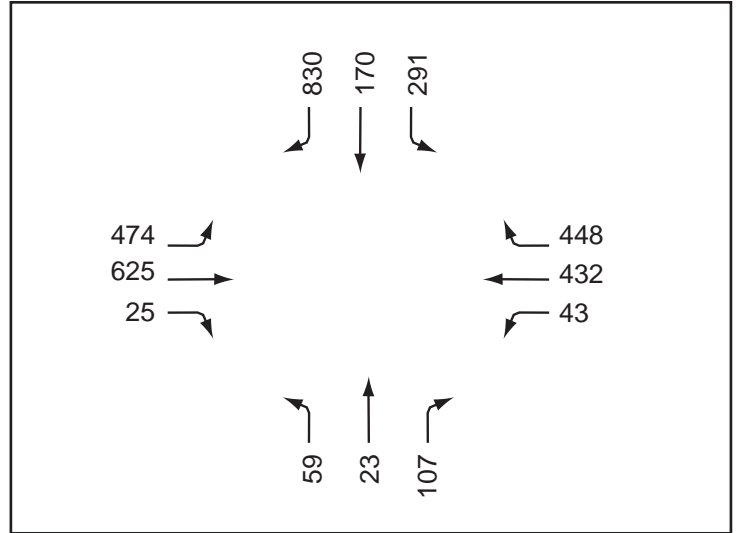
ILV Calculation

8: Camino de la Plaza & I-5 SB Ramp
Long Term PM With Project Peak Hour

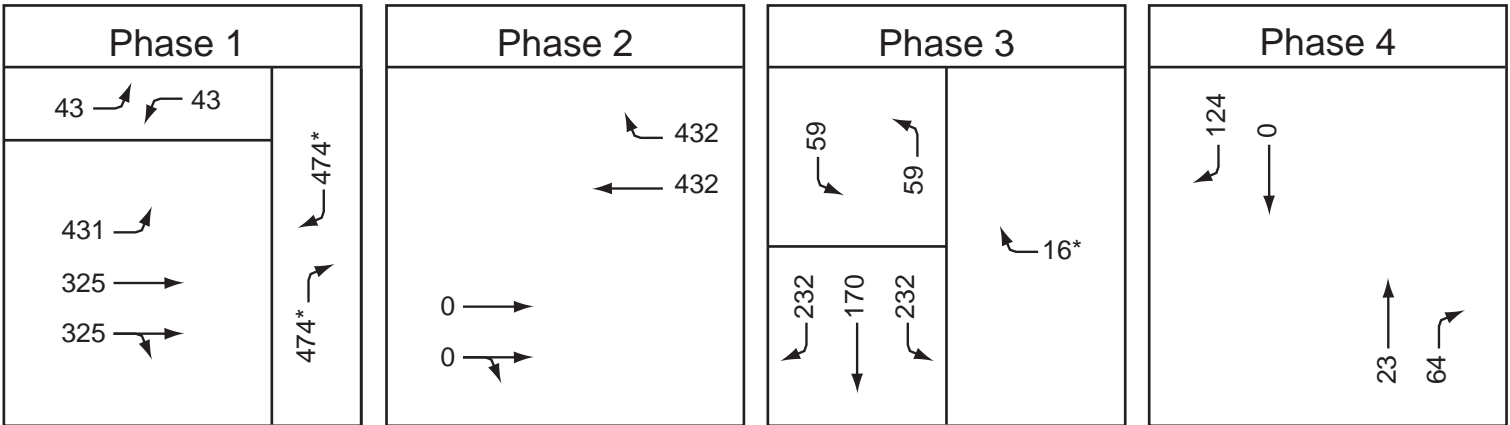
Geometry Diagram



Traffic Flows



Lane Volumes (ILV/Hr)



Critical Lane Volumes (ILV/Hr)

Phase 1	Phase 2	Phase 3	Phase 4
474	432	291	124

Total Operating Level (ILV/hr):

Σ
1321

- Is...
- < 1200 ILV/hr
 - > 1200 ILV/hr but < 1500 ILV/hr
 - > 1500 ILV/hr (CAPACITY)

Remarks:

*Right-Turn Overlap

APPENDIX G

QUEUING ANALYSIS

Existing veh / hour = **128** ave inspect time 28 sec / veh future (double stacked) **186** served per hour per booth

inspection capacity per hour = # of lanes x 3600 / ave inspect time

EXISTING conditions		2014													
Existing port Queue		# of lanes = 24 Capacity = 3072													
Time		0	1	2	3	4	5	6	7	8	9	10	11	12	13
Capacity	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072
Demand	410	247	291	552	2243	3199	3526	3816	3780	3579	3342	3085	2851	2398	
Excess/backlog	-2662	-2825	-2781	-2520	-829	127	454	744	708	507	270	13	-221	-134	
Cumulative queue	0	0	0	0	0	127	581	1325	2033	2540	2810	2823	2602	2468	
Hourly demand plus excess demand from previous hours	410	247	291	552	2243	3199	3653	4397	5105	5612	5882	5895	5674	5540	
Total Throughput	410	247	291	552	2243	3072	3072	3072	3072	3072	3072	3072	3072	3072	
wait times in min	8	6	6	11	44	62	71	86	100	110	115	115	111	108	
	0.133463542	0.080403646	0.094726563	0.1796875	0.73014323	1.041341146	1.189127604	1.431315104	1.661783854	1.826822917	1.914713542	1.918945313	1.847005208	1.803385417	

EXISTING conditions		2014													
Existing port Queue		# of lanes = 24 Capacity = 3072													
Time		0	1	2	3	4	5	6	7	8	9	10	11	12	13
Capacity	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	
Demand	770	400	400	600	1420	3710	4950	4250	3900	3300	3800	3350	3170	3100	
Excess/backlog	-2302	-2672	-2672	-2472	-1652	638	1878	1178	828	228	728	278	98	28	
Cumulative queue	0	0	0	0	0	638	2516	3694	4522	4750	5478	5756	5854	5882	
Hourly demand plus excess demand from previous hours	770	400	400	600	1420	3710	5588	6766	7594	7822	8550	8828	8926	8954	
Throughput	770	400	400	600	1420	3072	3072	3072	3072	3072	3072	3072	3072	3072	
wait times in min	15	8	8	12	28	72	109	132	148	153	167	172	174	175	
	1.207682292	1.819010417	2.202473958	2.472005208	2.546223958	2.783203125	2.873697917	2.905989568	2.914713542						
Proposed Expansion Queue		# of lanes = 30 Capacity = 5580													
Time		0	1	2	3	4	5	6	7	8	9	10	11	12	13
Capacity	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	
Demand	770	400	400	600	1420	3710	4950	5313	5265	4785	5320	5025	4913.5	4805	
Excess	-4810	-5180	-5180	-4980	-4160	-1870	-630	-267	-315	-795	-260	-555	-666.5	-775	
Cumulative queue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly demand plus excess demand from previous hours	770	400	400	600	1420	3710	4950	5313	5265	4785	5320	5025	4913.5	4805	
Throughput	770	400	400	600	1420	3710	4950	5313	5265	4785	5320	5025	4914	4805	
Project increment	0	0	0	0	0	638	1878	2241	2193	1713	2248	1953	1842	1733	
wait times in min	8	4	4	6	15	40	53	57	57	51	57	54	53	52	

EXISTING conditions		2030													
Existing port Queue		# of lanes = 24 Capacity = 3072													
Time		0	1	2	3	4	5	6	7	8	9	10	11	12	13
Capacity	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	
Demand	600	525	900	1900	4800	6400	6500	5900	5300	5300	4900	4750	4450	4500	
Excess/backlog	-2472	-2547	-2172	-1172	1728	3328	3428	2828	2228	2228	1828	1678	1378	1428	
Cumulative queue	0	0	0	0	1728	5056	8484	11312	13540	15768	17596	19274	20652	22080	
Hourly demand plus excess demand from previous hours	600	525	900	1900	4800	8128	11556	14384	16612	18840	20668	22346	23724	25152	
Throughput	600	525	900	1900	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	
wait times in min	12	10	18	37	94	159	226	281	324	368	404	436	463	491	
					1.6	2.6	3.8	4.7	5.4	6.1	6.7	7.3	7.7	8.2	
Proposed Expansion Queue		# of lanes = 30 Capacity = 5580													
Time		0	1	2	3	4	5	6	7	8	9	10	11	12	13
Capacity	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	
Demand	600	525	900	1900	4800	6400	6500	5900	5300	5300	4900	4750	4450	4500	
Excess	-4980	-5055	-4680	-3680	-780	820	920	320	-280	-280	-680	-830	-1130	-1080	
Cumulative queue	0	0	0	0	0	820	1740	2060	1780	1500	820	0	0	0	
Hourly demand plus excess demand from previous hours	600	525	900	1900	4800	6400	7320	7640	7360	7080	6400	5570	4450	4500	
Throughput	600	525	900	1900	4800	5580	5580	5580	5580	5580	5580	5570	4450	4500	
Project increment	0	0	0	0	1728	2508	2508	2508	2508	2508	2508	2498	1378	1428	
wait times in min	6	6	10	20	52	69	79	82	79	76	69	60	48	48	

Existing veh / hour =

inspection capacity per hour = # of lanes x 3600 / ave inspect time

EXISTING conditions

Existing port Queue	14	15	16	17	18	19	20	21	22	23	
Capacity	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	73728
Demand	2778	2696	2147	2495	2522	2488	1797	1625	1152	645	54204
Excess/backlog	-294	-376	-925	-577	-550	-584	-1275	-1447	-1920	-2427	
Cumulative queue	2174	1798	873	296	0	0	0	0	0	0	
Hourly demand plus excess demand from previous hours	5246	4870	3945	3368	2818	2488	1797	1625	1152	645	
Total Throughput	3072	3072	3072	3072	2818	2488	1797	1625	1152	645	54204
wait times in min	102	95	77	66	55	49	35	32	23	13	
	1.707682292	1.585286458	1.284179688	1.096354167	0.917317708	0.809895833	0.584960938	0.528971354	0.375	0.209960938	

2014

Existing port Queue

Time	14	15	16	17	18	19	20	21	22	23	
Capacity	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	73728
Demand	3025	2700	2075	3375	2975	1875	1950	1990	1550	1300	59935
Excess/backlog	-47	-372	-997	303	-97	-1197	-1122	-1082	-1522	-1772	
Cumulative queue	5835	5463	4466	4769	4672	3475	2353	1271	0	0	
Hourly demand plus excess demand from previous hours	8907	8535	7538	7841	7744	6547	5425	4343	2821	1300	
Throughput	3072	3072	3072	3072	3072	3072	3072	3072	2821	1300	59935
wait times in min	174	167	147	153	151	128	106	85	55	25	
	2.899414063	2.778320313	2.453776042	2.552408854	2.520833333	2.131184896	1.765950521	1.413736979	0.918294271	0.423177083	
Proposed Expansion Queue	50%	45%	45%	45%	40%	35%	20%				
Time	14	15	16	17	18	19	20	21	22	23	
Capacity	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	133920
Demand	4537.5	3915	3008.75	4893.75	4165	2531.25	2340	1990	1550	1300	77907.75
Excess	-1042.5	-1665	-2571.25	-686.25	-1415	-3048.75	-3240	-3590	-4030	-4280	
Cumulative queue	0	0	0	0	0	0	0	0	0	0	
Hourly demand plus excess demand from previous hours	4537.5	3915	3008.75	4893.75	4165	2531.25	2340	1990	1550	1300	
Throughput	4538	3915	3009	4894	4165	2531	2340	1990	1550	1300	77907.75
Project increment	1466	843	-63	1822	1093	-541	-732	-1082	-1271	0	
wait times in min	49	42	32	53	45	27	25	21	17	14	

2030

Existing port Queue

Time	14	15	16	17	18	19	20	21	22	23	
Capacity	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	73728
Demand	4350	2800	4900	4500	3100	3250	2900	2490	2050	1100	88165
Excess/backlog	1278	-272	1828	1428	28	178	-172	-582	-1022	-1972	
Cumulative queue	23358	23086	24914	26342	26370	26548	26376	25794	24772	22800	
Hourly demand plus excess demand from previous hours	26430	26158	27986	29414	29442	29620	29448	28866	27844	25872	
Throughput	3072	3072	3072	3072	3072	3072	3072	3072	3072	3072	65365
wait times in min	516	511	547	574	575	579	575	564	544	505	
	8.6	8.5	9.1	9.6	9.6	9.6	9.6	9.4	9.1	8.4	
Proposed Expansion Queue											
Time	14	15	16	17	18	19	20	21	22	23	
Capacity	5580	5580	5580	5580	5580	5580	5580	5580	5580	5580	133920
Demand	4350	2800	4900	4500	3100	3250	2900	2490	2050	1100	88165
Excess	-1230	-2780	-680	-1080	-2480	-2330	-2680	-3090	-3530	-4480	
Cumulative queue	0	0	0	0	0	0	0	0	0	0	
Hourly demand plus excess demand from previous hours	4350	2800	4900	4500	3100	3250	2900	2490	2050	1100	
Throughput	4350	2800	4900	4500	3100	3250	2900	2490	2050	1100	88165
Project increment	1278	-272	1828	1428	28	178	-172	-582	-1022	-1972	
wait times in min	47	30	53	48	33	35	31	27	22	12	

Existing veh / hour = 300 ave inspect time 12 sec / veh same as a northbound senti lane; source aug 2004 Simulation Modeling Analysis of Proposed SY Border Station config

inspection capacity per hour = # of lanes x 3600 / ave inspect time		(used 2020 from pg 12)																					
EXISTING conditions		6 Capacity = 11400											No inspection currently										
Existing port	Queue	of lanes = 6																					
Time		veh/hour/la 1900 ave inspec																					
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Capacity	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400
Demand	632	382	271	147	139	202	600	1312	1636	1771	2012	2328	2699	3057	3670	5104	5316	5062	4647	4389	5119	5126	2908
Excess/backlog	-10768	-11016	-11129	-11253	-11261	-11198	-10800	-10098	-9764	-9629	-9388	-9072	-8711	-8343	-7730	-6296	-6084	-6338	-6753	-7011	-6281	-6274	-8492
Cumulative queue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Throughput	632	382	271	147	139	202	600	1312	1636	1771	2012	2328	2699	3057	3670	5104	5316	5062	4647	4389	5119	5126	2908
wait times in min	3	2	1	1	1	1	3	7	9	11	12	14	16	19	27	28	27	24	23	27	27	15	10
							0.115088	0.143509	0.155351	0.176491	0.204211	0.235877	0.268158	0.32193	0.447719	0.466316	0.444035	0.407632	0.385	0.449035	0.448649	0.255088	0.172281

2014 conditions		(used 2020 from pg 12)																					
EXISTING conditions		6 Capacity = 11400											1900 ave inspec										
Existing port	Queue	of lanes = 6																					
Time		veh/hour/la 1900 ave inspec																					
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Capacity	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400
Demand	727	440	312	169	160	232	690	1510	1883	2038	2315	2679	3094	3518	4223	5873	6117	5825	5347	5051	5891	5899	3346
Excess/backlog	-10673	-10960	-11088	-11231	-11240	-11168	-10710	-9890	-9517	-9362	-9085	-8721	-8306	-7882	-7177	-5527	-5283	-5575	-6053	-6349	-5509	-5501	-8054
Cumulative queue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Throughput	727	440	312	169	160	232	690	1510	1883	2038	2315	2679	3094	3518	4223	5873	6117	5825	5347	5051	5891	5899	3346
wait times in min	4	2	2	1	1	1	4	8	10	11	12	14	16	19	22	31	32	31	28	27	31	31	18

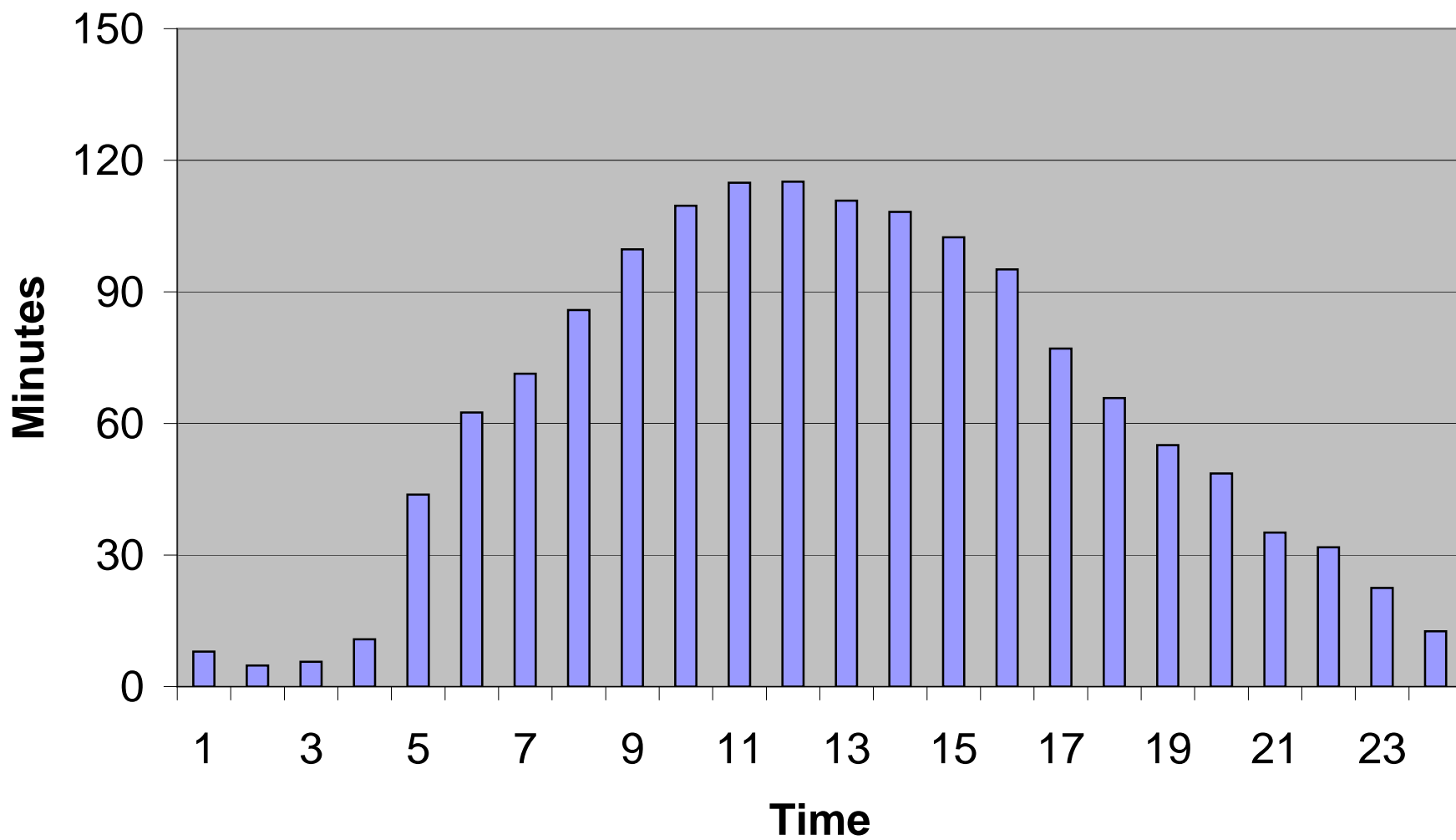
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Existing port	Queue	of lanes = 6																					
Time		veh/hour/la 1900 ave inspec																					
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Capacity	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400
Demand	820	495	351	191	180	262	778	1701	2122	2297	2609	3019	3487	3964	4759	6619	6894	6565	6026	5692	6639	6648	3771
Excess/backlog	-10580	-10905	-11049	-11209	-11220	-11138	-10622	-9699	-9278	-9103	-8791	-8381	-7913	-7436	-6641	-4781	-4506	-4835	-5374	-5708	-4761	-4752	-7629
Cumulative queue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Throughput	820	495	351	191	180	262	778	1701	2122	2297	2609	3019	3487	3964	4759	6619	6894	6565	6026	5692	6639	6648	3771
wait times in min	4	3	2	1	1	1	4	9	11	12	14	16	18	21	25	35	36	35	32	30	35	20	13
hours	0.07193	0.043421053	0.030789	0.016754	0.015789	0.022982	0.068246	0.149211	0.18614	0.201491	0.22886	0.264825	0.305877	0.347719	0.417456	0.580614	0.604737	0.575877	0.528596	0.499298	0.582368	0.583158	0.330789

Mexican Improvements

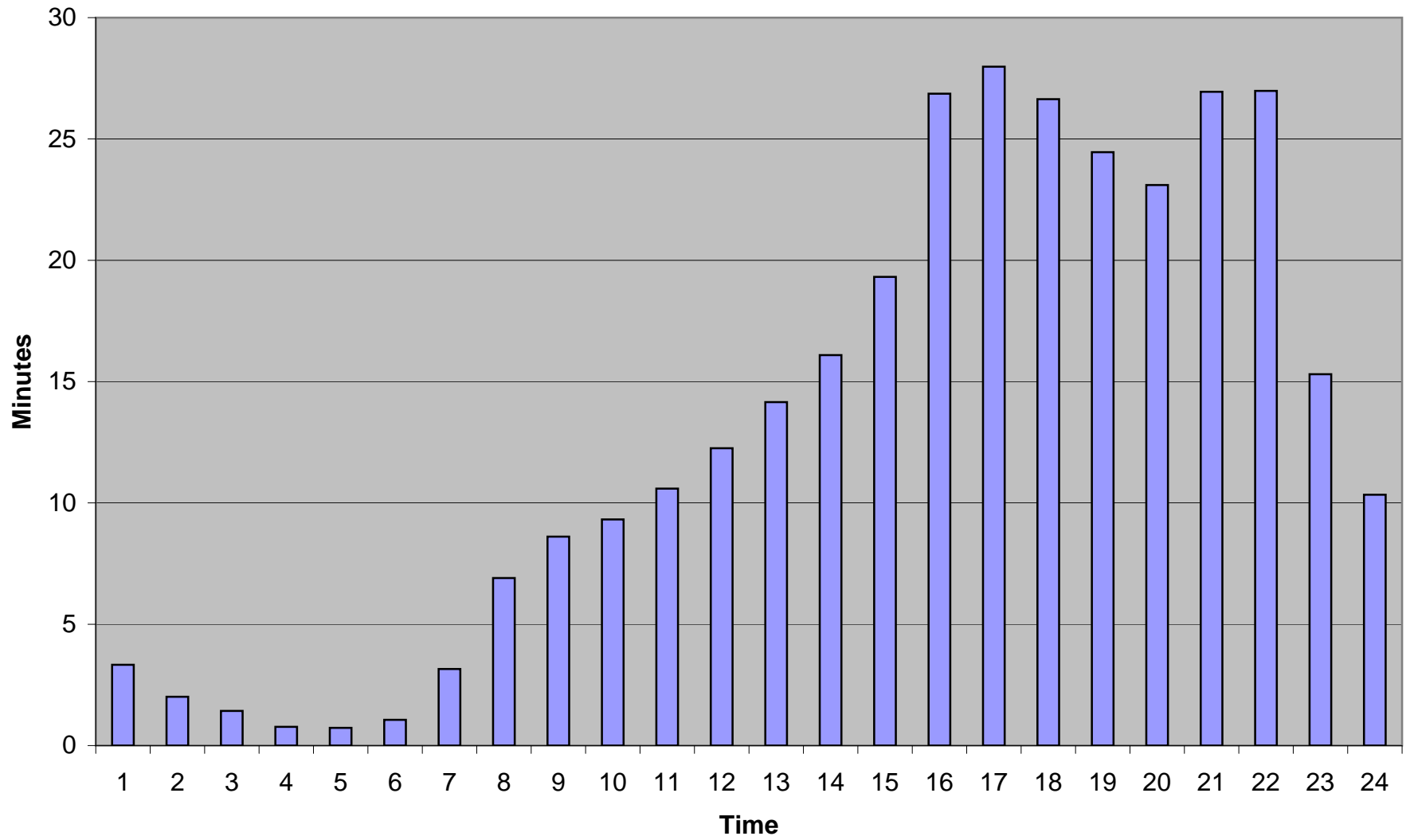
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Existing port	Queue	of lanes = 6																					
Time		veh/hour/la 1900 ave inspec																					
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Capacity	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400
Demand	727	440	312	169	160	232	690	1661	2636.2	2955.1	3356.75	3884.55	4486.3	5277	6123.35	8222.2	7952.1	7572.5	6416.4	6061.2	6480.1	5899	3346
Excess/backlog	-10673	-10960	-11088	-11231	-11240	-11168	-10710	-9739	-8763.8	-8444.9	-8043.25	-7515.45	-6913.7	-6123	-5276.65	-3177.8	-3447.9	-3827.5	-4983.6	-5338.8	-4919.9	-5501	-8054
Cumulative queue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Throughput	727	440	312	169	160	232	690	1661	2636.2	2955.1	3356.75	3884.55	4486.3	5277	6123.35	8222.2	7952.1	7572.5	6416.4	6061.2	6480.1	5899	3346
wait times in min	4	2	2	1	1	1	4	9	14	16	18	20	24	28	32	43	42	40	34	32	34	31	18
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2030 conditions		(used 2030 from pg 12)																					
EXISTING conditions		6 Capacity = 11400											1900 ave inspec										
Existing port	Queue	of lanes = 6																					
Time		veh/hour/la 1900 ave inspec																					
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Capacity	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400	11400
Demand	820	495	351	191	180	262	778	1871.1	2970.8	3330.65	3783.05	4377.55	5056.15	5946	6900.55	9266.6	8962.2	8534.5	7231.2	6830.4	7302.9	6648	3771
Excess/backlog	-10580	-10905	-11049	-11209	-11220	-11138	-10622	-9528.9	-8429.2	-8069.35	-7616.95	-7022.45	-6343.85	-5454	-4499.45	-2133.4	-2437.8	-2865.5	-4168.8	-4569.6	-4097.1	-4752	-7629
Cumulative queue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Throughput	820	495	351	191	180	262	778	1871.1	2970.8	3330.65	3783.05	4377.55	5056.15	5946	6900.55	9266.6	8962.2	8534.5	7231.2	6830.4	7302.9	6648	3771
wait times in min	4	3	2	1	1	1	4	10	16	18	20	23	27	31	36	49	47	45	38	36	38	35	20
hours	0.07193	0.043421053	0.030789	0.016754	0.015789	0.022982	0.068246	0.164132	0.260596	0.292162	0.331846	0.383996	0.443522	0.521579	0.605311	0.81286	0.786158	0.74864	0.634316	0.599158	0.640605	0.583158	0.330789

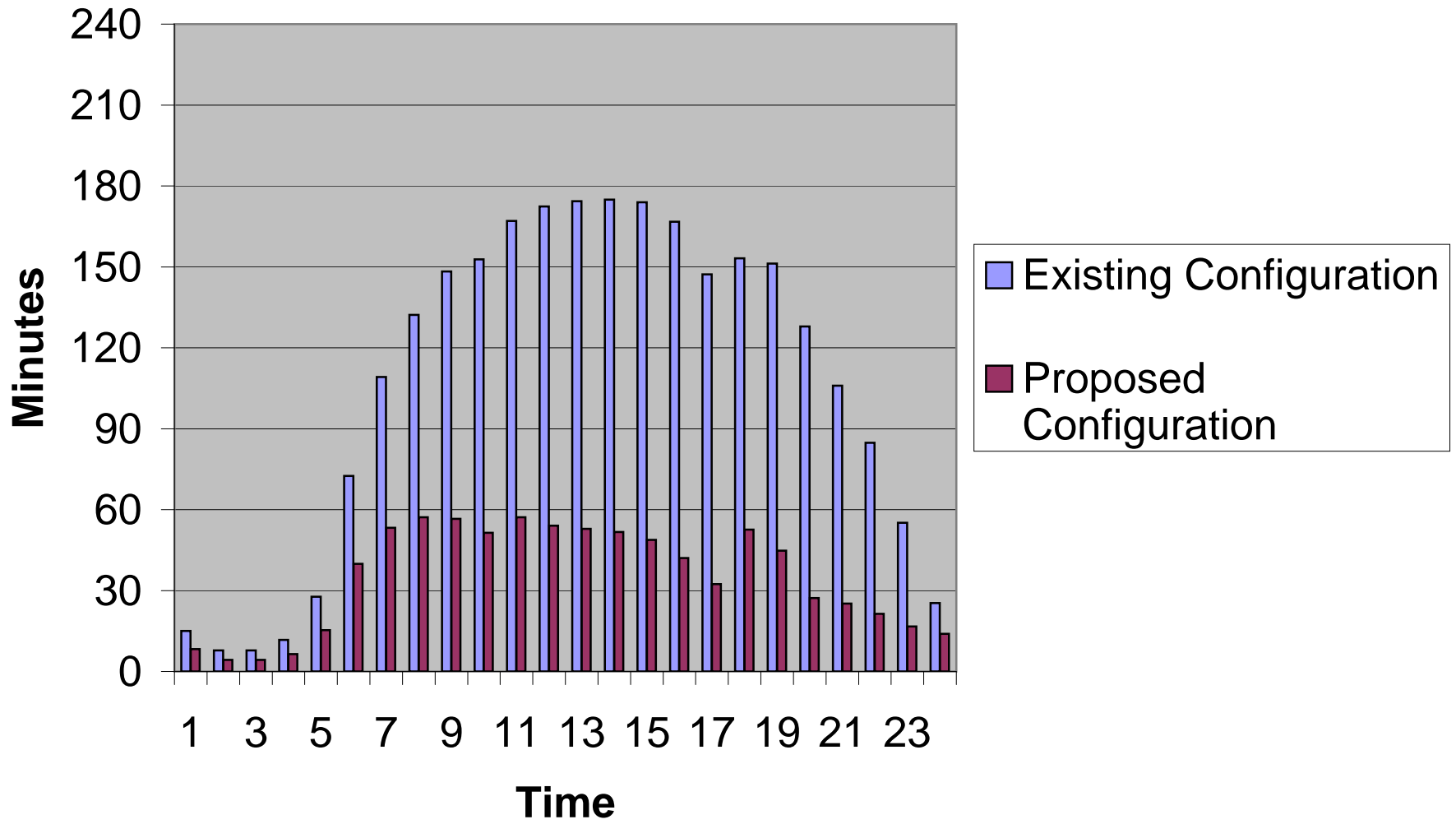
2008 Northbound Wait Times



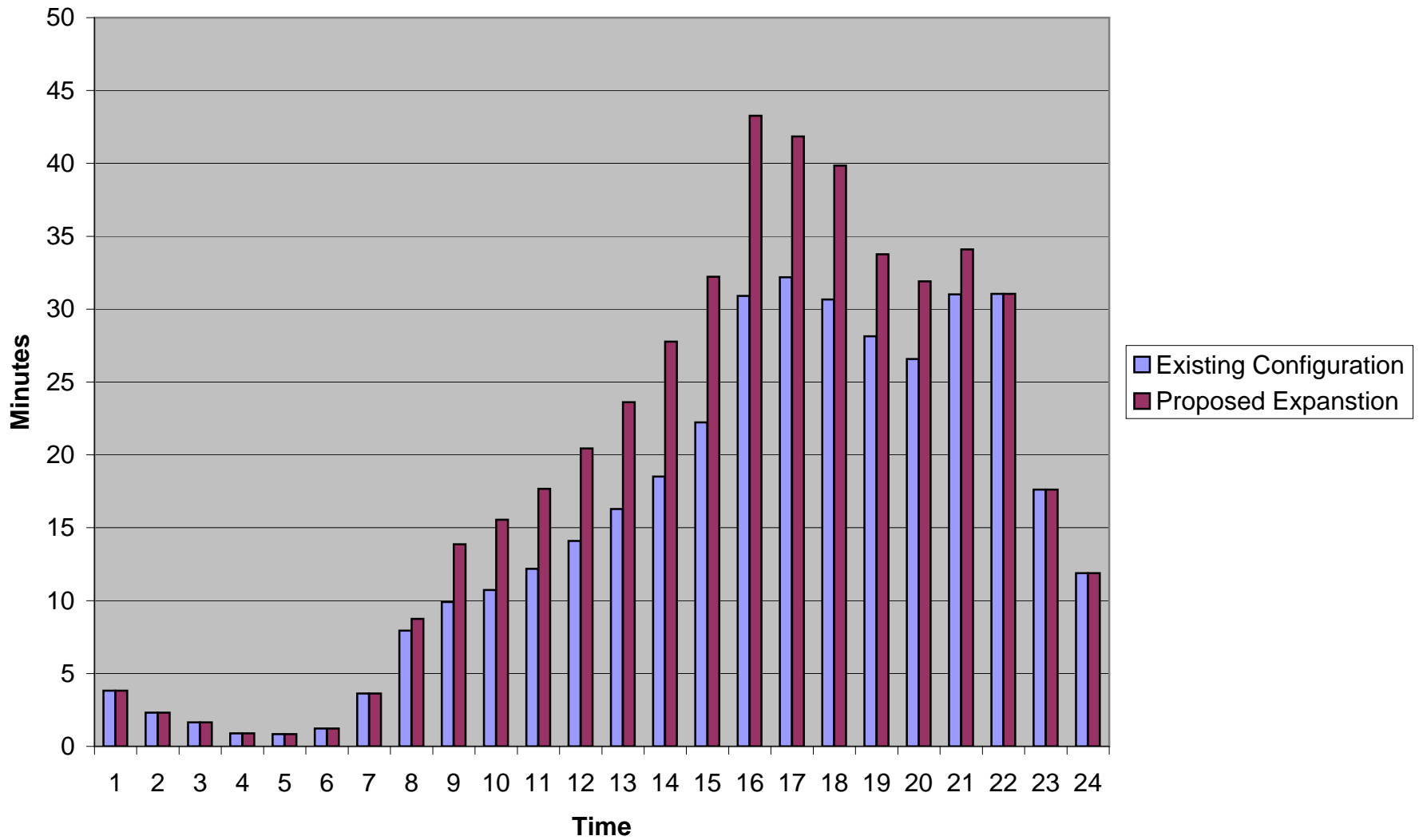
2008 Southbound Wait Times



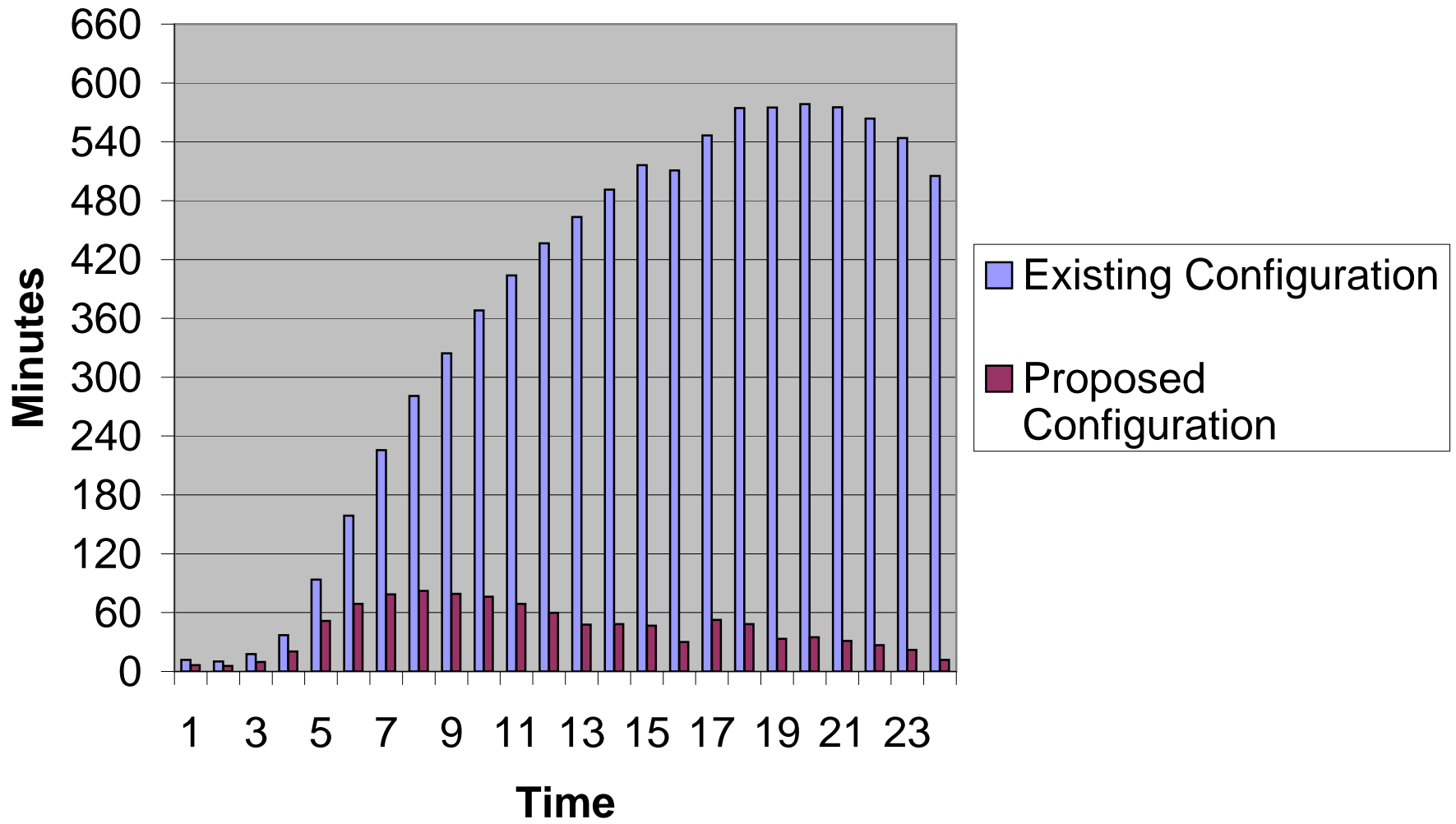
2014 Northbound Wait Times



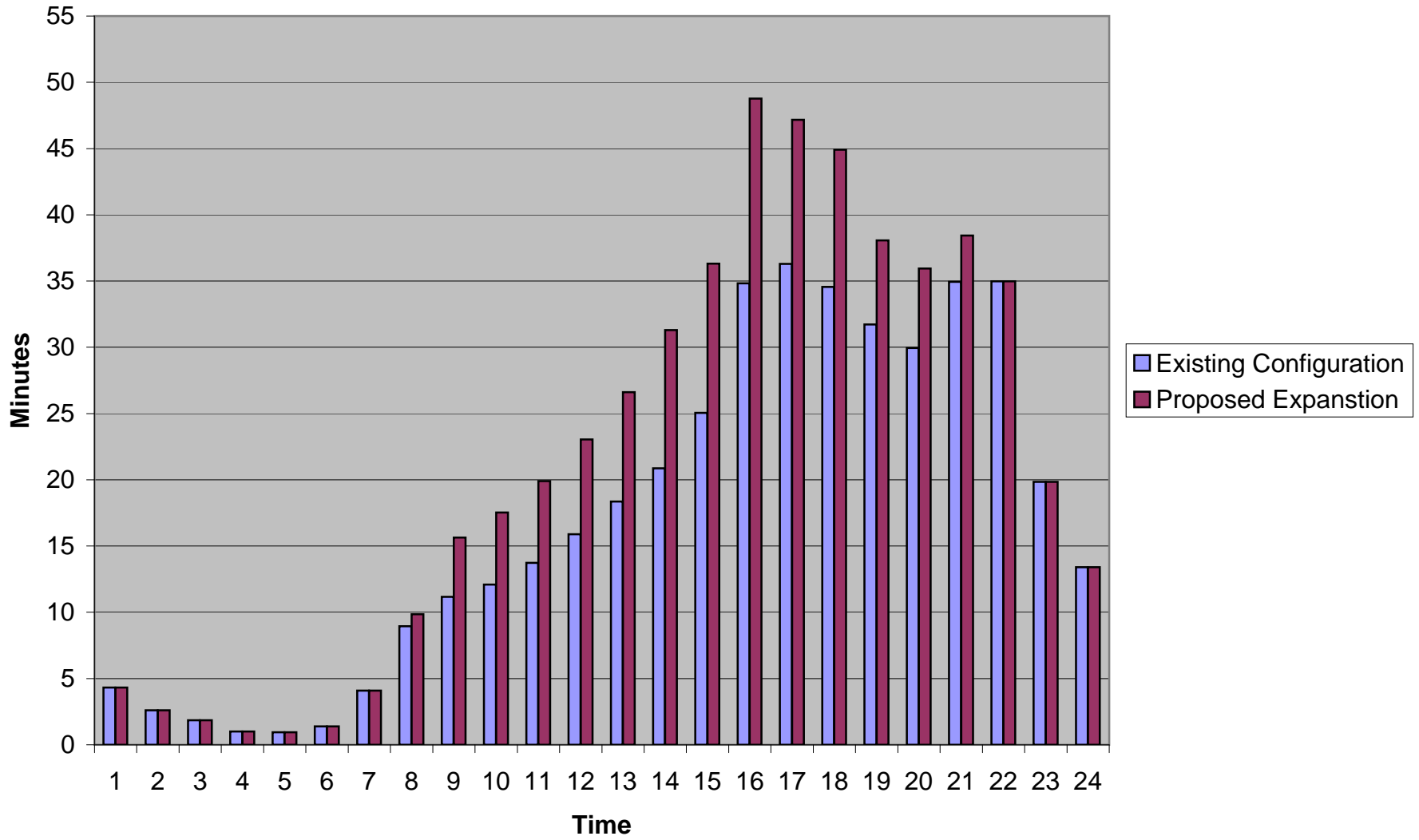
2014 Southbound Wait Times



2030 Northbound Wait Times



2030 Southbound Wait Times



APPENDIX H

COST ESTIMATES & CONCEPT PLANS

COST ESTIMATES

Estimates for the costs to design, construct and process the proposed mitigations have been prepared for this study, listed by Mitigation Item number or letter. Fieldwork was performed to note the presence of apparent utilities, right-of-way, and other existing conditions that might affect costs. Aerial photography was used to quantify proposed construction items. Although the City of San Diego Design Standards was consulted as part of this cost estimation process, the costs are based upon feasible geometric assumptions, considering existing physical limitations and probable design techniques.

Where a 4-lane major roadway was proposed as a mitigation item for a segment, the primary elements: 4-vehicle lanes, a minimum 4' raised median, and any necessary turn lanes were considered as minimum construction activities in order to achieve the desired theoretical roadway capacities. Paved width for bike lanes were not added unless bike lanes were present in the vicinity or planned for the segment. No right-of-way acquisition was assumed for the mitigation activities.

Mitigation Item 8 – Camino De La Plaza / I-5 Southbound Off-Ramp

In order to provide the I-5 off ramp approach to have: 1 right turn lane, 1 shared right-through lane, and 1 left turn lane, restriping would be necessary. No signal improvements are considered necessary.

Mitigation Item 9 – Camino De La Plaza / Virginia Ave

A standard 4-approach traffic signal install was estimated for this intersection, with minor restriping. Road improvements for the adjacent segment (Item C) may affect some elements of the intersection by were included in the costs of that item.

Mitigation Item A – Via De San Ysidro: San Ysidro Blvd to I-5 Northbound Ramps

Due to the limited existing curb-to-curb width and developed properties on both sides of the street, a 4' raised median was estimated. Below standard lane width adjustments may be necessary to accommodate the proposed median. Also, sewer manholes were seen near the centerline of the street that may conflict with the design of the median. The existence of the sewer may make the design of such a median infeasible.

Mitigation Item B – San Ysidro Blvd: Center St to Border Village Rd

Along this segment, an 8' median is proposed where the existing two-way left turn lane exists. No apparent utilities were seen in the road center that would conflict with the new median. On-street parking along the westbound lanes near Border Village Road would need to be removed and restriped as a travel lane.

Mitigation Item C – Camino De La Plaza: Virginia Ave to I-5 Southbound Ramps

The road widening for this segment adds a new 4' raised median, additional westbound travel lane, westbound 5' bike lane, curb and gutter, and 5' sidewalk to the north side of the road. Improvements would likely widen the roadway close to the assumed right-of-way limit. No apparent utilities were seen along the north side of the roadway that would conflict with the roadway widening. Trees and brush would need to be removed to accommodate the entire proposed road cross section. Line items for streetlights, potential drainage improvements, restriping, and curb ramps for adjacent intersections were also added to the cost estimate.

San Diego Port of Entry Border Crossing Expansion
 Planning Level Cost Estimate

PLANNING LEVEL ESTIMATE OF PROBABLE COST				
Description of Work	Quantity	Unit	Unit Price	Item Total
ITEM 8: Camino De La Plaza / I-5 Southbound Off-Ramp				
Restriping	1	LS	\$2,000	\$2,000
				\$2,000
ITEM 9 :Camino De La Plaza / Virginia Ave				
Install Traffic Signal: 4-Approach Intersection	1	LS	\$200,000	\$200,000
Restriping	1	LS	\$4,000	\$4,000
				\$204,000
ITEM A: Via De San Ysidro: San Ysidro Blvd to I-5 Northbound Ramps				
Pavement Removal	1,440	SF	\$5	\$7,200
Median Curb	350	LF	\$40	\$14,000
Median Hardscape	510	SF	\$10	\$5,100
Full Depth Asphalt: Schedule J	720	SF	\$10	\$7,200
Minor Modifications to Traffic Signal (Loops Only)	1	LS	\$5,000	\$5,000
Restriping	1	LS	\$2,000	\$2,000
				\$40,500
ITEM B: San Ysidro Blvd: Center St to Border Village Rd				
Pavement Removal	3,480	SF	\$5	\$17,400
Median Curb	580	SFT	\$30	\$17,400
Median Hardscape	1,960	SFT	\$10	\$19,600
Full Depth Asphalt: Schedule J	1,160	SFT	\$10	\$11,600
Restriping	1	LS	\$2,000	\$2,000
				\$68,000
ITEM C: Camino De La Plaza: Virginia Ave to I-5 Southbound Ramps				
Clearing and Grubbing	1	LS	\$15,000	\$15,000
Pavement Removal	6,000	SF	\$5	\$30,000
Curb and Gutter	550	LF	\$50	\$27,500
Sidewalk	2,800	SF	\$10	\$28,000
Curb Ramps	8	EA	\$2,500	\$20,000
Median Curb	980	SFT	\$30	\$29,400
Median Hardscape	3,000	SFT	\$10	\$30,000
Concrete Driveway	10,200	SF	\$10	\$102,000
Full Depth Asphalt: Schedule J	1,300	SF	\$10	\$13,000
Streetlights	3	EA	\$8,000	\$24,000
Drainage	1	LS	\$25,000	\$25,000
Restriping	1	LS	\$4,000	\$4,000
				\$347,900
			Sub-Total	\$662,400

Contingency 25%	\$166,000
Construction Sub-Total	\$828,400
Design & Construction Admin. 12%	\$99,000
City Permitting 3%	\$25,000
Construction Estimate Total	\$952,400

NOTE: This planning level estimate of probable costs has been developed based on a review of the description of improvements and measurements taken from aerial photos. It has not been completed with the benefit of detailed survey information or research of record drawings and therefore may not be inclusive of all items of construction. No R/W acquisition was assumed necessary for the road widening and therefore not included in these costs. No apparent utility conflicts requiring relocations were noted and were not assumed necessary for any construction and therefore not included in these costs.



Mitigation Item A



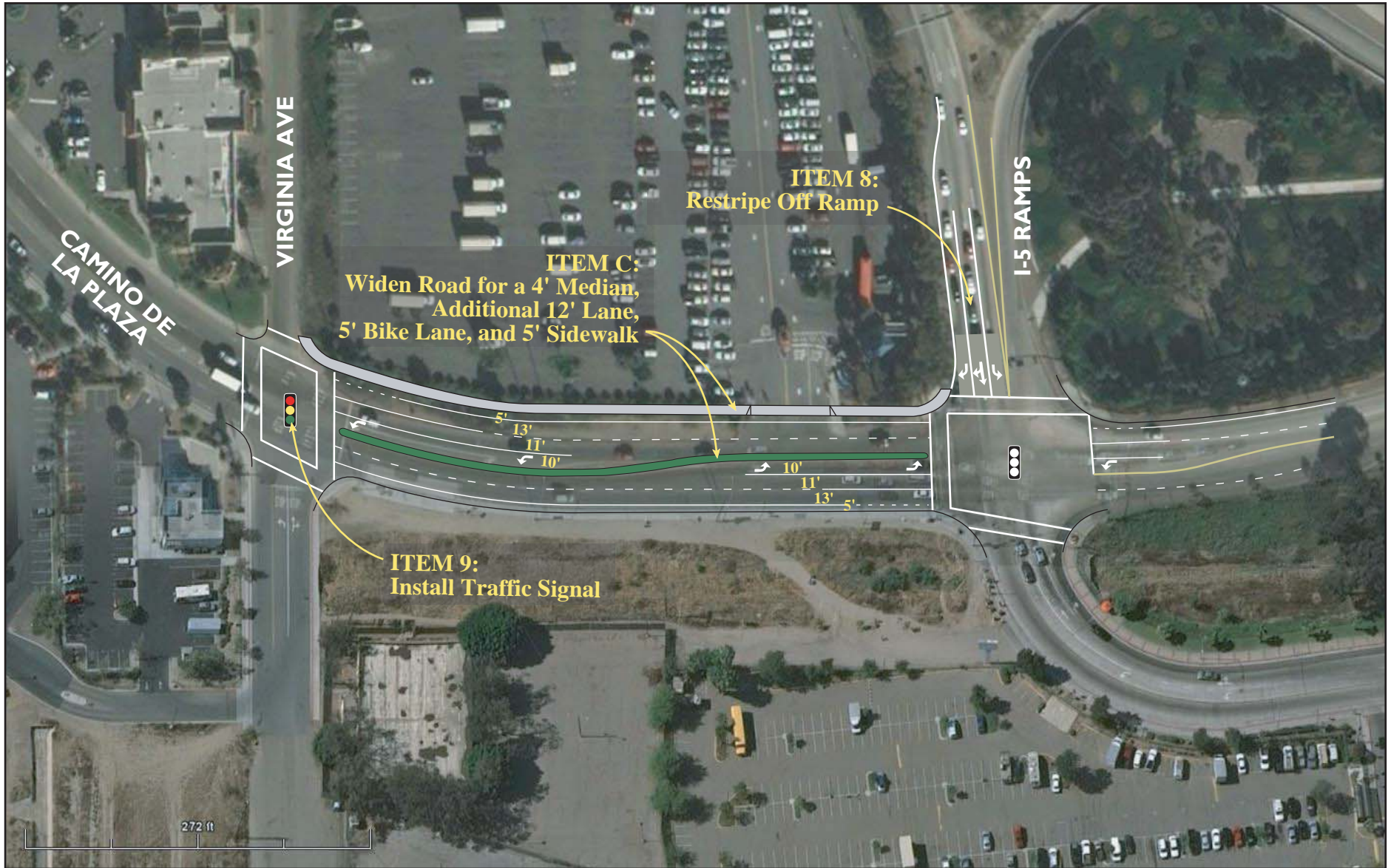
Not To Scale



Mitigation Item B



Not To Scale



Mitigation Items 8, 9, and C



Not To Scale