SUNROAD OTAY MESA

Transportation Impact Analysis

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EXECUTIVE SUMMARY

This study evaluates the potential off-site traffic impacts associated with the proposed Sunroad Otay Mesa industrial project. The project applicant, Sunroad Otay Partners, LP, has made an application to the City of San Diego for a Site Development Permit, Planned Development Permit, Vesting Tentative Map, Easement and Public Right-of-Way Vacation, and Community Plan Amendment to construct four industrial buildings totaling 845,050 square feet on a 48-acre site located in the Otay Mesa Community Planning Area within the City of San Diego.

The proposed site is located south of Otay Mesa Road; west of the State Route 125 southbound off-ramp terminus at Otay Mesa Road; east of the existing Avenida Costa Azul unimproved, dedicated public Right-of-Way; and north of State Route 905. The site is currently vacant. The site is zoned Heavy Commercial in the Otay Mesa Community Plan and industrial use is permitted within that zoning.

Project Information

The project is planned to be developed in two phases. Phase 1 consists of the construction of two buildings totaling approximately 370,000 square feet of warehousing east of Piper Ranch Road. As part of Phase 1, access to the site will be established through constructing a driveway forming the south leg of the existing signalized intersection of Otay Mesa Road and Piper Ranch Road. Phase 2 consists of construction of approximately 475,000 square feet of warehousing west of Piper Ranch Road. Along with Phase 2, a right-in-right-out driveway at the west side of the property along Otay Mesa Road will be constructed to provide a second access point to the site. This access is located at the location of the roadway Avenida Costa Azul which is identified as a circulation element roadway in the Community Plan Update. The roadway will be vacated as part of a Community Plan Amendment. The driveway will be able to operate independently to the proposed project, but will be designed in coordination with the adjacent property owner to the west to accommodation for a shared access driveway. Analysis of the shared-access driveway can be found in **Appendix L**. Phase 1 is anticipated to be completed and open to public by the year 2018 and Phase 2 is anticipated to be completed by the year 2020.

The total project trip generation is 4,225 daily trips with 634 morning peak-hour trips (444 in, 190 out) and 676 afternoon peak-hour trips (270 in, 406 out). The project traffic distribution was derived using Series 12 Select Zone Regional Model prepared by SANDAG as a base, with adjustments made to account for network discrepancies between assumptions in the model and in this study. Model runs were prepared for Year 2020 and Year 2050 to account for changes in the regional network between near term and horizon year conditions.

Analysis Scenarios

Nine scenarios were analyzed as part of this analysis, listed below:

- ***Existing Conditions***
- ***Existing Conditions Plus Phase 1***
- ***Existing Conditions Plus Phase 1 & 2***
- ***Near Term (2018) Baseline Conditions***
- ***Near Term (2018) Plus Phase 1***
- ***Near Term (2020) Baseline Conditions***
- ***Near Term (2020) Plus Phase 1 & 2***
- ***Horizon Year Baseline Conditions***
- ***Horizon Year Plus Phase 1 & 2***

Based on the project traffic assignment and the guidelines in the City of San Diego's *Traffic Impact Study Manual,* July 1998, a total of 16 existing intersections, 15 roadway segments, and 4 freeway segments were included as part of the study area. Freeway ramp metering analysis for the SR-905 ramps at La Media Road was also included in the analyses.

Impact and Mitigation Summary

Phase 1 of the proposed project was found to have a direct traffic impact at the intersection of Otay Mesa Road and La Media Road. To mitigate this impact, the proposed project would construct a northbound right-turn lane from northbound La Media Road to eastbound Otay Mesa Road. The proposed lane would be in addition to the shared through-right turn lane that would remain.

Phase 2 of the proposed project was found to have a direct traffic impact at the intersection of Otay Mesa Road and La Media Road. The construction of a northbound right-turn lane identified as mitigation for Phase 1 would also mitigate the impact at this intersection for Phase 2 project traffic. No additional direct impacts would result from addition of Phase 2 project traffic.

The Near Term (2018) and Near Term (2020) scenarios were found to have a direct traffic impact at the intersection of Otay Mesa Road and La Media Road. The construction of a northbound right-turn lane identified as mitigation for Existing plus project conditions would also mitigate the impact at this intersection for the Near Term scenarios. No additional mitigations were found to be necessary for either Phase 1 or Phase 2 of project traffic.

Under Horizon Year (Year 2035) conditions, addition of Phase 1 and 2 of the proposed project were found to have a significant impact at the following locations:

- Harvest Road & Otay Mesa Road intersection
- La Media Road & Otay Mesa Road intersection
- Cactus Road & Otay Mesa Road intersection
- Heritage Road & Otay Mesa Road intersection
- Caliente Avenue/Ocean View Hills Parkway & Otay Mesa Road intersection

To mitigate the project traffic impacts at these five locations, the following mitigations were identified that the proposed project would be responsible for fair-share contributions towards.

Harvest Road and Otay Mesa Road: a traffic signal would be needed at this intersection. The project's fair-share towards this improvement would be 2.78%.

La Media Road and Otay Mesa Road: In addition to the construction of a northbound right-turn lane assumed to be in place as a direct project impact mitigation, the following additions would be needed to mitigate impacts at this intersection. The project's fair-share towards these improvements would be 10.90%.

- 2nd southbound through
- 2nd northbound through
- 2nd northbound left turn
- Northbound right-turn lane overlap phase
- 2nd eastbound left turn
- 2nd westbound left turn

Cactus Road and Otay Mesa Road: the following lanes would be needed to mitigate impacts at this intersection. The project's fair-share towards these improvements would be 4.14%.

- 2nd westbound left turn

Heritage Road and Otay Mesa Road: the following would be needed to mitigate impacts at this intersection. The project's fair-share towards these improvements would be 2.64%.

- Addition of three northbound lanes to have 2 lefts, 2 throughs, and 1 right
- Addition of two southbound lanes to have 2 lefts, 2 throughs, and 1 right

Caliente Avenue/Ocean View Hills Parkway and Otay Mesa Road: the following lanes would be needed to achieve the ultimate configuration identified in the Community Plan for this location. This configuration does not return operations to LOS D or better, but was identified as mitigation in the Otay Mesa Community Plan. The project's fair-share towards these improvements would be 2.45%.

- 2nd eastbound left turn
- 3rd eastbound through
- 2nd and 3rd westbound through
- 2nd northbound left turn
- 3rd northbound through

Site Access and Circulation

Driveway locations are placed such that vehicles can maneuver to and from Otay Mesa Road without impacting operation of Otay Mesa Road. The on-site circulation and parking aisles configuration was found adequate for the project's proposed uses.

Bicycle Facilities

Otay Mesa Road is a planned Class II bicycle facility as designated in the Otay Mesa Community Plan. As part of the proposed project's frontage improvements that include widening of Otay Mesa Road to the south, the roadway design will provide a Class II bicycle facility.

Access to Transit

The project site is currently served by the Metropolitan Transit Service (MTS) Route 905 on weekdays. There is an existing bus stop at the northwest corner of Otay Mesa Road and Piper Ranch Road for Route 905. In coordination with MTS, the proposed project would construct two new bus stops; one located on Otay Mesa Road east of the western project access and one located on Otay Mesa Road east of the intersection of Piper Ranch Road.

Parking

The total minimum parking requirement for the project site is 846 parking spaces and a total of 888 spaces are currently proposed. The proposed site plan includes 418 parking spaces for Phase 1 and would exceed the minimum requirement of 370. The proposed site plan includes an additional 470 parking spaces added as part of Phase 2. In addition, the project provides 143 parking spaces for truck trailers.

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1 INTRODUCTION

The following transportation impact study has been prepared to determine and evaluate potential traffic impacts associated with the Sunroad Otay Mesa project and to recommend mitigation measures for any impacts due to the project. **Figure 1-1** depicts the project location in a regional context.

1.1 PROJECT DESCRIPTION

The proposed project is in the Otay Mesa community of San Diego and is bounded by SR-125 to the east, Otay Mesa Road to the north, SR-905 to the south, and a future planned Avenida Costa Azul roadway to the west. The project site is currently an undeveloped 48-acre site and has made an application to the City of San Diego for a Site Development Permit, Planned Development Permit, Vesting Tentative Map, Easement and Public Right-of-Way Vacation, and Community Plan Amendment. The Sunroad Otay Mesa project is proposing the construction of four buildings totaling approximately 845,000 square feet of warehousing. The project is planned to be developed in two phases. Phase 1 consists of the construction of two buildings totaling approximately 370,000 square feet of warehousing east of Piper Ranch Road. As part of Phase 1, access to the site will be established through construction of a private drive that would be the south leg of the existing signalized Piper Ranch Road and Otay Mesa Road intersection. Phase 2 consists of construction of approximately 475,000 square feet of warehousing west of Piper Ranch Road. During Phase 2, a right-in-right-out driveway at the west side of the property along Otay Mesa Road will be constructed to provide a second access point to the site. The driveway will be able to operate independently for the proposed project, but will be designed in coordination with the adjacent property owner to the west to ultimately accommodate a shared access driveway. The results of this analysis can be found in **Appendix L**. This access is located at the location of the roadway Avenida Costa Azul as identified as a circulation element in the Community Plan Update and its vacation requires a Community Plan Amendment. **Figure 1-2** shows the proposed project layout being used for this transportation impact study.

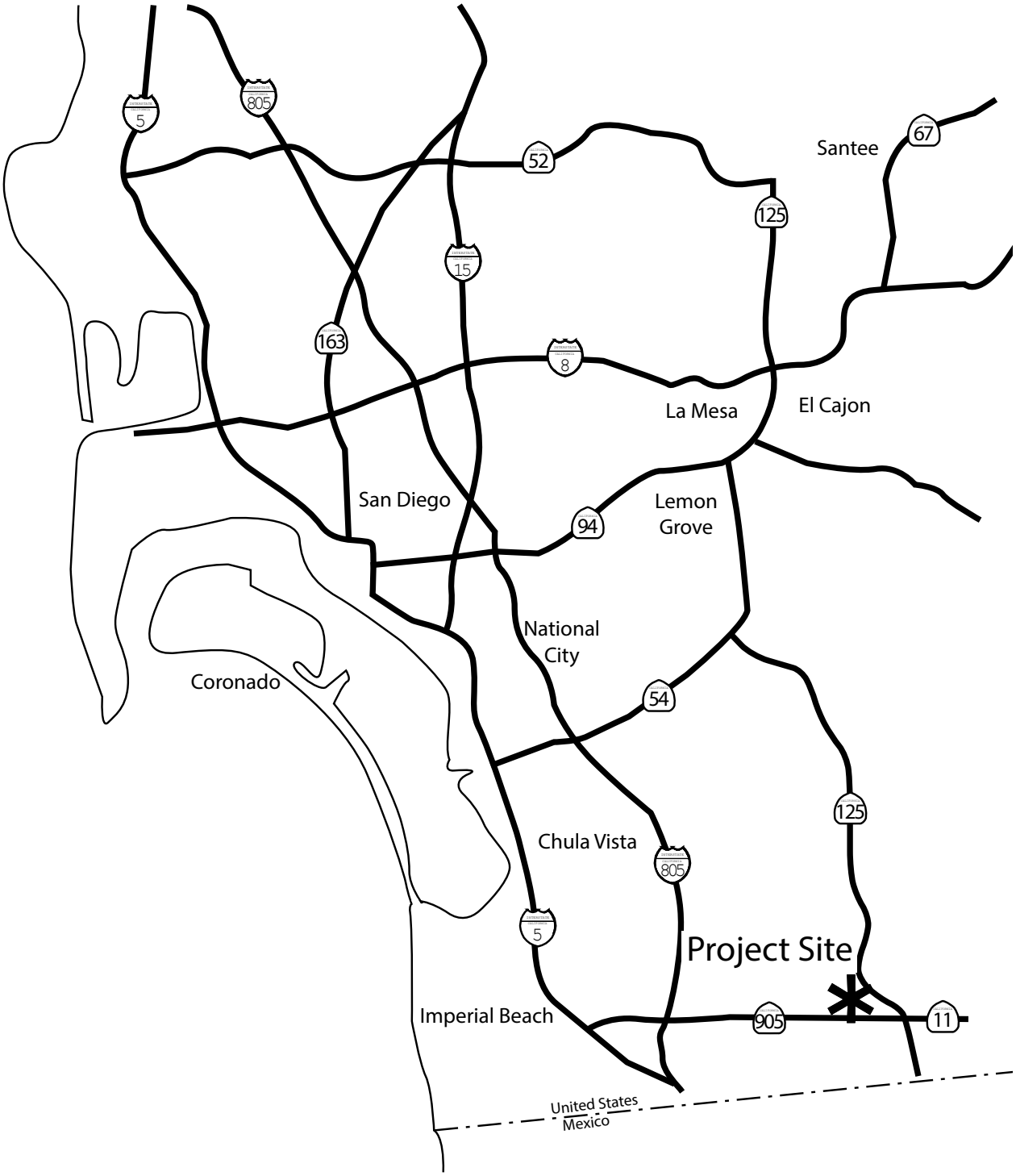
1.2 ANALYSIS SCENARIOS

Nine scenarios were analyzed as part of this analysis, listed below:

- ***Existing Conditions****:* Represents the traffic conditions of the existing street network in place in early 2017. Traffic counts were collected in November 2016 and January 2017.
- ***Existing Conditions Plus Phase 1:*** Represents the traffic conditions on the existing street network with the addition of Phase 1 of the proposed project. Comparison of this scenario to Existing Conditions scenario determines direct project impacts associated with Phase 1.
- ***Existing Conditions Plus Phase 1 & 2:*** Represents the traffic conditions on the existing street network with the addition of Phase 1 and Phase 2 of the proposed project. Comparison of this scenario to Existing Conditions scenario determines direct project impacts associated with the project.
- ***Near Term (2018) Baseline Conditions:*** Represents the traffic conditions of the street network assumed in year 2018, the projected opening year for Phase 1 of the project. Volumes associated with cumulative projects in the area were included.
- ***Near Term (2018) Plus Phase 1:*** Represents the traffic conditions under Near Term (2018) with the addition of Phase 1 of the proposed project. Comparison of this scenario to the Near Term (2018) Baseline Conditions Scenario determines direct project impacts associated with Phase 1.

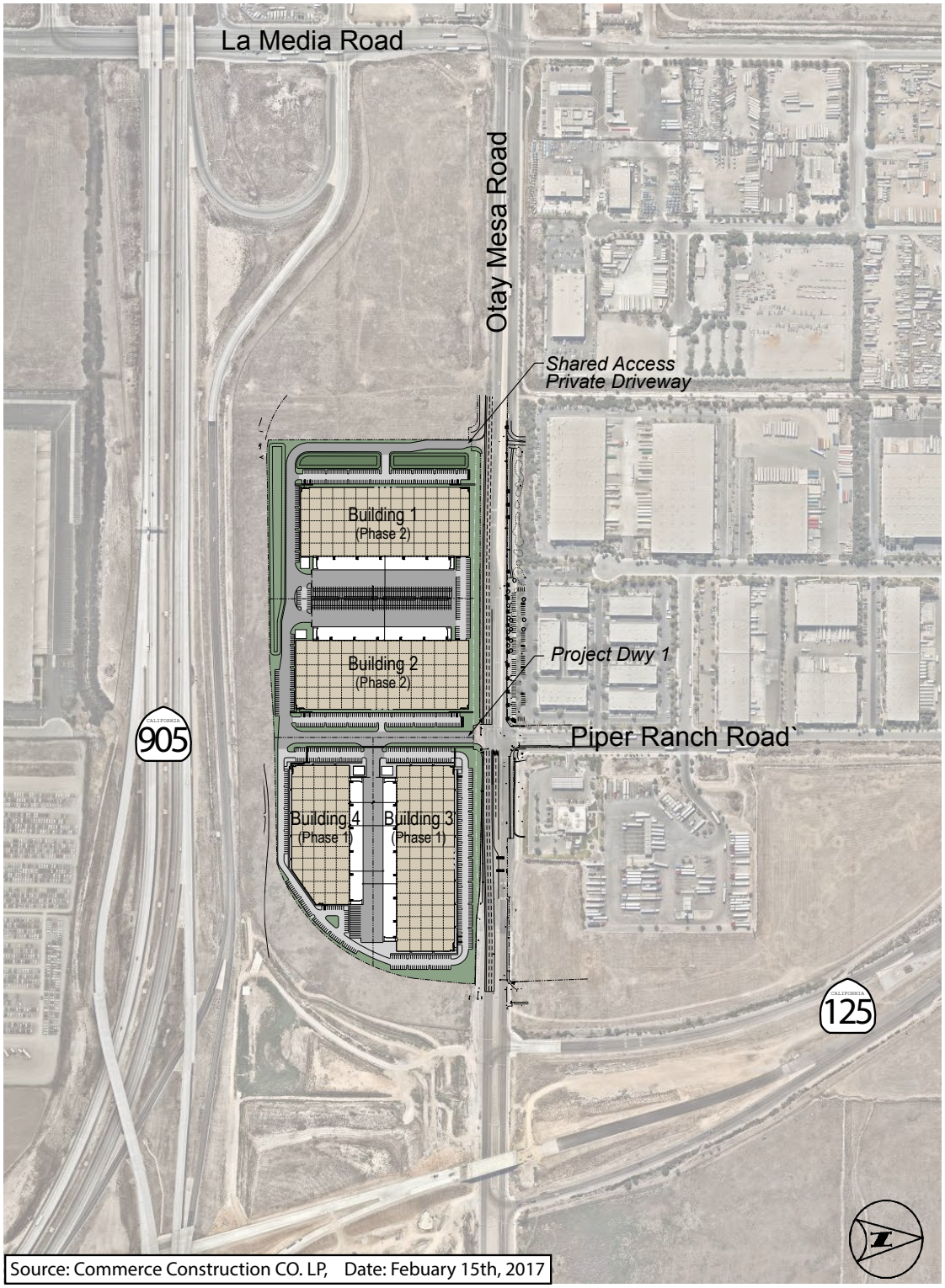
- ***Near Term (2020) Baseline Conditions:*** Represents the traffic conditions of the street network assumed in year 2020, the projected opening year for Phase 2 of the project. Volumes associated with cumulative projects in the area were included. This scenario does not include traffic from Phase 1 of the proposed project.
- ***Near Term (2020) Plus Phase 1 & 2:*** Represents the traffic conditions under Near Term (2020) with the addition of both Phase 1 and Phase 2 of the proposed project. Comparison of this scenario to the Near Term (2020) Baseline Conditions Scenario determines direct project impacts associated with the project.
- ***Horizon Year (2035) Baseline Conditions:*** Represents the traffic conditions of the street network assumed to be in place in year 2035. Traffic volumes were estimated using an annual growth factor established between existing and ultimate community plan buildout volumes (2062).
- ***Horizon Year (2035) Plus Phase 1 & 2:*** Represents the traffic conditions under the Horizon Year with the addition of Phase 1 & 2 of the proposed project. Comparison of this scenario to the Horizon Year (2035) Baseline Conditions Scenario determines cumulative project impacts associated with the project.

FIGURE 1-1



Regional Vicinity Map

FIGURE 1-2



Proposed Site Plan

2 METHODOLOGY

The following section describes the methodology used to determine study intersections, analyze study area conditions, and determine significant traffic impacts.

2.1 STUDY AREA

The study area was determined based on the project's trip assignment and conversations with City of San Diego staff. The study area reflects the main access routes to and from the project site, mainly providing access to the adjacent freeways and use of Otay Mesa Road.

La Media Road south of SR-905 provides access to Airway Road and then southbound one-way truck access to Mexico. While the project is anticipated to send some traffic this direction, the magnitude of project trips is small – less than 30 peak-hour trips and less than 130 daily trips in the near-term conditions. Based on year 2015 and 2016 count data published by the City, this is less than 2% of existing ADT along Airway Road and along La Media Road south of Airway Road. The intersection of La Media Road and Airway Road is signalized. Based on this evaluation, the roadway network south of SR-905 was not included in the study area. The intersections identified for evaluation are shown in **Table 2-1**. The fifteen roadways identified for evaluation include:

- **Otay Mesa Road** between Sanyo Road and Harvest Road;
- **Otay Mesa Road** between Harvest Road and SR-125 NB Ramp;
- **Otay Mesa Road** between SR-125 NB Ramp and SR-125 SB Ramp;
- **Otay Mesa Road** between SR-125 SB Ramp and Piper Ranch Road;
- **Otay Mesa Road** between Piper Ranch Road and Project Access #2;
- **Otay Mesa Road** between Project Access #2 and La Media Road;
- **Otay Mesa Road** between La Media Road and Otay Mesa Center Road;
- **Otay Mesa Road** between Otay Mesa Center Road and Gailes Boulevard;
- **Otay Mesa Road** between Gailes Boulevard and Britannia Boulevard;
- **Otay Mesa Road** between Britannia Boulevard and Cactus Road;
- **Otay Mesa Road** between Cactus Road and Heritage Road;
- **Otay Mesa Road** between Heritage Road and Corporate Center Drive;
- **Otay Mesa Road** between Corporate Center Drive and Ocean View Hills Parkway/Caliente Avenue; and
- **La Media Road** between Otay Mesa Road and SR-905 WB ramp.
- **La Media Road** between SR-905 WB ramp and SR-905 EB ramp

The four freeway mainline segments identified for analysis include:

- **SR-905** between Caliente Ave and Britannia Boulevard;
- **SR-905** between Britannia Boulevard and La Media Road;
- **SR-905** between La Media Road and Siempre Viva Road; and,
- **SR-125** between Otay Mesa Road and Birch Road.

Table 2–1 Study Intersections

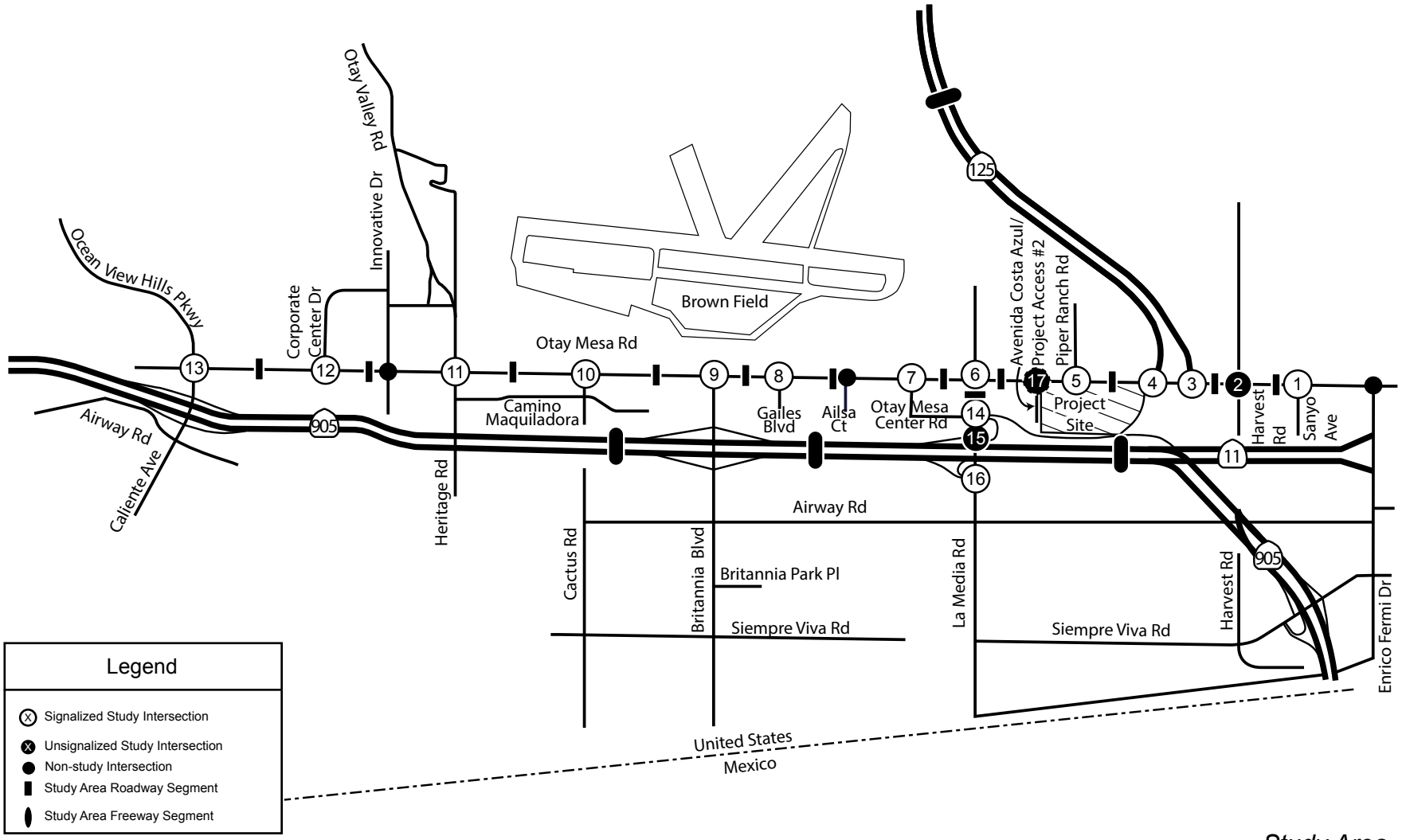
Intersection		Traffic Control (a)
1	Sanyo Avenue / Otay Mesa Road	Signal
2	Harvest Road / Otay Mesa Road	SSSC
3	SR-125 Northbound Ramp / Otay Mesa Road	Signal
4	SR-125 Southbound Ramp / Otay Mesa Road	Signal
5	Piper Ranch Road / Otay Mesa Road	Signal
6	La Media Road / Otay Mesa Road	Signal
7	Otay Mesa Center Road / Otay Mesa Road	Signal
8	Gailes Boulevard / Otay Mesa Road	Signal
9	Britannia Boulevard / Otay Mesa Road	Signal
10	Cactus Road / Otay Mesa Road	Signal
11	Heritage Road / Otay Mesa Road	Signal
12	Corporate Center Drive / Otay Mesa Road	Signal
13	Ocean View Hills / Caliente Avenue / Otay Mesa Road	Signal
14	La Media Road / SR-905 Westbound Ramps	Signal
15	La Media Road / SR-905 Westbound On-Ramp	No Control
16	La Media Road / SR-905 Eastbound Ramps	Signal
17	Shared Access Private Driveway / Otay Mesa Road	Future SSSC*

(a) Signal = Traffic Signal;
SSSC = Side Street Stop Control;
Future SSSC = Side Street Stop Control Intersection built as project feature
*Intersection may be signalized in future by adjacent property.

The freeway ramps from La Media Road to SR-905 are not currently metered. Meters would be installed when the freeway mainline becomes congested, which is not anticipated in the next several years. These ramps are assumed to be metered in the horizon year and are included in the horizon year analysis.

Figure 2-1 illustrates the study area at the time the counts were collected. At the time of the counts, the SR-905 to SR-125 NB connection was not open.

FIGURE 2-1



Study Area

2.2 ANALYSIS PROCESS

The City of San Diego Traffic Impact Study (TIS) Manual provides guidelines for preparing a traffic impact analysis. The analysis process includes determining the operations at the study intersections for the a.m. and p.m. peak periods and operations along the roadway segments. Intersection and arterial analyses were measured and quantified using the Synchro traffic analysis software package. Roadway segments were measured and quantified by the applicable roadway classifications' planning-level capacity and ADT volume. Freeway mainline segments were measured and quantified by freeway lane capacities and peak-hour freeway volumes. Analysis results were compared to the City's standards for significance to determine if the project has any significant impacts.

2.2.1 ANALYSIS SOFTWARE

To analyze the operations of both signalized and unsignalized intersections, Synchro 9 (Trafficware), using the methodologies outlined in the 2000 *Highway Capacity Manual (HCM),* was used for the analysis. No special software was utilized for roadway and freeway analyses.

2.2.2 SIGNALIZED AND UNSIGNALIZED INTERSCTIONS

The Highway Capacity Manual (*HCM)* published by the Transportation Research Board establishes procedures to evaluate highway facilities and rate their ability to process traffic volumes. The terminology "level of service" is used to provide a qualitative evaluation based on certain quantitative calculations, which are related to empirical values. The criteria for the various levels of service designations for intersections are given in **Table 2-2**.

Level of service (LOS) for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and loss of travel time. Specifically, LOS criteria are stated in terms of the average control delay per vehicle for the peak 15-minute period within the hour analyzed. The average control delay includes initial deceleration delay, queue move-up time, and final acceleration time in addition to the stop delay.

LOS for unsignalized intersections is determined by the computed or measured control delay and is defined for each movement. At an all-way stop control intersection, the delay reported is the average control delay of all movements at the intersection. At a one-way or two-way stop control intersection, the delay reported represents the worst movement, which is typically the left-turn from the minor street approach.

Synchro 9 (Trafficware) software was used to analyze the operations of both signalized and unsignalized intersections. Synchro provides the option to report methodologies for both 2010 and 2000 editions of the HCM. The 2010 version of the HCM is similar to the 2000 HCM methodologies but focused more on specific controller set ups. Due to the changes in the 2010 HCM, there are several limitations within Synchro that do not allow results to be produced for an intersection. Some of these limitations include:

- Exclusive pedestrian phases
- Exclusive U-turn phases
- Right turn overlaps with through movements
- Permissive left turns yielding to pedestrians at a T-intersection
- Split phasing

Since all intersections within the community would not be able to produce results using the 2010 HCM methodology, the 2000 HCM methodology was used for the intersection analysis for consistency.

The following list contains the assumptions used for the intersection analyses:

- HCM 2000 methodology
- Peak-hour factor (PHF) = Measured in field PHFs were used for the existing and near-term scenarios; 0.92 was used for horizon year
- Percent of heavy vehicle (PHV) = 16 percent
- Signal Timing = Existing signal timing was used for existing and near-term scenarios; timing modifications were made for plus project and horizon year scenarios to account for changes in intersection geometry

The acceptable LOS standard for intersections in the City of San Diego is LOS D.

Table 2–2 LOS Criteria for Intersections

LOS	Control Delay (sec/veh)		Description
	Signalized Intersections (a)	Unsignalized Intersections (b)	
A	≤10.0	≤10.0	Operations with very low delay and most vehicles do not stop.
B	>10.0 and ≤20.0	>10.0 and ≤15.0	Operations with good progression but with some restricted movement.
C	>20.0 and ≤35.0	>15.0 and ≤25.0	Operations where a significant number of vehicles are stopping with some backup and light congestion.
D	>35.0 and ≤55.0	>25.0 and ≤35.0	Operations where congestion is noticeable, longer delays occur, and many vehicles stop. The proportion of vehicles not stopping declines
E	>55.0 and ≤80.0	>35.0 and ≤50.0	Operations where there is significant delay, extensive queuing, and poor progression.
F	>80.0	>50.0	Operations that is unacceptable to most drivers, when the arrival rates exceed the capacity of the intersection.

Notes:

(a) 2000 Highway Capacity Manual, Chapter 18, Page 6, Exhibit 18-4

(b) 2000 Highway Capacity Manual, Chapter 19, Page 2, Exhibit 19-1 and Chapter 20, Page 3, Exhibit 20-2

2.2.3 ROADWAY SEGMENTS

To determine the impacts on the study area roadway segments, capacity thresholds and associated LOS documented in the City of San Diego *Traffic Impact Study Manual* were utilized as shown in **Table 2-4**. The segment traffic volumes under LOS E as shown in this table are considered at capacity because at LOS E the v/c Ratio is equal to 1.0.

Table 2–3 City of San Diego Roadway Segment Capacity and LOS

Road		Level of Service (LOS)				
Class	**Lanes**	**A**	**B**	**C**	**D**	**E**
Expressway	6	30,000	42,000	60,000	70,000	80,000
Prime Arterial	6	25,000	35,000	50,000	55,000	60,000
Major Arterial	6	20,000	28,000	40,000	45,000	50,000
Major Arterial	4	15,000	21,000	30,000	35,000	40,000
Collector	4	10,000	14,000	20,000	25,000	30,000
Collector (No center lane) (Continuous left-turn lane)	4 2	5,000	7,000	10,000	13,000	15,000
Collector (No fronting property)	2	4,000	5,500	7,500	9,000	10,000
Collector (Commercial/Industrial fronting)	2	2,500	3,500	5,000	6,500	8,000
Collector (Multi-family)	2	2,500	3,500	5,000	6,500	8,000
Sub-Collector (Single family)	2	---	---	2,200	---	---

Notes:
XXXX = Approximate recommended ADT based on the City of San Diego Street Design Manual.
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.

Source: City of San Diego Traffic Impact Study Manual, Table 2, Page 8, July 1998.

2.2.4 FREEWAY SEGMENTS

To determine the impacts on the study area freeway segments, **Table 2-5** has been developed by Caltrans District 11 and is used as a reference. The procedure involves comparing the peak-hour volume of the mainline freeway segment to the theoretical capacity of the segment, which results in a volume-to-capacity (v/c) ratio. The calculated v/c ratio is then compared to the accepted ranges of v/c ratio values corresponding to the respective LOS.

Table 2–4 LOS Criteria for Freeway Segment Analysis

LOS	v/c Ratio	Congestion/Delay	Traffic Description
A	< 0.41	None	Free flow
B	0.41 – 0.62	None	Free to stable flow, light to moderate volumes
C	0.63 – 0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.81 – 0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, and very limited freedom to maneuver
E	0.93 – 1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor
F_0	1.01 – 1.25	Considerable 0 – 1 hour delay	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go
F_1	1.26 – 1.35	Severe 1 - 2 hour delay	Very heavy congestion, very long queues
F_2	1.36 – 1.45	Very severe 2 - 3 hour delay	Extremely heavy congestion, very long queues
F_3	> 1.46	Extremely severe 3+ hours of delay	Gridlock

Source: SANTEC/ITE Guidelines for Traffic Impact Studies in the San Diego Region, March 2, 2000.

2.2.5 FREEWAY RAMP METERING

Ramp metering is a means of controlling the volume of traffic entering the freeway with the goal of improving the traffic operations and flow on the freeway main lanes. Freeway ramp meter analysis estimates the peak hour queues and delays at freeway ramps by comparing existing volumes to the meter rate at the given location. The excess demand, if any, forms the basis for calculating the maximum queues and maximum delays anticipated at each location. Substantial queues and delays can form where demand significantly exceeds the meter rate. This approach assumes a static rate throughout the course of the peak hour, however, Caltrans has indicated that the meter rates are continually adjusted based on the level of traffic using the on-ramp. To the extent possible, the meter rate is set such that the queue length does not exceed the available storage, smooth flows on the freeway mainline is maintained, and there is no interference to arterial traffic.

Per local guidelines, a ramp metering analysis is conducted at locations where 20 or more directional peak-hour trips would be expected.

2.3 SIGNIFICANCE DETERMINATION

The City of San Diego and Caltrans have developed acceptable threshold standards to determine the significance of project impacts to intersections, roadway segments, freeway segments, and metered freeway on-ramps. At intersections, the measurement of effectiveness (MOE) is based on allowable increases in delay. Along roadway segments and freeway segments, the MOE is based on allowable increases in the v/c ratio.

LOS F is not acceptable for any approach leg except for side streets on an interconnected arterial system. If vehicle trips from a project cause an intersection approach leg to operate at LOS F, except in the cases of side streets on an interconnected arterial system, this would be considered a significant project traffic impact that requires mitigation. At intersections that are expected to operate at LOS E or F without the project, the allowable increase in delay is two seconds at LOS E and one second at LOS F with the addition of the project. If vehicle trips from a project cause the delay at an intersection to increase by more than the allowable threshold, this would be considered a significant project impact that requires mitigation. Also, if the project causes an intersection that was operating at an acceptable LOS to operate at LOS E or F, this would be considered a significant project impact that requires mitigation.

For roadway segments that are forecasted to operate at LOS E or F with the project, the allowable increase in v/c ratio is 0.02 at LOS E and 0.01 at LOS F. If vehicle trips from a project cause the v/c ratio to increase by more than the allowable threshold, this would be considered a significant project traffic impact that requires mitigation.

For freeway segments that are forecasted to operate at LOS E or F with the project, the allowable increase in v/c ratio is 0.01 at LOS E and 0.005 at LOS F. If vehicle trips from a project cause the v/c ratio to increase by more than the allowable threshold, this would be considered a significant project traffic impact that requires mitigation.

If vehicle trips from a project cause the ramp meter delay to increase by more than 2 minutes per vehicle, this would be considered a significant project traffic impact that requires mitigation.

In certain instances, a roadway segment operates at LOS E or LOS F and following three conditions are met:

1. the roadway is built to its ultimate classification per the community plan;

2. the intersections on both ends of the failing segment operate at an acceptable LOS; and
3. an HCM arterial analysis indicates an acceptable LOS on the segment;

then the project impact could be determined to be less than significant and no mitigation would be required.

Table 2-5 summarizes the criteria for determining levels of significance for the different facilities in the study area.

Table 2–5 Significance Criteria for Facilities in the Study Area

Facility	Measurement of Effectiveness (MOE)	Significance Threshold (a)
Intersection	Seconds of delay	>2.0 seconds at LOS E or >1.0 seconds at LOS F
Roadway Segment	ADT, v/c ratio	>0.02 at LOS E or >0.01 at LOS F
Freeway Segment	v/c ratio	>0.01 at LOS E or >0.005 at LOS F
Freeway Ramp Meter	Minutes of delay	>2.0 minutes per vehicle

Note: If a project adds any increment of delay to cause the operations of an intersection or segment to go from LOS D to either LOS E or LOS F, then the project is considered to cause a significant impact.

Source: City of San Diego Significance Determination Thresholds, page 71, January 2011.

(a) Significance threshold applies only when the type of facility operates at LOS E or F.

3 EXISTING CONDITIONS

This section summarizes the existing roadway circulation network, daily and peak-hour traffic volumes, and operations at the study intersections and roadway segments.

3.1 ROAD NETWORK

The following provides a description of the existing street system as of January 2017, when traffic counts were collected, within the vicinity of the project area. Since the date the traffic counts were collected, construction of the interchange between SR-125 and SR-11 has been completed.

Otay Mesa Road provides east-west connectivity through the community and currently functions as a six-lane prime arterial between Ocean View Hills Parkway and La Media Road, and as a five-lane prime arterial between La Media Road and Piper Ranch Road with three westbound lanes and two eastbound lanes, and as a five-lane collector between Piper Ranch Road and SR-125, and as a four-lane collector between SR-125, and Sanyo Ave. The Otay Mesa Community Plan designates Otay Mesa Road as a six-lane prime arterial, which the project will complete their frontage of as a project feature. The posted speed limit along Otay Mesa Road is 50 miles per hour and parking is not allowed. Otay Mesa Road currently functions as a Class III Bicycle Route but is planned as a Class II Bicycle Lane facility.

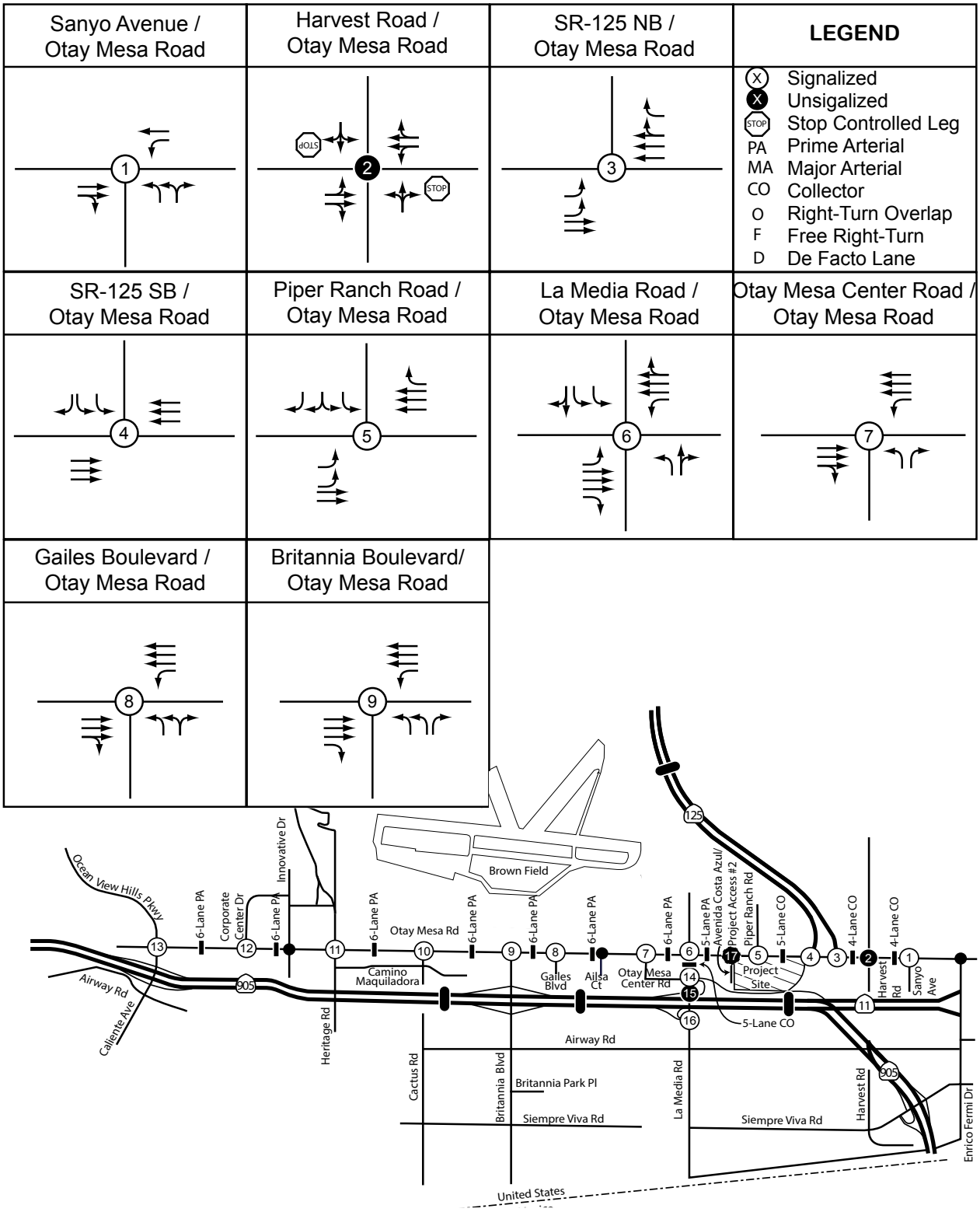
Piper Ranch Road is a north-south roadway that currently functions as two-lane collector just north of Otay Mesa Road that terminates just before reaching SR-125. The Otay Mesa Community Plan includes extension of Piper Ranch Road over SR-125 and classifies the road as a four-lane major from Otay Mesa Road to the north. Piper Ranch Road currently terminates at Otay Mesa Road and the proposed project would extend it into a private drive south of Otay Mesa Road, ending just north of SR-905. Parking is not allowed on the east side of the road but is permitted on the west side. No portion of Piper Ranch Road has a raised median or bicycle lane and no bicycle facilities are planned for Piper Ranch Road.

La Media Road is a major connection that operates north-south within the project area. The segment of La Media Road between Otay Mesa Road and the SR-905 ramps functions as a five-lane collector with three southbound lanes and two northbound lanes, and is designated as a six-lane prime arterial in the Otay Mesa Community Plan. The interchange with SR-905 is built out but the properties adjacent toSR-905 have not all been developed to complete the classified lanes. Between SR-905 and Airway road, La Media Road has two southbound lanes and one northbound lane. South of the signalized intersection with Airway Road, La Media Road is one-way southbound. La Media Road is being used as an interim solution for the congestion at the Otay Mesa Port of Entry, with laden trucks travelling south on La Media Road to the one-way truck route along the Mexican Border. Upon completion of the Border Truck Route project, La Media Road will be used by Unladen trucks for access to the Port of Entry. The speed limit on La Media Road is 35 miles per hour. La Media Road has a Class II Bicycle Lane facility.

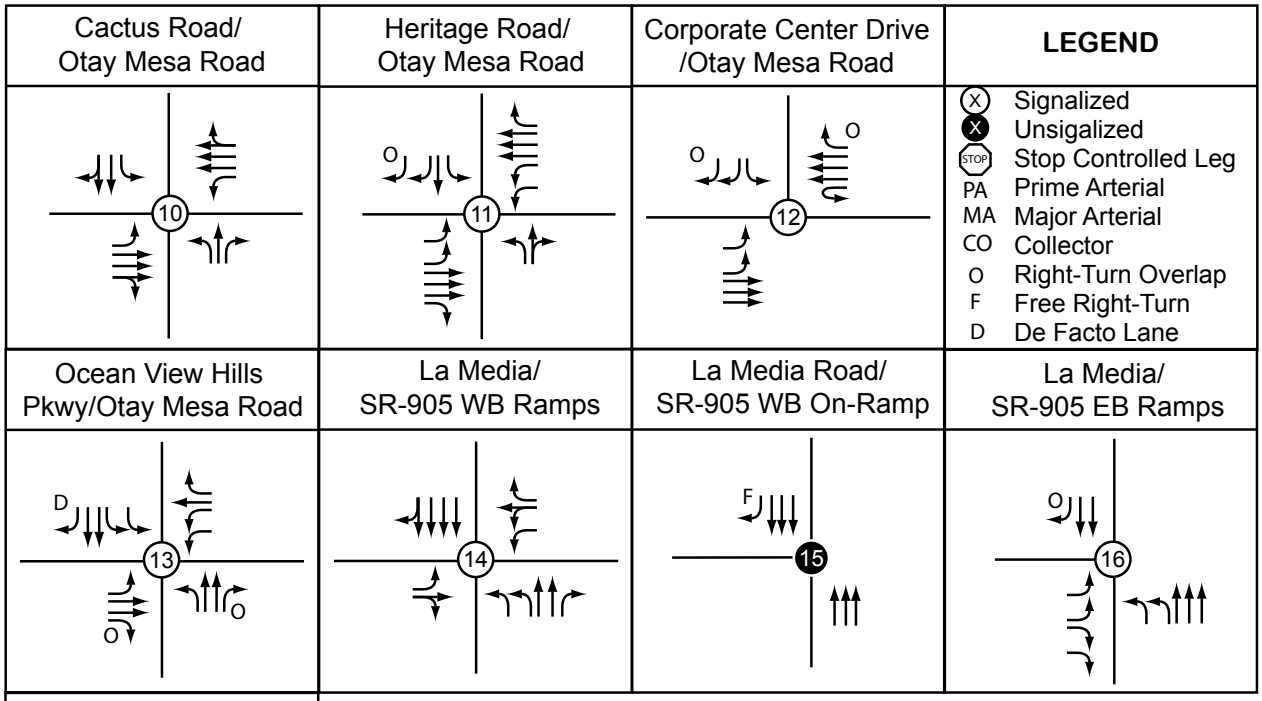
SR-905 is a six-lane freeway within the vicinity of the project site. There are currently interchanges at Caliente Avenue, Britannia Boulevard, La Media Road, and Siempre Viva Road. An additional freeway interchange at Heritage Road is planned for construction in 2030 per the Otay Mesa PFFP. Bicycles are prohibited on the SR-905 freeway.

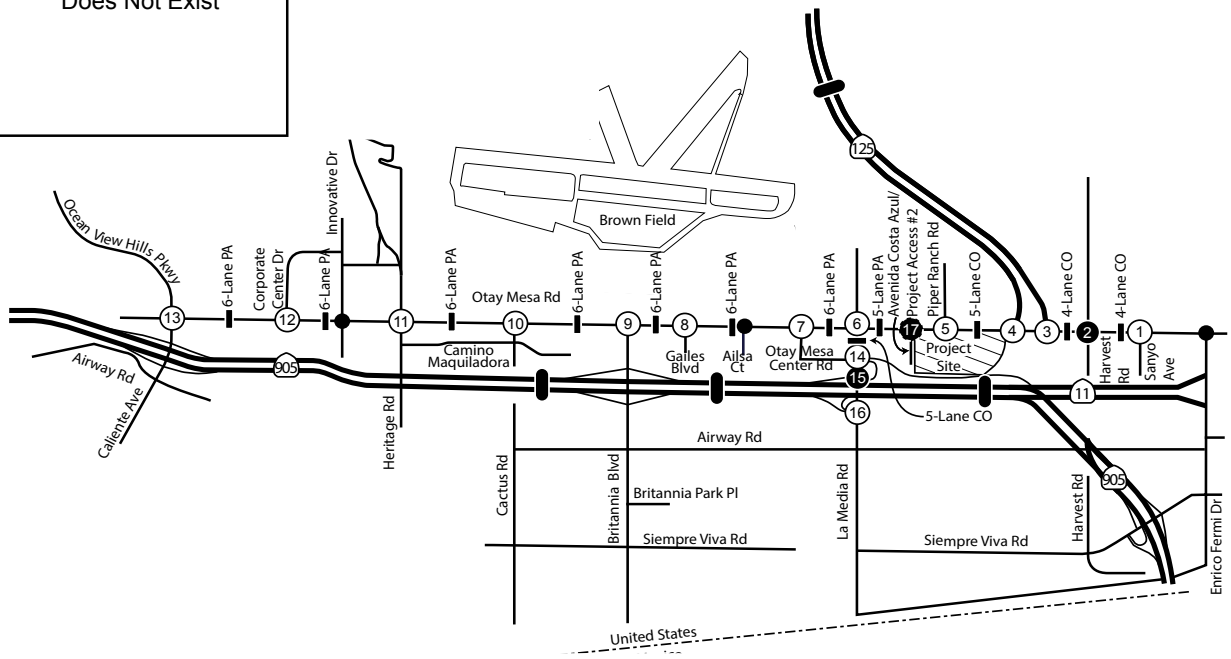
SR-125 is a divided, access-controlled, four-lane toll road between SR-54 and the southern terminus at Otay Mesa Road. An SR-125/SR-905 connection is planned for construction in 2025. Bicycles are permitted on the shoulder of SR-125, and SR-125 is signed as a Class III bicycle route.

Figure 3-1 & 3-2 shows the existing geometrics of the study intersections and functional classification for the roadways within the study area.



Existing Intersection and Roadway Segment Geometrics





Existing Intersection and Roadway Segment Geometrics (cont.)

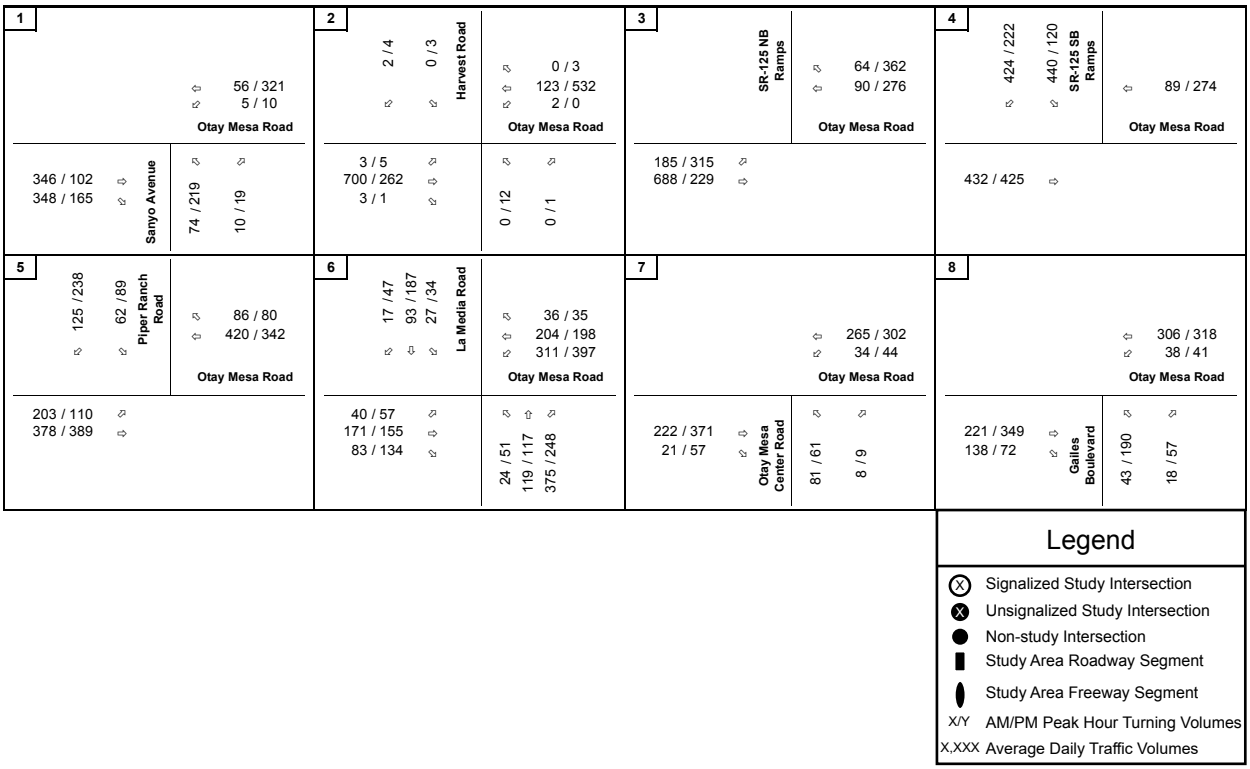
3.2 TRAFFIC VOLUMES

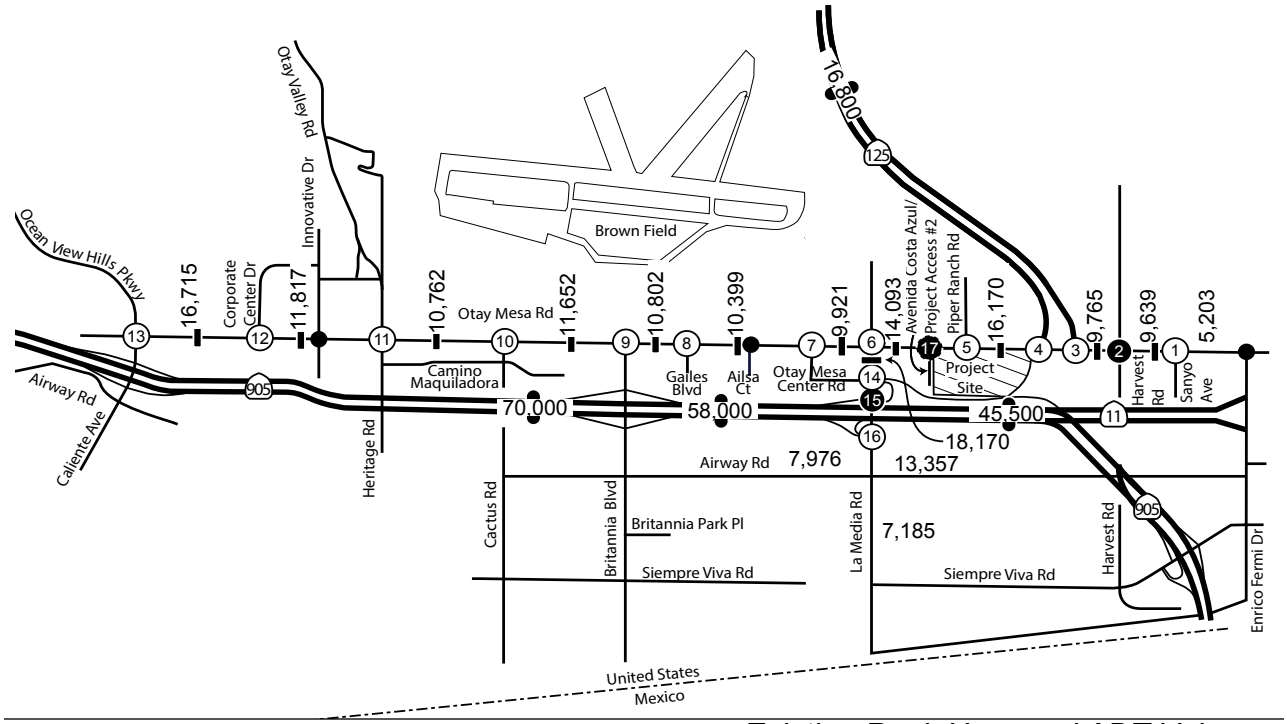
Peak-Hour intersection turning movement counts were collected by National Data and Surveying Services (NDS) at the study intersections on either Wednesday November 16, 2016 or Wednesday January 18, 2017. 24-Hour roadway segment data for the study roadway segments was collected by NDS on those same days. New 24-hour roadway segment data with vehicle classifications to establish heavy truck percent were collected at two locations in February 2018: Otay Mesa Road just east of La Media Road and Otay Mesa Road just west of La Media Road. **Appendix A** contains the existing traffic volume data at the study intersections and the existing ADT volume data for the roadway segments. Based on the vehicle classification information obtained in February 2018, a 16-percent heavy vehicles factor was applied to the network for all intersection evaluations.

Daily traffic volumes along the SR-905 freeway were obtained from the most recent published data available by Caltrans and reflect volumes from year 2016. Traffic volumes along SR-125 were obtained from the Caltrans *State Route 125 Transportation Concept Report* as it is a toll facility not included in the Caltrans database.

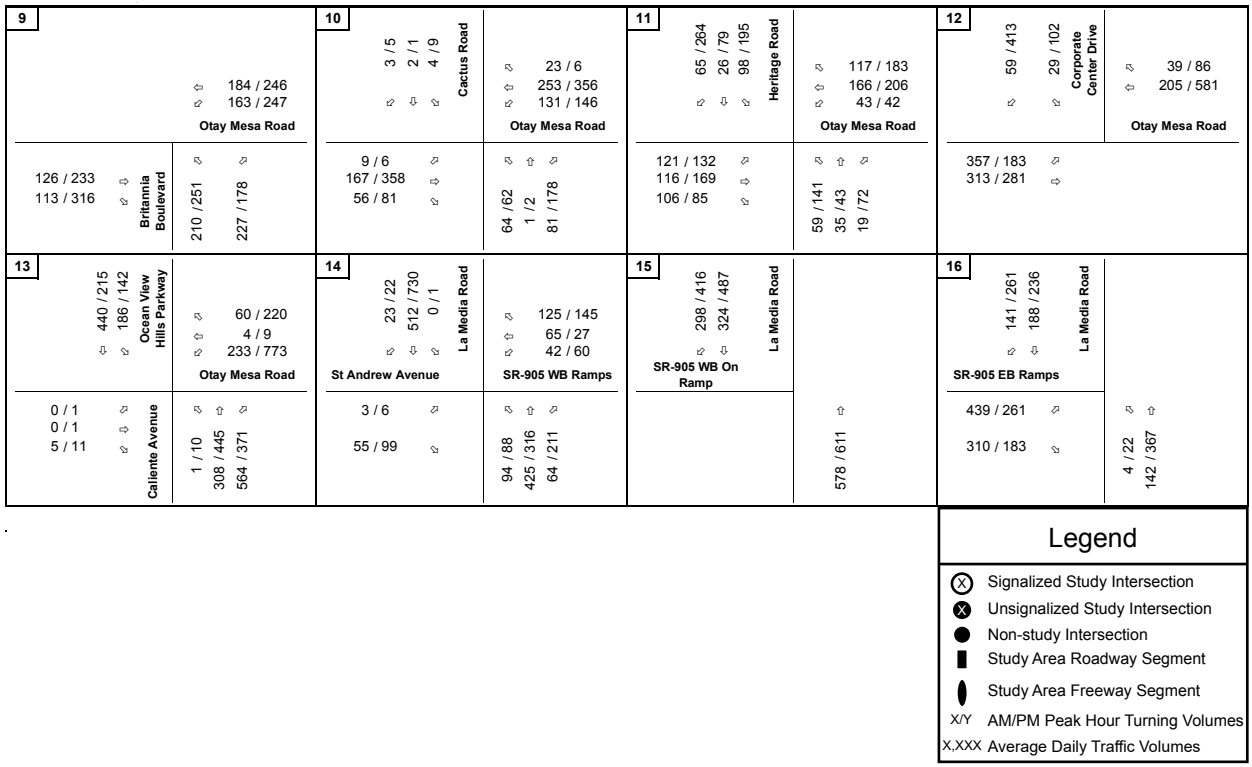
Figure 3-3 & Figure 3-4 illustrates the existing traffic volumes at the study intersections and ADT volumes along the roadway and freeway segments.

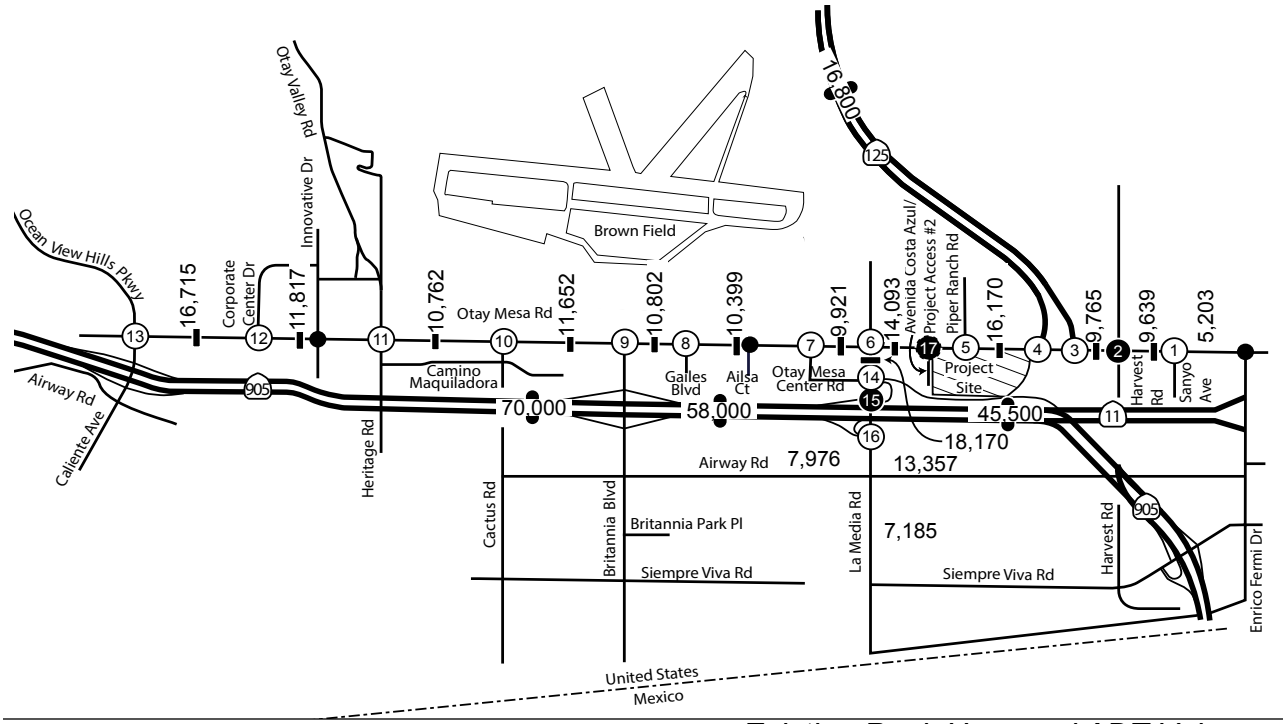
FIGURE 3-3





Existing Peak Hour and ADT Volumes





Existing Peak Hour and ADT Volumes (cont.)

3.3 INTERSECTION ANALYSIS

Table 3-1 displays the LOS analysis results for the study intersections under Existing Conditions. As shown in the table, all intersections currently operate at LOS D or better during both peak periods except for the intersection of La Media Road and Otay Mesa Road.

Appendix B contains the intersections LOS calculation worksheets.

3.4 ROADWAY SEGMENT ANALYSIS

Table 3-3 displays the roadway segments analysis under Existing Conditions. As shown in the table, all roadway segments within the study area function at LOS C or better under Existing Conditions.

3.5 FREEWAY SEGMENT ANALYSIS

Table 3-4 displays the freeway segments analysis under Existing Conditions. As shown in the table, all freeway segments along SR-905 and SR-125 within the study area function at LOS B or better under Existing Conditions.

3.6 FREEWAY RAMP METERING ANALYSIS

The three entrance ramps at the La Media Road and SR-905 interchange each have ramp meter equipment installed. However, the ramp meters are not active because the freeways are not at a high enough density to warrant metering the ramps. As such, ramp meter analysis was not performed for this scenario.

Table 3–1 Existing Conditions Intersection LOS Summary

Intersection		Traffic Control	Peak Hour	Existing	
				Delay (a)	LOS (b)
1	Sanyo Ave / Otay Mesa Rd	Signal	AM	10.8	B
			PM	10.0	B
2	Harvest Rd / Otay Mesa Rd	SSSC	AM	8.9	A
			PM	12.1	B
3	SR-125 Northbound Ramp / Otay Mesa Rd	Signal	AM	2.8	A
			PM	7.3	A
4	SR-125 Southbound Ramp / Otay Mesa Rd	Signal	AM	9.6	A
			PM	8.2	A
5	Piper Ranch Rd / Otay Mesa Rd	Signal	AM	11.3	B
			PM	11.1	B
6	La Media Rd / Otay Mesa Rd	Signal	AM	95.0	**F**
			PM	123.0	**F**
7	Otay Mesa Center Rd / Otay Mesa Rd	Signal	AM	9.8	A
			PM	7.0	A
8	Gailes Blvd / Otay Mesa Rd	Signal	AM	9.2	A
			PM	22.4	C
9	Britannia Blvd / Otay Mesa Rd	Signal	AM	26.5	C
			PM	33.8	C
10	Cactus Rd / Otay Mesa Rd	Signal	AM	18.3	B
			PM	21.7	C
11	Heritage Rd / Otay Mesa Rd	Signal	AM	36.5	D
			PM	36.1	D
12	Otay Mesa Rd / Corporate Center Dr	Signal	AM	9.8	A
			PM	12.3	B
13	Caliente Ave / Ocean View Hills Pkwy / Otay Mesa Rd	Signal	AM	14.9	B
			PM	27.5	C
14	La Media Road / SR-905 Westbound Ramps	Signal	AM	14.2	B
			PM	14.7	B
15	La Media Road / SR-905 Westbound On-Ramp	No Control	AM	*No Conflicting Movements*	
			PM		
16	La Media Road / SR-905 Eastbound Ramps	Signal	AM	8.8	A
			PM	7.9	A

Signal = Traffic Signal; SSSC = Side Street Stop Control
Bold values indicate intersections operating at LOS E or F.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At SSSC intersections, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the 2000 Highway Capacity Manual and performed using Synchro 9.

Table 3–2 Existing Conditions Roadway Segment LOS Summary

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	EXISTING		
			ADT (b)	V/C RATIO (c)	LOS
Otay Mesa Road					
Sanyo Road to Harvest Road	4 Lane Collector	30,000	9,639	0.321	A
Harvest Road to SR-125 NB Ramp	4 Lane Collector	30,000	9,795	0.327	A
SR-125 NB Ramp to SR-125 SB Ramp	5 Lane Collector	37,500	12,419	0.331	A
SR-125 SB Ramp to Piper Ranch Road	5 Lane Collector	37,500	16,170	0.431	B
Piper Ranch Road to Avenida Costa Azul/Project Access #2	5 Lane Prime Arterial	50,000	14,093	0.282	A
Avenida Costa Azul/Project Access #2 to La Media Road	5 Lane Prime Arterial	50,000	14,093	0.282	A
La Media Road to Otay Mesa Center Road	6 Lane Prime Arterial	60,000	9,921	0.165	A
Otay Mesa Center Road to Gailes Boulevard	6 Lane Prime Arterial	60,000	10,399	0.173	A
Gailes Boulevard to Britannia Boulevard	6 Lane Prime Arterial	60,000	10,802	0.180	A
Britannia Boulevard to Cactus Road	6 Lane Prime Arterial	60,000	11,652	0.194	A
Cactus Road to Heritage Road	6 Lane Prime Arterial	60,000	10,762	0.179	A
Heritage Road to Corporate Center Drive	6 Lane Prime Arterial	60,000	11,817	0.197	A
Corporate Center Drive to Ocean View Hills Parkway	6 Lane Prime Arterial	60,000	16,715	0.279	A
La Media Road					
Otay Mesa Road to SR-905	5 Lane Collector	37,500	18,170	0.485	C
SR-905 WB Ramps to SR-905 EB Ramps	5 Lane Collector	37,500	16,415	0.438	B

(a) Existing roads street classification is based on field observations. The capacity for a 5 Lane Prime Arterial was estimated using the 6 Lane Prime Arterial capacities as a basis.
(b) Average daily traffic (ADT) volumes for the roadway segments were collected by National Data and Surveying Services in November 2016, January 2017, and February 2018.

(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Table 3–3 Existing Conditions Freeway Segment LOS Summary

Freeway Segment	Direction	Number of Lanes	Capacity (a)	ADT (b)	Peak-Hour Volume (c)	V/C Ratio	LOS
AM PEAK							
SR 905							
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	70,000	*K=7.61%, D=33.7%* 2,041	0.231	A
	EB	3 M + 1 A	8,850		*K=7.61%, D=66.2%* 4,005	0.453	B
Britannia Boulevard to La Media Road	WB	3 M	7,050	58,000	*K=7.61%, D=33.7%* 1,691	0.240	A
	EB	3 M + 1 A	8,850		*K=7.61%, D=66.2%* 3,318	0.375	A
La Media Road to Siempre Viva Road	WB	3 M	7,050	45,500	*K=7.61%, D=33.7% 1,327*	0.188	A
	EB	3 M + 1 A	8,850		*K=7.61%, D=66.2% 2,603*	0.294	A
SR 125							
Otay Mesa Road to Birch Road	NB	2 M	4,700	16,800	*K=18.45%,D=73.6%* 2,466	0.525	B
	SB	2 M	4,700		*K=18.45%, D=26.4%* 887	0.189	A
PM PEAK							
SR 905							
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	70,000	*K=9.02%, D=58.7%* 4,211	0.476	B
	EB	3 M + 1 A	8,850		*K=9.02%, D=41.2%* 2,955	0.334	A
Britannia Boulevard to La Media Road	WB	3 M	7050	58,000	*K=9.02%, D=58.7%* 3,489	0.495	B
	EB	3 M + 1 A	8850		*K=9.02%, D=41.2%* 2,449	0.277	A
La Media Road to Siempre Viva Road	WB	3 M	7050	45,500	*K=9.02%, D=58.7%* 2,737	0.388	A
	EB	3 M + 1 A	8850		*K=9.02%, D=41.2%* 1,921	0.217	A
SR 125							
Otay Mesa Road to Birch Road	NB	2 M	4700	16,800	*K=19.46%, D=30.3%* 1,071	0.228	A
	SB	2 M	4700		*K=19.46%,D=69.7%* 2,465	0.524	B

Notes:

M=Main Lane; A= Auxiliary Lane.
(a) The capacity is calculated as 2,350 ADT per main lane and 1,800 ADT per auxiliary lane to be consistent with the Otay Mesa Community Plan Transportation Analysis
(b) Traffic volumes for SR 905 obtained from published year 2016 traffic count data from Caltrans. Traffic volumes for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report.

(c) Peak-hour volume calculated by: (ADT*K*D)/Truck Factor. Truck Factor on SR 905 is 0.881; Truck Factor on SR 125 is 0.925.

4 PROJECT TRAFFIC

The following section describes the trip generation, distribution and assignment related to the proposed Sunroad Otay Mesa project. The proposed project includes the addition of 845,100 square feet of warehousing on undeveloped land in the Otay Mesa area of San Diego.

4.1 TRIP GENERATION

The City of San Diego *Trip Generation Manual* (May 2003) was referenced to calculate the estimated trip generation for the proposed project. The "Warehousing" land use was used to forecast daily and peak-hour trips for the project. Due to the land use type and the location of the site, no pass-by trips, internal capture, nor transit, bicycle, or pedestrian credits were applied. The trip generation was separated into two phases to reflect the proposed phasing of the project.

The proposed Phase 1 would construct two of the four warehousing buildings totaling 369,820 square feet Using the trip generation rate for warehousing of 5 trips per ksf, Phase 1 is expected to generate a total of 1,849 daily trips with 277 morning peak-hour trips (195 in, 82 out) and 296 afternoon peak-hour trips (118 in, 178 out).

The proposed Phase 2 would construct the remaining two warehousing buildings totaling 475,230 square feet Using the trip generation rate for warehousing of 5 trips per ksf, Phase 1 is expected to generate a total of 2,376 daily trips with 356 morning peak-hour trips (249 in, 107 out) and 380 afternoon peak-hour trips (152 in, 228 out).

Combining Phases 1 & 2, the resulting total trip generation for the project is 4,225 daily trips with 633 morning peak-hour trips (444 in, 189 out) and 676 afternoon peak-hour trips (270 in, 406 out).

To account for truck traffic, vehicle classification counts were collected to determine the heavy vehicle assumption of 16%utilized in the analysis for movements in and out of the site.

Table 4-1 summarizes the trip generation for the site.

Table 4-1 Trip Generation Summary

Description	Land Use	Units[1]	Trip Rate[2]	Daily Trips	AM Peak-Hour % of ADT[2]	AM Peak-Hour In:Out Ratio[2]	AM Peak-Hour In	AM Peak-Hour Out	AM Peak-Hour Total	PM Peak-Hour % of ADT[2]	PM Peak-Hour In:Out Ratio[2]	PM Peak-Hour In	PM Peak-Hour Out	PM Peak-Hour Total
Driveway Trips[3]														
Phase 1														
Building 3	Warehousing	216.3 ksf	5 / ksf	1,082	15%	7.00 : 3.00	114	48	162	16%	4.00 : 6.00	69	104	173
Building 4	Warehousing	153.5 ksf	5 / ksf	768	15%	7.00 : 3.00	81	34	115	16%	4.00 : 6.00	49	74	123
Phase Total		***369.8***		***1,849***			***195***	***82***	***277***			***118***	***178***	***296***
Phase 2														
Building 1	Warehousing	234.7 ksf	5 / ksf	1,173	15%	7.00 : 3.00	123	53	176	16%	4.00 : 6.00	75	113	188
Building 2	Warehousing	240.6 ksf	5 / ksf	1,203	15%	7.00 : 3.00	126	54	180	16%	4.00 : 6.00	77	115	192
Phase Total		***475.2***		***2,376***			***249***	***107***	***356***			***152***	***228***	***380***
Proposed Total		**845**		**4,225**			**444**	**189**	**633**			**270**	**406**	**676**

Note:

1. ksf = Thousand Square Feet
2. Daily and peak-hour trip generation rates referenced from the City of San Diego Land Development Code - Trip Generation Manual, May 2003.

K:\SND_LDEV\095128024 - Sunroad Otay\Traffic\ANALYSIS\EXCEL\[095128024_TG01.xlsm]Summary

4.2 TRIP DISTRIBUTION

The project traffic distribution was based on a Select Zone Regional Model prepared by SANDAG using their Series 12 model. The distribution shown in the Select Zone Regional Model was generally followed in establishing the project's trip distribution; however, some modifications were made to reflect network assumptions in this study. Model runs were prepared for Year 2020 to reflect existing and near-term distribution patterns and Year 2050 to reflect community build-out distribution patterns. **Appendix D** contains a copy of the Select Zone Model Runs.

4.2.1 EXISTING AND NEAR TERM

The following modifications were made to estimate trip distribution for the existing plus project and near term plus project scenarios:

- Traffic assumed in the model to travel east on Otay Mesa Road and north on Alta Road was modified to use SR-905 to the west instead. There are no land uses or roadway connections near Alta Road that would be expected to match with the project's trip destinations or origins. While typically trips are reallocated to a similar area, in this case the trips were put on the freeway to head west towards populated areas.
- Traffic assumed in the model to travel on Otay Valley Road and north of Main Street on Heritage Road was modified to use SR-905 to the west instead. The Heritage Road connection from Main Street north is not anticipated to be completed until late 2020, see **Appendix H**. Using the existing roadway network, the quickest route to get to the Chula Vista area is to take SR 905 west to I 805, which is where the trips were reassigned to.

The following is the resulting general project traffic distribution assumed for this study for the existing plus project and near term plus project scenarios:

- 2% to/from the north on Piper Ranch Road;
- 10% to/from the north along SR-125;
- 6% to/from the south (Mexico) along SR-905;
- 6% to/from the east along Otay Mesa Road;
- 17% to/from the west along Otay Mesa Road;
- 54% to/from the west along SR 905;
- 2% to/from nearby Otay Mesa areas to the west; and
- 3% to/from nearby Otay Mesa areas to the south.

Figure 4-1 shows the general project traffic distribution within the study area for the Existing plus Project and Near Term plus Project scenarios. **Figure 4-2 & 4-3** shows the Existing and Near Term (2018) scenarios project traffic distribution throughout the study area intersections for Phase 1 of the project. **Figure 4-4 & 4-5** shows the Existing and Near Term (2020) scenarios project traffic distribution throughout the study area intersections for Phases 1 & 2 of the project, which includes the second access point to the site.

4.2.2 HORIZON YEAR

Year 2050 network assumptions in the model include the freeway and roadway network north of Otay Mesa Road and east of La Media Road as expanded and developed. For purposes of this analysis, we are not assuming network changes in the Horizon Year (2035) scenario. Land use changes assumed in the model are applicable, though, as there is significant potential development in the area that would change traffic patterns. To account for this, the distribution for this scenario was mostly unchanged, with modifications

made at Otay Mesa Road and Cactus Road (shown in Appendix D) where a connection across SR 905 is assumed in the model but not in the analysis. The following is the resulting project traffic distribution assumed for this study in the horizon year:

- 7% to/from the north on Piper Ranch Road;
- 36% to/from the north along SR-125;
- 4% to/from the south and east (Mexico) along SR-905;
- 6% to/from the east along Otay Mesa Road;
- 17% to/from the west along Otay Mesa Road;
- 24% to/from the west along SR 905;
- 2% to/from nearby Otay Mesa areas to the west; and
- 4% to/from nearby Otay Mesa areas to the south.

Figure 4-6 shows the general project traffic distribution within the study area for the Horizon Year condition. **Figure 4-7 & 4-8** shows the Horizon Year project traffic distribution throughout the study area intersections for Phases 1 & 2 of the project.

4.2.3 ALTERNATIVE ACCESS AT AVENIDA COSTA AZUL

The Plaza La Media cumulative project proposes a traffic signal at the project's west driveway. The analysis included in this traffic study does not assume this improvement to be in place. An alternative evaluation has been prepared and included in **Appendix L** to show volumes and analysis results if that intersection was converted to a traffic signal. The appendix includes Near Term (2020) and Horizon Year (2035) project traffic distribution throughout the study area intersections for the project, which includes the second access point to the site and adjacent Plaza La Media project.

4.3 TRIP ASSIGNMENT

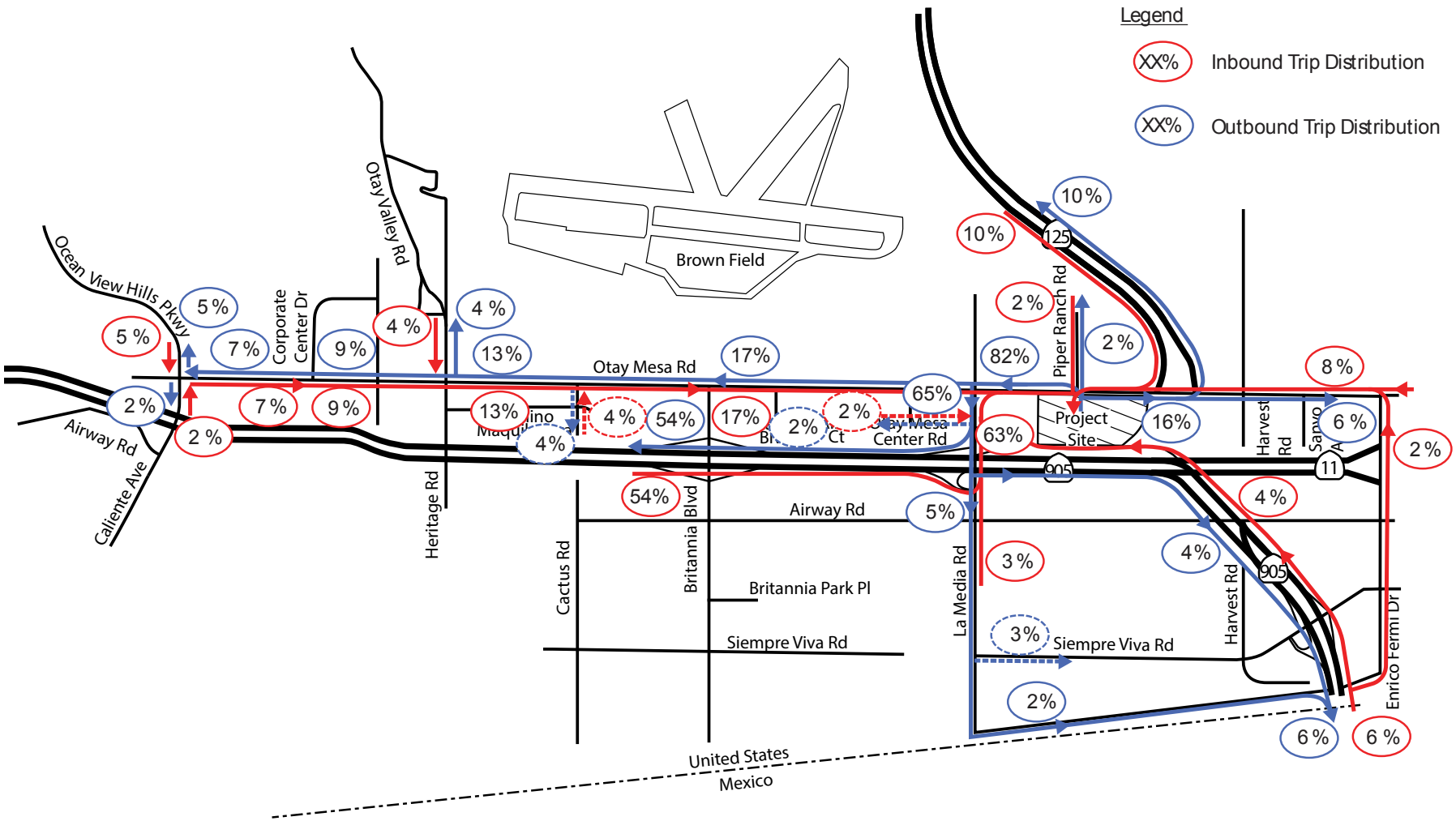
Based on the project trip generation and trip distribution, project trips were assigned to the local roadway network and through the study intersections. Two different trip assignments were created to reflect the two phases of the proposed project. As part of Phase 1, the only access to the project site is assumed to be from the intersection of Otay Mesa Road and Piper Ranch Road. As part of Phase 2, the second access further west on Otay Mesa Road is assumed to be operational.

Figure 4-9 & 4-10 shows the trip assignment for Phase 1 of the project under existing and near term (2018) conditions at the study intersections, roadway segments, and freeway segments within the study area.

Figure 4-11 & 4-12 shows the trip assignment for the development of both Phase 1 & 2 of the project under existing and near term (2020) conditions at the study intersections, roadway segments, and freeway segments within the study area.

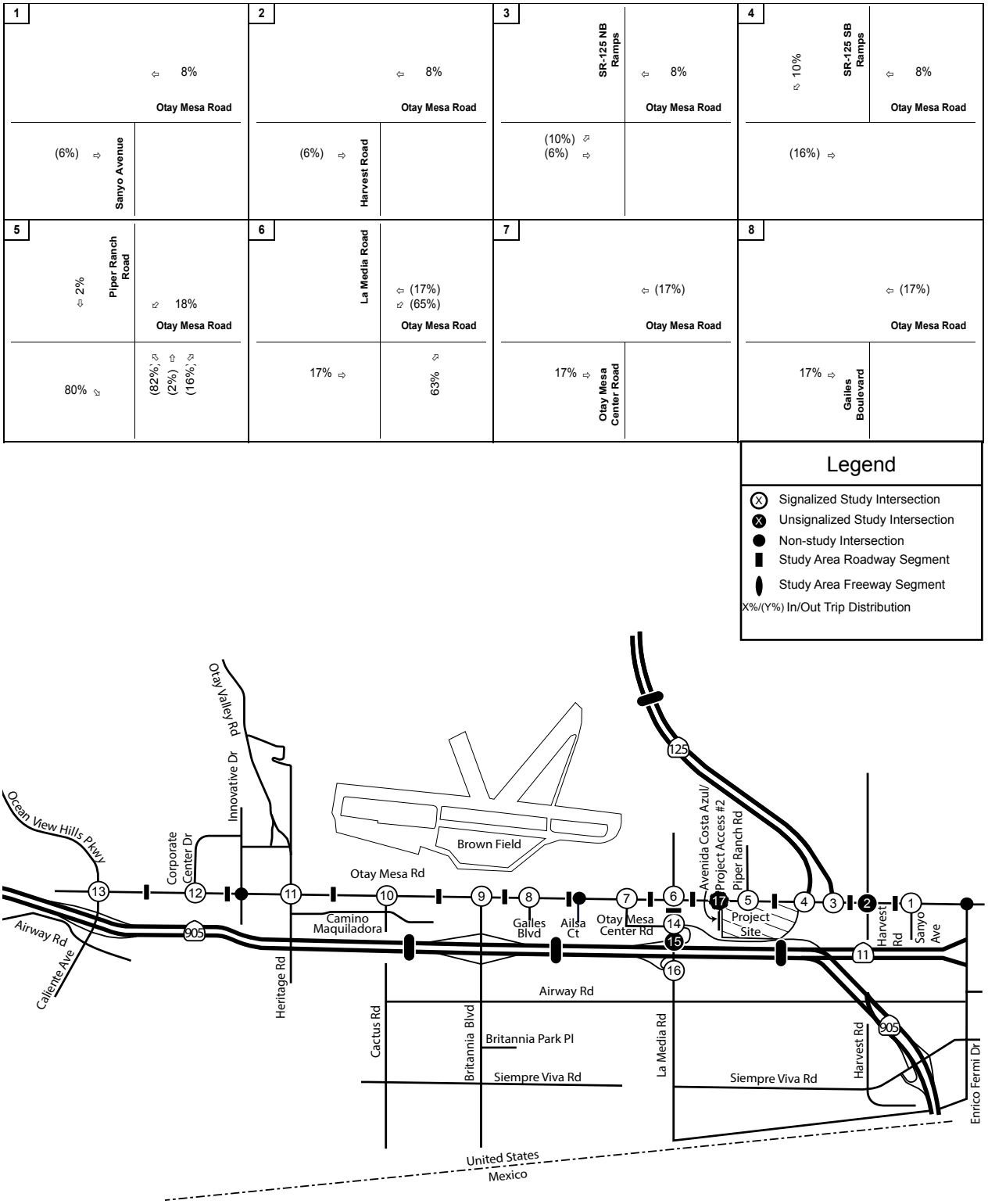
Figure 4-13 & 4-14 shows the trip assignment for the development of both Phase 1 & 2 of the project under Horizon Year (2035) conditions at the study intersections, roadway segments, and freeway segments within the study area.

FIGURE 4-1

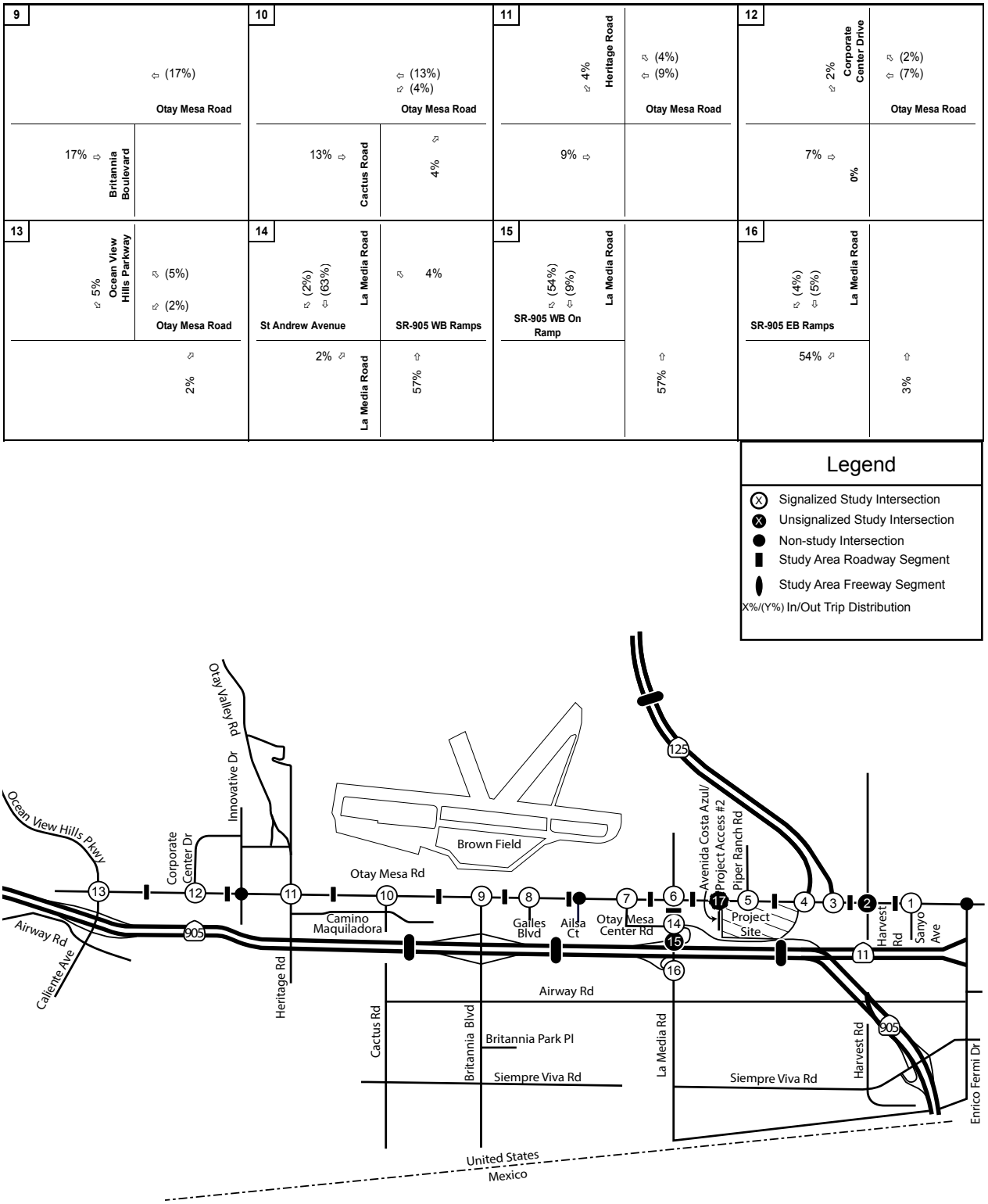


General Trip Distribution

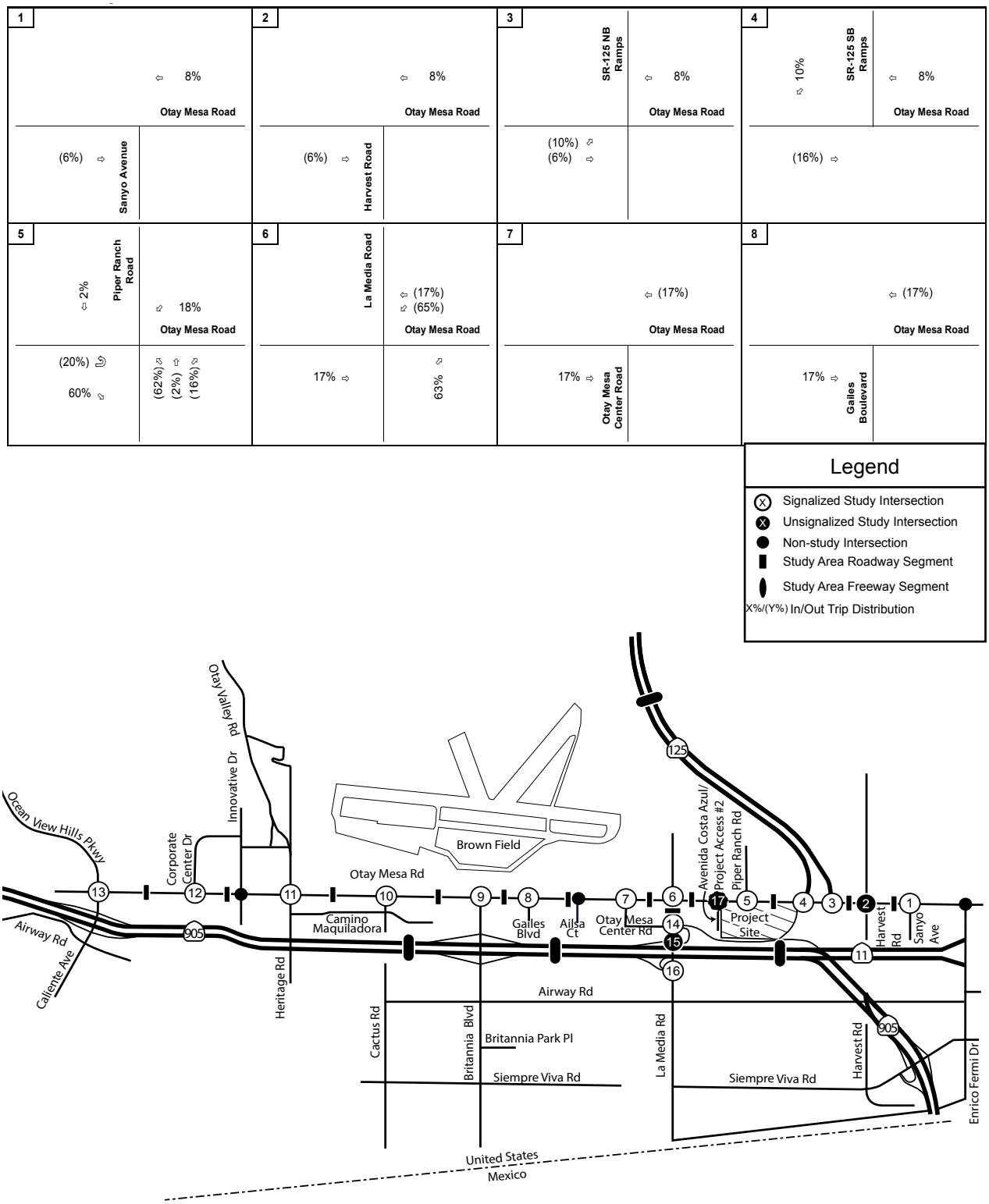
Existing & Near Term plus Project Conditions



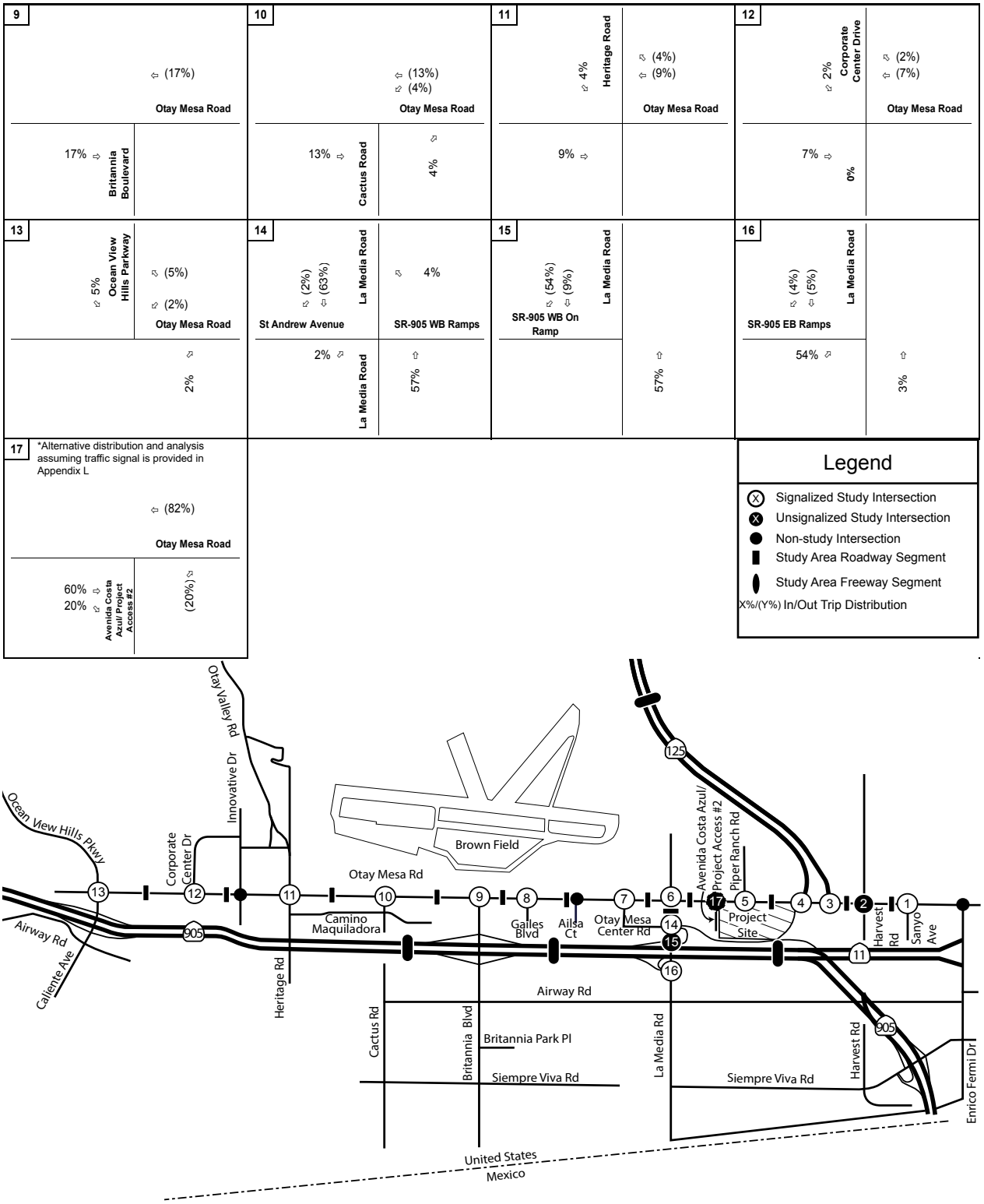
Trip Distribution For Phase 1 Existing & Near Term (2018)



Trip Distribution For Phase 1
Existing & Near Term (2018) (cont.)

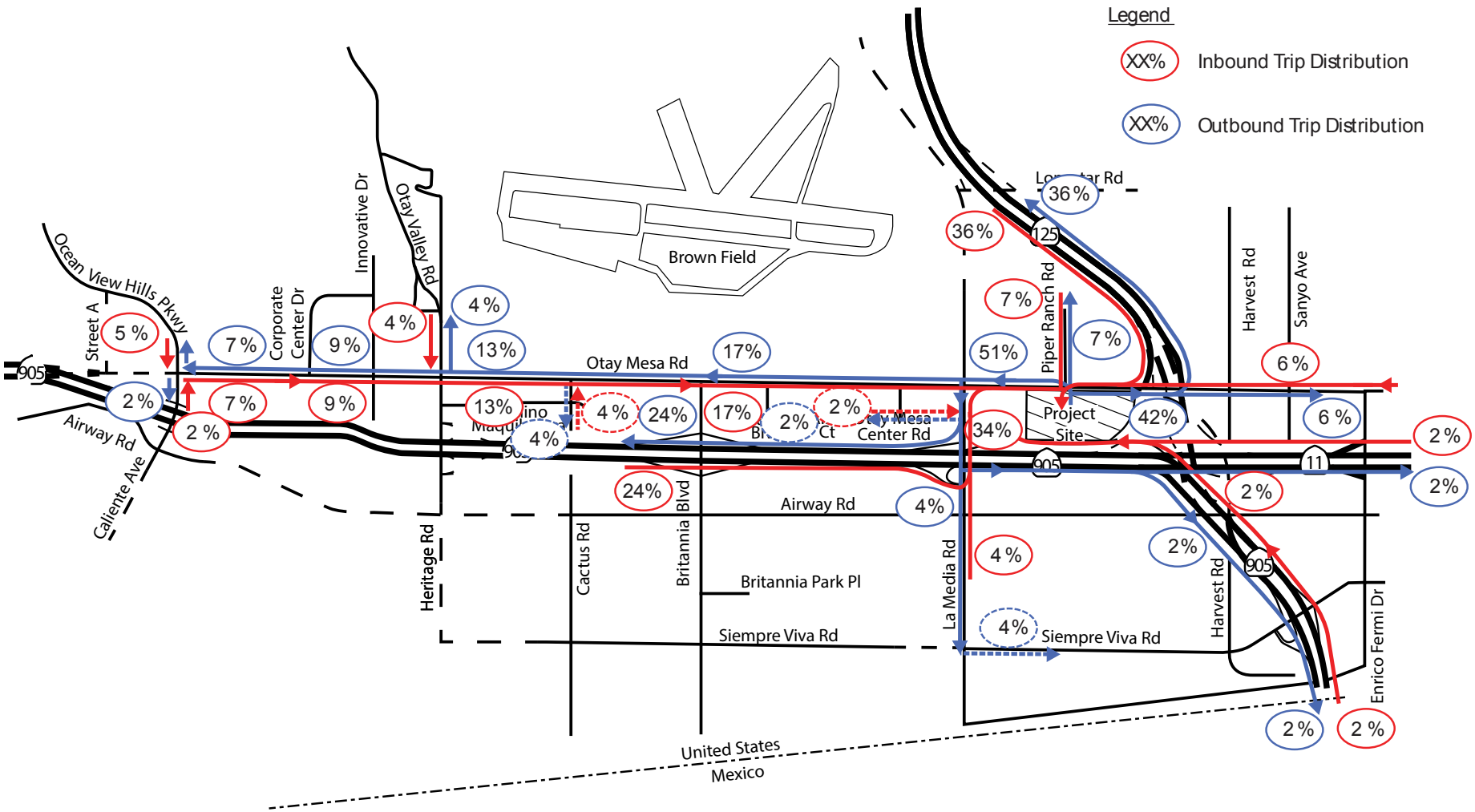


Trip Distribution For Phase 1 & 2
Existing & Near Term (2020)

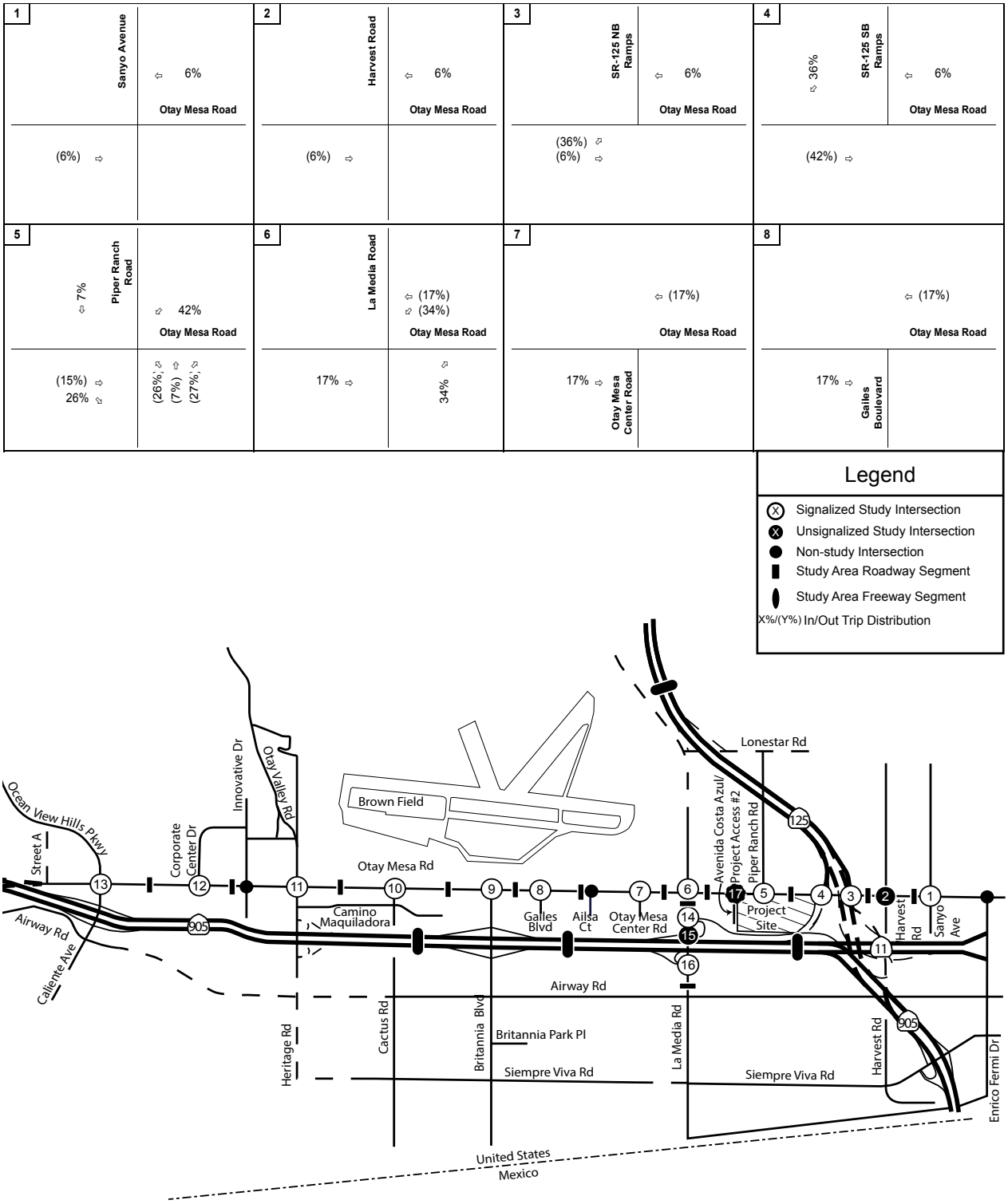


Trip Distribution For Phase 1 & 2
Existing Conditions & Near Term (2020) (cont.)

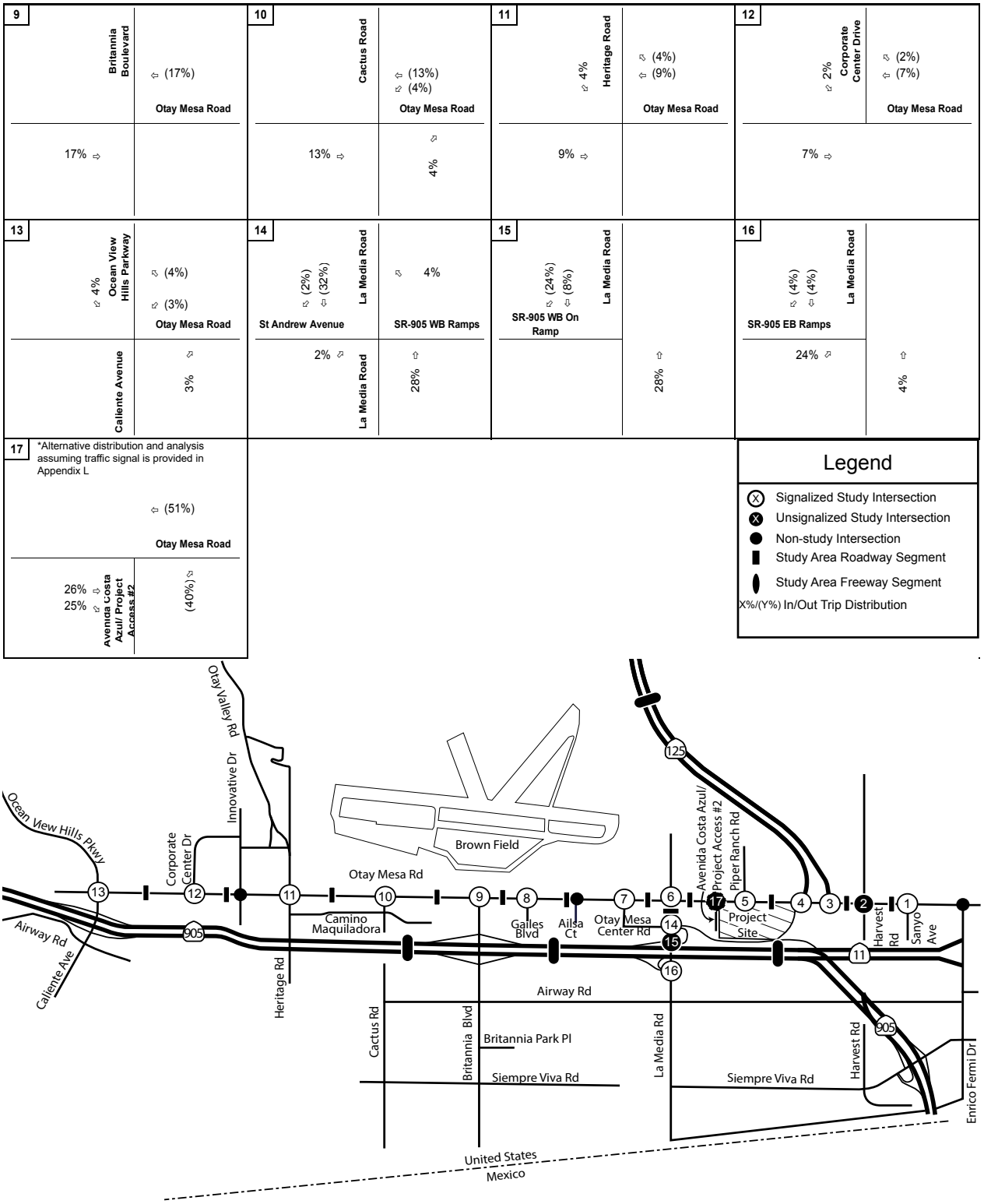
FIGURE 4-6



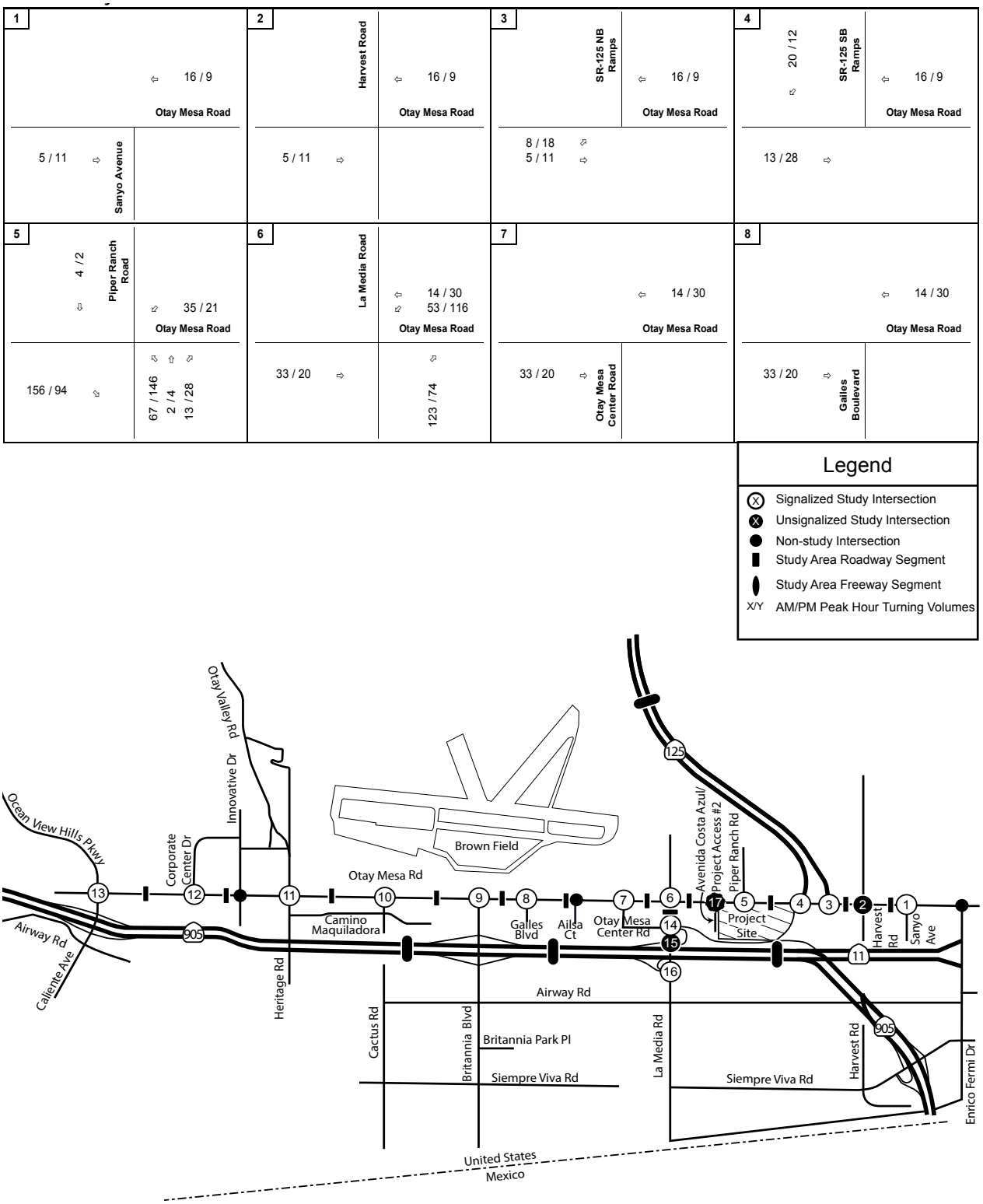
General Trip Distribution
Horizon Year plus Project Conditions



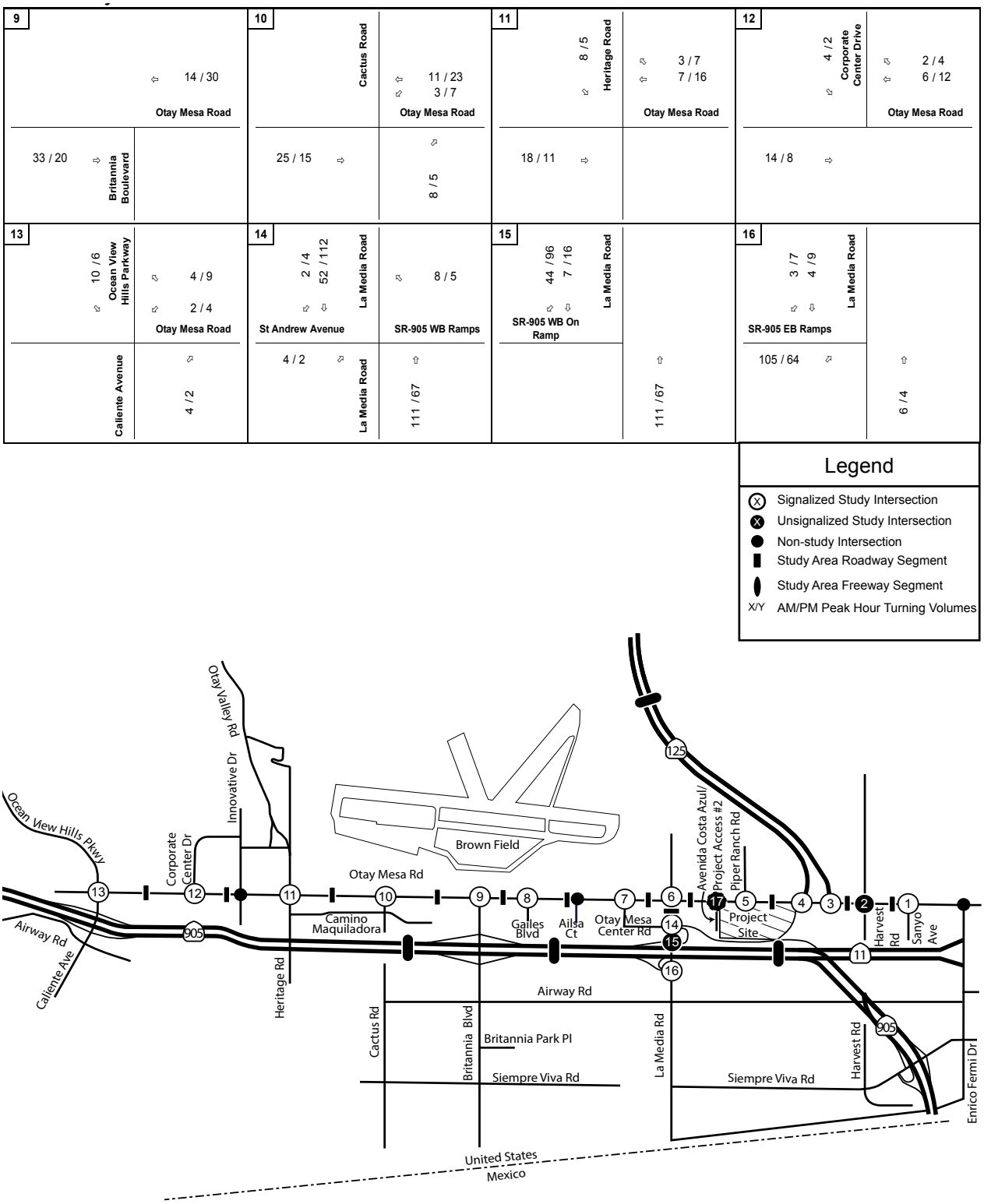
Trip Distribution For Phase 1 & 2
Horizon Year (2035) Conditions



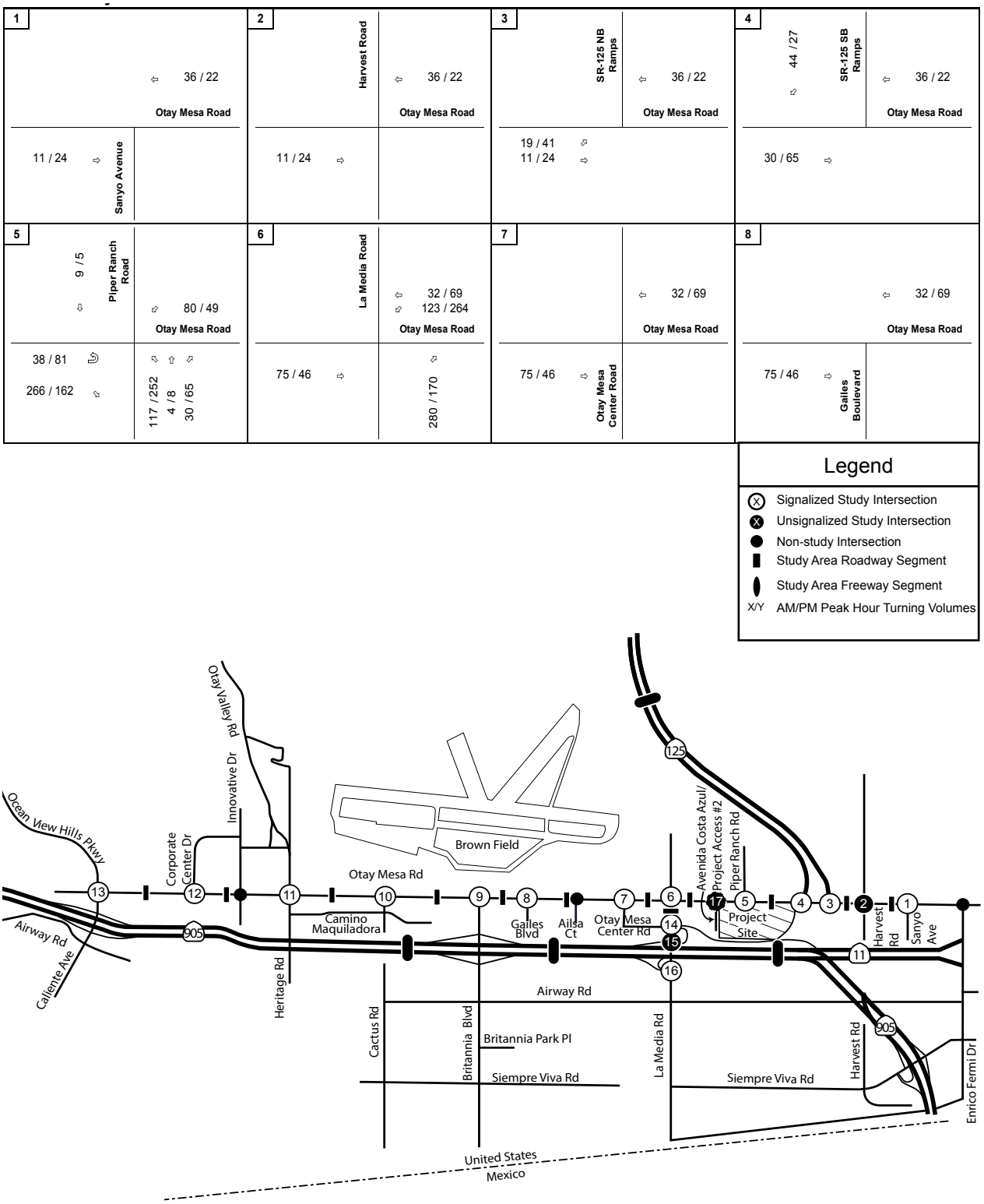
Trip Distribution For Phase 1 & 2 Horizon Year (2035) Conditions (cont.)



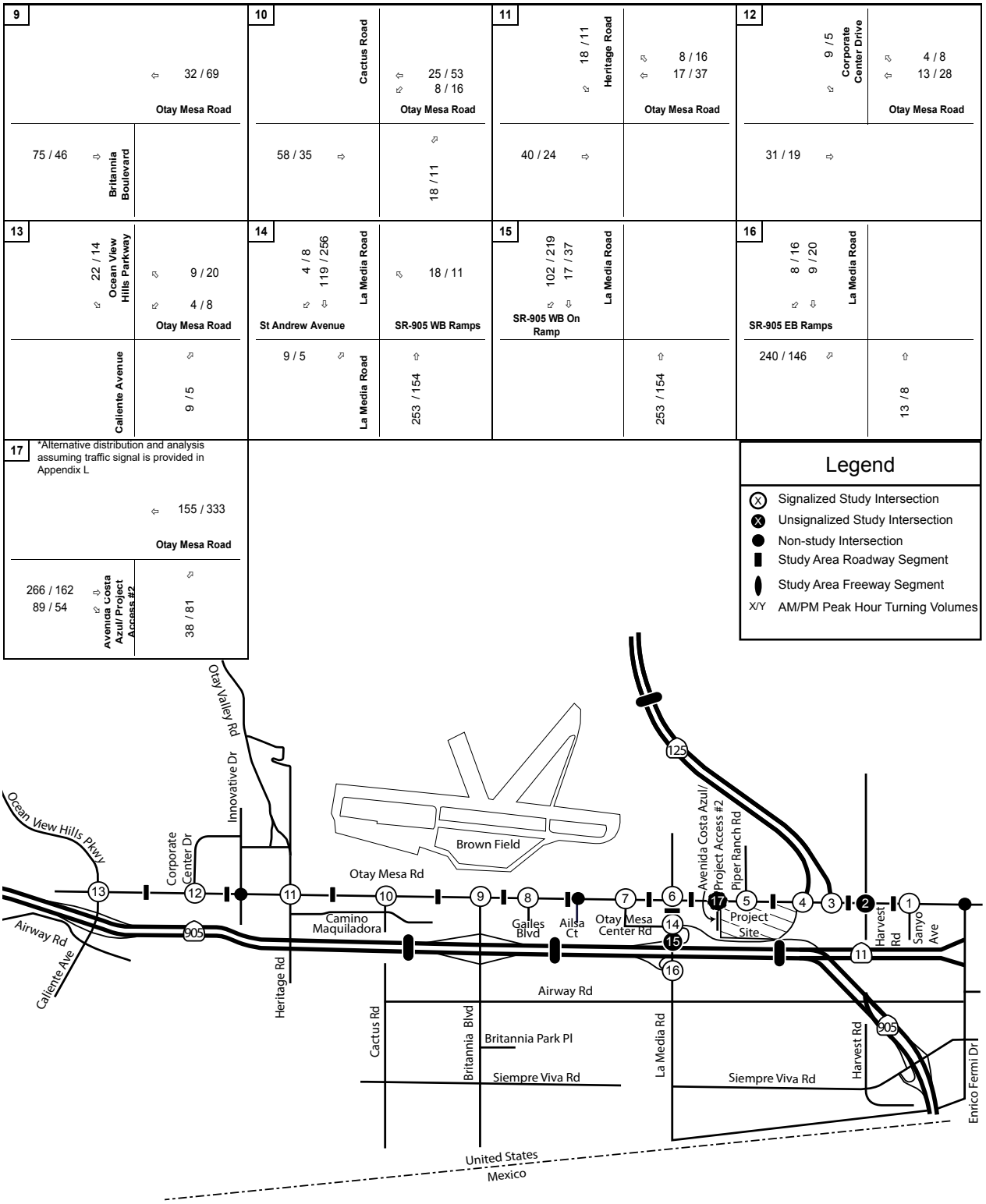
Trip Assignment For Phase 1
Existing & Near Term (2018)



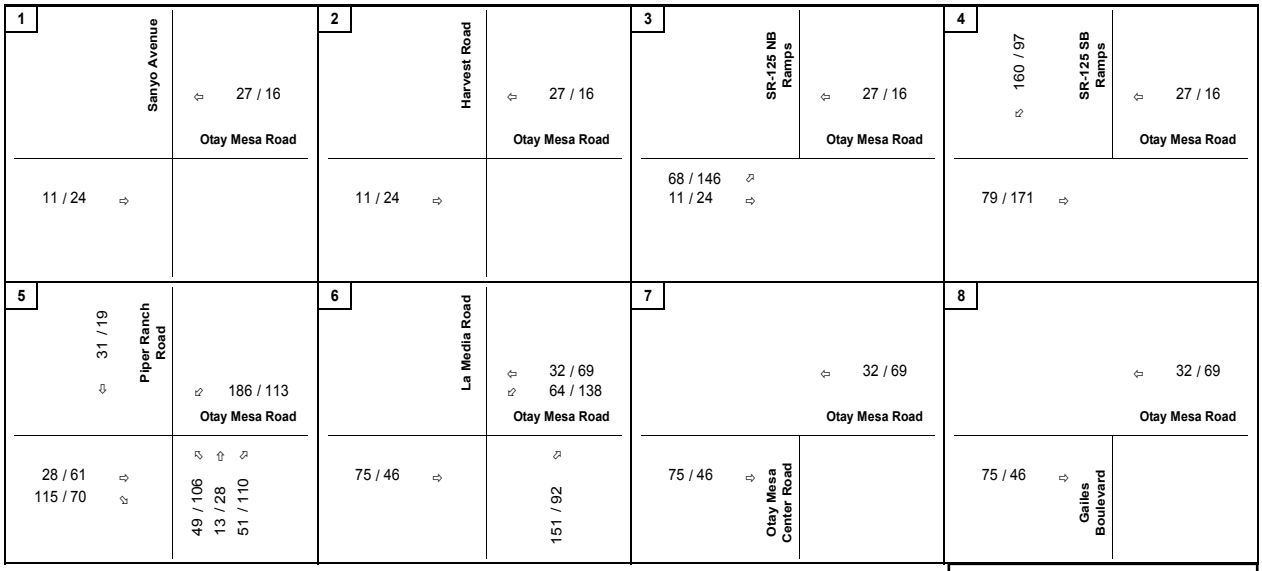
Trip Assignment For Phase 1
Existing & Near Term (2018) (cont.)



Trip Assignment For Phase 1 & 2
Existing Condition & Near Term (2020)

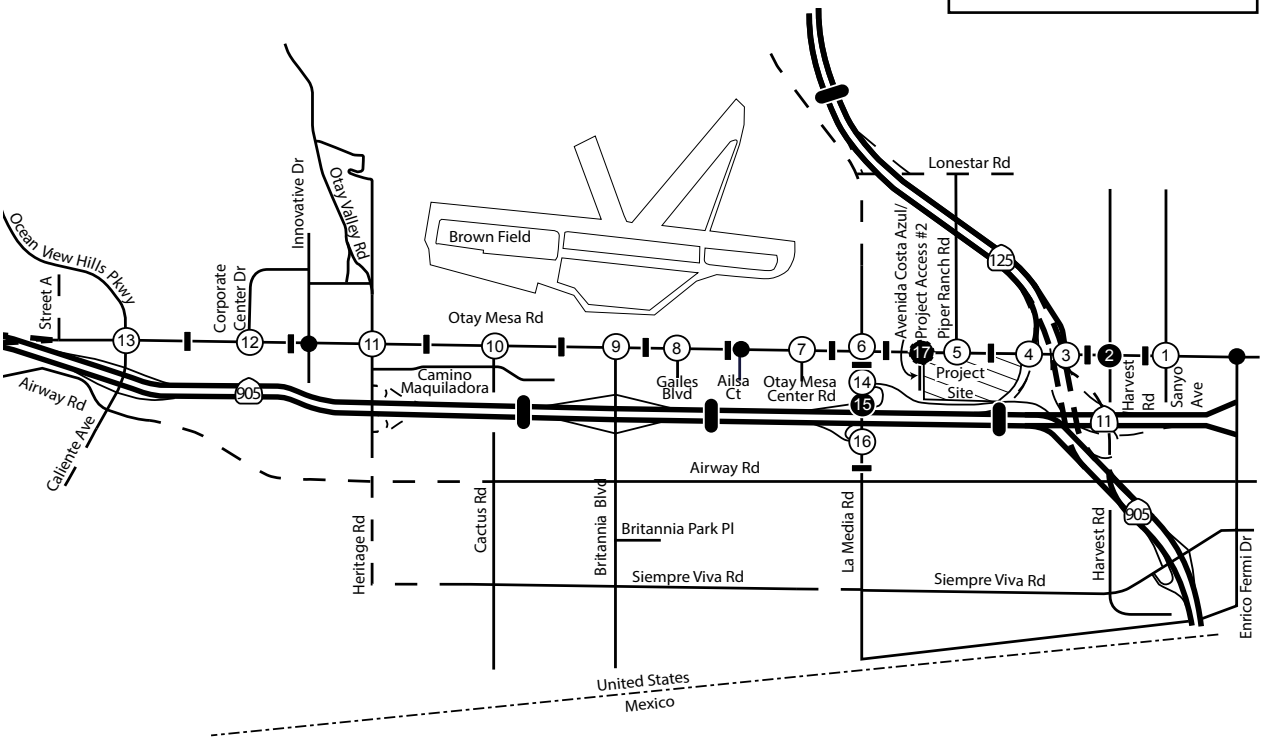


Trip Assignment For Phase 1 & 2
Existing & Near Term (2020) (cont.)

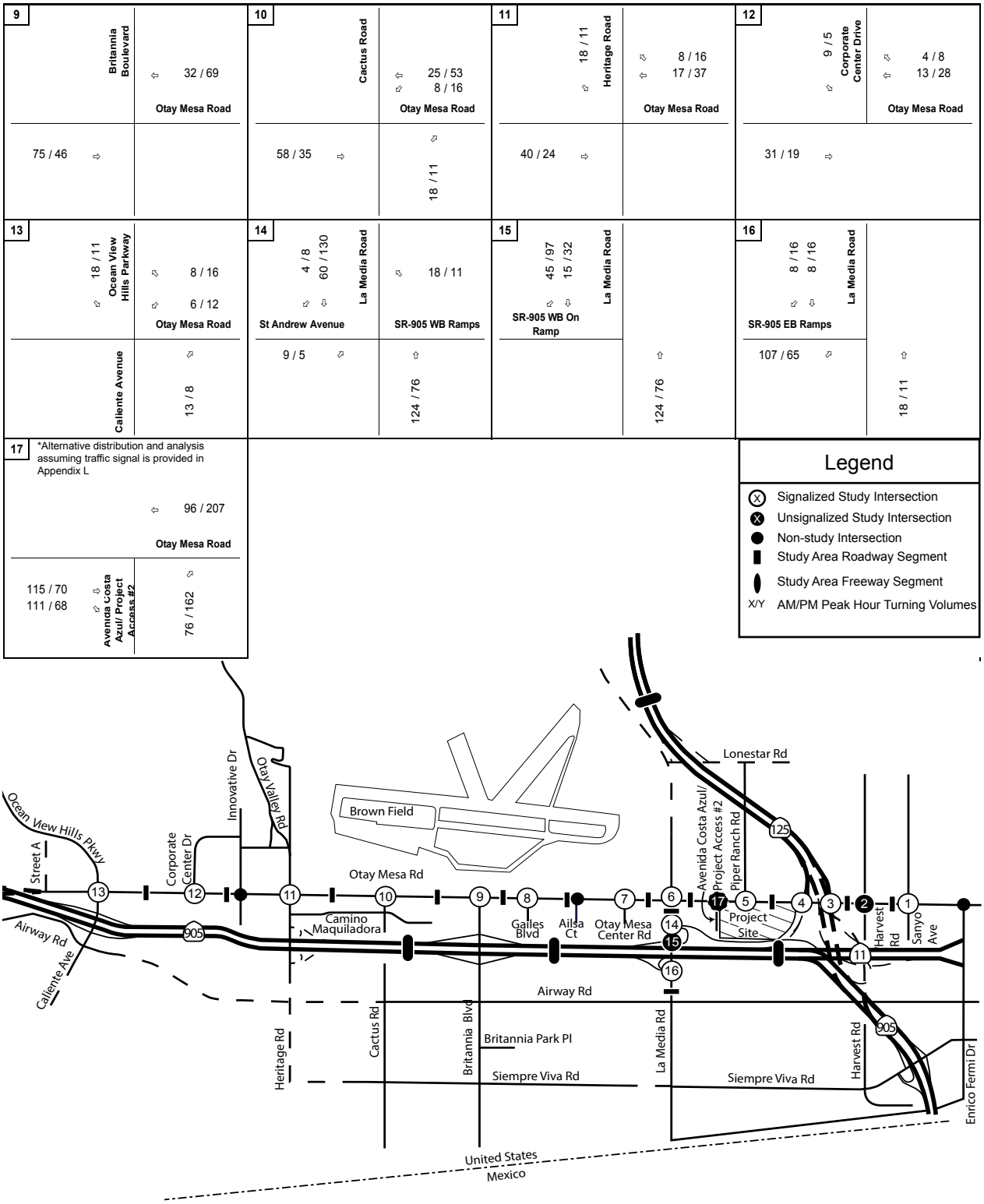


Legend

- Signalized Study Intersection
- Unsignalized Study Intersection
- Non-study Intersection
- Study Area Roadway Segment
- Study Area Freeway Segment
- X/Y AM/PM Peak Hour Turning Volumes



Trip Assignment For Phase 1 & 2
Horizon Year Conditions



Trip Assignment For Phase 1 & 2 Horizon Year Conditions (cont.)

5 EXISTING WITH PHASE 1 CONDITIONS

This section provides a description of the Existing Conditions with the addition of the Sunroad Otay Mesa Phase 1 project traffic which proposes the construction of Buildings 3 and 4 totaling approximately 369,820 square feet of warehousing.

5.1 TRAFFIC VOLUMES

Phase 1 of the project is expected to generate 1,849 Daily trips, with 277 trips (195 in, 82 out) during the AM Peak, and 296 trips (118 in, 178 out) during the PM Peak. Existing with Phase 1 Project Conditions volumes were determined by adding the project traffic assigned from Phase 1 to the Existing Conditions volumes. These volumes are shown in **Figures 5-1 & 5-2**.

5.2 ROADWAY NETWORK CHANGES

With the construction of the proposed project, the south leg of the intersection of Piper Ranch Road and Otay Mesa Road would be constructed as a private drive with two southbound lanes and two northbound lanes. Otay Mesa Road would be widened on the south side along the property frontage to provide a third eastbound through lane and an additional auxiliary lane between the future westerly project access and Piper Ranch Road to provide acceleration and deceleration area for project access points. The existing striped median along Otay Mesa Road east of Piper Ranch Road would be modified to provide a raised median and accommodate dual westbound left-turn lanes at the Piper Ranch Road intersection. The proposed changes at Piper Ranch Road match the recommendations made in the Otay Mesa Community Plan and would bring the segment to its ultimate classification. The existing traffic signal would be modified to accommodate these lane changes.

Figures 5-3 & 5-4 shows the geometrics of the study intersections with the addition of the Phase I improvements.

5.3 INTERSECTION ANALYSIS

Table 5-1 displays the LOS analysis results for the study intersections under the Existing with Phase 1 Project Conditions. As shown in the table, all intersections within the study area would operate at LOS D or better with the addition of the proposed project except for the following intersection.

- La Media Road & Otay Mesa Road (LOS F – AM and PM Peak)

The project was found to have a direct significant impact at this intersection that would require mitigation.

Appendix B contains the intersections LOS calculation worksheets.

Table 5–1 Existing with Phase 1 Project Conditions Intersection LOS Summary

INTERSECTION		PEAK HOUR	EXISTING BASELINE DELAY (a)	EXISTING BASELINE LOS (b)	EXISTING BASELINE PLUS PHASE 1 DELAY (a)	EXISTING BASELINE PLUS PHASE 1 LOS (b)	Δ (c)	SIGNIFICANT?
1	Sanyo Ave / Otay Mesa Rd	AM	10.8	B	10.8	B	0.0	NO
		PM	10.0	B	10.1	B	0.1	NO
2	Harvest Road / Otay Mesa Rd	AM	8.9	A	8.9	A	0.0	NO
		PM	12.1	B	12.1	B	0.0	NO
3	SR-125 NB / Otay Mesa Rd	AM	2.8	A	2.9	A	0.1	NO
		PM	7.3	A	7.4	A	0.1	NO
4	SR-125 SB / Otay Mesa Rd	AM	9.6	A	9.7	A	0.1	NO
		PM	8.2	A	8.2	A	0.0	NO
5	Piper Ranch Rd / Otay Mesa Rd	AM	11.3	B	18.2	B	6.9	NO
		PM	11.1	B	21.4	C	10.3	NO
6	La Media Rd / Otay Mesa Rd	AM	95.0	**F**	147.9	**F**	52.9	YES
		PM	123.0	**F**	ECL	**F**	-	YES
7	Otay Mesa Center Rd / Otay Mesa Rd	AM	9.8	A	9.6	A	-0.2	NO
		PM	7.0	A	6.9	A	-0.1	NO
8	Gailes Blvd / Otay Mesa Rd	AM	9.2	A	8.9	A	-0.3	NO
		PM	22.4	C	21.6	C	-0.8	NO
9	Britannia Blvd / Otay Mesa Rd	AM	26.5	C	25.7	C	-0.8	NO
		PM	33.8	C	33.0	C	-0.8	NO
10	Cactus Rd / Otay Mesa Rd	AM	18.3	B	18.1	B	-0.2	NO
		PM	21.7	C	21.8	C	0.1	NO
11	Heritage Rd / Otay Mesa Rd	AM	36.5	D	36.3	D	-0.2	NO
		PM	36.1	D	35.9	D	-0.2	NO
12	Corporate Center Dr / Otay Mesa Rd	AM	9.8	A	9.8	A	0.0	NO
		PM	12.3	B	12.4	B	0.1	NO
13	Ocean View Hills Pkwy/ Otay Mesa Rd	AM	14.9	B	15.1	B	0.2	NO
		PM	27.5	C	27.7	C	0.2	NO
14	La Media Rd / St Andrew Ave/SR-905 WB Off Ramp	AM	14.2	B	14.2	B	0.0	NO
		PM	14.7	B	14.7	B	0.0	NO
15	La Media Rd / SR-905 WB On Ramp	AM	No Conflicting Movements					NO
		PM						NO
16	La Media Rd / SR-905 EB	AM	8.8	A	9.1	A	0.3	NO
		PM	7.9	A	8.2	A	0.3	NO

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact. ECL = Exceeds Calculable Limit
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 9.0
(c) Change in delay due to addition of project traffic. Addition of project traffic may cause a decrease in delay at some locations. This counterintuitive result occurs when the volume being added to the intersection is on movements with less delay than the current overall intersection average delay, decreasing the overall intersection average delay.

5.4 ROADWAY SEGMENT ANALYSIS

Table 5-2 displays the roadway segments analysis under the Existing with Phase 1 Project Conditions. As shown in the table, all study roadway segments would continue to operate at LOS C or better with the addition of the proposed project. The project would not have any traffic impact along any of the roadway segments within the study area under this scenario.

5.5 FREEWAY SEGMENT ANALYSIS

Table 5-3 displays the freeway segments analysis under the Existing with Phase 1 Project Conditions. As shown in the table, all study freeway segments would continue to operate at LOS B or better with the addition of the proposed project. The project would not have any traffic-related impact along any of the freeway segments within the study area under this scenario.

5.6 FREEWAY RAMP METERING ANALYSIS

The SR-905 freeway ramps at La Media Road are not currently being metered and would not be expected to start metering until freeway segments show congestion that would require metering. No ramp metering analysis was performed for the Existing with Phase 1 Project Conditions.

5.7 FINDINGS AND CONCLUSIONS

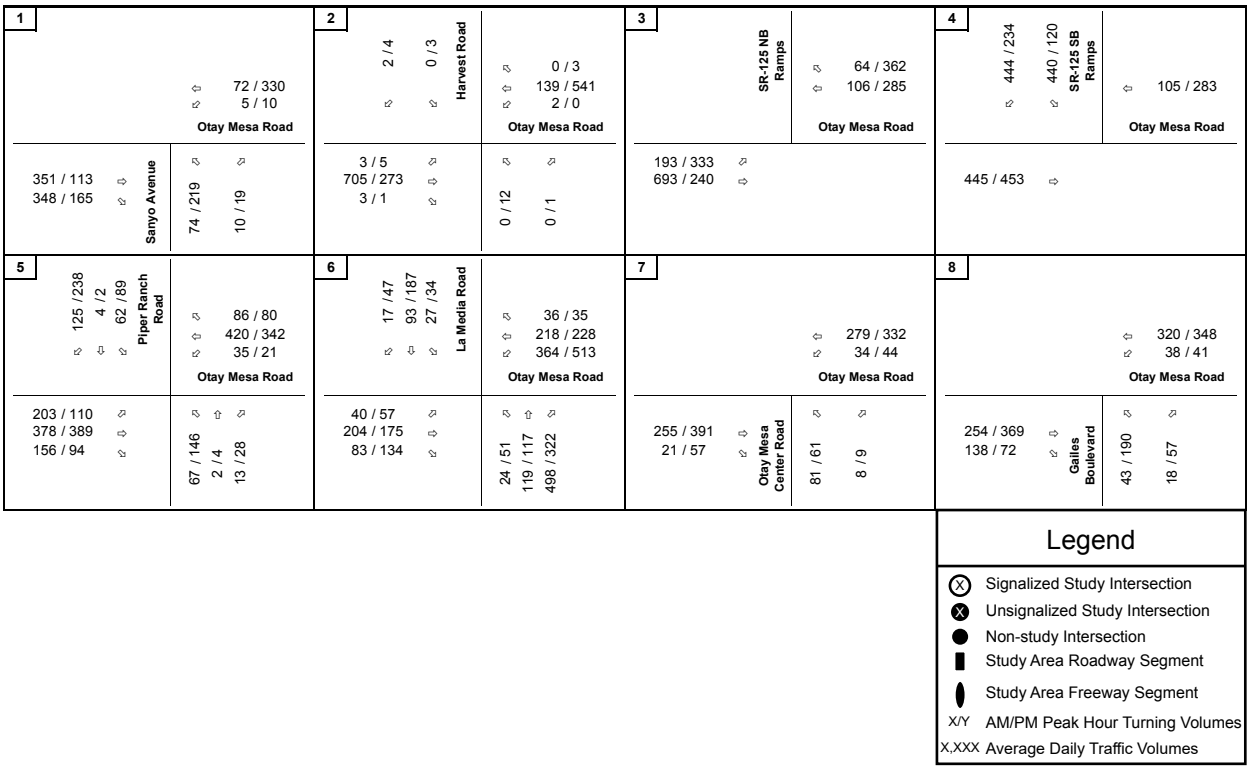
The results of the foregoing analysis indicate that the proposed Sunroad Otay Mesa project would require mitigation of Phase 1 project traffic under the Existing with Phase 1 project traffic scenario at the following intersection:

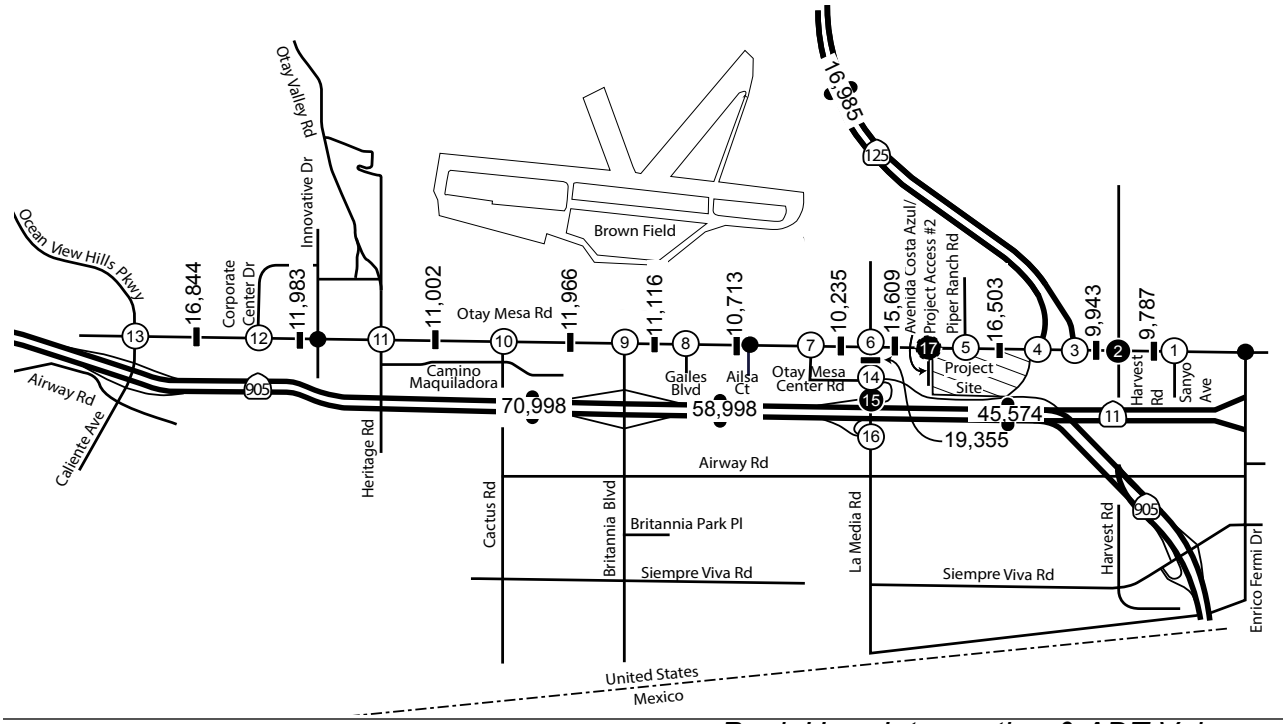
- La Media Road & Otay Mesa Road

To mitigate the proposed Phase 1 project traffic related impacts at La Media Road and Otay Mesa Road, an exclusive northbound right-turn lane would be required. The existing shared northbound through-right would remain. The resulting intersection geometry can be seen in **Figure 5-5**.

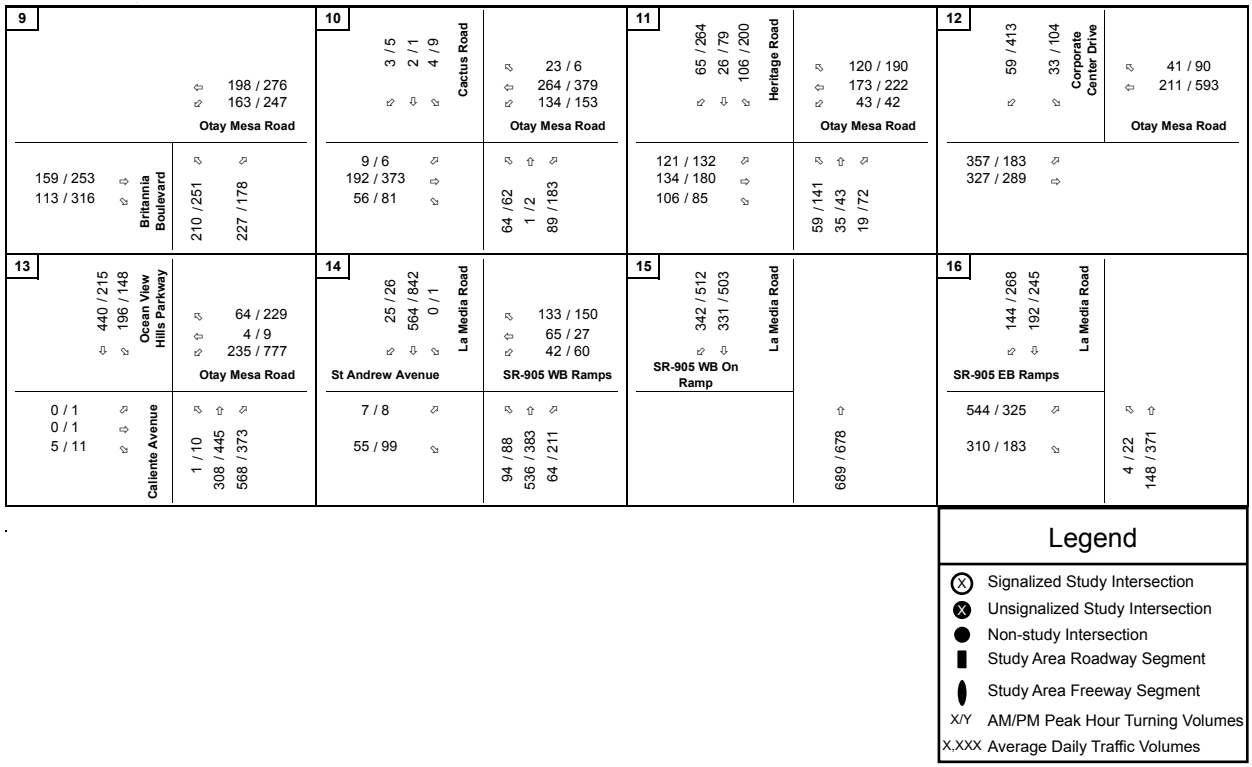
Table 5-4 shows the operations of the affected intersection with the proposed mitigation measures. As shown in the table, the intersection would improve to operating at an acceptable LOS D during both peak-hour periods analyzed.

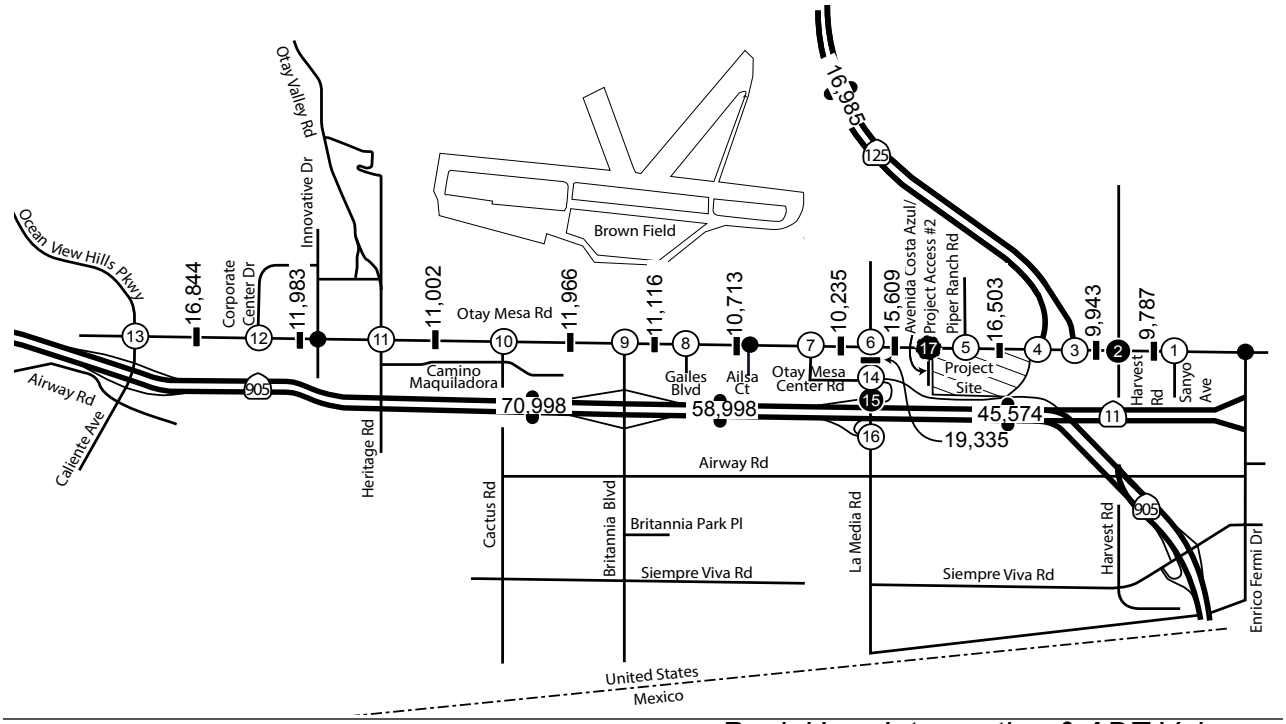
FIGURE 5-1



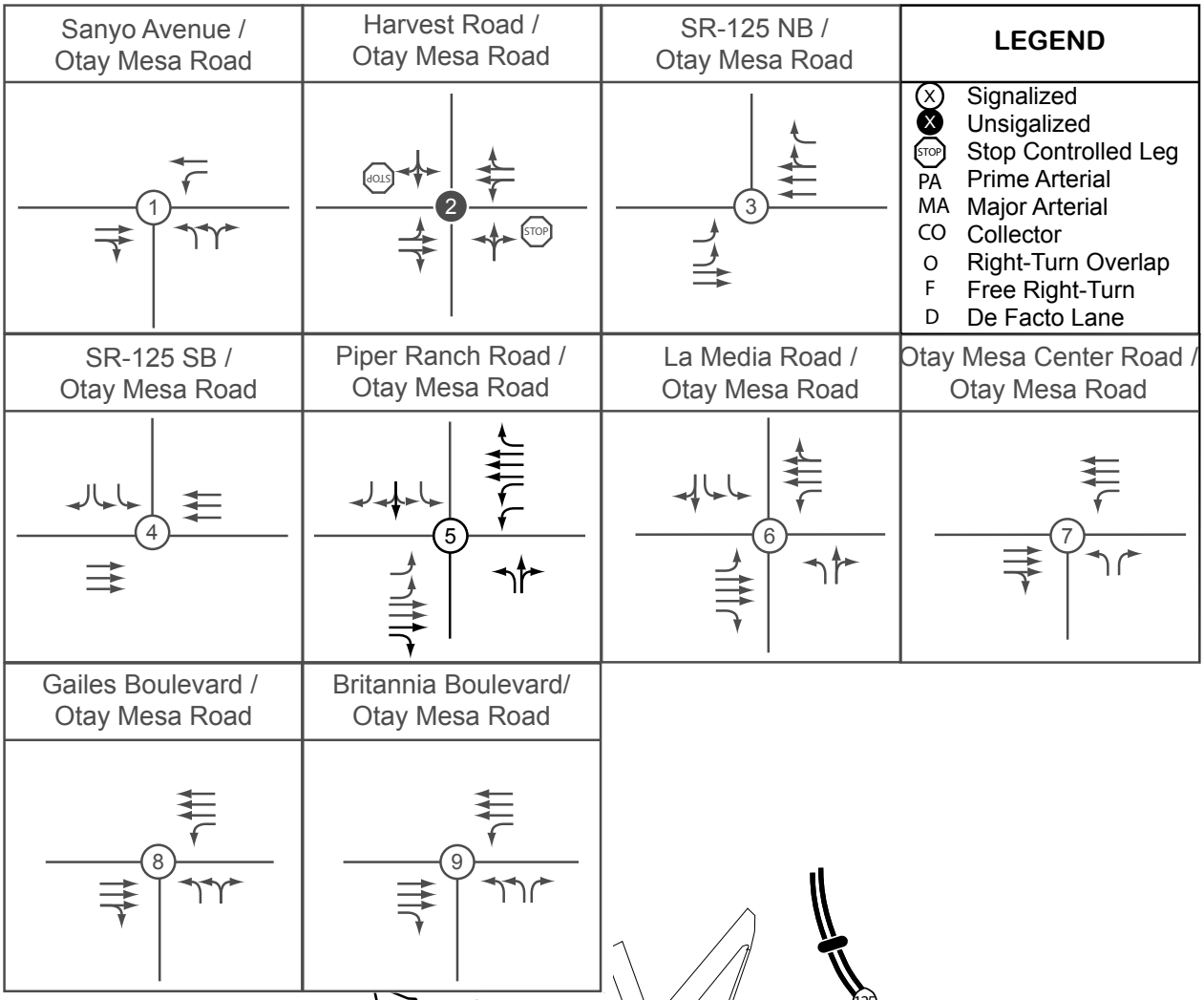


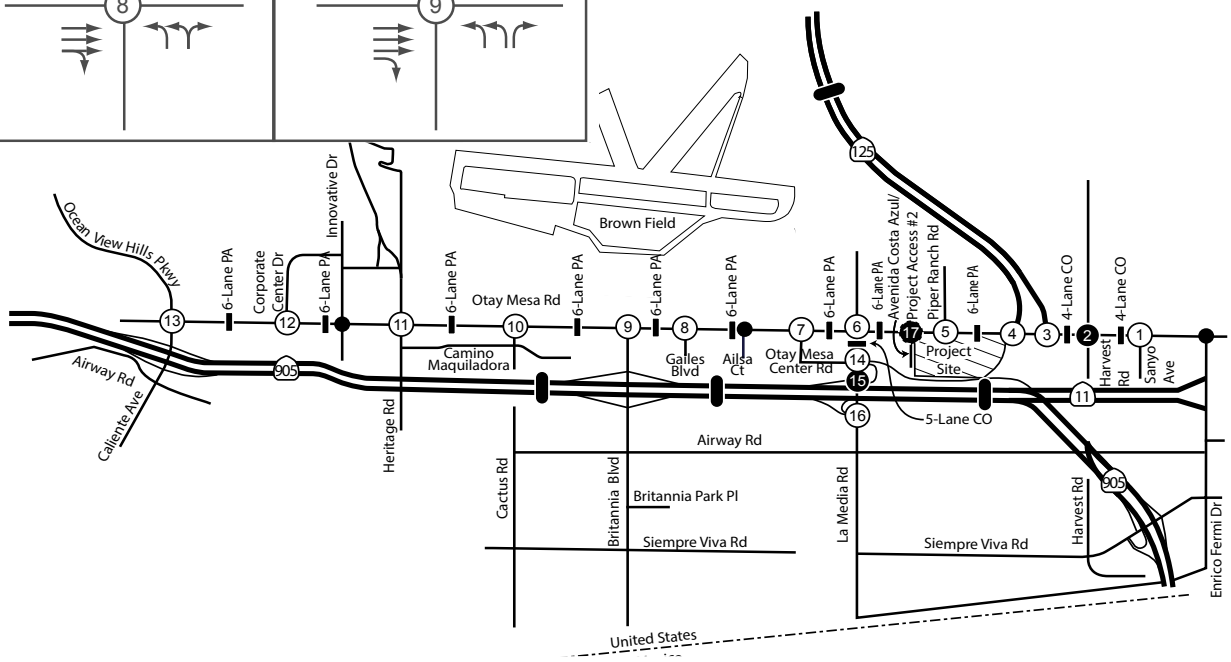
Peak Hour Intersection & ADT Volumes
Existing with Phase 1



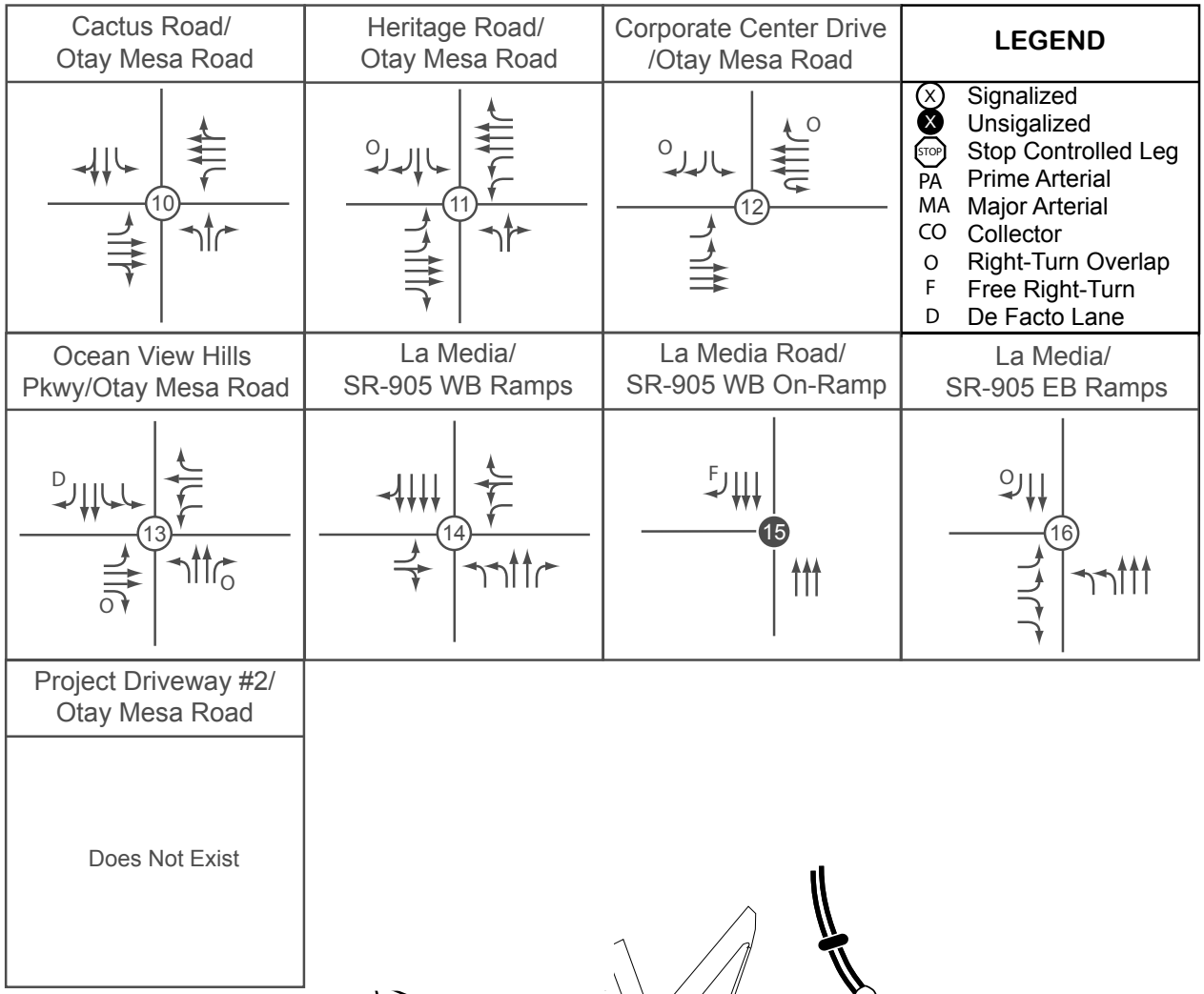


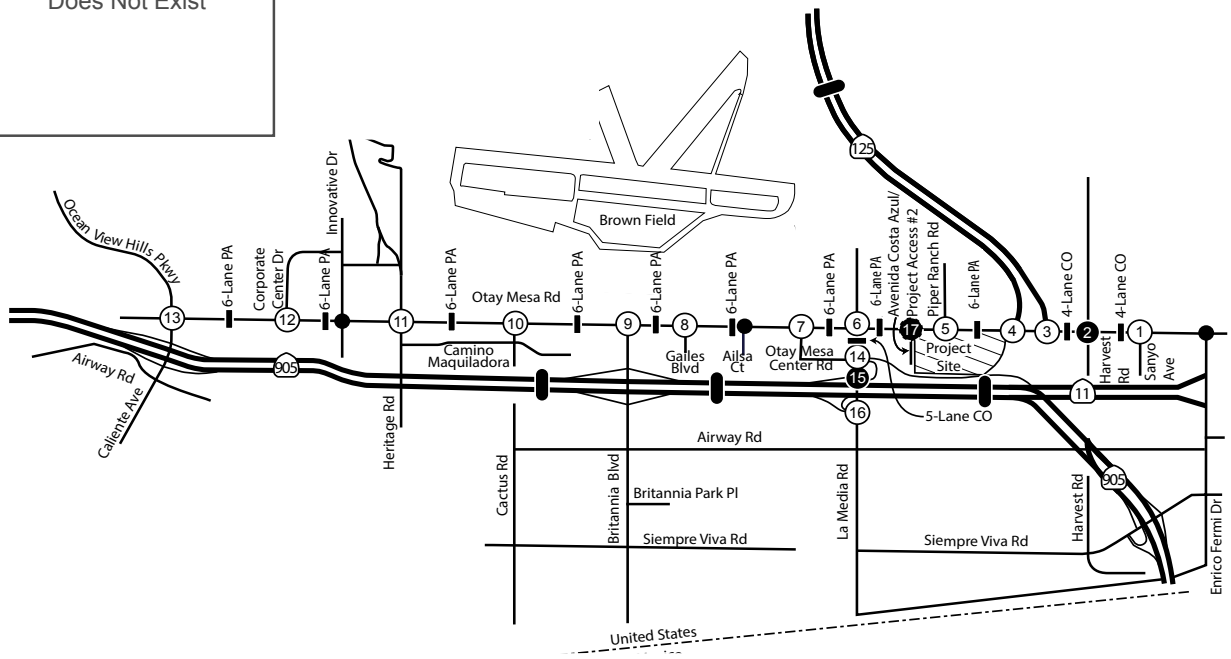
Peak Hour Intersection & ADT Volumes
Existing with Phase 1 (cont.)





Intersection and Roadway Segment Geometrics
Existing with Phase 1





Intersection and Roadway Segment Geometrics Existing with Phase 1 (cont.)

Table 5-2 Existing with Phase 1 Project Conditions Roadway Segment LOS Summary

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	EXISTING BASELINE			EXISTING PLUS PHASE 1			Δ in ADT	Δ in V/C	SIGNIFICANT?
			ADT	V/C RATIO (a)	LOS	ADT	V/C RATIO (a)	LOS			
Otay Mesa Road											
Sanyo Road to Harvest Road	4 Lane Collector	30,000	9,639	0.321	A	9,787	0.326	A	148	0.005	NO
Harvest Road to SR-125 NB Ramp	4 Lane Collector	30,000	9,795	0.327	A	9,943	0.331	A	148	0.004	NO
SR-125 NB Ramp to SR-125 SB Ramp	5 Lane Collector	37,500	12,419	0.331	A	12,752	0.34	B	333	0.009	NO
SR-125 SB Ramp to Piper Ranch Road	5 Lane Collector	37,500	16,170	0.431	B				333	-0.156	NO
	6 Lane Prime Arterial	60,000				16,503	0.275	A			
Piper Ranch Road to Avenida Costa Azul/Project Access #2	5 Lane Prime Arterial	50,000	14,093	0.282	A				1516	-0.022	NO
	6 Lane Prime Arterial	60,000				15,609	0.26	A			
Avenida Costa Azul/Project Access #2 to La Media Road	5 Lane Prime Arterial	50,000	14,093	0.282	A				1516	-0.022	NO
	6 Lane Prime Arterial	60,000				15,609	0.26	A			
La Media Road to Otay Mesa Center Road	6 Lane Prime Arterial	60,000	9,921	0.165	A	10,235	0.171	A	314	0.006	NO
Otay Mesa Center Road to Gailes Boulevard	6 Lane Prime Arterial	60,000	10,399	0.173	A	10,713	0.179	A	314	0.006	NO
Gailes Boulevard to Britannia Boulevard	6 Lane Prime Arterial	60,000	10,802	0.18	A	11,116	0.185	A	314	0.005	NO
Britannia Boulevard to Cactus Road	6 Lane Prime Arterial	60,000	11,652	0.194	A	11,966	0.199	A	314	0.005	NO
Cactus Road to Heritage Road	6 Lane Prime Arterial	60,000	10,762	0.179	A	11,002	0.183	A	240	0.004	NO
Heritage Road to Corporate Center Drive	6 Lane Prime Arterial	60,000	11,817	0.197	A	11,983	0.2	A	166	0.003	NO
Corporate Center Drive to Ocean View Hills Parkway	6 Lane Prime Arterial	60,000	16,715	0.279	A	16,844	0.281	A	129	0.002	NO
La Media Road											
Otay Mesa Road to SR-905	5 Lane Collector	37,500	18,170	0.485	C	19,335	0.516	C	1165	0.031	NO
SR-905 WB Ramps to SR-905 EB Ramps	5 Lane Collector	37,500	16,415	0.438	B	16,470	0.439	B	55	0.001	NO

Notes:

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

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Table 5-3 Existing with Phase 1 Project Conditions Freeway Segment LOS Summary

FREEWAY SEGMENT	DIRECTION	NUMBER OF LANES	CAPACITY (a)	EXISTING				EXISTING PLUS PHASE 1				V/C RATIO Δ	SIGNIFICANT?
				ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS	ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS		
AM PEAK													
SR 905													
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	70,000	2,041	0.231	A	70,998	2,070	0.234	A	0.003	--
	EB	3 M + 1 A	8,850		4,005	0.453	B		4,062	0.459	B	0.006	--
Britannia Boulevard to La Media Road	WB	3 M	7,050	58,000	1,691	0.240	A	58,998	1,720	0.244	A	0.004	--
	EB	3 M + 1 A	8,850		3,318	0.375	A		3,375	0.381	A	0.006	--
La Media Road to Siempre Viva Road	WB	3 M	7,050	45,500	1,327	0.188	A	45,574	1,329	0.188	A	0.000	--
	EB	3 M + 1 A	8,850		2,603	0.294	A		2,607	0.295	A	0.000	--
SR 125													
Otay Mesa Road to Birch Road	NB	2 M	4,700	16,800	2466	0.525	B	16,985	2,493	0.530	B	0.006	--
	SB	2 M	4,700		887	0.189	A		896	0.191	A	0.002	--
PM PEAK													
SR 905													
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	70,000	4211	0.476	B	70,998	4,271	0.483	B	0.007	--
	EB	3 M + 1 A	8,850		2955	0.334	A		2,997	0.339	A	0.005	--
Britannia Boulevard to La Media Road	WB	3 M	7,050	58,000	3489	0.495	B	58,998	3,549	0.503	B	0.009	--
	EB	3 M + 1 A	8,850		2449	0.277	A		2,491	0.281	A	0.005	--
La Media Road to Siempre Viva Road	WB	3 M	7,050	45,500	2737	0.388	A	45,574	2,741	0.389	A	0.001	--
	EB	3 M + 1 A	8,850		1921	0.217	A		1,924	0.217	A	0.000	--
SR 125													
Otay Mesa Road to Birch Road	NB	2 M	4,700	16,800	1071	0.228	A	16,985	1,083	0.230	A	0.003	--
	SB	2 M	4,700		2465	0.524	B		2,492	0.530	B	0.006	--

Notes:

(a) The capacity is calculated as 2,350 ADT per main lane and 1,800 ADT per auxiliary lane to be consistent with the Otay Mesa Community Plan Transportation Analysis

(b) Traffic volumes for SR 905 obtained from published year 2016 traffic count data from Caltrans. Traffic volumes for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report.

(c) Peak-hour volume calculated by: (ADT*K*D)/Truck Factor. K and D values consistent from Table 3-3.

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Table 5-4 Mitigation for Existing with Phase 1 Project Conditions Intersection LOS Summary

INTERSECTION		PEAK HOUR	EXISTING		EXISTING PLUS PROJECT PHASE 1 BEFORE IMPROVEMENT		EXISTING PLUS PROJECT PHASE 1 AFTER IMPROVEMENT		DESCRIPTION
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
6	La Media & Otay Mesa Road	AM	95.0	**F**	147.9	**F**	49.2	D	Add additional exclusive northbound right-turn lane
		PM	123.0	**F**	ECL	**F**	53.8	D	

Notes:

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 9.0

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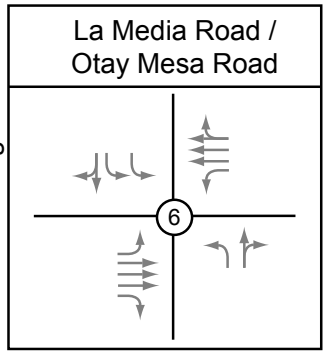
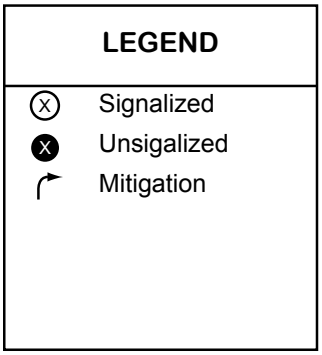
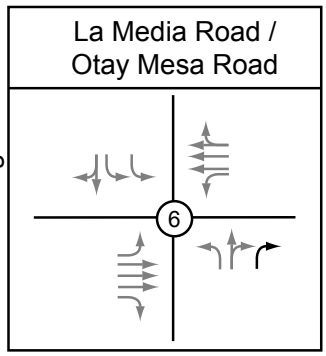
FIGURE 5-5

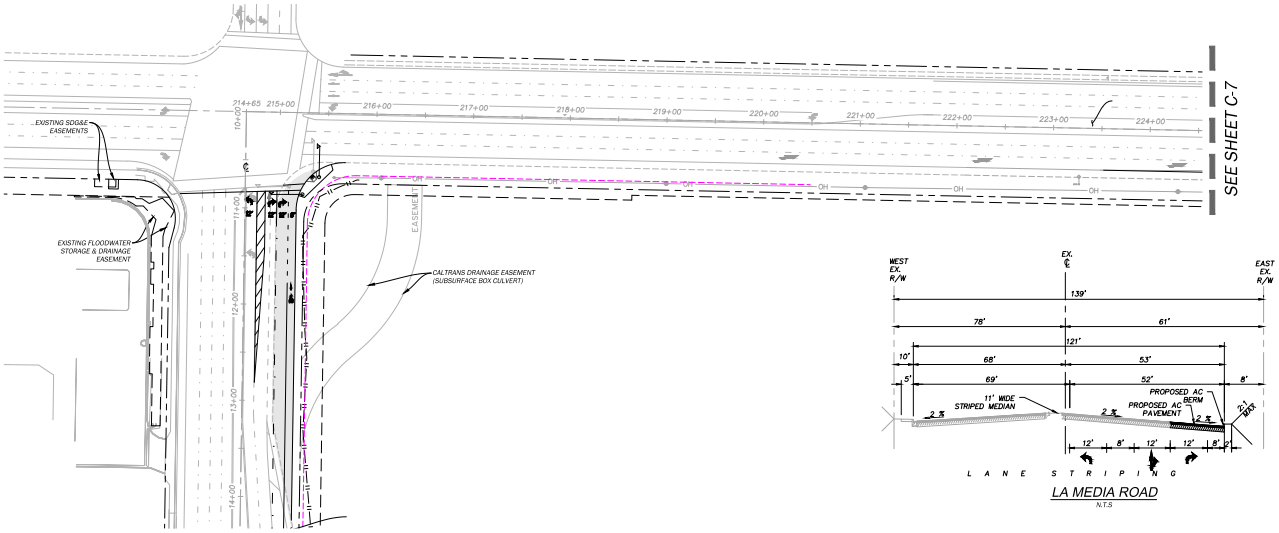
Existing & Near Term with Phase 1 & 2 Before Mitigation





Existing & Near Term with Phase 1 & 2 After Mitigation





Mitigation for Existing with Phase 1 Intersection Geometry

6 EXISTING WITH PHASE 1 & 2 CONDITIONS

This section provides a description of the Existing Conditions with the addition of the Sunroad Otay Mesa Phase 1 and 2 project traffic (completed Sunroad project). Phase 2 proposes the construction of Buildings 1 and 2 totaling approximately 475,230 square feet of warehousing.

6.1 TRAFFIC VOLUMES

Phase 1 and 2 of the project are expected to generate 4,225 Daily trips, with 633 trips (444 in, 189 out) during the AM Peak, and 676 trips (270 in, 406 out) during the PM Peak. Existing with Phase 1 and 2 Project Conditions volumes were determined by adding the project traffic assigned from Phase 1 and 2 to the Existing Conditions volumes. These volumes are shown in **Figures 6-1 & 6-2**.

6.2 ROADWAY NETWORK CHANGES

Phase 1 of the project would modify the intersection of Piper Ranch Road and Otay Mesa Road to develop the south leg as a private drive, as described in Chapter 5.

Phase 2 of the project would construct a second access point to the site that would be a right-in, right-out only intersection at the location of the planned Avenida Costa Azul city street, which will be vacated as part of a Community Plan Amendment. The intersection would be unsignalized, with the project access required to stop. An auxiliary lane for vehicle acceleration would be provided as part of Phase 1 for vehicles turning right onto Otay Mesa Road. The driveway will be able to operate independently for the proposed project, but will be designed in coordination with the adjacent property owner to the west to ultimately accommodate a shared access driveway. The full buildout of the shared access driveway is expected to be signalized in the future. Synchro HCM analysis was completed to confirm the LOS results for the full buildout of the shared access driveway would operate at LOS D or better. The results of this analysis can be found in **Appendix** L. These resulting intersection changes are shown in **Figure 6-3 & 6-4.**

6.3 INTERSECTION ANALYSIS

Table 6-1 displays the LOS analysis results for the study intersections under the Existing with Phase 1 and 2 Project Conditions. As shown in the table, all intersections within the study area would operate at LOS D or better with the addition of the proposed project except for the following intersection.

- La Media Road & Otay Mesa Road (LOS F – AM and PM Peak)

The project was found to have a direct significant impact at this intersection that would require mitigation.

Appendix B contains the intersections LOS calculation worksheets.

Table 6–1 Existing with Phase 1 & 2 Project Conditions Intersection LOS Summary

INTERSECTION		PEAK HOUR	EXISTING BASELINE DELAY (a)	EXISTING BASELINE LOS (b)	EXISTING PLUS PHASE 1 & 2 DELAY (a)	EXISTING PLUS PHASE 1 & 2 LOS (b)	Δ (c)	SIGNIFICANT?
1	Sanyo Ave / Otay Mesa Rd	AM	10.8	B	10.7	B	-0.1	NO
		PM	10.0	B	10.1	B	0.1	NO
2	Harvest Road / Otay Mesa Rd	AM	8.9	A	9.0	A	0.1	NO
		PM	12.1	B	12.3	B	0.2	NO
3	SR-125 NB / Otay Mesa Rd	AM	2.8	A	3.0	A	0.2	NO
		PM	7.3	A	7.6	A	0.3	NO
4	SR-125 SB / Otay Mesa Rd	AM	9.6	A	9.8	A	0.2	NO
		PM	8.2	A	8.3	A	0.1	NO
5	Piper Ranch Rd / Otay Mesa Rd	AM	11.3	B	20.8	C	9.5	NO
		PM	11.1	B	26.6	C	15.5	NO
6	La Media Rd / Otay Mesa Rd	AM	95.0	**F**	ECL	**F**	-	**YES**
		PM	123.0	**F**	ECL	**F**	-	**YES**
7	Otay Mesa Center Rd / Otay Mesa Rd	AM	9.8	A	9.3	A	-0.5	NO
		PM	7.0	A	6.7	A	-0.3	NO
8	Gailes Blvd / Otay Mesa Rd	AM	9.2	A	8.5	A	-0.7	NO
		PM	22.4	C	20.7	C	-1.7	NO
9	Britannia Blvd / Otay Mesa Rd	AM	26.5	C	24.7	C	-1.8	NO
		PM	33.8	C	32.1	C	-1.7	NO
10	Cactus Rd / Otay Mesa Rd	AM	18.3	B	18.3	B	0.0	NO
		PM	21.7	C	20.5	C	-1.2	NO
11	Heritage Rd / Otay Mesa Rd	AM	36.5	D	36.0	D	-0.5	NO
		PM	36.1	D	35.6	D	-0.5	NO
12	Corporate Center Dr / Otay Mesa Rd	AM	9.8	A	9.9	A	0.1	NO
		PM	12.3	B	12.5	B	0.2	NO
13	Ocean View Hills Pkwy/ Otay Mesa Rd	AM	14.9	B	15.3	B	0.4	NO
		PM	27.5	C	27.9	C	0.4	NO
14	La Media Rd / St Andrew Ave/SR-905 WB Off Ramp	AM	14.2	B	14.3	B	0.1	NO
		PM	14.7	B	14.8	B	0.1	NO
15	La Media Rd / SR-905 WB On Ramp	AM	No Conflicting Movements					NO
		PM						NO
16	La Media Rd / SR-905 EB	AM	8.8	A	9.5	A	0.7	NO
		PM	7.9	A	8.6	A	0.7	NO
17	Avenida Costa Azul (Project Access #2)/ Otay Mesa Rd	AM	Not Constructed		10.8	B	-	NO
		PM			11.2	B	-	NO

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact. ECL= Exceeds Calculable Limit.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 9.0
(c) Change in delay due to addition of project traffic. Addition of project traffic may cause a decrease in delay at some locations. This counterintuitive result occurs when the volume being added to the intersection is on movements with less delay than the current overall intersection average delay, decreasing the overall intersection average delay.

6.4 ROADWAY SEGMENT ANALYSIS

Table 6-2 displays the roadway segments analysis under the Existing with Phase 1 & 2 Project Conditions. As shown in the table, all study roadway segments would continue to operate at LOS C or better with the addition of the proposed project. The project would not have any traffic impact along any of the roadway segments within the study area under this scenario.

6.5 FREEWAY SEGMENT ANALYSIS

Table 6-3 displays the freeway segments analysis under the Existing with Phase 1 & 2 Project Conditions. As shown in the table, all study freeway segments would continue to operate at LOS B or better with the addition of the proposed project. The project would not have any traffic impact along any of the freeway segments within the study area under this scenario.

6.6 FREEWAY RAMP METERING ANALYSIS

The SR-905 freeway ramps at La Media Road are not currently being metered and would not be expected to start metering until freeway segments show congestion that would require metering. No ramp metering analysis was performed for the Existing with Phase 1 & 2 Project Conditions.

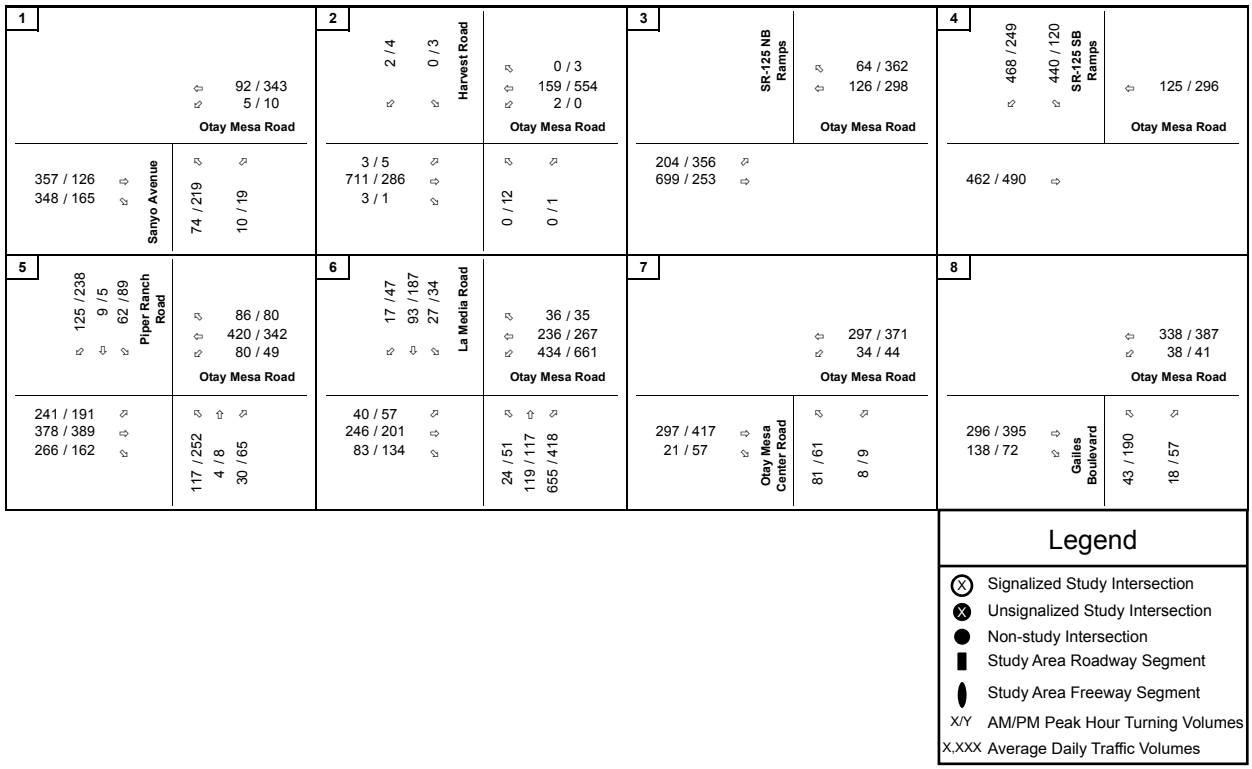
6.7 FINDINGS AND CONCLUSIONS

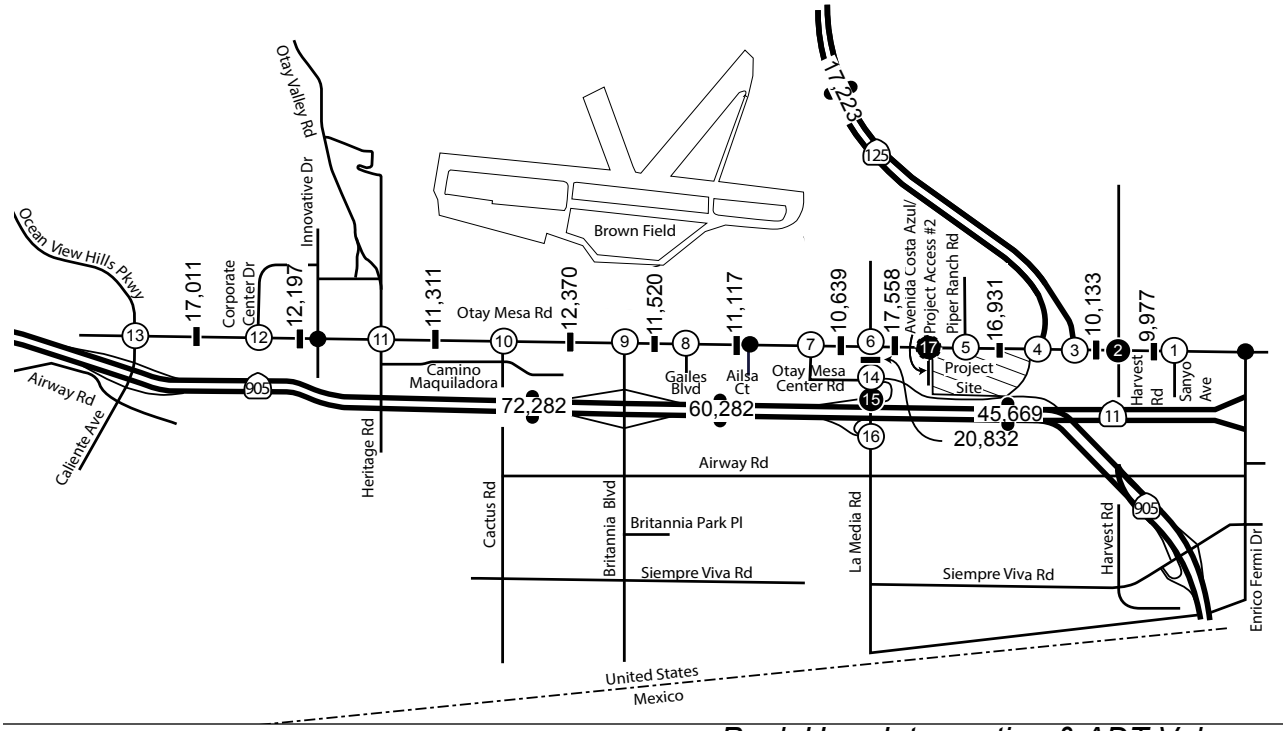
The results of the foregoing analysis indicate that the proposed Sunroad Otay Mesa project would require mitigation of Phase 1 & 2 project traffic under the Existing with Phase 1 & 2 project traffic scenario at the following intersection:

- La Media Road & Otay Mesa Road

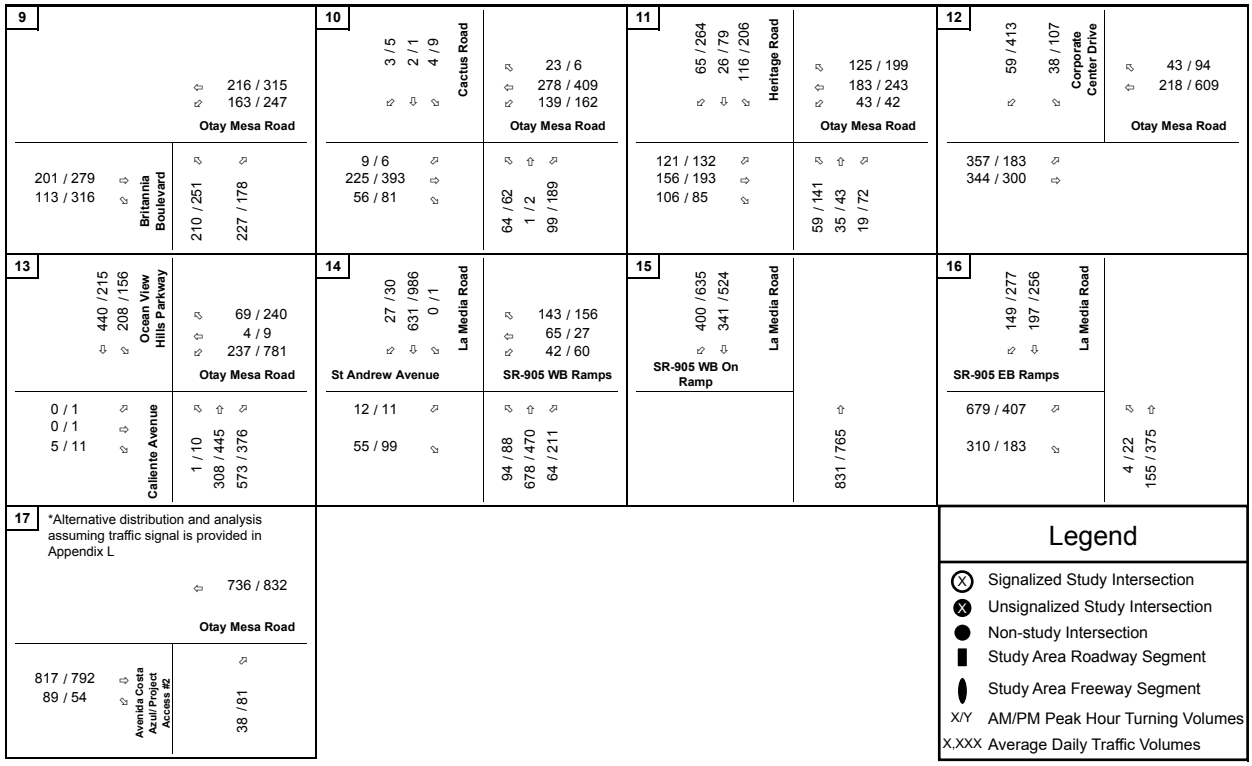
To mitigate the proposed Phase 1 & 2 project traffic impacts at La Media Road and Otay Mesa Road, a northbound right-turn lane is needed in addition to existing shared northbound thru-right-turn lane. This is the same impact and mitigation that was identified under the Existing Plus Phase 1 scenario as a direct impact. No additional direct impacts were identified with addition of Phase 2 project traffic. The resulting intersection geometry can be seen in Figure 5-5.

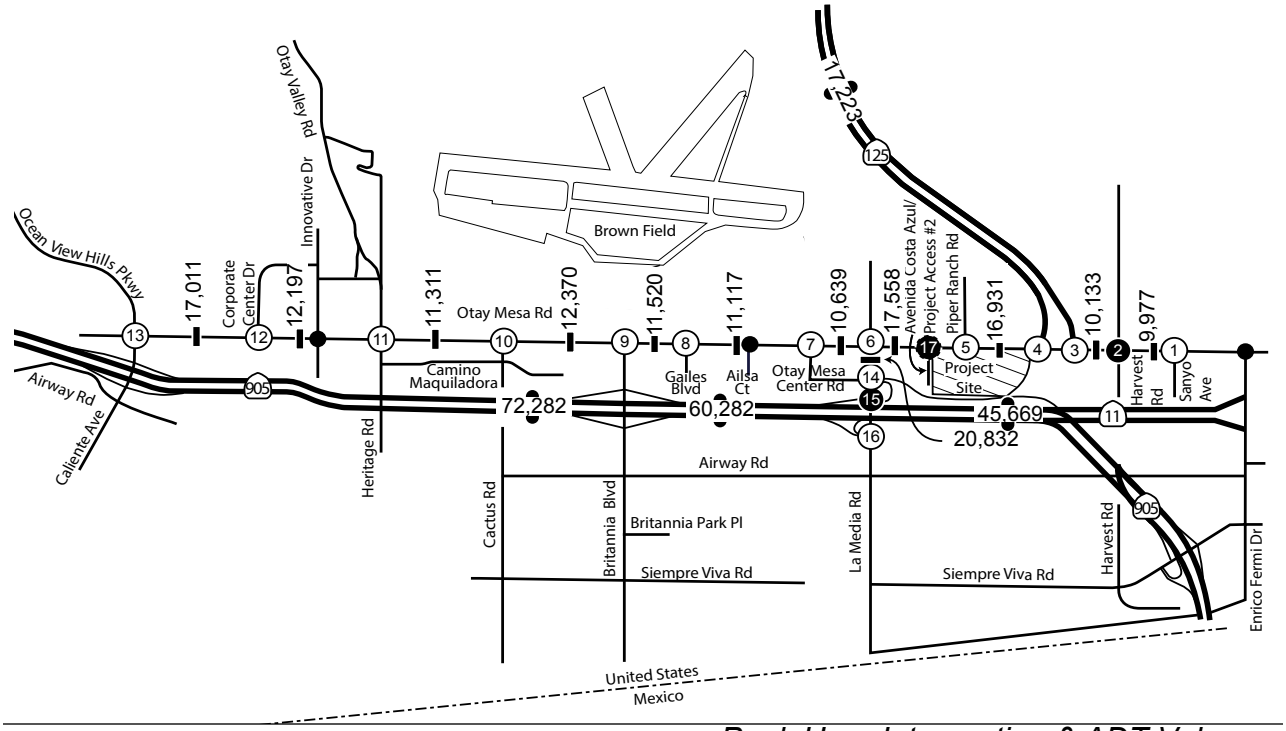
Table 6-4 shows the operations of the affected intersection with the proposed mitigation measures. As shown in the table, the intersection would improve to operating better than pre-project conditions. The intersection would operate at LOS D in the morning and LOS E in the afternoon peak-hours.



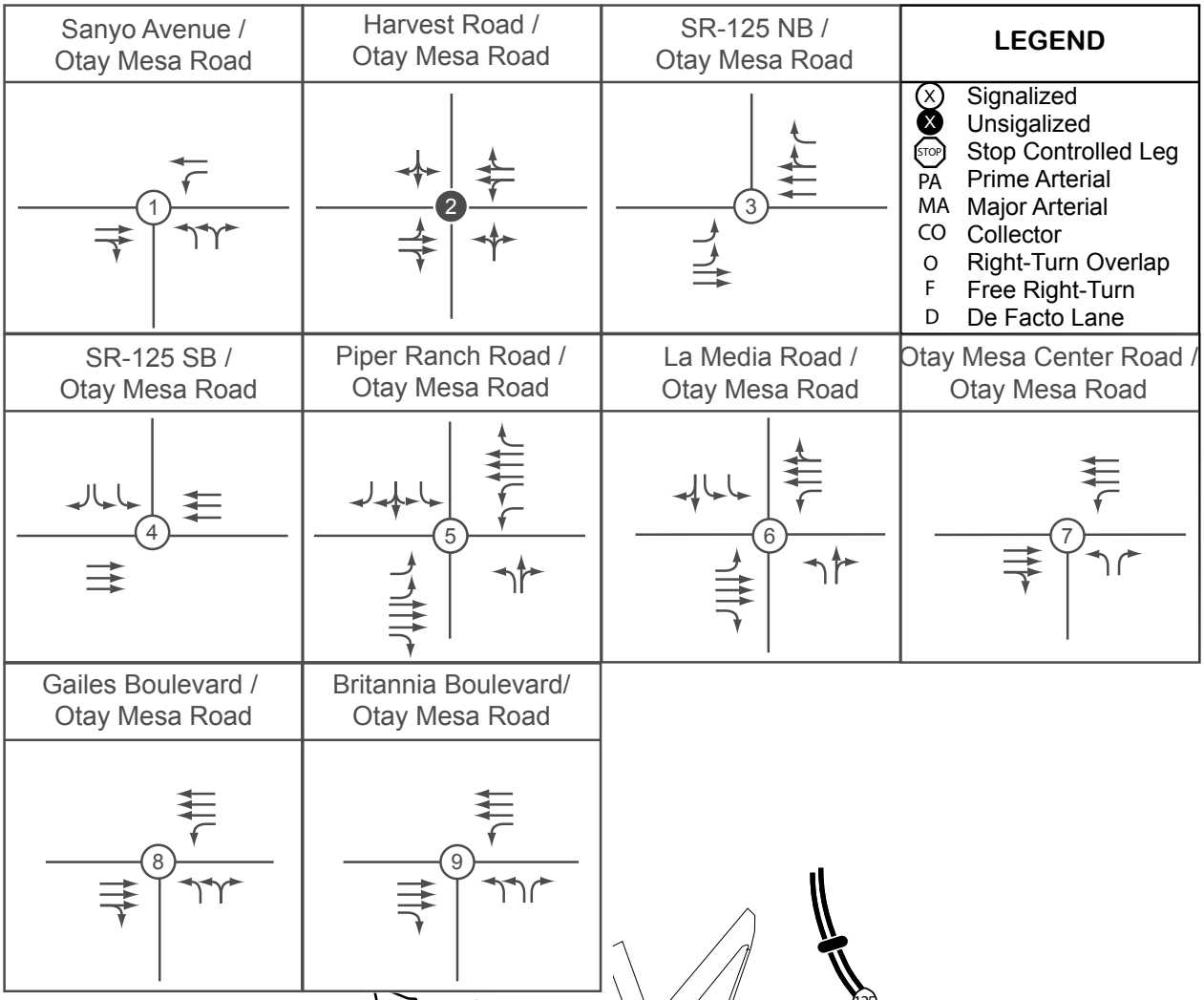


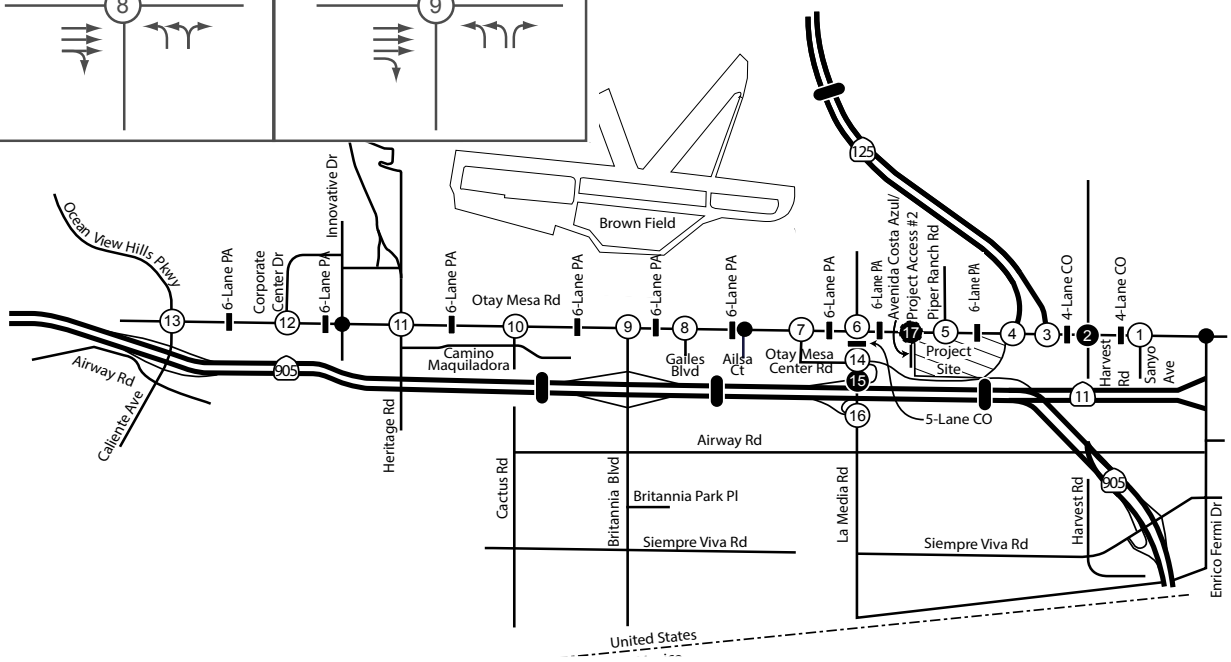
Peak Hour Intersection & ADT Volumes
Existing with Phase 1 & 2



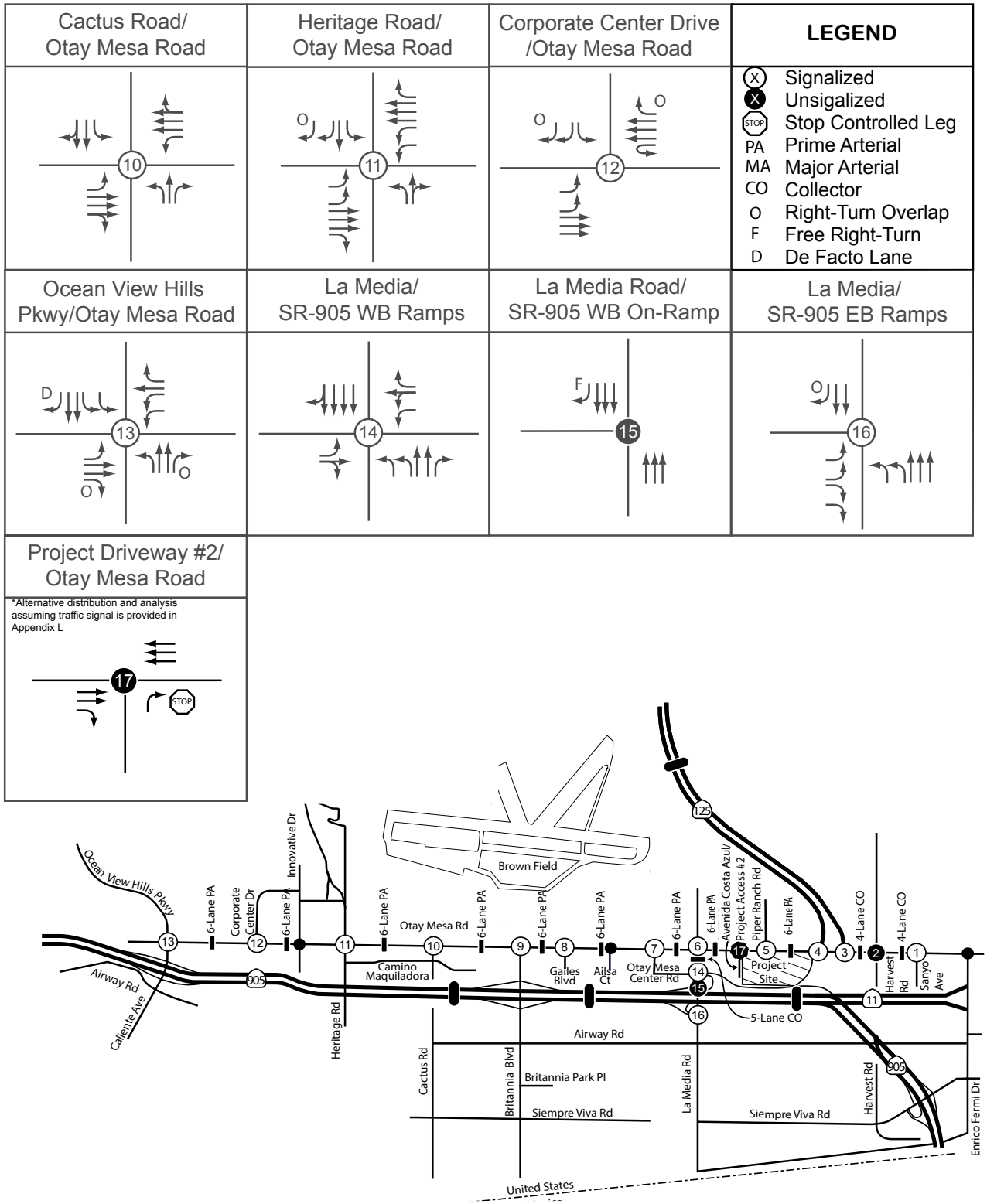


Peak Hour Intersection & ADT Volumes
Existing with Phase 1 & 2 (cont.)





Intersection and Roadway Segment Geometrics
Existing with Phase 1 & 2



Intersection and Roadway Segment Geometrics Existing with Phase 1 & 2 (cont.)

Table 6-2 Existing with Phase 1 & 2 Project Conditions Roadway Segment LOS Summary

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	EXISTING BASELINE			EXISTING PLUS PHASE 1			Δ in ADT	Δ in V/C	SIGNIFICANT?
			ADT	V/C RATIO (a)	LOS	ADT	V/C RATIO (a)	LOS			
Otay Mesa Road											
Sanyo Road to Harvest Road	4 Lane Collector	30,000	9,639	0.321	A	9,977	0.333	A	338	0.012	NO
Harvest Road to SR-125 NB Ramp	4 Lane Collector	30,000	9,795	0.327	A	10,133	0.338	B	338	0.011	NO
SR-125 NB Ramp to SR-125 SB Ramp	5 Lane Collector	37,500	12,419	0.331	A	13,180	0.351	B	761	0.020	NO
SR-125 SB Ramp to Piper Ranch Road	5 Lane Collector	37,500	16,170	0.431	B				761	-0.149	NO
	6 Lane Prime Arterial	60,000				16,931	0.282	A			
Piper Ranch Road to Avenida Costa Azul/Project Access #2	5 Lane Prime Arterial	50,000	14,093	0.282	A				338	-0.041	NO
	6 Lane Prime Arterial	60,000				14,431	0.241	A			
Avenida Costa Azul/Project Access #2 to La Media Road	5 Lane Prime Arterial	50,000	14,093	0.282	A				3465	0.011	NO
	6 Lane Prime Arterial	60,000				17,558	0.293	A			
La Media Road to Otay Mesa Center Road	6 Lane Prime Arterial	60,000	9,921	0.165	A	10,639	0.177	A	718	0.012	NO
Otay Mesa Center Road to Gailes Boulevard	6 Lane Prime Arterial	60,000	10,399	0.173	A	11,117	0.185	A	718	0.012	NO
Gailes Boulevard to Britannia Boulevard	6 Lane Prime Arterial	60,000	10,802	0.18	A	11,520	0.192	A	718	0.012	NO
Britannia Boulevard to Cactus Road	6 Lane Prime Arterial	60,000	11,652	0.194	A	12,370	0.206	A	718	0.012	NO
Cactus Road to Heritage Road	6 Lane Prime Arterial	60,000	10,762	0.179	A	11,311	0.189	A	549	0.010	NO
Heritage Road to Corporate Center Drive	6 Lane Prime Arterial	60,000	11,817	0.197	A	12,197	0.203	A	380	0.006	NO
Corporate Center Drive to Ocean View Hills Parkway	6 Lane Prime Arterial	60,000	16,715	0.279	A	17,011	0.284	A	296	0.005	NO
La Media Road											
Otay Mesa Road to SR-905	5 Lane Collector	37,500	18,170	0.485	C	20,832	0.556	C	2662	0.071	NO
SR-905 WB Ramps to SR-905 EB Ramps	5 Lane Collector	37,500	16,415	0.438	B	16,542	0.441	B	127	0.003	NO

Notes:

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

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Table 6-3 Existing with Phase 1 & 2 Project Conditions Freeway Segment LOS Summary

FREEWAY SEGMENT	DIRECTION	NUMBER OF LANES	CAPACITY (a)	EXISTING				EXISTING PLUS PHASE 1 + 2				V/C RATIO Δ	SIGNIFICANT?
				ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS	ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS		
AM PEAK													
SR 905													
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	70,000	2,041	0.231	A	72,282	2,108	0.238	A	0.008	--
	EB	3 M + 1 A	8,850		4,005	0.453	B		4,135	0.467	B	0.015	--
Britannia Boulevard to La Media Road	WB	3 M	7,050	58,000	1,691	0.240	A	60,282	1,758	0.249	A	0.009	--
	EB	3 M + 1 A	8,850		3,318	0.375	A		3,449	0.390	A	0.015	--
La Media Road to Siempre Viva Road	WB	3 M	7,050	45,500	1,327	0.188	A	45,669	1,332	0.189	A	0.001	--
	EB	3 M + 1 A	8,850		2,603	0.294	A		2,613	0.295	A	0.001	--
SR 125													
Otay Mesa Road to Birch Road	NB	2 M	4,700	16,800	2466	0.525	B	17,223	2,528	0.538	B	0.013	--
	SB	2 M	4,700		887	0.189	A		909	0.193	A	0.005	--
PM PEAK													
SR 905													
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	70,000	4211	0.476	B	72,282	4,348	0.491	B	0.016	--
	EB	3 M + 1 A	8,850		2955	0.334	A		3,052	0.345	A	0.011	--
Britannia Boulevard to La Media Road	WB	3 M	7,050	58,000	3489	0.495	B	60,282	3,626	0.514	B	0.019	--
	EB	3 M + 1 A	8,850		2449	0.277	A		2,545	0.288	A	0.011	--
La Media Road to Siempre Viva Road	WB	3 M	7,050	45,500	2737	0.388	A	45,669	2,747	0.390	A	0.001	--
	EB	3 M + 1 A	8,850		1921	0.217	A		1,928	0.218	A	0.001	--
SR 125													
Otay Mesa Road to Birch Road	NB	2 M	4,700	16,800	1071	0.228	A	17,223	1,098	0.234	A	0.006	--
	SB	2 M	4,700		2465	0.524	B		2,527	0.538	B	0.013	--

Notes:

(a) The capacity is calculated as 2,350 ADT per main lane and 1,800 ADT per auxiliary lane to be consistent with the Otay Mesa Community Plan Transportation Analysis

(b) Traffic volumes for SR 905 obtained from published year 2016 traffic count data from Caltrans. Traffic volumes for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report.

(c) Peak-hour volume calculated by: (ADT*K*D)/Truck Factor. K and D values consistent from Table 3-3.

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Table 6-4 Mitigation for Existing with Phase 1 & 2 Project Conditions Intersection LOS Summary

INTERSECTION		PEAK HOUR	EXISTING		EXISTING PLUS PROJECT PHASE 2 BEFORE IMPROVEMENT		EXISTING PLUS PROJECT PHASE 2 AFTER IMPROVEMENT		DESCRIPTION
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
6	La Media & Otay Mesa Road	AM	95.0	**F**	ECL	**F**	52.4	D	Add additional exclusive northbound right-turn lane
		PM	123.0	**F**	ECL	**F**	79.8	**E**	

Notes:

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 9.0

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7 NEAR TERM (2018) BASELINE CONDITIONS

This section provides a description of the Near Term (2018) Conditions without the project. Year 2018 was selected as the anticipated opening year of Phase 1 of the project. This scenario establishes a baseline to compare against plus project scenarios to determine project impacts.

7.1 TRAFFIC VOLUMES

Near Term (2018) Baseline traffic volumes were calculated by adding the cumulative project traffic from nearby projects throughout the community to the existing road network and volumes. Cumulative Projects are listed below in **Table 7-1** and are displayed in **Figure 7-1**.

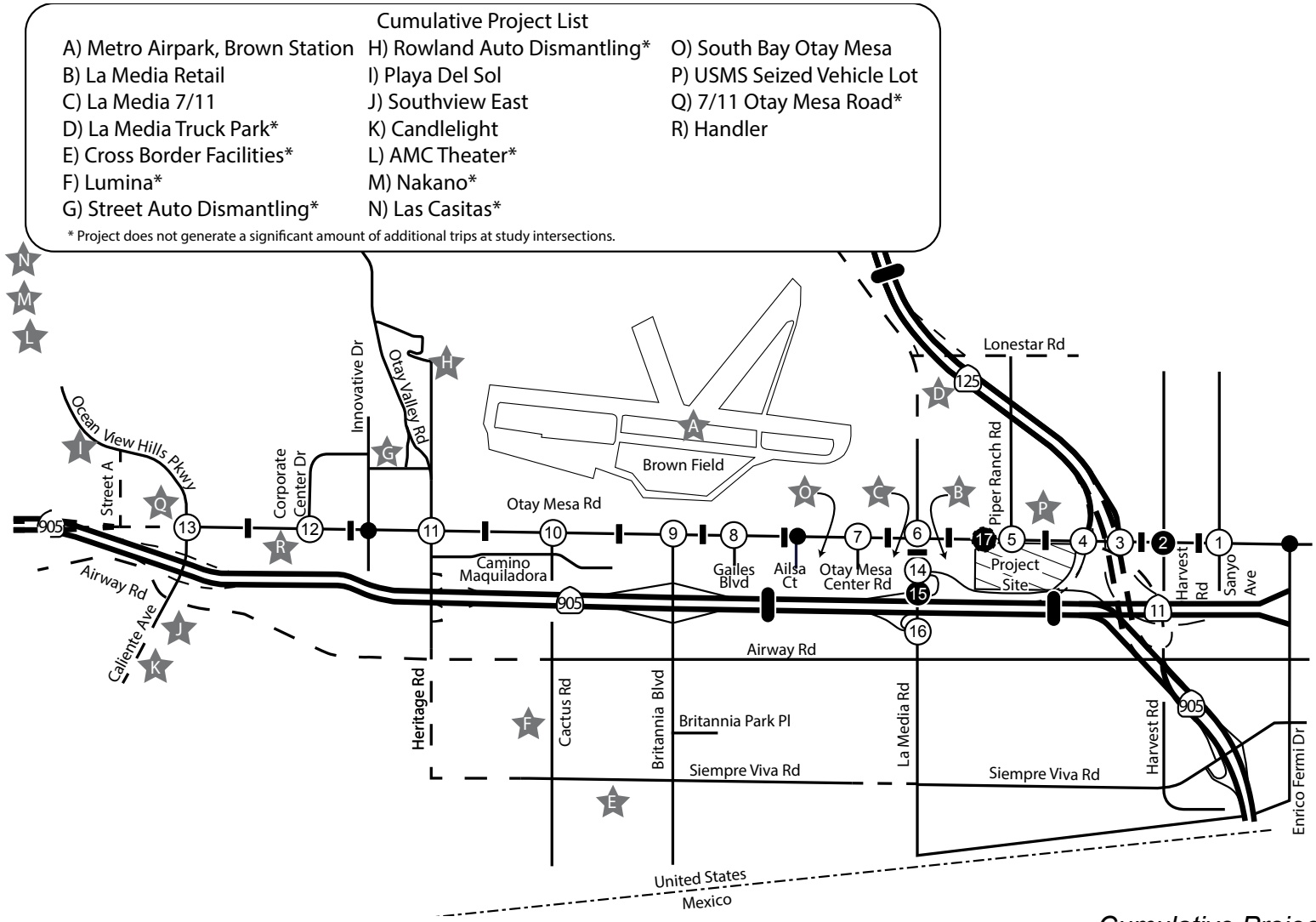
The cumulative projects identified are estimated to generate 38,568 daily trips with 2,809 morning peak-hour trips and 3,719 afternoon peak-hour trips. Additional information on the cumulative projects are included in **Appendix C**. Traffic volumes associated with the cumulative projects were added to existing traffic volumes for this scenario. The resulting Near Term (2018) Baseline traffic volumes are shown in **Figure 7-2 & 7-3**.

Table 7–1 Cumulative Project List

	PROJECT	STATUS (d)	LAND USE	ADT
A	Metro Airpark (Phase I) [(a)]	Approved	Airfield Expansion	4,288 ADT
B	La Media Retail	Under Review	Mixed-Use	8,660 ADT
C	La Media 7-11[(c)]	Under Review	Gas Station	1,500 ADT
D	La Media Truck Park*	Under Review	Truck Terminal	---
E	Cross Border Facilities*	Approved	---	---
F	Lumina*	Under Review	Mixed-Use	---
G	Street Auto Dismantling*	Under Review	Truck Terminal	---
H	Rowland Auto Dismantling*	Under Review	Truck Terminal	---
I	Playa Del Sol[(a)]	Under Construction	Residential	9,432 ADT
J	Southview East [(b)]	Under Construction	Residential	3,318 ADT
K	Candlelight	Under Review	Residential	2,850 ADT
L	AMC Theater*	Under Review	Movie Theater	---
M	Nakano*	Built	---	---
N	Las Casitas*	Built	---	---
O	South Bay Otay Mesa	Approved	Warehouse	1,678 ADT
P	USMS Seized Vehicle Lot[(a)]	Under Review	N/A	125 ADT
Q	7/11 Otay Mesa Road*	Under Review	Gas Station	---
R	Handler	Approved	Commercial	6,717 ADT (cumulative)
			TOTAL	38,568 ADT

* Project does not generate a significant amount of trips in the study area.

Source:
(a) Metro Airpark Traffic Study dated April 12, 2012
(b) Approved Traffic Study for the Southview project, dated November 15, 2011.
(c) Based on email from City Staff – October 2017.
(d) Information provided by City Staff at time of report preparation



Cumulative Projects Map

7.2 ROADWAY NETWORK CHANGES

No roadway network changes assumed to be made between Existing and Near Term (2018) Baseline conditions.

7.3 INTERSECTION ANALYSIS

Table 7-2 displays the LOS analysis results for the study intersections under the Near Term (2018) Baseline Conditions. As shown in the table, all intersections within the study area would operate at LOS D or better except for the following intersection.

- La Media Road & Otay Mesa Road (LOS F – AM and PM Peak)

Appendix B contains the intersections LOS calculation worksheets.

7.4 ROADWAY SEGMENT ANALYSIS

Table 7-3 displays the roadway segments analysis under the Near Term (2018) Baseline Conditions. As shown in the table, all study roadway segments would operate at LOS C or better.

7.5 FREEWAY SEGMENT ANALYSIS

Table 7-4 displays the freeway segments analysis under the Near Term (2018) Baseline Conditions. As shown in the table, all study freeway segments would operate at LOS B or better.

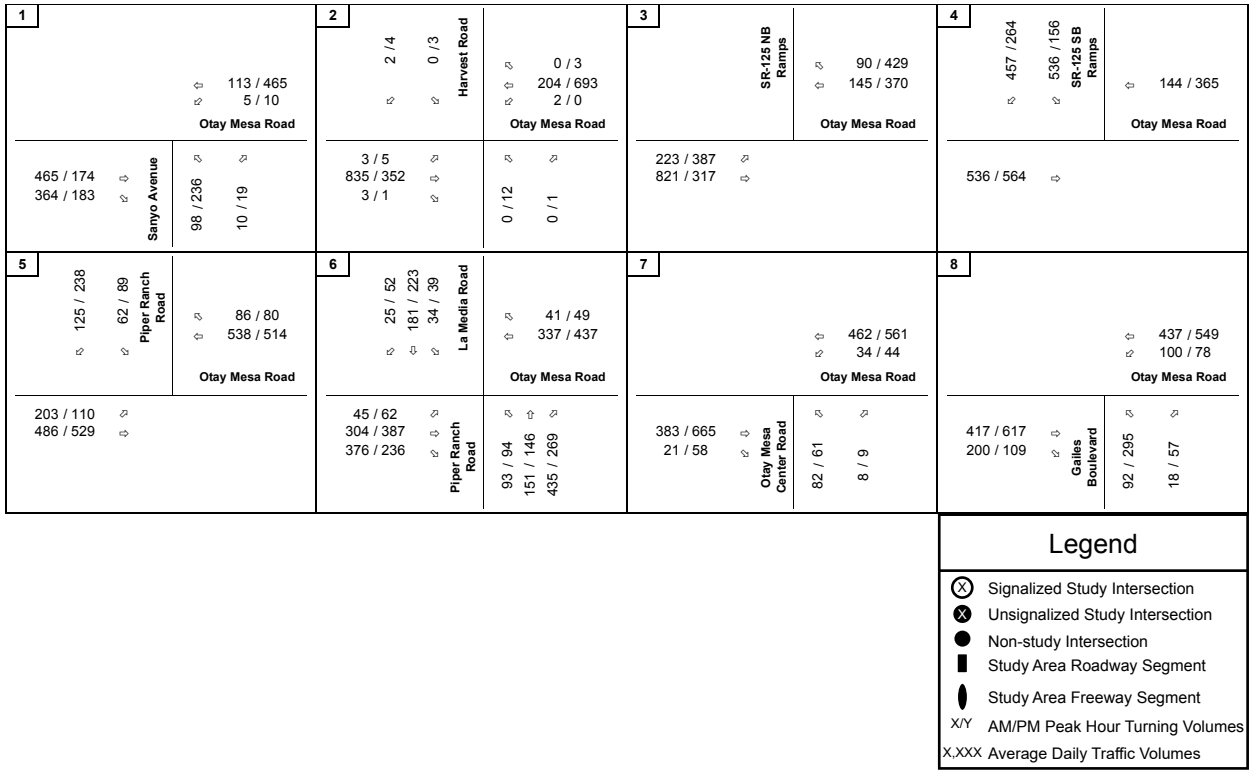
7.6 FREEWAY RAMP METERING ANALYSIS

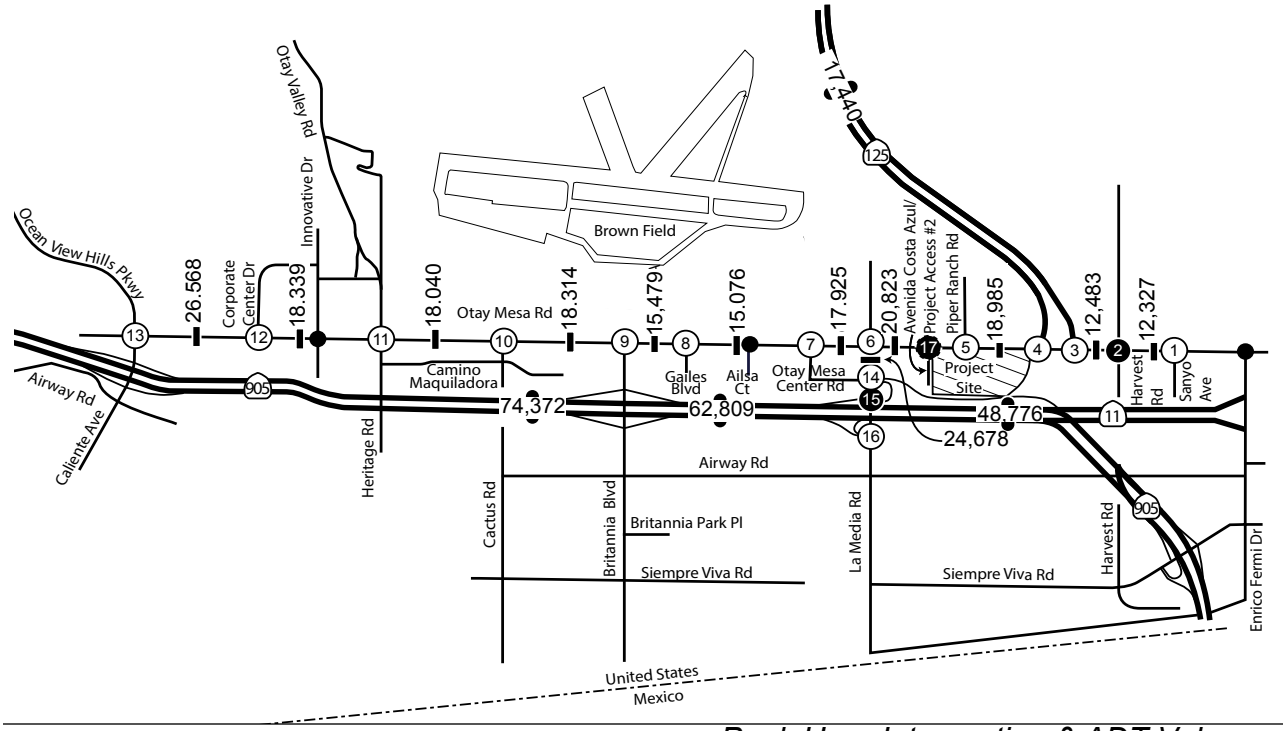
The SR-905 freeway ramps at La Media Road are not currently being metered and would not be expected to start metering until freeway segments show congestion that would require metering. No ramp metering analysis was performed for the Near Term (2018) Baseline Conditions.

Table 7–2 Near Term (2018) Baseline Conditions Intersection LOS Summary

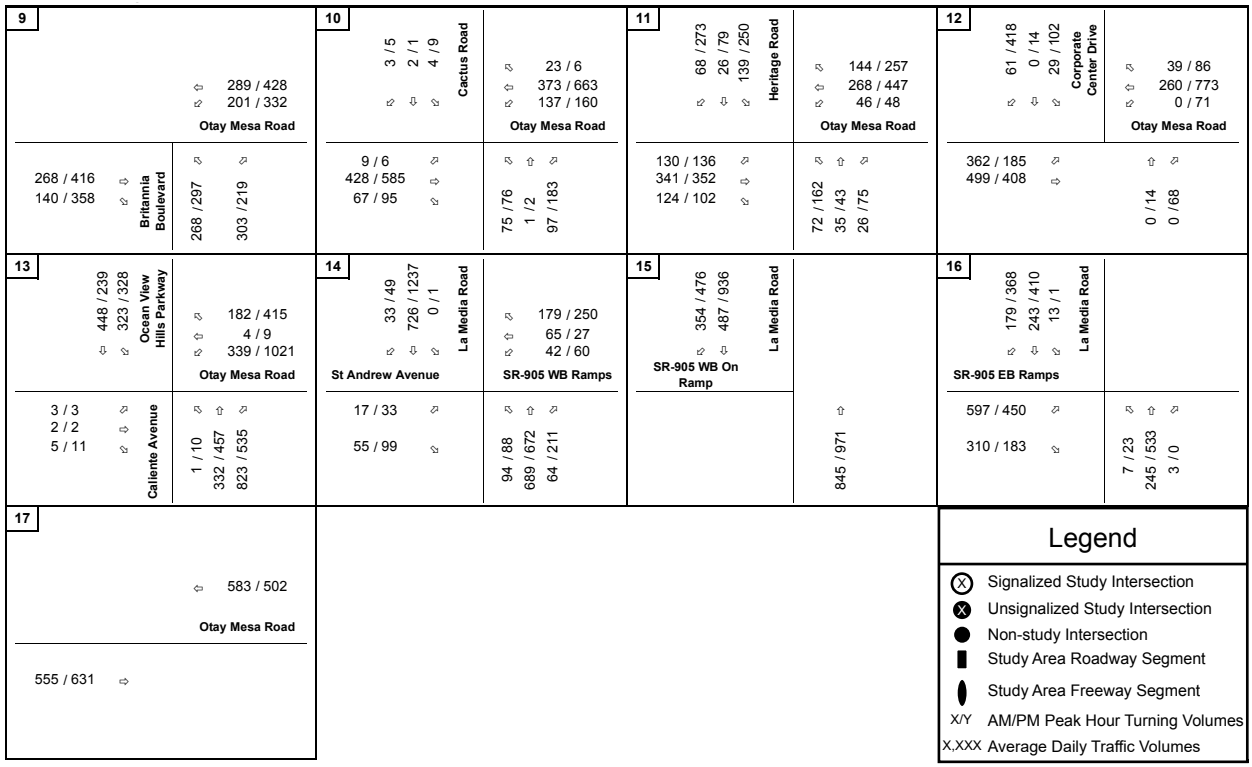
Intersection		Traffic Control	Peak Hour	NEAR TERM (2018) BASELINE	
				Delay (a)	LOS (b)
1	Sanyo Ave / Otay Mesa Rd	Signal	AM	11.4	B
			PM	11.2	B
2	Harvest Rd / Otay Mesa Rd	SSSC	AM	9.2	A
			PM	13.7	B
3	SR-125 Northbound Ramp / Otay Mesa Rd	Signal	AM	3.0	A
			PM	8.0	A
4	SR-125 Southbound Ramp / Otay Mesa Rd	Signal	AM	10.6	B
			PM	8.5	A
5	Piper Ranch Rd / Otay Mesa Rd	Signal	AM	11.2	B
			PM	11.1	B
6	La Media Rd / Otay Mesa Rd	Signal	AM	176.3	**F**
			PM	ECL	**F**
7	Otay Mesa Center Rd / Otay Mesa Rd	Signal	AM	8.6	A
			PM	7.3	A
8	Gailes Blvd / Otay Mesa Rd	Signal	AM	12.9	B
			PM	29.1	C
9	Britannia Blvd / Otay Mesa Rd	Signal	AM	29.4	C
			PM	34.1	C
10	Cactus Rd / Otay Mesa Rd	Signal	AM	19.8	B
			PM	20.6	C
11	Heritage Rd / Otay Mesa Rd	Signal	AM	33.0	C
			PM	35.0	D
12	Otay Mesa Rd / Corporate Center Dr	Signal	AM	9.3	A
			PM	13.4	B
13	Caliente Ave / Ocean View Hills Pkwy / Otay Mesa Rd	Signal	AM	39.4	D
			PM	42.7	D
14	La Media Road / SR-905 Westbound Ramps	Signal	AM	15.3	B
			PM	16.1	B
15	La Media Road / SR-905 Westbound On-Ramp	No Control	AM	*No Conflicting Movements*	
			PM		
16	La Media Road / SR-905 Eastbound Ramps	Signal	AM	9.6	A
			PM	9.3	A
17	Avenida Costa Azul (Project Access #2)/ Otay Mesa Rd	SSSC	AM	*Not Constructed*	
			PM		

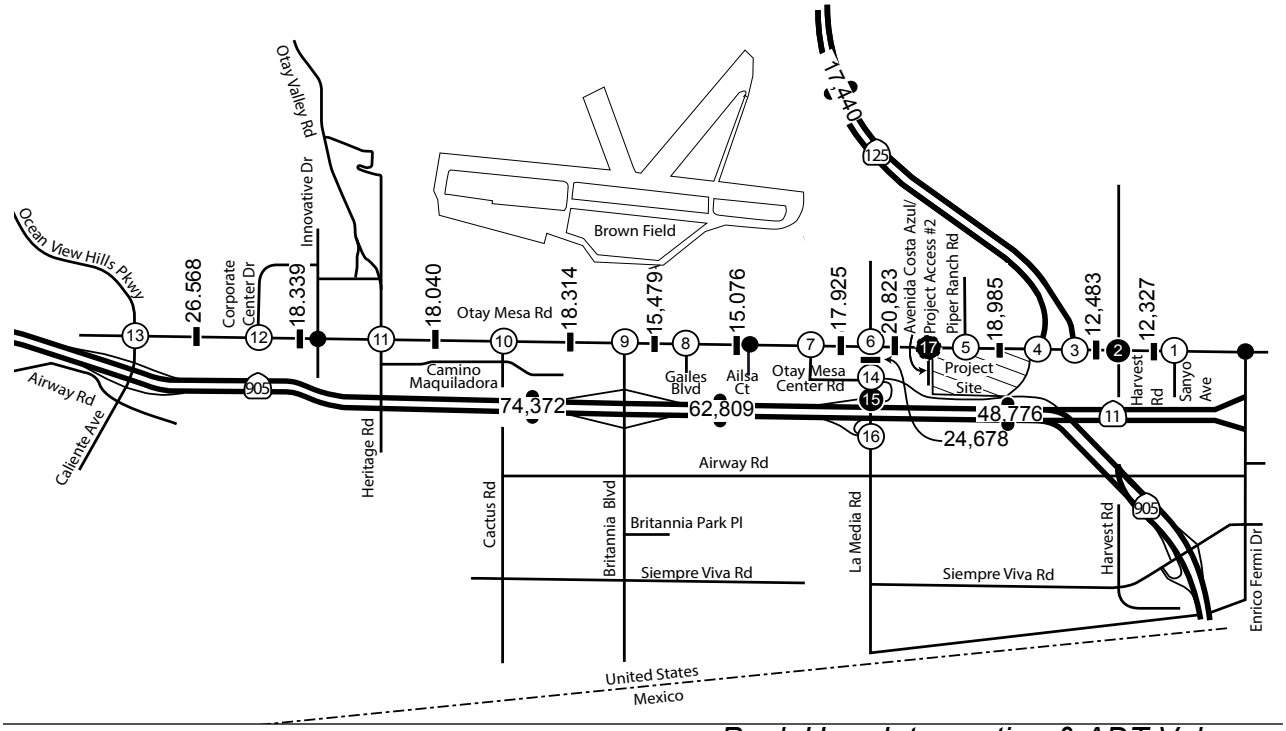
Signal = Traffic Signal; SSSC = Side Street Stop Control
Bold values indicate intersections operating at LOS E or F. ECL = Exceeds Calculable Limit
a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At SSSC intersections, delay refers to the worst movement.
b) LOS calculations are based on the methodology outlined in the 2000 Highway Capacity Manual and performed using Synchro 9.





Peak Hour Intersection & ADT Volumes
Near Term (2018) Baseline





Peak Hour Intersection & ADT Volumes
Near Term (2018) Baseline (cont.)

Table 7-3 Near Term (2018) Baseline Project Conditions Roadway Segment LOS Summary

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	NEAR TERM (2018) BASELINE		
			ADT	V/C RATIO (a)	LOS
Otay Mesa Road					
Sanyo Road to Harvest Road	4 Lane Collector	30,000	12,327	0.411	B
Harvest Road to SR-125 NB Ramp	4 Lane Collector	30,000	12,483	0.416	B
SR-125 NB Ramp to SR-125 SB Ramp	5 Lane Collector	37,500	15,347	0.409	B
SR-125 SB Ramp to Piper Ranch Road	5 Lane Collector	37,500	18,985	0.506	C
Piper Ranch Road to Avenida Costa Azul/Project Access #2	5 Lane Prime Arterial	50,000	20,891	0.418	B
Avenida Costa Azul/Project Access #2 to La Media Road	5 Lane Prime Arterial	50,000	20,823	0.416	B
La Media Road to Otay Mesa Center Road	6 Lane Prime Arterial	60,000	17,925	0.299	A
Otay Mesa Center Road to Gailes Boulevard	6 Lane Prime Arterial	60,000	15,076	0.251	A
Gailes Boulevard to Britannia Boulevard	6 Lane Prime Arterial	60,000	15,479	0.258	A
Britannia Boulevard to Cactus Road	6 Lane Prime Arterial	60,000	18,314	0.305	A
Cactus Road to Heritage Road	6 Lane Prime Arterial	60,000	18,040	0.301	A
Heritage Road to Corporate Center Drive	6 Lane Prime Arterial	60,000	18,339	0.306	A
Corporate Center Drive to Ocean View Hills Parkway	6 Lane Prime Arterial	60,000	26,568	0.443	B
La Media Road					
Otay Mesa Road to SR-905	5 Lane Collector	37,500	24,678	0.658	C
SR-905 WB Ramps to SR-905 EB Ramps	5 Lane Collector	37,500	16,415	0.438	B

Notes:

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

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Table 7-4 Near Term (2018) Baseline Conditions Freeway Segment LOS Summary

FREEWAY SEGMENT	DIRECTION	NUMBER OF LANES	CAPACITY (a)	NEAR TERM (2018) BASELINE			
				ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS
AM PEAK							
SR 905							
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	74,372	2,169	0.245	A
	EB	3 M + 1 A	8,850		4,255	0.481	B
Britannia Boulevard to La Media Road	WB	3 M	7,050	62,809	1,831	0.260	A
	EB	3 M + 1 A	8,850		3,593	0.406	A
La Media Road to Siempre Viva Road	WB	3 M	7,050	48,776	1,422	0.202	A
	EB	3 M + 1 A	8,850		2,790	0.315	A
SR 125							
Otay Mesa Road to Birch Road	NB	2 M	4,700	17,440	2,559	0.545	B
	SB	2 M	4,700		920	0.196	A
PM PEAK							
SR 905							
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	74,372	4,474	0.505	B
	EB	3 M + 1 A	8,850		3,140	0.355	A
Britannia Boulevard to La Media Road	WB	3 M	7,050	62,809	3,778	0.536	B
	EB	3 M + 1 A	8,850		2,652	0.300	A
La Media Road to Siempre Viva Road	WB	3 M	7,050	48,776	2,934	0.416	B
	EB	3 M + 1 A	8,850		2,059	0.233	A
SR 125							
Otay Mesa Road to Birch Road	NB	2 M	4,700	17,440	1,112	0.237	A
	SB	2 M	4,700		2,559	0.544	B

Notes:

(a) The capacity is calculated as 2,350 ADT per main lane and 1,800 ADT per auxiliary lane to be consistent with the Otay Mesa Community Plan Transportation Analysis

(b) Traffic volumes for SR 905 obtained from published year 2016 traffic count data from Caltrans. Traffic volumes for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report.

(c) Peak-hour volume calculated by: (ADT*K*D)/Truck Factor. K and D values consistent from Table 3-3.

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8 NEAR TERM (2018) WITH PHASE 1 CONDITIONS

This section provides a description of the Near Term (2018) Conditions with the addition of the Sunroad Otay Mesa Phase 1 project traffic which proposes the construction of Buildings 3 and 4 totaling approximately 369,820 square feet of warehousing. Year 2018 was selected as the anticipated opening year of Phase 1 of the project.

8.1 TRAFFIC VOLUMES

Phase 1 of the project is expected to generate 1,849 Daily trips, with 277 trips (195 in, 82 out) during the AM Peak, and 296 trips (118 in, 178 out) during the PM Peak. Near Term (2018) with Phase 1 Project Conditions volumes were determined by adding the project traffic assigned from Phase 1 to the Near Term (2018) Baseline Conditions volumes. These volumes are shown in **Figure 8-1 & 8-2**.

8.2 ROADWAY NETWORK CHANGES

Phase 1 of the project would modify the intersection of Piper Ranch Road and Otay Mesa Road to develop a private drive as the south leg of the intersection, as described and illustrated in Chapter 5. Otherwise, no changes to the existing geometric conditions are assumed for Near Term.

8.3 INTERSECTION ANALYSIS

Table 8-1 displays the LOS analysis results for the study intersections under the Near Term (2018) with Phase 1 Project Conditions. As shown in the table, all intersections within the study area would operate at LOS D or better with the addition of the proposed project except for the following intersection.

- La Media Road & Otay Mesa Road (LOS F – AM and PM Peak)

This intersection would be considered to have a significant direct project impact under this scenario. This intersection was also found to have an impact under the Existing Plus Phase 1 Project Conditions.

Appendix B contains the intersections LOS calculation worksheets.

Table 8–1 Near Term (2018) with Phase 1 Project Conditions Intersection LOS Summary

INTERSECTION		PEAK HOUR	NEAR TERM (2018) BASELINE		NEAR TERM (2018) BASELINE + PHASE 1			
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	Δ (c)	SIGNIFICANT?
1	Sanyo Ave / Otay Mesa Rd	AM	11.4	B	11.2	B	-0.2	NO
		PM	11.2	B	11.2	B	0.0	NO
2	Harvest Road / Otay Mesa Rd	AM	9.2	A	9.3	A	0.1	NO
		PM	13.7	B	13.8	B	0.1	NO
3	SR-125 NB / Otay Mesa Rd	AM	3.0	A	3.1	A	0.1	NO
		PM	8.0	A	8.2	A	0.2	NO
4	SR-125 SB / Otay Mesa Rd	AM	10.6	B	10.6	B	0.0	NO
		PM	8.5	A	8.6	A	0.2	NO
5	Piper Ranch Rd / Otay Mesa Rd	AM	11.2	B	18.2	B	7.0	NO
		PM	11.1	B	21.8	C	10.7	NO
6	La Media Rd / Otay Mesa Rd	AM	176.3	**F**	ECL	**F**	-	YES
		PM	ECL	**F**	ECL	**F**	-	YES
7	Otay Mesa Center Rd / Otay Mesa Rd	AM	8.6	A	8.5	A	0.0	NO
		PM	7.3	A	7.3	A	0.0	NO
8	Gailes Blvd / Otay Mesa Rd	AM	12.9	B	12.8	B	-0.1	NO
		PM	29.1	C	29.1	C	0.0	NO
9	Britannia Blvd / Otay Mesa Rd	AM	29.4	C	28.8	C	-0.6	NO
		PM	34.1	C	33.7	C	-0.4	NO
10	Cactus Rd / Otay Mesa Rd	AM	19.8	B	20.0	C	0.2	NO
		PM	20.6	C	20.7	C	0.1	NO
11	Heritage Rd / Otay Mesa Rd	AM	33.0	C	33.0	C	0.0	NO
		PM	35.0	D	35.1	D	0.1	NO
12	Corporate Center Dr / Otay Mesa Rd	AM	9.3	A	9.3	A	0.0	NO
		PM	13.4	B	13.5	B	0.1	NO
13	Ocean View Hills Pkwy/ Otay Mesa Rd	AM	39.4	D	40.6	D	1.2	NO
		PM	42.7	D	43.5	D	0.8	NO
14	La Media Rd / St Andrew Ave/SR-905 WB Off Ramp	AM	15.3	B	15.6	B	0.3	NO
		PM	16.1	B	16.2	B	0.1	NO
15	La Media Rd / SR-905 WB On Ramp	AM	No Conflicting Movements					NO
		PM						NO
16	La Media Rd / SR-905 EB	AM	9.6	A	10.0	B	0.4	NO
		PM	9.3	A	9.8	A	0.5	NO

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact. ECL = Exceeds Calculable Limit
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 9.0
(c) Change in delay due to addition of project traffic. Addition of project traffic may cause a decrease in delay at some locations. This counterintuitive result occurs when the volume being added to the intersection is on movements with less delay than the current overall intersection average delay, decreasing the overall intersection average delay.

8.4 ROADWAY SEGMENT ANALYSIS

Table 8-2 displays the roadway segments analysis under the Near Term (2018) with Phase 1 Project Conditions. As shown in the table, all study roadway segments would continue to operate at LOS D or better with the addition of the proposed project. The project would not have any traffic impact along any of the roadway segments within the study area under this scenario.

8.5 FREEWAY SEGMENT ANALYSIS

Table 8-3 displays the freeway segments analysis under the Near Term (2018) with Phase 1 Project Conditions. As shown in the table, all study freeway segments would continue to operate at LOS B or better with the addition of the proposed project. The project would not have any traffic impact along any of the freeway segments within the study area under this scenario.

8.6 FREEWAY RAMP METERING ANALYSIS

The SR-905 freeway ramps at La Media Road are not currently being metered and would not be expected to start metering until freeway segments show congestion that would require metering. No ramp metering analysis was performed for the Near Term (2018) with Phase 1 Project Conditions.

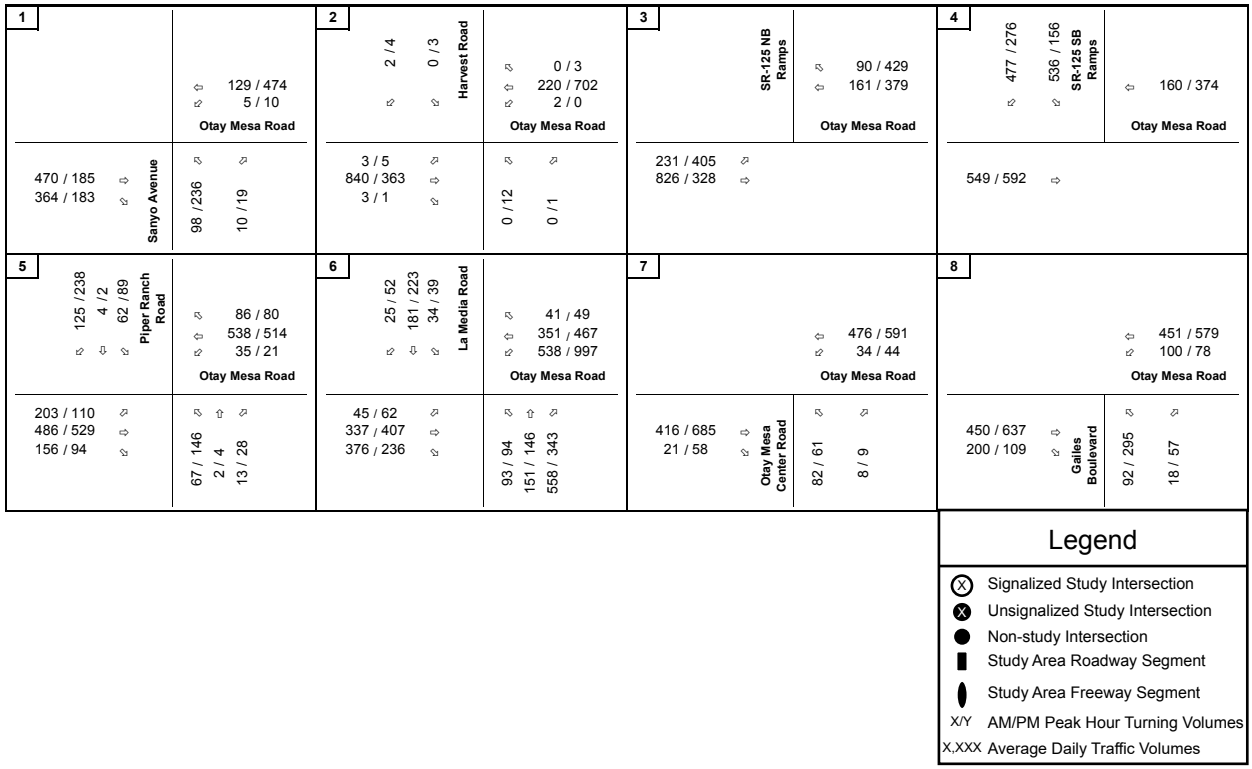
8.7 FINDINGS AND CONCLUSIONS

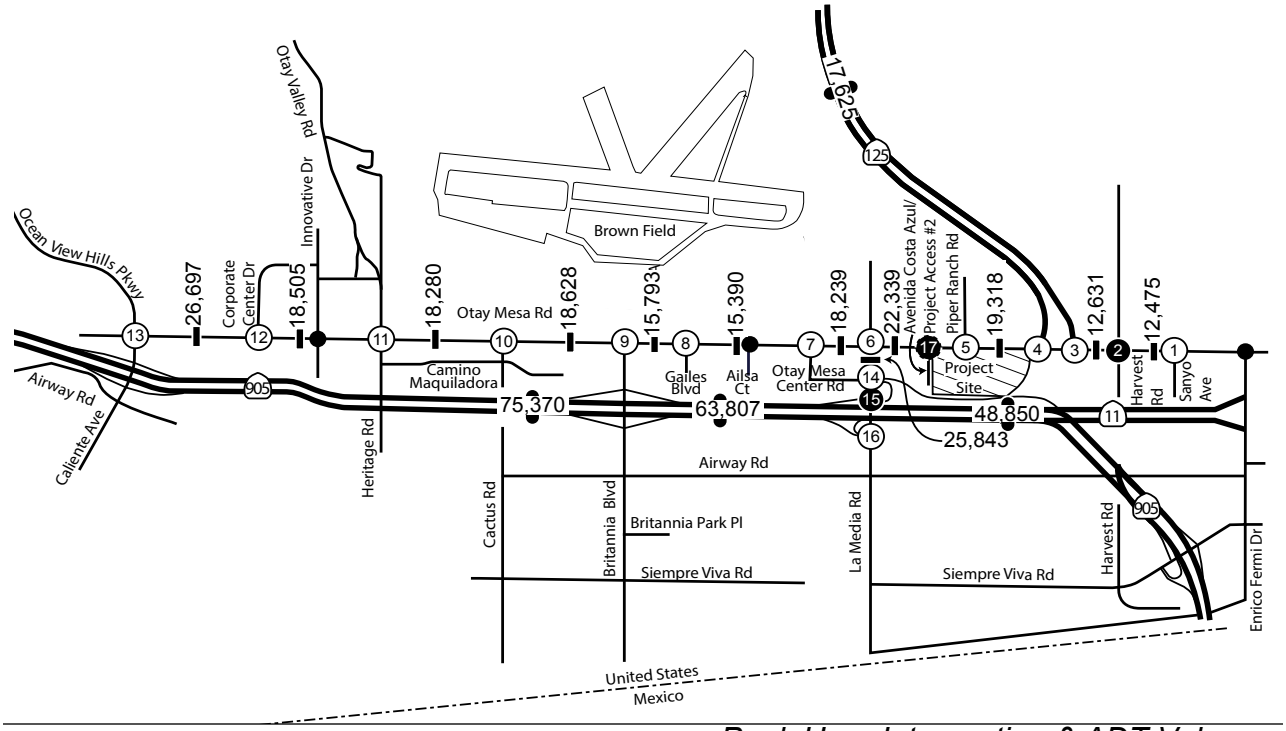
The results of the foregoing analysis indicate that the proposed Sunroad Otay Mesa project would have direct impacts that require mitigation under the Near Term (2018) with Phase 1 project traffic scenario at the following intersection:

- La Media Road & Otay Mesa Road

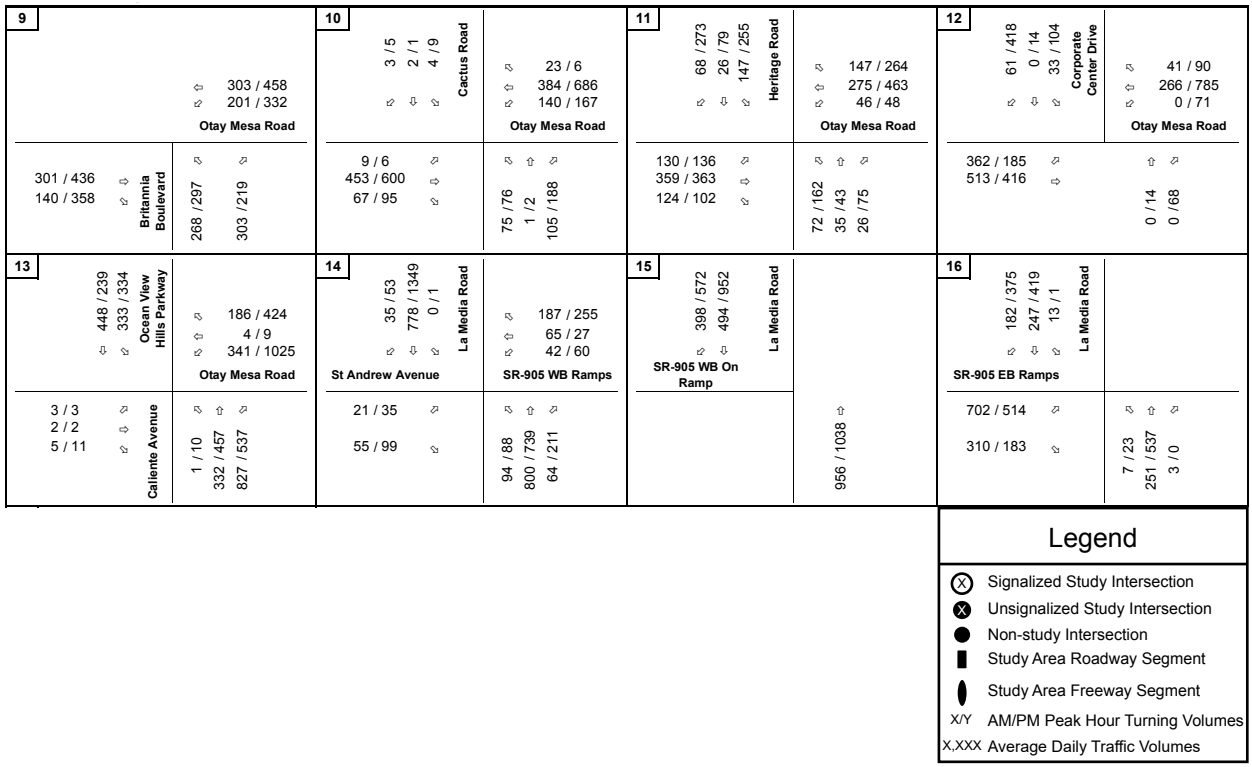
To mitigate the proposed Phase 1 project traffic related impacts at La Media Road and Otay Mesa Road in the Near Term (2018) traffic conditions, an exclusive northbound right-turn lane would be needed in addition to existing shared northbound thru-right-turn lane. This is the same impact and mitigation that was identified under the Existing plus Phase 1 scenario as a direct impact. The resulting intersection geometry can be seen in Figure 5-5.

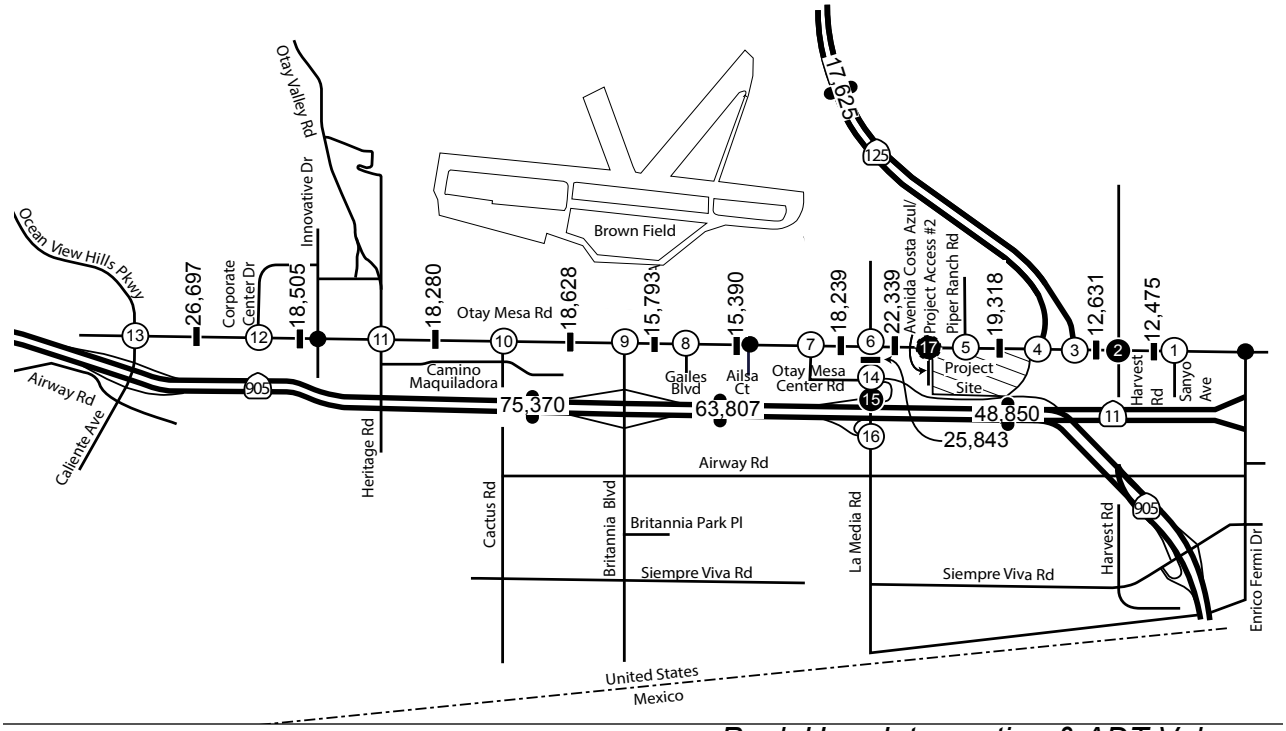
Table 8-4 shows the operations of the affected intersection with the proposed mitigation measures. As shown in the table, the intersection would improve to operating better than pre-project conditions. The intersection would operate at LOS E in the morning and LOS F in the afternoon peak-hours.





Peak Hour Intersection & ADT Volumes
Near Term (2018) with Phase 1





Peak Hour Intersection & ADT Volumes
Near Term (2018) with Phase 1 (cont.)

Table 8-2 Near Term (2018) with Phase 1 Project Conditions Roadway Segment LOS Summary

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	NEAR TERM (2018) BASELINE			NEAR TERM (2018) PLUS PHASE 1			Δ in ADT	Δ in V/C	SIGNIFICANT?
			ADT	V/C RATIO (a)	LOS	ADT	V/C RATIO (a)	LOS			
Otay Mesa Road											
Sanyo Road to Harvest Road	4 Lane Collector	30,000	12,327	0.411	B	12,475	0.416	B	148	0.005	NO
Harvest Road to SR-125 NB Ramp	4 Lane Collector	30,000	12,483	0.416	B	12,631	0.421	B	148	0.005	NO
SR-125 NB Ramp to SR-125 SB Ramp	5 Lane Collector	37,500	15,347	0.409	B	15,495	0.413	B	148	0.004	NO
SR-125 SB Ramp to Piper Ranch Road	5 Lane Collector	37,500	18,985	0.506	C				333	-0.184	NO
	6 Lane Prime Arterial	60,000				19,318	0.322	A			
Piper Ranch Road to Avenida Costa Azul/Project Access #2	5 Lane Prime Arterial	50,000	20,891	0.418	B				1516	-0.045	NO
	6 Lane Prime Arterial	60,000				22,407	0.373	B			
Avenida Costa Azul/Project Access #2 to La Media Road	5 Lane Prime Arterial	50,000	20,823	0.416	B				1516	-0.044	NO
	6 Lane Prime Arterial	60,000				22,339	0.372	B			
La Media Road to Otay Mesa Center Road	6 Lane Prime Arterial	60,000	17,925	0.299	A	18,239	0.304	A	314	0.005	NO
Otay Mesa Center Road to Gailes Boulevard	6 Lane Prime Arterial	60,000	15,076	0.251	A	15,390	0.257	A	314	0.006	NO
Gailes Boulevard to Britannia Boulevard	6 Lane Prime Arterial	60,000	15,479	0.258	A	15,793	0.263	A	314	0.005	NO
Britannia Boulevard to Cactus Road	6 Lane Prime Arterial	60,000	18,314	0.305	A	18,628	0.31	A	314	0.005	NO
Cactus Road to Heritage Road	6 Lane Prime Arterial	60,000	18,040	0.301	A	18,280	0.305	A	240	0.004	NO
Heritage Road to Corporate Center Drive	6 Lane Prime Arterial	60,000	18,339	0.306	A	18,505	0.308	A	166	0.002	NO
Corporate Center Drive to Ocean View Hills Parkway	6 Lane Prime Arterial	60,000	26,568	0.443	B	26,697	0.445	B	129	0.002	NO
La Media Road											
Otay Mesa Road to SR-905	5 Lane Collector	37,500	24,678	0.658	C	25,843	0.689	D	1165	0.031	NO
SR-905 WB Ramps to SR-905 EB Ramps	5 Lane Collector	37,500	16,415	0.438	B	16,470	0.439	B	55	0.001	NO

Notes:

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

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Table 8-3 Near Term (2018) with Phase 1 Project Conditions Freeway Segment LOS Summary

FREEWAY SEGMENT	DIRECTION	NUMBER OF LANES	CAPACITY (a)	NEAR TERM (2018) BASELINE				NEAR TERM (2018) PLUS PHASE 1				V/C RATIO Δ	SIGNIFICANT?
				ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS	ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS		
AM PEAK													
SR 905													
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	74,372	2,169	0.245	A	75,370	2,198	0.248	A	0.003	--
	EB	3 M + 1 A	8,850		4,255	0.481	B		4,312	0.487	B	0.006	--
Britannia Boulevard to La Media Road	WB	3 M	7,050	62,809	1,831	0.260	A	63,807	1,860	0.264	A	0.004	--
	EB	3 M + 1 A	8,850		3,593	0.406	A		3,650	0.412	B	0.006	--
La Media Road to Siempre Viva Road	WB	3 M	7,050	48,776	1,422	0.202	A	48,850	1,424	0.202	A	0.000	--
	EB	3 M + 1 A	8,850		2,790	0.315	A		2,795	0.316	A	0.000	--
SR 125													
Otay Mesa Road to Birch Road	NB	2 M	4,700	17,440	2,559	0.545	B	17,625	2,587	0.550	B	0.006	--
	SB	2 M	4,700		920	0.196	A		930	0.198	A	0.002	--
PM PEAK													
SR 905													
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	74,372	4,474	0.505	B	75,370	4,534	0.512	B	0.007	--
	EB	3 M + 1 A	8,850		3,140	0.355	A		3,182	0.360	A	0.005	--
Britannia Boulevard to La Media Road	WB	3 M	7,050	62,809	3,778	0.536	B	63,807	3,838	0.544	B	0.009	--
	EB	3 M + 1 A	8,850		2,652	0.300	A		2,694	0.304	A	0.005	--
La Media Road to Siempre Viva Road	WB	3 M	7,050	48,776	2,934	0.416	B	48,850	2,938	0.417	B	0.001	--
	EB	3 M + 1 A	8,850		2,059	0.233	A		2,062	0.233	A	0.000	--
SR 125													
Otay Mesa Road to Birch Road	NB	2 M	4,700	17,440	1,112	0.237	A	17,625	1,124	0.239	A	0.003	--
	SB	2 M	4,700		2,559	0.544	B		2,586	0.550	B	0.006	--

Notes:

(a) The capacity is calculated as 2,350 ADT per main lane and 1,800 ADT per auxiliary lane to be consistent with the Otay Mesa Community Plan Transportation Analysis

(b) Traffic volumes for SR 905 obtained from published year 2016 traffic count data from Caltrans. Traffic volumes for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report.

(c) Peak-hour volume calculated by: (ADT*K*D)/Truck Factor. K and D values consistent from Table 3-3.

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Table 8-4 Mitigation for Near Term (2018) with Phase 1 Project Conditions Intersection LOS Summary

INTERSECTION		PEAK HOUR	NEAR TERM (2018) BASELINE		NEAR TERM (2018) PLUS PROJECT BEFORE IMPROVEMENT		NEAR TERM (2018) PLUS PROJECT AFTER IMPROVEMENT		DESCRIPTION
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
6	La Media & Otay Mesa Road	AM	176.3	**F**	ECL	**F**	62.4	**E**	Add additional exclusive northbound right-turn lane
		PM	ECL	**F**	ECL	**F**	159.1	**F**	

Notes:

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 9.0

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9 NEAR TERM (2020) BASELINE CONDITIONS

This section provides a description of the Near Term (2020) Baseline Conditions. Year 2020 was selected as the anticipated opening year of Phase 2 of the project. This scenario establishes a baseline to compare against plus project scenarios to determine project impacts.

9.1 TRAFFIC VOLUMES

Near Term (2020) Baseline traffic volumes were calculated adding the cumulative project traffic from adjacent projects throughout the community. Cumulative projects information is provided in Chapter 7. The resulting Near Term (2020) Baseline traffic volumes are shown in **Figure 9-1 & 9-2**.

9.2 ROADWAY NETWORK CHANGES

No roadway network changes assumed to be made between Existing and Near Term (2020) Baseline conditions. Additional analysis was completed to demonstrate the intersection operations with the build-out of the shared-use project driveway as a signalized driveway; the results can be seen in **Appendix L**.

9.3 INTERSECTION ANALYSIS

Table 9-1 displays the LOS analysis results for the study intersections under the Near Term (2020) Baseline Conditions. As shown in the table, all intersections within the study area would operate at LOS D or better except for the following intersection:

- La Media Road & Otay Mesa Road (LOS F – AM and PM peak)

Appendix B contains the intersections LOS calculation worksheets.

9.4 ROADWAY SEGMENT ANALYSIS

Table 9-2 displays the roadway segments analysis under the Near Term (2020) Baseline Conditions. As shown in the table, all study roadway segments would operate at LOS D or better.

9.5 FREEWAY SEGMENT ANALYSIS

Table 9-3 displays the freeway segments analysis under the Near Term (2020) Baseline Conditions. As shown in the table, all study freeway segments would operate at LOS B or better.

9.6 FREEWAY RAMP METERING ANALYSIS

The SR-905 freeway ramps at La Media Road are not currently being metered and would not be expected to start metering until freeway segments show congestion that would require metering. No ramp metering analysis was performed for the Near Term (2020) Baseline Conditions.

Table 9–1 Near Term (2020) Baseline Conditions Intersection LOS Summary

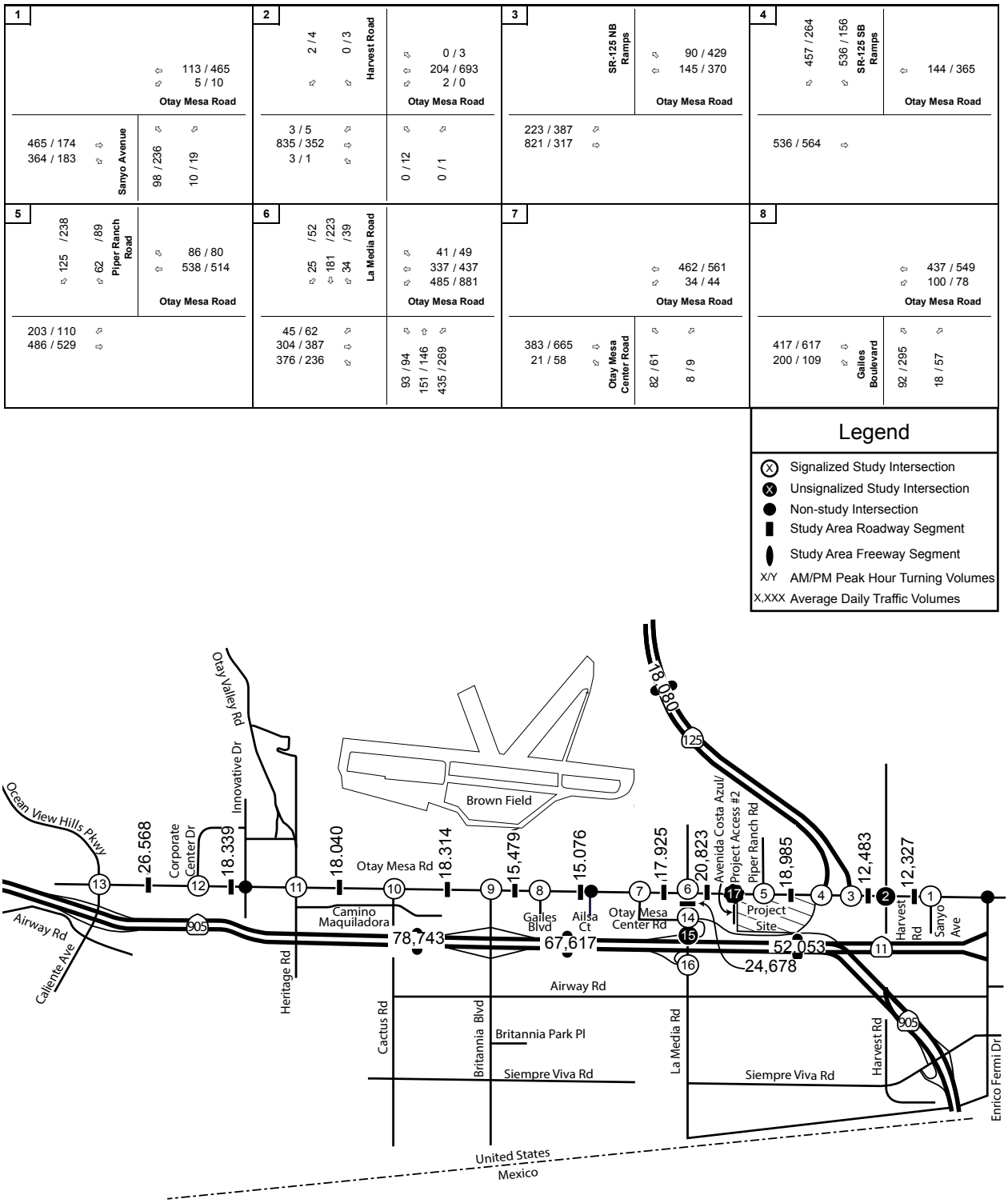
Intersection		Traffic Control	Peak Hour	NEAR TERM (2020) BASELINE	
				Delay (a)	LOS (b)
1	Sanyo Ave / Otay Mesa Rd	Signal	AM	11.4	B
			PM	11.2	B
2	Harvest Rd / Otay Mesa Rd	SSSC	AM	9.2	A
			PM	13.7	B
3	SR-125 Northbound Ramp / Otay Mesa Rd	Signal	AM	3.0	A
			PM	8.0	A
4	SR-125 Southbound Ramp / Otay Mesa Rd	Signal	AM	10.6	B
			PM	8.5	A
5	Piper Ranch Rd / Otay Mesa Rd	Signal	AM	11.2	B
			PM	11.1	B
6	La Media Rd / Otay Mesa Rd	Signal	AM	176.3	**F**
			PM	ECL	**F**
7	Otay Mesa Center Rd / Otay Mesa Rd	Signal	AM	8.6	A
			PM	7.3	A
8	Gailes Blvd / Otay Mesa Rd	Signal	AM	12.9	B
			PM	29.1	C
9	Britannia Blvd / Otay Mesa Rd	Signal	AM	29.4	C
			PM	34.1	C
10	Cactus Rd / Otay Mesa Rd	Signal	AM	19.8	B
			PM	20.6	C
11	Heritage Rd / Otay Mesa Rd	Signal	AM	33.0	C
			PM	35.0	D
12	Otay Mesa Rd / Corporate Center Dr	Signal	AM	9.3	A
			PM	13.4	B
13	Caliente Ave / Ocean View Hills Pkwy / Otay Mesa Rd	Signal	AM	39.4	D
			PM	42.7	D
14	La Media Road / SR-905 Westbound Ramps	Signal	AM	15.3	B
			PM	16.1	B
15	La Media Road / SR-905 Westbound On-Ramp	No Control	AM	*No Conflicting Movements*	
			PM		
16	La Media Road / SR-905 Eastbound Ramps	Signal	AM	9.6	A
			PM	9.3	A
17	Avenida Costa Azul/Shared Access Private Dwy / Otay Mesa Rd	Signal	AM	Not Constructed	
			PM		

Signal = Traffic Signal; SSSC = Side Street Stop Control

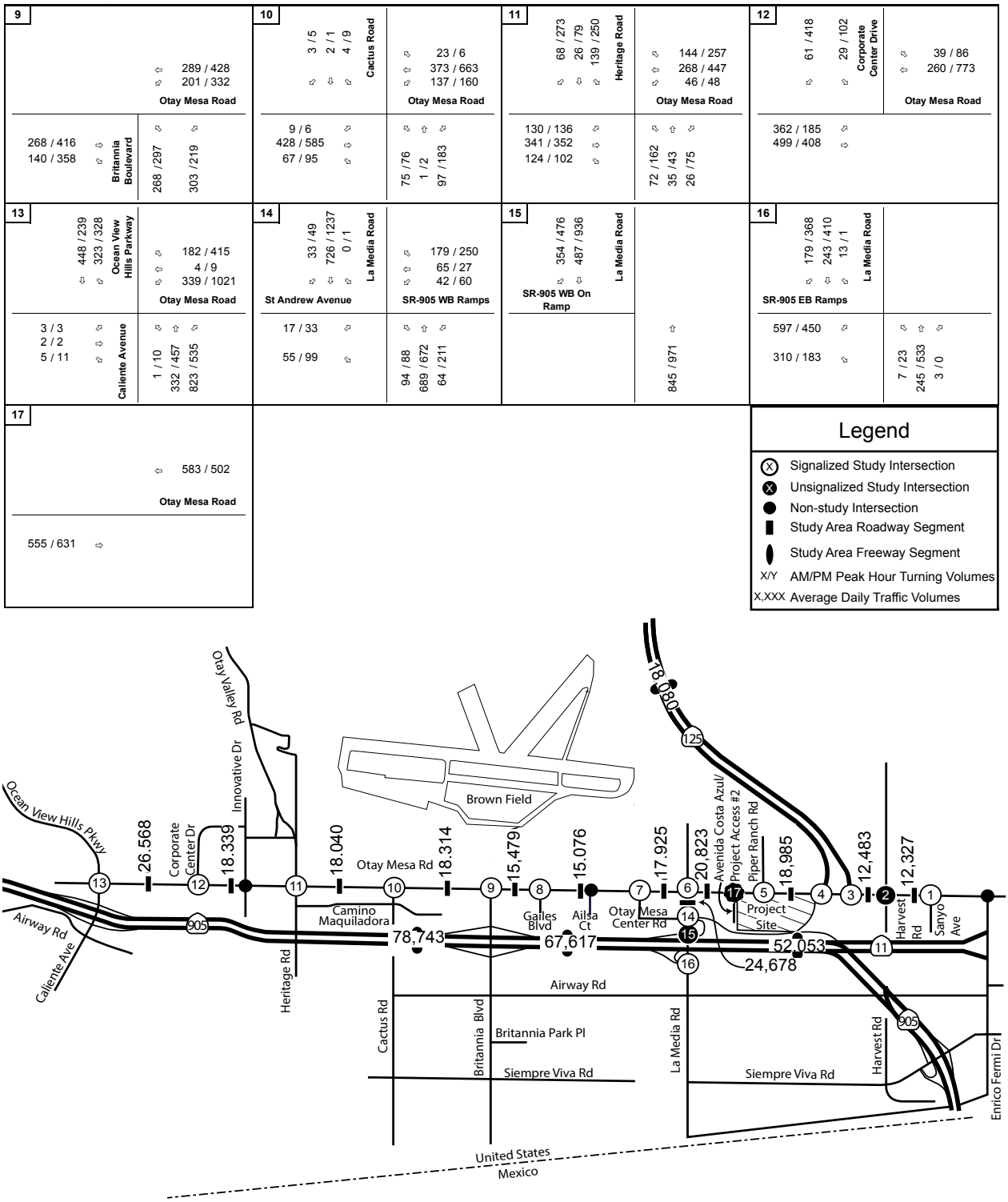
Bold values indicate intersections operating at LOS E or F. ECL – Exceeds Calculable Limit

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At SSSC intersections, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the 2000 Highway Capacity Manual and performed using Synchro 9.



Peak Hour Intersection & ADT Volumes
Near Term (2020) Baseline



Peak Hour Intersection & ADT Volumes
Near Term (2020) Baseline (cont.)

Table 9-2 Near Term (2020) Baseline Project Conditions Roadway Segment LOS Summary

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	NEAR TERM (2020) BASELINE		
			ADT	V/C RATIO (a)	LOS
Otay Mesa Road					
Sanyo Road to Harvest Road	4 Lane Collector	30,000	12,327	0.411	B
Harvest Road to SR-125 NB Ramp	4 Lane Collector	30,000	12,483	0.416	B
SR-125 NB Ramp to SR-125 SB Ramp	5 Lane Collector	37,500	15,347	0.409	B
SR-125 SB Ramp to Piper Ranch Road	5 Lane Collector	37,500	18,985	0.506	C
Piper Ranch Road to Avenida Costa Azul/Project Access #2	5 Lane Prime Arterial	50,000	20,891	0.418	B
Avenida Costa Azul/Project Access #2 to La Media Road	5 Lane Prime Arterial	50,000	20,823	0.416	B
La Media Road to Otay Mesa Center Road	6 Lane Prime Arterial	60,000	17,925	0.299	A
Otay Mesa Center Road to Gailes Boulevard	6 Lane Prime Arterial	60,000	15,076	0.251	A
Gailes Boulevard to Britannia Boulevard	6 Lane Prime Arterial	60,000	15,479	0.258	A
Britannia Boulevard to Cactus Road	6 Lane Prime Arterial	60,000	18,314	0.305	A
Cactus Road to Heritage Road	6 Lane Prime Arterial	60,000	18,040	0.301	A
Heritage Road to Corporate Center Drive	6 Lane Prime Arterial	60,000	18,339	0.306	A
Corporate Center Drive to Ocean View Hills Parkway	6 Lane Prime Arterial	60,000	26,568	0.443	B
La Media Road					
Otay Mesa Road to SR-905	5 Lane Collector	37,500	24,678	0.658	C
SR-905 WB Ramps to SR-905 EB Ramps	5 Lane Collector	37,500	16,415	0.438	B

Notes:

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

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Table 9-3 Near Term (2020) Baseline Conditions Freeway Segment LOS Summary

FREEWAY SEGMENT	DIRECTION	NUMBER OF LANES	CAPACITY (a)	NEAR TERM (2020) BASELINE			
				ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS
AM PEAK							
SR 905							
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	78,743	2,296	0.259	A
	EB	3 M + 1 A	8,850		4,505	0.509	B
Britannia Boulevard to La Media Road	WB	3 M	7,050	67,617	1,972	0.280	A
	EB	3 M + 1 A	8,850		3,868	0.437	B
La Media Road to Siempre Viva Road	WB	3 M	7,050	52,053	1,518	0.215	A
	EB	3 M + 1 A	8,850		2,978	0.336	A
SR 125							
Otay Mesa Road to Birch Road	NB	2 M	4,700	18,080	2,653	0.565	B
	SB	2 M	4,700		954	0.203	A
PM PEAK							
SR 905							
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	78,743	4,737	0.535	B
	EB	3 M + 1 A	8,850		3,324	0.376	A
Britannia Boulevard to La Media Road	WB	3 M	7,050	67,617	4,067	0.577	B
	EB	3 M + 1 A	8,850		2,855	0.323	A
La Media Road to Siempre Viva Road	WB	3 M	7,050	52,053	3,131	0.444	B
	EB	3 M + 1 A	8,850		2,198	0.248	A
SR 125							
Otay Mesa Road to Birch Road	NB	2 M	4,700	18,080	1,153	0.245	A
	SB	2 M	4,700		2,652	0.564	B

Notes:

(a) The capacity is calculated as 2,350 ADT per main lane and 1,800 ADT per auxiliary lane to be consistent with the Otay Mesa Community Plan Transportation Analysis

(b) Traffic volumes for SR 905 obtained from published year 2016 traffic count data from Caltrans. Traffic volumes for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report.

(c) Peak-hour volume calculated by: (ADT*K*D)/Truck Factor. K and D values consistent from Table 3-3.

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10 NEAR TERM (2020) WITH PHASE 1 & 2 CONDITIONS

This section provides a description of the Near Term (2020) Conditions with the addition of the Sunroad Otay Mesa Phase 1 & 2 project traffic (completed Sunroad project). Year 2020 was selected as the anticipated opening year of Phase 2 of the project.

10.1 TRAFFIC VOLUMES

Phase 1 and 2 of the project are expected to generate 4,225 Daily trips, with 633 trips (444 in, 189 out) during the AM Peak, and 676 trips (270 in, 406 out) during the PM Peak. Near Term (2020) with Phase 1 & 2 Project Conditions volumes were determined by adding the project traffic assigned from Phases 1 & 2 to the Near Term (2020) Baseline Conditions volumes. These volumes are shown in **Figure 10-1 & 10-2**.

10.2 ROADWAY NETWORK CHANGES

Phase 1 of the project would modify Piper Ranch Road and Otay Mesa Road as described in Chapter 5. Phase 2 of the project would develop a right-in, right-out only driveway access with associated deceleration lane on Otay Mesa Road at the Avenida Costa Azul location.

The Plaza La Media cumulative project proposes a traffic signal at the project's west driveway. The traffic volumes used in the analysis for the project assume the traffic signal is not in place and that left-turns out of the site to travel westbound on Otay Mesa Road would utilize Piper Ranch Road. An alternative evaluation has been prepared and included in **Appendix L** to show volumes and analysis results if that intersection was converted to a traffic signal.

10.3 INTERSECTION ANALYSIS

Table 10-1 displays the LOS analysis results for the study intersections under the Near Term (2020) with Phase 1 & 2 Project Conditions. As shown in the table, all intersections within the study area would operate at LOS D or better with the addition of the proposed project except for the following intersection.

- La Media Road & Otay Mesa Road (LOS F – AM and PM peak)

This intersection would be considered to have a significant direct project impact under this scenario. This intersection was also found to have an impact under the Existing Plus Phase 1 and Phase 2 Project Conditions.

Appendix B contains the intersections LOS calculation worksheets.

Table 10–1 Near Term (2020) with Phase 1 & 2 Project Conditions Intersection LOS Summary

	INTERSECTION	PEAK HOUR	NEAR TERM (2020) BASELINE		NEAR TERM (2020) BASELINE PLUS PHASE 1 + 2			SIGNIFICANT?
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	Δ (c)	
1	Sanyo Ave / Otay Mesa Rd	AM	11.4	B	11.1	B	-0.3	NO
		PM	11.2	B	11.3	B	0.1	NO
2	Harvest Road / Otay Mesa Rd	AM	9.2	A	9.3	A	0.1	NO
		PM	13.7	B	14.0	B	0.3	NO
3	SR-125 NB / Otay Mesa Rd	AM	3.0	A	3.2	A	0.2	NO
		PM	8.0	A	8.4	A	0.4	NO
4	SR-125 SB / Otay Mesa Rd	AM	10.6	B	10.7	B	0.1	NO
		PM	8.5	A	8.7	A	0.2	NO
5	Piper Ranch Rd / Otay Mesa Rd	AM	11.2	B	21.0	C	9.8	NO
		PM	11.1	B	27.6	C	16.5	NO
6	La Media Rd / Otay Mesa Rd	AM	176.3	**F**	ECL	**F**	-	**YES**
		PM	ECL	**F**	ECL	**F**	-	**YES**
7	Otay Mesa Center Rd / Otay Mesa Rd	AM	8.6	A	7.2	A	-1.4	NO
		PM	7.3	A	7.2	A	-0.1	NO
8	Gailes Blvd / Otay Mesa Rd	AM	12.9	B	12.6	B	-0.3	NO
		PM	29.1	C	28.8	C	-0.3	NO
9	Britannia Blvd / Otay Mesa Rd	AM	29.4	C	28.0	C	-1.4	NO
		PM	34.1	C	33.2	C	-0.9	NO
10	Cactus Rd / Otay Mesa Rd	AM	19.8	B	20.3	C	0.5	NO
		PM	20.6	C	20.9	C	0.3	NO
11	Heritage Rd / Otay Mesa Rd	AM	33.0	C	33.1	C	0.1	NO
		PM	35.0	D	35.1	D	0.1	NO
12	Corporate Center Dr / Otay Mesa Rd	AM	9.3	A	9.4	A	0.1	NO
		PM	13.4	B	13.7	B	0.3	NO
13	Ocean View Hills Pkwy/ Otay Mesa Rd	AM	39.4	D	42.3	D	2.9	NO
		PM	42.7	D	44.5	D	1.8	NO
14	La Media Rd / St Andrew Ave/SR-905 WB Off Ramp	AM	15.3	B	16.0	B	0.7	NO
		PM	16.1	B	17.0	B	0.9	NO
15	La Media Rd / SR-905 WB On Ramp	AM	No Conflicting Movements					NO
		PM						NO
16	La Media Rd / SR-905 EB	AM	9.6	A	10.6	B	1.0	NO
		PM	9.3	A	10.7	B	1.4	NO
17	Shared Access Private Dwy/Otay Mesa Rd (d)	AM	Not Constructed		12.6	B	n/a	NO
		PM			12.3	B	n/a	NO

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact. ECL = Exceeds Calculable Limit
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 9.0
(c) Change in delay due to addition of project traffic. Addition of project traffic may cause a decrease in delay at some locations. This counterintuitive result occurs when the volume being added to the intersection is on movements with less delay than the current overall intersection average delay, decreasing the overall intersection average delay.
(d) Intersection is assumed to be a right-in, right-out driveway as part of the project. An alternative evaluation is provided in **Appendix L** to account for the possibility of it being signalized as part of the cumulative Plaza La Media project.

10.4 ROADWAY SEGMENT ANALYSIS

Table 10-2 displays the roadway segments analysis under the Near Term (2020) with Phase 1 & 2 Project Conditions. As shown in the table, all study roadway segments would continue to operate at LOS D or better with the addition of the proposed project. The project would not have any traffic impact along any of the roadway segments within the study area under this scenario.

10.5 FREEWAY SEGMENT ANALYSIS

Table 10-3 displays the freeway segments analysis under the Near Term (2020) with Phase 1 & 2 Project Conditions. As shown in the table, all study freeway segments would continue to operate at LOS C or better with the addition of the proposed project. The project would not have any traffic impact along any of the freeway segments within the study area under this scenario.

10.6 FREEWAY RAMP METERING ANALYSIS

The SR-905 freeway ramps at La Media Road are not currently being metered and would not be expected to start metering until freeway segments show congestion that would require metering. No ramp metering analysis was performed for the Near Term (2020) with Phase 1 & 2 Project Conditions.

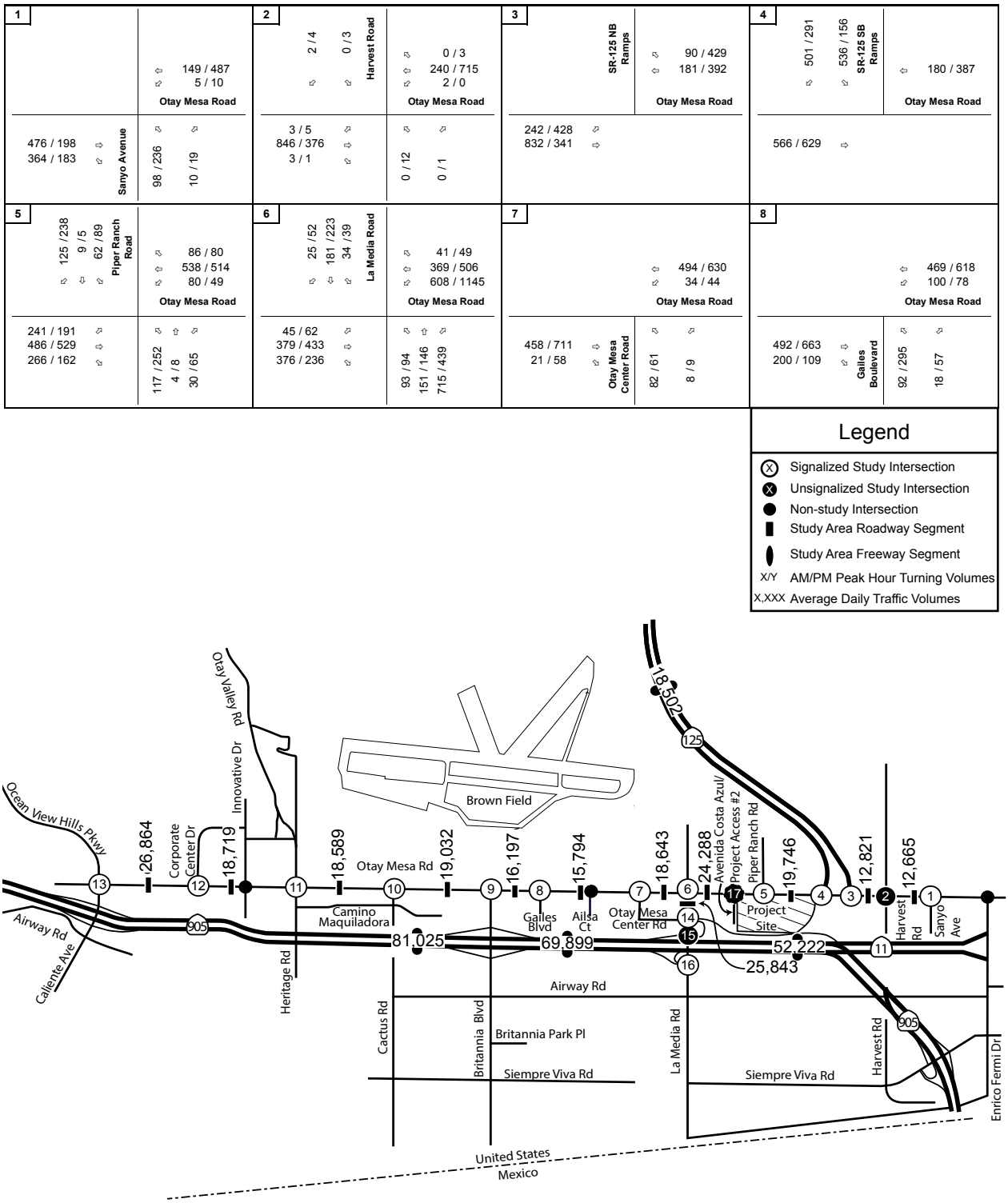
10.7 FINDINGS AND CONCLUSIONS

The results of the foregoing analysis indicate that the proposed Sunroad Otay Mesa project would have direct impacts that require mitigation under the Near Term (2020) with Phase 1 and 2 project traffic scenario at the following intersection:

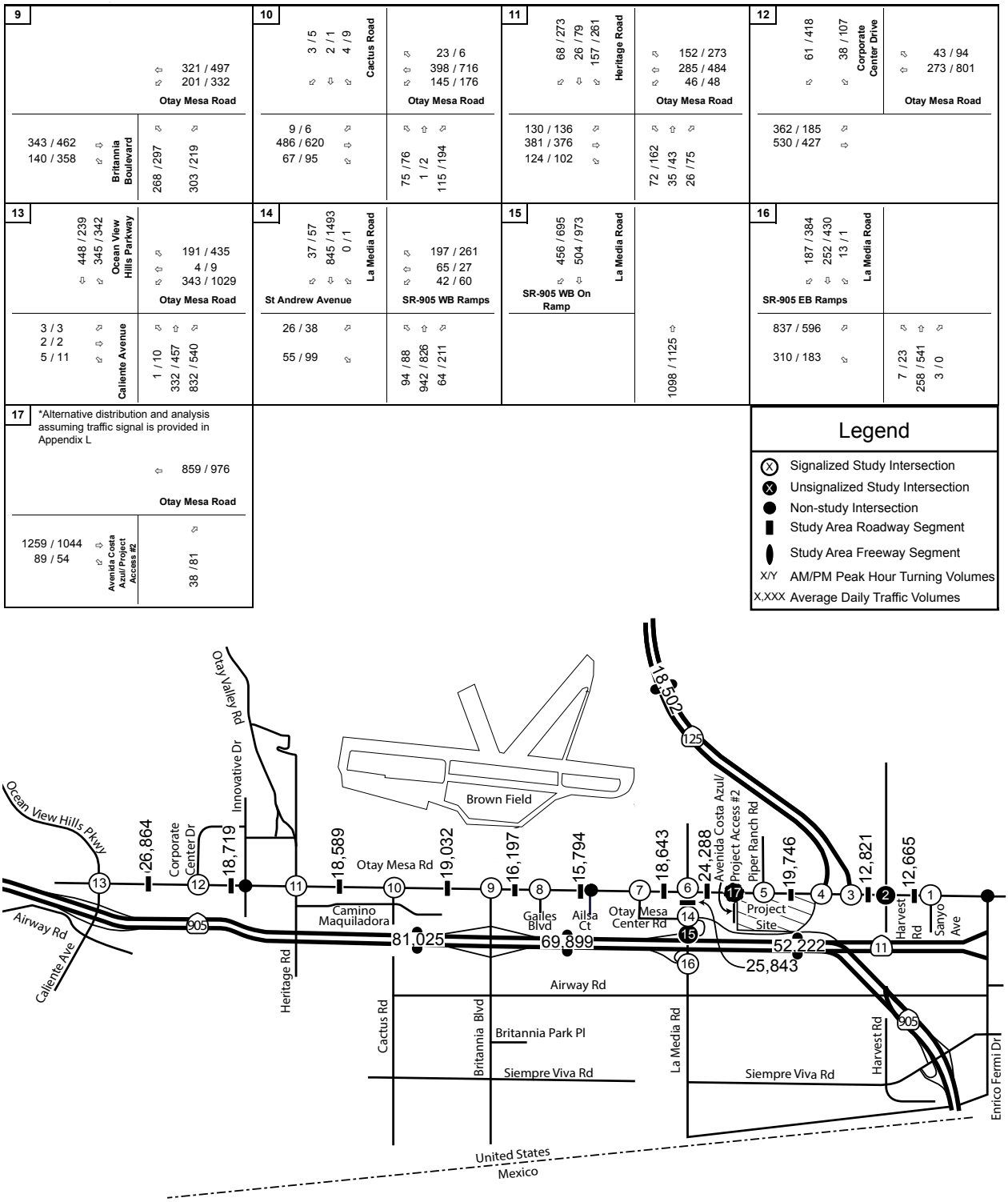
- La Media Road & Otay Mesa Road

To mitigate the proposed Phase 2 project traffic related impacts at La Media Road and Otay Mesa Road in the Near Term (2020) traffic conditions, a northbound right-turn lane would be needed. This is the same impact and mitigation that was identified under the Existing plus Phase 1 scenario as a direct impact. The resulting intersection geometry can be seen in Figure 5-5.

Table 10-4 shows the operations of the affected intersection with the proposed mitigation measures. As shown in the table, the intersection would improve to operating better than pre-project conditions. The intersection would operate at LOS F in the morning and afternoon peak hours.



Peak Hour Intersection & ADT Volumes
Near Term (2020) with Phase 1 & 2



Peak Hour Intersection & ADT Volumes
Near Term (2020) with Phase 1 & 2

Table 10-2 Near Term (2020) with Phase 1&2 Project Conditions Roadway Segment LOS Summary

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	NEAR TERM (2018) BASELINE			NEAR TERM (2020) PLUS PHASE 1 & 2			Δ in ADT	Δ in V/C	SIGNIFICANT?
			ADT	V/C RATIO (a)	LOS	ADT	V/C RATIO (a)	LOS			
Otay Mesa Road											
Sanyo Road to Harvest Road	4 Lane Collector	30,000	12,327	0.411	B	12,665	0.422	B	338	0.011	NO
Harvest Road to SR-125 NB Ramp	4 Lane Collector	30,000	12,483	0.416	B	12,821	0.427	B	338	0.011	NO
SR-125 NB Ramp to SR-125 SB Ramp	5 Lane Collector	37,500	15,347	0.409	B	15,685	0.418	B	338	0.009	NO
SR-125 SB Ramp to Piper Ranch Road	5 Lane Collector	37,500	18,985	0.506	C				761	-0.177	NO
	6 Lane Prime Arterial	60,000				19,746	0.329	A			
Piper Ranch Road to Avenida Costa Azul/Project Access #2	5 Lane Prime Arterial	50,000	20,891	0.418	B				3465	-0.012	NO
	6 Lane Prime Arterial	60,000				24,356	0.406	B			
Avenida Costa Azul/Project Access #2 to La Media Road	5 Lane Prime Arterial	50,000	20,823	0.416	B				3465	-0.011	NO
	6 Lane Prime Arterial	60,000				24,288	0.405	B			
La Media Road to Otay Mesa Center Road	6 Lane Prime Arterial	60,000	17,925	0.299	A	18,643	0.311	A	718	0.012	NO
Otay Mesa Center Road to Gailes Boulevard	6 Lane Prime Arterial	60,000	15,076	0.251	A	15,794	0.263	A	718	0.012	NO
Gailes Boulevard to Britannia Boulevard	6 Lane Prime Arterial	60,000	15,479	0.258	A	16,197	0.27	A	718	0.012	NO
Britannia Boulevard to Cactus Road	6 Lane Prime Arterial	60,000	18,314	0.305	A	19,032	0.317	A	718	0.012	NO
Cactus Road to Heritage Road	6 Lane Prime Arterial	60,000	18,040	0.301	A	18,589	0.31	A	549	0.009	NO
Heritage Road to Corporate Center Drive	6 Lane Prime Arterial	60,000	18,339	0.306	A	18,719	0.312	A	380	0.006	NO
Corporate Center Drive to Ocean View Hills Parkway	6 Lane Prime Arterial	60,000	26,568	0.443	B	26,864	0.448	B	296	0.005	NO
La Media Road											
Otay Mesa Road to SR-905	5 Lane Collector	37,500	24,678	0.658	C	25,843	0.689	D	1165	0.031	NO
SR-905 WB Ramps to SR-905 EB Ramps	5 Lane Collector	37,500	16,415	0.438	B	16,470	0.439	B	55	0.001	NO

Notes:

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

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Table 10-3 Near Term (2020) with Phase 1 & 2 Project Conditions Freeway Segment LOS Summary

FREEWAY SEGMENT	DIRECTION	NUMBER OF LANES	CAPACITY (a)	NEAR TERM (2020) BASELINE				NEAR TERM (2020) PLUS PHASE 1+2				V/C RATIO Δ	SIGNIFICANT?
				ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS	ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS		
AM PEAK													
SR 905													
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	78,743	2,296	0.259	A	81,025	2,362	0.267	A	0.008	--
	EB	3 M + 1 A	8,850		4,505	0.509	B		4,635	0.524	B	0.015	--
Britannia Boulevard to La Media Road	WB	3 M	7,050	67,617	1,972	0.280	A	69,899	2,038	0.289	A	0.009	--
	EB	3 M + 1 A	8,850		3,868	0.437	B		3,999	0.452	B	0.015	--
La Media Road to Siempre Viva Road	WB	3 M	7,050	52,053	1,518	0.215	A	52,222	1,523	0.216	A	0.001	--
	EB	3 M + 1 A	8,850		2,978	0.336	A		2,988	0.338	A	0.001	--
SR 125													
Otay Mesa Road to Birch Road	NB	2 M	4,700	18,080	2,653	0.565	B	18,502	2,715	0.578	B	0.013	--
	SB	2 M	4,700		954	0.203	A		976	0.208	A	0.005	--
PM PEAK													
SR 905													
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	78,743	4,737	0.535	B	81,025	4,874	0.551	B	0.016	--
	EB	3 M + 1 A	8,850		3,324	0.376	A		3,421	0.387	A	0.011	--
Britannia Boulevard to La Media Road	WB	3 M	7,050	67,617	4,067	0.577	B	69,899	4,205	0.596	B	0.019	--
	EB	3 M + 1 A	8,850		2,855	0.323	A		2,951	0.333	A	0.011	--
La Media Road to Siempre Viva Road	WB	3 M	7,050	52,053	3,131	0.444	B	52,222	3,141	0.446	B	0.001	--
	EB	3 M + 1 A	8,850		2,198	0.248	A		2,205	0.249	A	0.001	--
SR 125													
Otay Mesa Road to Birch Road	NB	2 M	4,700	18,080	1,153	0.245	A	18,502	1,180	0.251	A	0.006	--
	SB	2 M	4,700		2,652	0.564	B		2,714	0.578	B	0.013	--

Notes:

(a) The capacity is calculated as 2,350 ADT per main lane and 1,800 ADT per auxiliary lane to be consistent with the Otay Mesa Community Plan Transportation Analysis

(b) Traffic volumes for SR 905 obtained from published year 2016 traffic count data from Caltrans. Traffic volumes for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report.

(c) Peak-hour volume calculated by: (ADT*K*D)/Truck Factor. K and D values consistent from Table 3-3.

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Table 10-4 Mitigation for Near Term (2020) with Phase 1 & 2 Project Conditions Intersection LOS Summary

INTERSECTION		PEAK HOUR	NEAR TERM (2020) BASELINE		NEAR TERM (2020) PLUS PROJECT BEFORE IMPROVEMENT		NEAR TERM (2020) PLUS PROJECT AFTER IMPROVEMENT		DESCRIPTION
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
6	La Media & Otay Mesa Road	AM	176.3	**F**	ECL	**F**	80.9	**F**	Add additional exclusive northbound right-turn lane
		PM	ECL	**F**	ECL	**F**	183.3	**F**	

Notes:

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 9.0

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11 HORIZON YEAR (2035) BASELINE CONDITIONS

This section provides a description of the Horizon Year (2035) Baseline Conditions. This scenario establishes a baseline to compare against plus project scenarios to determine project impacts. Alternative 3B without La Media Road extension of the Otay Mesa Community Plan Update process was the selected alternative and is referenced to help establish Horizon Year conditions. The transportation impact study for the Community Plan Update is provided as **Appendix H**.

11.1 TRAFFIC VOLUMES

The Horizon Year volumes were calculated using linear interpolation between the existing volumes and the volumes used in the Otay Mesa Community Plan, which assumes a 2062 build-out, to establish estimated volumes in year 2035. Peak-hour and daily volumes assumed for community plan buildout in 2062 were extracted from the Transportation Analysis for Otay Mesa Community Plan Update, dated June 14, 2012.

The *Otay Mesa Community Plan Update* transportation impact study included assumed traffic for the site based on model inputs of a 521.7 Community Commercial site, generating approximately 40,000 ADT. The assumed project traffic was removed from the Otay Mesa Community Plan Update volumes to establish this baseline condition.

Modifications to daily and peak-hour traffic volumes on Otay Mesa Road near Cactus Road were made for the Horizon Year scenario. The Community Plan network includes a Cactus Road connection over SR 905. That overpass project is not assumed to be in place in the 2035 network assumptions, so volumes estimated to use that overpass were moved to Britannia Boulevard. This adjustment is documented in **Appendix D**.

Figures 11-1 & 11-2 illustrate the resulting Horizon Year Baseline conditions peak-hour and daily traffic volumes in the study area.

11.2 ROADWAY NETWORK

This study assumes the following roadway network changes would occur between Existing and Horizon Year conditions:

- Construction of the Otay Mesa East Border Crossing (Opening Year 2018);
- Construction of the SR-11 freeway connection between SR-905 and the future East Otay Border Crossing (Opening Year 2018);
- Connection of SR-125 with the SR-905 freeway;

These changes do not modify intersection geometry within the study area, but provide some changes to traffic patterns as reflected in the trip distribution. The intersection geometry documented for existing conditions, shown in Figures 3-1 and 3-2, is assumed to be in place under this scenario.

11.3 INTERSECTION ANALYSIS

Table 11-1 displays the LOS analysis results for the study intersections under the Horizon Year with Phase 1 & 2 Project Conditions.

Table 11–1 Horizon Year (2035) Baseline Conditions Intersection LOS Summary

Intersection		Traffic Control	Peak Hour	HORIZON YEAR (2035) BASELINE	
				Delay (a)	LOS (b)
1	Sanyo Ave / Otay Mesa Rd	Signal	AM	14.7	B
			PM	15.5	B
2	Harvest Rd / Otay Mesa Rd	SSSC	AM	ECL	**F**
			PM	ECL	**F**
3	SR-125 Northbound Ramp / Otay Mesa Rd	Signal	AM	4.3	A
			PM	9.8	A
4	SR-125 Southbound Ramp / Otay Mesa Rd	Signal	AM	16.9	B
			PM	10.0	B
5	Piper Ranch Rd / Otay Mesa Rd	Signal	AM	20.0	C
			PM	18.1	B
6	La Media Rd / Otay Mesa Rd	Signal	AM	ECL	**F**
			PM	166.3	**F**
7	Otay Mesa Center Rd / Otay Mesa Rd	Signal	AM	6.7	A
			PM	6.5	A
8	Gailes Blvd / Otay Mesa Rd	Signal	AM	6.0	A
			PM	9.9	A
9	Britannia Blvd / Otay Mesa Rd	Signal	AM	30.1	C
			PM	62.6	**E**
10	Cactus Rd / Otay Mesa Rd	Signal	AM	64.2	**E**
			PM	51.1	D
11	Heritage Rd / Otay Mesa Rd	Signal	AM	ECL	**F**
			PM	111.7	**F**
12	Otay Mesa Rd / Corporate Center Dr	Signal	AM	11.6	B
			PM	19.7	B
13	Caliente Ave / Ocean View Hills Pkwy / Otay Mesa Rd	Signal	AM	138.4	**F**
			PM	ECL	**F**
14	La Media Road / SR-905 Westbound Ramps	Signal	AM	28.6	C
			PM	26.5	C
15	La Media Road / SR-905 Westbound On-Ramp	No Control	AM	*No Conflicting Movements*	
			PM		
16	La Media Road / SR-905 Eastbound Ramps	Signal	AM	56.5	**E**
			PM	19.1	B
17	Shared Access Private Dwy/Otay Mesa Rd	Signal	AM	*Not Constructed*	
			PM		

Signal = Traffic Signal; SSSC = Side Street Stop Control
Bold values indicate intersections operating at LOS E or F. ECL = Exceeds Calculable Limit
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At SSSC intersections, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the 2000 Highway Capacity Manual and performed using Synchro 9.

As shown in the table, the following intersections would operate at LOS E or F for one or both peak periods:

- Harvest Road & Otay Mesa Road (LOS F – AM and PM peak)
- La Media Road & Otay Mesa Road (LOS F – AM and PM peak)
- Britannia Boulevard & Otay Mesa Road (LOS E – PM peak)
- Cactus Road & Otay Mesa Road (LOS E – AM peak)
- Heritage Road & Otay Mesa Road (LOS F – AM and PM peak)
- Caliente Avenue/Ocean View Hills Parkway & Otay Mesa Road (LOS F – AM and PM peak)
- La Media Road & SR-905 Eastbound Ramps (LOS E – AM peak)

Appendix B contains the intersections LOS calculation worksheets.

11.4 ROADWAY SEGMENT ANALYSIS

Table 11-2 displays the roadway segments analysis under the Horizon Year (2035) Baseline Conditions. As shown in the table, all study roadway segments would operate at LOS C or better except the segment of La Media Road between the SR-905 Ramps, which is shown at LOS E.

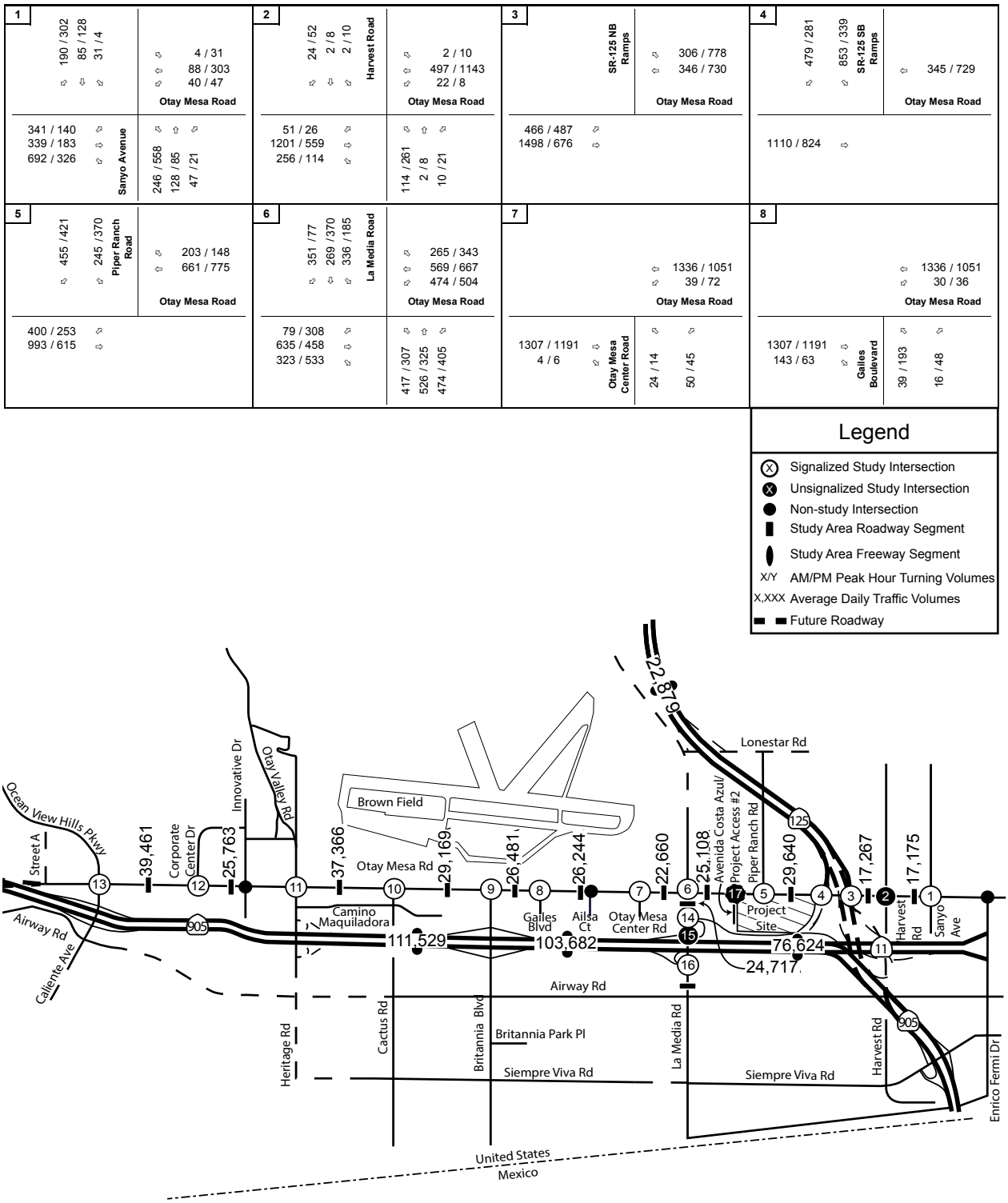
11.5 FREEWAY SEGMENT ANALYSIS

Table 11-3 displays the freeway segments analysis under the Horizon Year (2035) Baseline Conditions. As shown in the table, all study freeway segments would operate at LOS D or better.

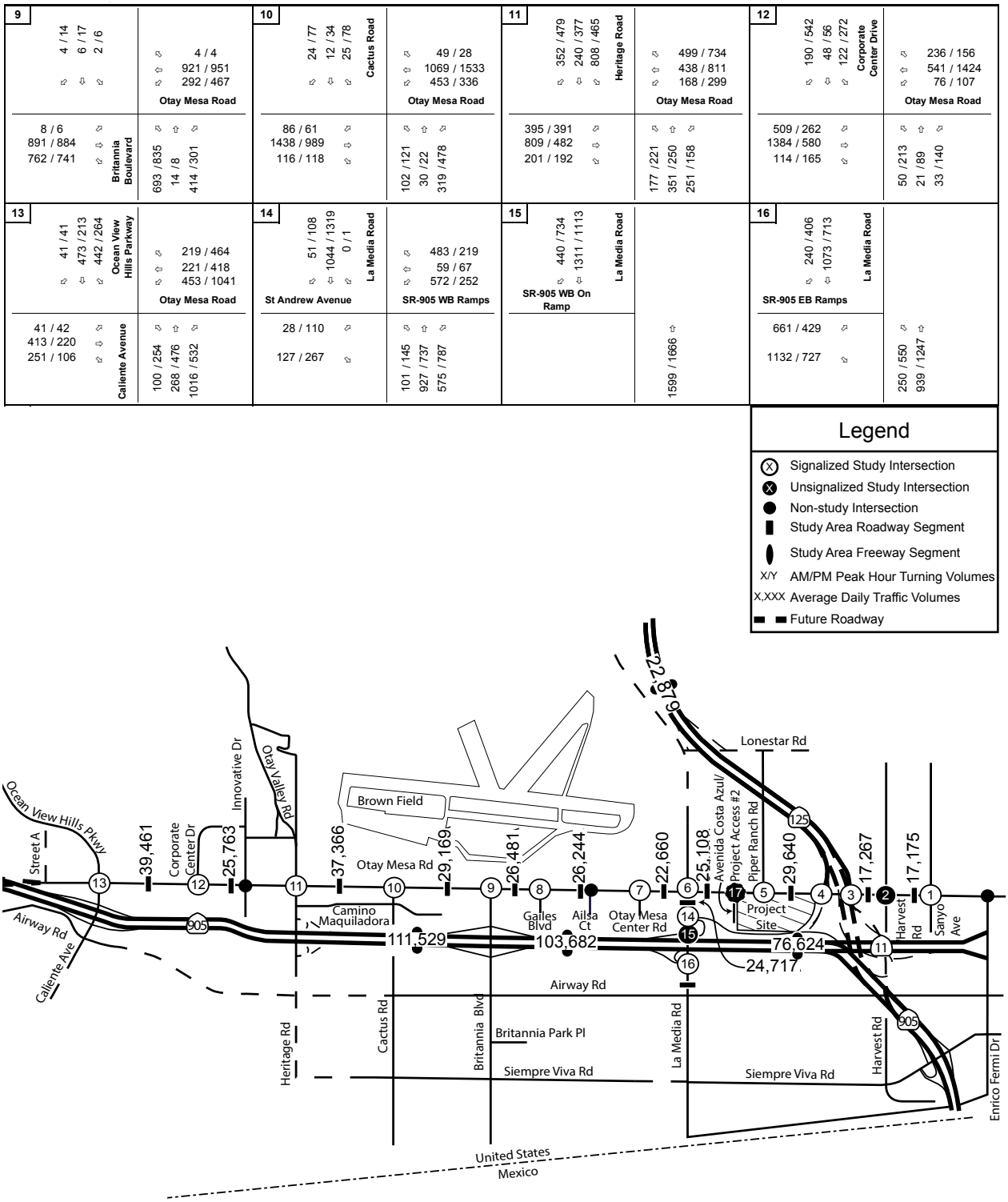
11.6 FREEWAY RAMP METERING ANALYSIS

Ramp metering analysis at La Media Road was performed for Horizon Year 2035 conditions. Based on guidance in the Caltrans Ramp Meter Design Manual, each ramp was assumed to have one standard lane and one high-occupancy vehicle (HOV) lane. It was assumed that each lane would operate with one vehicle per eight second cycle, resulting in a meter rate of 450 vehicles per hour per lane.

Table 11-4 displays the results of the ramp metering analysis for the metered freeway ramps under Horizon Year (2035) Baseline Conditions. As shown in the table, the only ramp that is anticipated to have delay is the La Media Road to Eastbound SR-905 On-Ramp, which shows an estimated delay of 3.7 minutes.



Peak Hour Intersection & ADT Volumes
Horizon Year Baseline



Peak Hour Intersection & ADT Volumes
Horizon Year Baseline (cont.)

Table 11-2 Horizon Year (2035) Baseline Conditions Roadway Segment LOS Summary

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	HORIZON YEAR BASELINE		
			ADT	V/C RATIO (a)	LOS
Otay Mesa Road					
Sanyo Road to Harvest Road	4 Lane Collector	30,000	17,175	0.573	C
Harvest Road to SR-125 NB Ramp	4 Lane Collector	30,000	17,267	0.576	C
SR-125 NB Ramp to SR-125 SB Ramp	5 Lane Collector	37,500	17,286	0.461	B
SR-125 SB Ramp to Piper Ranch Road	6 Lane Prime Arterial	60,000	29,640	0.494	B
Piper Ranch Road to Avenida Costa Azul/Project Access #2	6 Lane Prime Arterial	60,000	29,858	0.498	B
Avenida Costa Azul/Project Access #2 to La Media Road	6 Lane Prime Arterial	60,000	25,108	0.418	B
La Media Road to Otay Mesa Center Road	6 Lane Prime Arterial	60,000	22,660	0.378	A
Otay Mesa Center Road to Gailes Boulevard	6 Lane Prime Arterial	60,000	26,244	0.437	B
Gailes Boulevard to Britannia Boulevard	6 Lane Prime Arterial	60,000	26,481	0.441	B
Britannia Boulevard to Cactus Road	6 Lane Prime Arterial	60,000	29,169	0.486	B
Cactus Road to Heritage Road	6 Lane Prime Arterial	60,000	37,366	0.623	C
Heritage Road to Corporate Center Drive	6 Lane Prime Arterial	60,000	25,763	0.429	B
Corporate Center Drive to Ocean View Hills Pa	6 Lane Prime Arterial	60,000	39,461	0.658	C
La Media Road					
Otay Mesa Road to SR-905	5 Lane Collector	37,500	24,717	0.659	C
SR-905 WB Ramps to SR-905 EB Ramps	5 Lane Collector	37,500	35,901	0.957	**E**

Notes:

Bold values indicate roadway segments operating at LOS E or F.

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Table 11-3 Horizon Year Baseline Conditions Freeway Segment LOS Summary

FREEWAY SEGMENT	DIRECTION	NUMBER OF LANES	CAPACITY (a)	BUILD OUT BASELINE			
				ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS
AM PEAK							
SR 905							
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	111,529	3,252	0.367	A
	EB	3 M + 1 A	8,850		6,381	0.721	C
Britannia Boulevard to La Media Road	WB	3 M	7,050	103,682	3,023	0.429	B
	EB	3 M + 1 A	8,850		5,932	0.670	C
La Media Road to Siempre Viva Road	WB	3 M	7,050	76,624	2,234	0.317	A
	EB	3 M + 1 A	8,850		4,384	0.495	B
SR 125							
Otay Mesa Road to Birch Road	NB	2 M	4,700	22,879	3,732	0.794	C
	SB	2 M	4,700		1,398	0.297	A
PM PEAK							
SR 905							
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	111,529	6,709	0.758	C
	EB	3 M + 1 A	8,850		4,709	0.532	B
Britannia Boulevard to La Media Road	WB	3 M	7,050	103,682	6,237	0.885	D
	EB	3 M + 1 A	8,850		4,377	0.495	B
La Media Road to Siempre Viva Road	WB	3 M	7,050	76,624	4,609	0.654	C
	EB	3 M + 1 A	8,850		3,235	0.366	A
SR 125							
Otay Mesa Road to Birch Road	NB	2 M	4,700	22,879	1,459	0.310	A
	SB	2 M	4,700		3,356	0.714	C

Notes:

Bold values indicate freeway segments operating at LOS E or F.

(a) The capacity is calculated as 2,350 ADT per main lane and 1,800 ADT per auxiliary lane to be consistent with the Otay Mesa Community Plan Transportation Analysis

(b) ADT for SR 905 obtained from the Otay Mesa Community Plan projections. ADT for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report.

(c) Peak-hour volume for SR 905 calculated by: (ADT*K*D)/Truck Factor. Peak-hour volume for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report and increased to account for a truck percentage.

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Table 11-4 Horizon Year Baseline Conditions Ramp Meter Analysis Summary

ON-RAMP	PEAK PERIOD	METER RATE[1] (veh/hr/ln)	# OF LANES	BASELINE DEMAND[2] (veh/hr)	EXCESS BASELINE DEMAND (veh/hr)	AVERAGE BASELINE DELAY[3] (min)
La Media Rd to	AM	450	2	490	0	0.0
SR 905 EB On- Ramp	PM	450	2	956	56	7.5
SB La Media Rd to	AM	450	2	440	0	0.0
SR 905 WB On- Ramp	PM	450	2	734	0	0.0
NB La Media Rd to	AM	450	2	575	0	0.0
SR 905 WB On- Ramp	PM	450	2	787	0	0.0

Notes:

1) Meter rate is the assumed peak hour capacity expected to be processed through the ramp meter and assumes two lanes; one standard lane and one HOV lane; processing one vehicle per lane per eight seconds.

2) Demand is the peak hour demand expected to use the on-ramp, based on observed traffic turning movement counts. **Appendix A**

3) Average Delay estimated by dividing the excess demand by the meter rate and then multiplying by 60 minutes/hour

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12 HORIZON YEAR (2035) WITH PHASE 1 & 2 CONDITIONS

This section provides a description of the Horizon Year (2035) Conditions with the addition of the Sunroad Otay Mesa Phase 1 & 2 project traffic. Year 2035 was selected to establish an approximate 20-year projection from existing conditions.

12.1 TRAFFIC VOLUMES

Phase 1 and 2 of the project are expected to generate 4,225 Daily trips, with 633 trips (444 in, 189 out) during the AM Peak, and 676 trips (270 in, 406 out) during the PM Peak. Horizon Year (2035) with Phase 1 & 2 Project Conditions volumes were determined by adding the project traffic assigned from Phases 1 & 2 to the Horizon Year (2035) Baseline Conditions volumes. Horizon Year with Phase 1 & 2 Project Conditions volumes are shown in **Figures 12-1 & 12-2**.

12.2 ROADWAY NETWORK

Phase 1 of the project would modify Piper Ranch Road and Otay Mesa Road as described in Chapter 5. Phase 2 of the project would either independently develop a right-in, right-out only driveway access with associated deceleration lane on Otay Mesa Road at the Avenida Costa Azul location, or would utilize the signalized access at that location if built by the Plaza La Media project. If the signal is not built, the project's driveway would conform to City of San Diego design standards. The traffic volumes used in the analysis for the project assume the traffic signal is not in place and that left-turns out of the site to travel eastbound on Otay Mesa Road would utilize Piper Ranch Road intersection to make a U-turn. Alternative analysis is provided in **Appendix L**.

12.3 INTERSECTION ANALYSIS

Table 12-1 displays the LOS analysis results for the study intersections under the Horizon Year with Phase 1 & 2 Project Conditions.

As shown in the table, the following intersections would operate at LOS E or F for one or both peak periods:

- **Harvest Road & Otay Mesa Road (LOS F – AM and PM peak)**
- **La Media Road & Otay Mesa Road (LOS F – AM and PM peak)**
- Britannia Boulevard & Otay Mesa Road (LOS E – PM peak)
- **Cactus Road & Otay Mesa Road (LOS E – AM peak)**
- **Heritage Road & Otay Mesa Road (LOS F – AM and PM peak)**
- **Caliente Avenue/Ocean View Hills Parkway & Otay Mesa Road (LOS F – AM and PM peak)**
- La Media Road & SR-905 Eastbound Ramps (LOS E – AM peak)

The intersections shown in bold above would meet thresholds of significant impacts for the project and would be considered significant cumulative impacts.

Appendix B contains the intersections LOS calculation worksheets.

Table 12–1 Horizon Year with Phase 1 & 2 Project Conditions Intersection LOS Summary

INTERSECTION		PEAK HOUR	HORIZON YEAR BASELINE DELAY (a)	HORIZON YEAR BASELINE LOS (b)	HORIZON YEAR BASELINE PLUS PHASE 1 + 2 DELAY (a)	HORIZON YEAR BASELINE PLUS PHASE 1 + 2 LOS (b)	Δ (c)	SIGNIFICANT?
1	Sanyo Ave / Otay Mesa Rd	AM	14.7	B	14.0	B	-0.7	NO
		PM	15.5	B	15.8	B	0.3	NO
2	Harvest Road / Otay Mesa Rd	AM	ECL	**F**	ECL	**F**	-	**YES**
		PM	ECL	**F**	ECL	**F**	-	**YES**
3	SR-125 NB / Otay Mesa Rd	AM	4.3	A	4.8	A	0.5	NO
		PM	9.8	A	12.1	B	2.3	NO
4	SR-125 SB / Otay Mesa Rd	AM	16.9	B	24.0	C	7.1	NO
		PM	10.0	B	13.1	B	3.1	NO
5	Piper Ranch Rd / Otay Mesa Rd	AM	20.0	C	31.3	C	11.3	NO
		PM	18.1	B	47.0	D	28.9	NO
6	La Media Rd / Otay Mesa Rd	AM	ECL	**F**	ECL	**F**	-	**YES**
		PM	166.3	**F**	ECL	**F**	-	**YES**
7	Otay Mesa Center Rd / Otay Mesa Rd	AM	6.7	A	6.8	A	0.1	NO
		PM	6.5	A	6.5	A	0.0	NO
8	Gailes Blvd / Otay Mesa Rd	AM	6.0	A	6.2	A	0.2	NO
		PM	9.9	A	10.6	B	0.7	NO
9	Britannia Blvd / Otay Mesa Rd	AM	30.1	C	30.6	C	0.5	NO
		PM	62.6	**E**	61.9	**E**	-0.7	NO
10	Cactus Rd / Otay Mesa Rd	AM	64.2	**E**	69.3	**E**	5.1	**YES**
		PM	51.1	D	54.4	D	3.3	NO
11	Heritage Rd / Otay Mesa Rd	AM	188.7	**F**	187.7	**F**	-1.0	NO
		PM	111.7	**F**	116.2	**F**	4.5	**YES**
12	Corporate Center Dr / Otay Mesa Rd	AM	11.6	B	12.0	B	0.4	NO
		PM	19.7	B	20.2	C	0.5	NO
13	Ocean View Hills Pkwy/ Otay Mesa Rd	AM	138.4	**F**	143.7	**F**	5.3	**YES**
		PM	ECL	**F**	ECL	**F**	-	**YES**
14	La Media Rd / St Andrew Ave/SR-905 WB Off Ramp	AM	28.6	C	32.6	C	4.0	NO
		PM	26.5	C	28.0	C	1.5	NO
15	La Media Rd / SR-905 WB On Ramp	AM	No Conflicting Movements					NO
		PM						NO
16	La Media Rd / SR-905 EB	AM	56.5	**E**	56.8	**E**	0.3	NO
		PM	19.1	B	20.5	C	1.4	NO
17	Project Dwy #2 / Otay Mesa Rd (d)	AM	Not Constructed		16.1	C		NO
		PM			17.1	C		NO

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact. ECL = Exceeds Calculable Limit
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 9.0
(c) Change in delay due to addition of project traffic. Addition of project traffic may cause a decrease in delay at some locations. This counterintuitive result occurs when the volume being added to the intersection is on movements with less delay than the current overall intersection average delay, decreasing the overall intersection average delay.
d) Intersection is assumed to be a right-in, right-out driveway as part of the project. An alternative evaluation is provided in **Appendix L** to account for the possibility of it being signalized as part of the cumulative Plaza La Media project.

12.4 ROADWAY SEGMENT ANALYSIS

Table 12-2 displays the roadway segments analysis under the Horizon Year with Phase 1 & 2 Project Conditions. As shown in the table, all study roadway segments would continue to operate at LOS D or better with the addition of the proposed project, except the segment of La Media between the SR-905 Ramps, which is shown at LOS E. The project would not have any traffic impact along any of the roadway segments within the study area under this scenario.

12.5 FREEWAY SEGMENT ANALYSIS

Table 12-3 displays the freeway segments analysis under the Horizon Year with Phase 1 & 2 Project Conditions. As shown in the table, all study freeway segments would continue to operate at LOS D or better with the addition of the proposed project. The project would not have any traffic impact along any of the roadway segments within the study area under this scenario.

12.6 FREEWAY RAMP METERING ANALYSIS

Ramp metering analysis at La Media Road was performed for Horizon Year 2035 conditions. Based on guidance in the Caltrans Ramp Meter Design Manual, each ramp was assumed to have one standard lane and one high-occupancy vehicle (HOV) lane. It was assumed that each lane would operate with one vehicle per eight second cycle, for a ramp meter rate of 450 vehicles per hour per lane.

Table 12-4 displays the results of the ramp metering analysis for the metered freeway ramps under Horizon Year with Phase 1 & 2 Project Conditions. As shown in the table, the only ramp that is anticipated to have delay is the La Media Road to Eastbound SR-905 On-Ramp. The delay would be less than 5 minutes and the project would increase the delay by less than 2 minutes. There would be no significant impact as a result of the project.

12.7 FINDINGS AND CONCLUSIONS

The proposed project is consistent with the Otay Mesa Community Plan. The project site is zoned as IL-3-1 and designated in the Otay Mesa Community Plan as Heavy Commercial and the proposed use is an allowable use within that designation. The Otay Mesa Community Plan assumed Year 2062 as build-out of the Community Plan when estimating traffic volumes. The Horizon Year in this study is assumed as year 2035 and factored the horizon year volumes accordingly. The analysis compared the difference in volumes with and without the proposed project to establish the project's contribution towards estimated Year 2035 volumes in the Horizon Year scenario.

Based on the current City's guidelines, there would be a significant cumulative project traffic impact at the following intersections under the Horizon Year scenario:

- Harvest Road & Otay Mesa Road
- La Media Road & Otay Mesa Road
- Cactus Road & Otay Mesa Road
- Heritage Road & Otay Mesa Road
- Caliente Avenue/Ocean View Hills Parkway & Otay Mesa Road

Based on the current City's guidelines, there would be no significant cumulative traffic impacts at the study area roadway segments under the Horizon Year conditions. Similarly, there would be no significant cumulative traffic impacts to the freeway segments under the Horizon Year scenario.

Ultimate intersection geometry identified in the Community Plan was used as guidance to determine geometry improvements to mitigate the project's significant cumulative traffic impacts at these locations. Only the geometry needed to get to LOS D or better is identified rather than full implementation of all intersection improvements identified in the Community Plan, as restoring to LOS D or better is appropriate mitigation for the project. The proposed project will pay its share to complete the improvements based on fair share calculations documented in **Appendix F**. **Appendix G** provides the Otay Mesa Public Facilities Financing Plan. **Appendix H** includes portions of the Otay Mesa Community Plan Selected Alternative 3B.

To mitigate the cumulative impact at Harvest Road and Otay Mesa Road, a traffic signal would be needed. The proposed project would be required to pay its fair share towards a future traffic signal at this location. The project fair share is estimated to be 2.78%.

To mitigate the cumulative impact at La Media Road and Otay Mesa Road, in addition to the construction of an exclusive northbound right-turn assumed to be added as a direct project impact mitigation, the following additions would be needed to mitigate the intersection to LOS D during the peak hours:

- 2nd southbound through
- 2nd northbound through
- 2nd northbound left turn
- Northbound right-turn lane overlap phase
- 2nd eastbound left turn
- 2nd westbound left turn

The project's fair-share towards these improvements would be 10.90%.

To mitigate the cumulative impact at Cactus Road and Otay Mesa Road, the following lanes would be needed to mitigate the intersection to LOS D during the peak hours:

- 2nd westbound left turn

The project's fair-share towards these improvements would be 4.14%.

To mitigate the cumulative impact at Heritage Road and Otay Mesa Road, the following would be needed to mitigate the intersection to LOS D during the peak hours:

- Addition of three northbound lanes to have 2 lefts, 2 throughs, and 1 right
- Addition of two southbound lanes to have 2 lefts, 2 throughs, and 1 right

The project's fair-share towards these improvements would be 2.64%.

To mitigate the cumulative impact at Caliente Road/Ocean View Hills Parkway and Otay Mesa Road, the following lanes would be needed to achieve the ultimate configuration identified in the Community Plan and mitigate the intersection impact: :

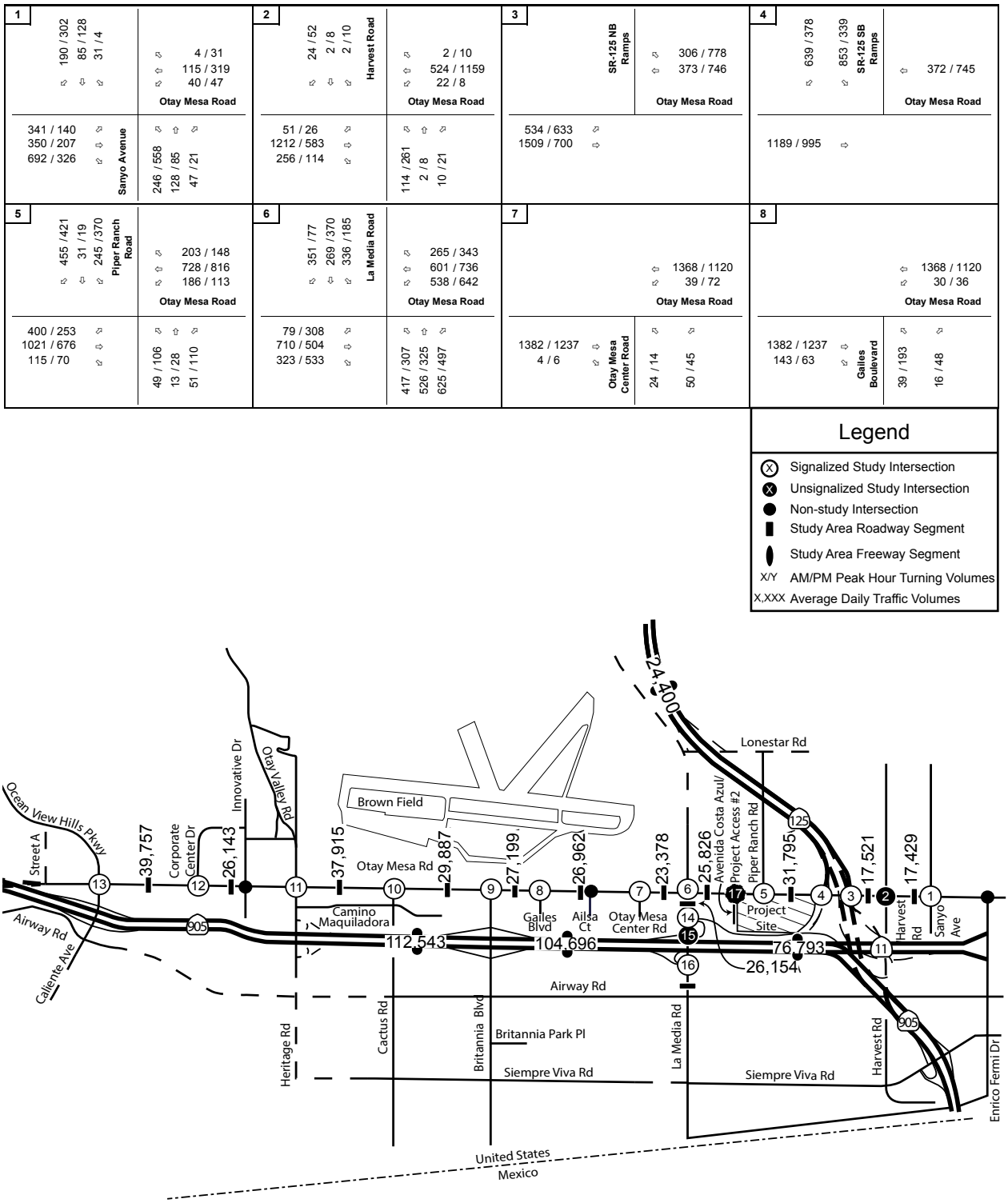
- 2nd eastbound left turn
- 3rd eastbound through

- 2nd and 3rd westbound through
- 2nd northbound left turn
- 3rd northbound through

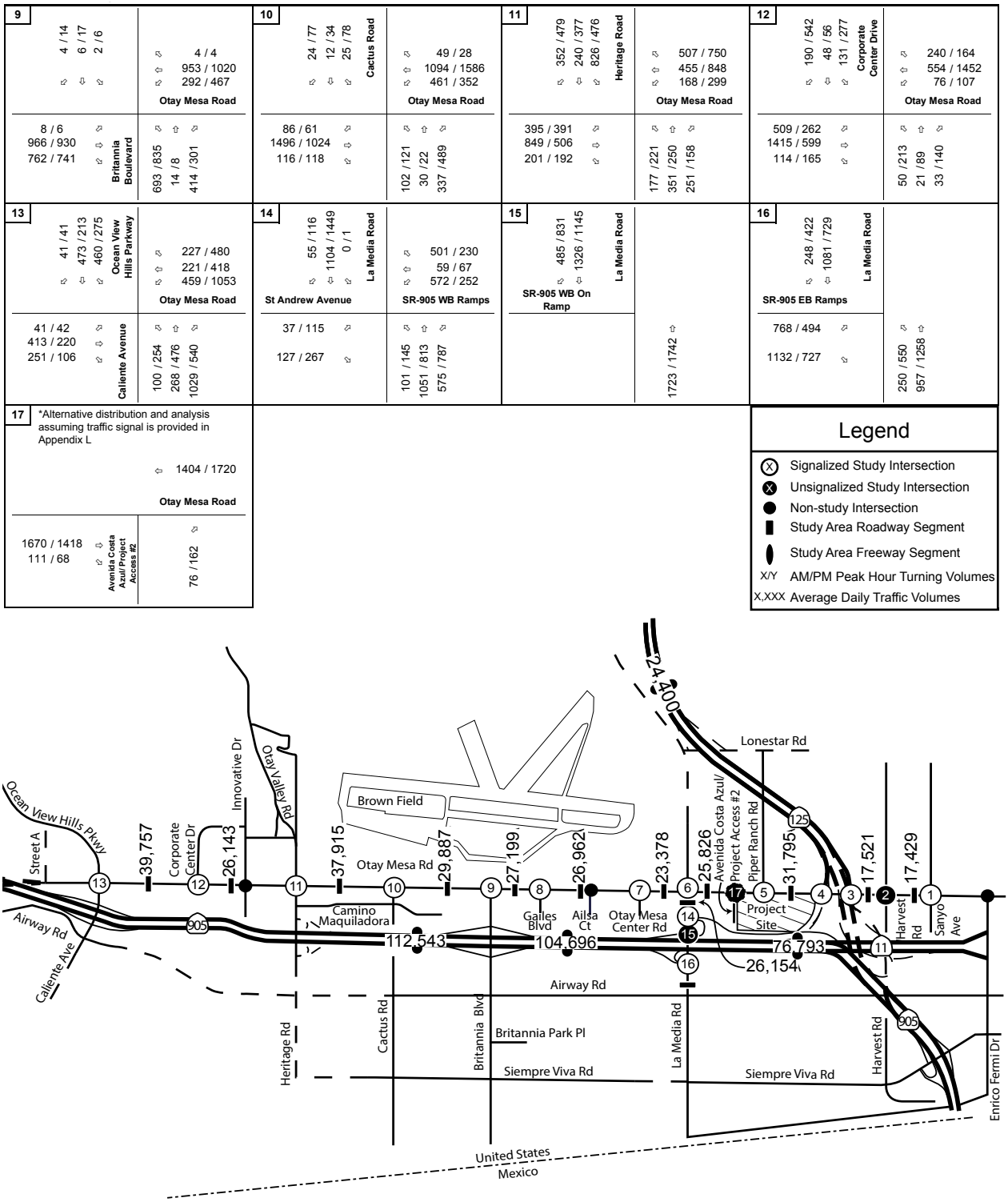
This configuration does not return operations to LOS D or better, but is the ultimate intersection configuration identified in the Community Plan. The mitigation would result in the intersection continuing to operate at LOS F but with reduced delay compared to baseline conditions. The Otay Mesa Community Plan identified this intersection as a significant impact with LOS F during both peak hours. Therefore, the results are consistent with the Otay Mesa Community Plan findings. The project's fair-share towards these improvements would be 2.45%.

Table 12-5 shows the operations of the affected intersection with the proposed mitigation measures. **Figure 12-3** illustrates the intersection geometry at each location before and after mitigations.

FIGURE 12-1



Peak Hour Intersection & ADT Volumes
Horizon Year with Phase 1 & 2



Peak Hour Intersection & ADT Volumes
Horizon Year with Phase 1 & 2 (cont.)

Table 12-2 Horizon Year with Phase 1 & 2 Project Conditions Roadway Segment LOS Summary

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	HORIZON YEAR BASELINE			HORIZON YEAR PLUS PHASE 1+2			Δ in ADT	Δ in V/C	SIGNIFICANT?
			ADT	V/C RATIO (a)	LOS	ADT	V/C RATIO (a)	LOS			
Otay Mesa Road											
Sanyo Road to Harvest Road	4 Lane Collector	30,000	17,175	0.573	C	17,429	0.581	C	254	0.008	NO
Harvest Road to SR-125 NB Ramp	4 Lane Collector	30,000	17,267	0.576	C	17,521	0.584	C	254	0.008	NO
SR-125 NB Ramp to SR-125 SB Ramp	5 Lane Collector	37,500	17,286	0.461	B	19,061	0.508	C	1775	0.047	NO
SR-125 SB Ramp to Piper Ranch Road	6 Lane Prime Arterial	60,000	29,640	0.494	B	31,795	0.53	B	2155	0.036	NO
Piper Ranch Road to Avenida Costa Azul/Project Access #2	6 Lane Prime Arterial	60,000	29,858	0.498	B	30,576	0.51	B	718	0.012	NO
Avenida Costa Azul/Project Access #2 to La Media Road	6 Lane Prime Arterial	60,000	25,108	0.418	B	25,826	0.43	B	718	0.012	NO
La Media Road to Otay Mesa Center Road	6 Lane Prime Arterial	60,000	22,660	0.378	A	23,378	0.39	A	718	0.012	NO
Otay Mesa Center Road to Gailes Boulevard	6 Lane Prime Arterial	60,000	26,244	0.437	B	26,962	0.449	B	718	0.012	NO
Gailes Boulevard to Britannia Boulevard	6 Lane Prime Arterial	60,000	26,481	0.441	B	27,199	0.453	B	718	0.012	NO
Britannia Boulevard to Cactus Road	6 Lane Prime Arterial	60,000	29,169	0.486	B	29,887	0.498	B	718	0.012	NO
Cactus Road to Heritage Road	6 Lane Prime Arterial	60,000	37,366	0.623	C	37,915	0.632	C	549	0.009	NO
Heritage Road to Corporate Center Drive	6 Lane Prime Arterial	60,000	25,763	0.429	B	26,143	0.436	B	380	0.007	NO
Corporate Center Drive to Ocean View Hills Parkway	6 Lane Prime Arterial	60,000	39,461	0.658	C	39,757	0.663	C	296	0.005	NO
La Media Road											
Otay Mesa Road to SR-905	5 Lane Collector	37,500	24,717	0.659	C	26,154	0.697	D	1437	0.038	NO
SR-905 WB Ramps to SR-905 EB Ramps	5 Lane Collector	37,500	35,901	0.957	**E**	36,070	0.962	**E**	169	0.005	NO

Notes:

Bold values indicate roadway segments operating at LOS E or F.

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

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Table 12-3 Horizon Year with Phase 1 & 2 Project Conditions Freeway Segment LOS Summary

FREEWAY SEGMENT	DIRECTION	NUMBER OF LANES	CAPACITY (a)	HORIZON YEAR BASELINE				HORIZON YEAR PLUS PHASE 1+2				V/C RATIO Δ	SIGNIFICANT?
				ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS	ADT (b)	PEAK-HOUR VOLUME (c)	V/C RATIO	LOS		
AM PEAK													
SR 905													
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	111,529	3,252	0.367	A	112,543	3,282	0.371	A	0.003	--
	EB	3 M + 1 A	8,850		6,381	0.721	C		6,439	0.728	C	0.007	--
Britannia Boulevard to La Media Road	WB	3 M	7,050	103,682	3,023	0.429	B	104,696	3,053	0.433	B	0.004	--
	EB	3 M + 1 A	8,850		5,932	0.670	C		5,990	0.677	C	0.007	--
La Media Road to Siempre Viva Road	WB	3 M	7,050	76,624	2,234	0.317	A	76,793	2,239	0.318	A	0.001	--
	EB	3 M + 1 A	8,850		4,384	0.495	B		4,393	0.496	B	0.001	--
SR 125													
Otay Mesa Road to Birch Road	NB	2 M	4,700	22,879	2,672	0.569	B	24,400	3,875	0.824	D	0.256	--
	SB	2 M	4,700		961	0.204	A		3,875	0.824	D	0.620	--
PM PEAK													
SR 905													
Cactus Road to Britannia Boulevard	WB	3 M + 1 A	8,850	111,529	6,709	0.758	C	112,543	6,770	0.765	C	0.007	--
	EB	3 M + 1 A	8,850		4,709	0.532	B		4,751	0.537	B	0.005	--
Britannia Boulevard to La Media Road	WB	3 M	7,050	103,682	6,237	0.885	D	104,696	6,298	0.893	D	0.009	--
	EB	3 M + 1 A	8,850		4,377	0.495	B		4,420	0.499	B	0.005	--
La Media Road to Siempre Viva Road	WB	3 M	7,050	76,624	4,609	0.654	C	76,793	4,619	0.655	C	0.001	--
	EB	3 M + 1 A	8,850		3,235	0.366	A		3,242	0.366	A	0.001	--
SR 125													
Otay Mesa Road to Birch Road	NB	2 M	4,700	22,879	1,459	0.310	A	24,400	1,556	0.331	A	0.021	--
	SB	2 M	4,700		3,356	0.714	C		3,580	0.762	C	0.047	--

Notes:

Bold values indicate freeway segments operating at LOS E or F.

(a) The capacity is calculated as 2,350 ADT per main lane and 1,800 ADT per auxiliary lane to be consistent with the Otay Mesa Community Plan Transportation Analysis

(b) ADT for SR 905 obtained from the Otay Mesa Community Plan projections. ADT for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report.

(c) Peak-hour volume for SR 905 calculated by: (ADT*K*D)/Truck Factor. Peak-hour volume for SR 125 obtained from the Caltrans State Route 125 Transportation Concept Report and increased to account for a truck percentage.

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Table 12-4 Horizon Year with Phase 1 & 2 Project Conditions Ramp Meter Analysis Summary

ON-RAMP	PEAK PERIOD	METER RATE[1] (veh/hr/ln)	# OF LANES	BASELINE DEMAND[2] (veh/hr)	EXCESS BASELINE DEMAND (veh/hr)	AVERAGE BASELINE DELAY[3] (min)	WITH PROJECT DEMAND[2] (veh/hr)	EXCESS WITH PROJECT DEMAND (veh/hr)	AVERAGE WITH PROJECT DELAY[3] (min)	FREE-WAY LOS	Δ IN DELAY WITH PROJECT (min)	SIGNIFICANT ?	AVERAGE WITH PROJECT QUEUE[4]
La Media Rd to	AM	450	2	490	0	0.0	498	0	0.0	B	0.0	NO	0 ft
SR 905 EB On- Ramp	PM	450	2	956	56	7.5	972	72	9.6	B	2.1	NO	1,800 ft
SB La Media Rd to	AM	450	2	440	0	0.0	485	0	0.0	B	0.0	NO	0 ft
SR 905 WB On- Ramp	PM	450	2	734	0	0.0	831	0	0.0	B	0.0	NO	0 ft
NB La Media Rd to	AM	450	2	575	0	0.0	575	0	0.0	B	0.0	NO	0 ft
SR 905 WB On- Ramp	PM	450	2	787	0	0.0	787	0	0.0	B	0.0	NO	0 ft

Notes:

1) Meter rate is the assumed peak hour capacity expected to be processed through the ramp meter and assumes two lanes; one standard lane and on HOV lane; processing one vehicle per lane per eight seconds.

2) Demand is the peak hour demand expected to use the on-ramp

3) Average Delay estimated by dividing the excess demand by the meter rate and then multiplying by 60 minutes/hour

4) Average Queue estimated by multiplying the excess demand by 25 feet per vehicle

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Table 12-5 Mitigation for Horizon Year with Phase 1 & 2 Project Conditions Intersection LOS Summary

INTERSECTION		PEAK HOUR	BEFORE HORIZON YEAR IMPROVEMENT		AFTER HORIZON YEAR IMPROVEMENT		DESCRIPTION OF IMPROVEMENT
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
2	Harvest Road & Otay Mesa Road	AM	ECL	**F**	17.2	B	Install traffic signal
		PM	ECL	**F**	23.8	C	
6	La Media & Otay Mesa Road	AM	ECL	**F**	54.6	D	Addition of: 2nd SBT; 2nd NBT; 2nd NBL; NBR overlap phase; 2nd EBL; 2nd WBL
		PM	ECL	**F**	54.4	D	
10	Cactus Road & Otay Mesa Road	AM	69.3	**E**	42.9	D	Addition of 2nd WBL
		PM	54.4	D	43.6	D	
11	Heritage Road & Otay Mesa Road	AM	187.7	**F**	52.8	D	Widen northbound and southbound approaches to have 2 left turns, 2 throughs, and 1 right
		PM	116.2	**F**	52.8	D	
13	Caliente Avenue/Ocean View Hills Parkw	AM	143.7	**F**	133.3	**F**	Addition of: 2nd EBL; 3rd EBT; 2nd & 3rd WBT; 2nd NBL; 3rd NBT (Buildout to ultimate condition)
		PM	ECL	**F**	183.3	**F**	

Notes:

Bold values indicate intersections operating at LOS E or F.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 9.0

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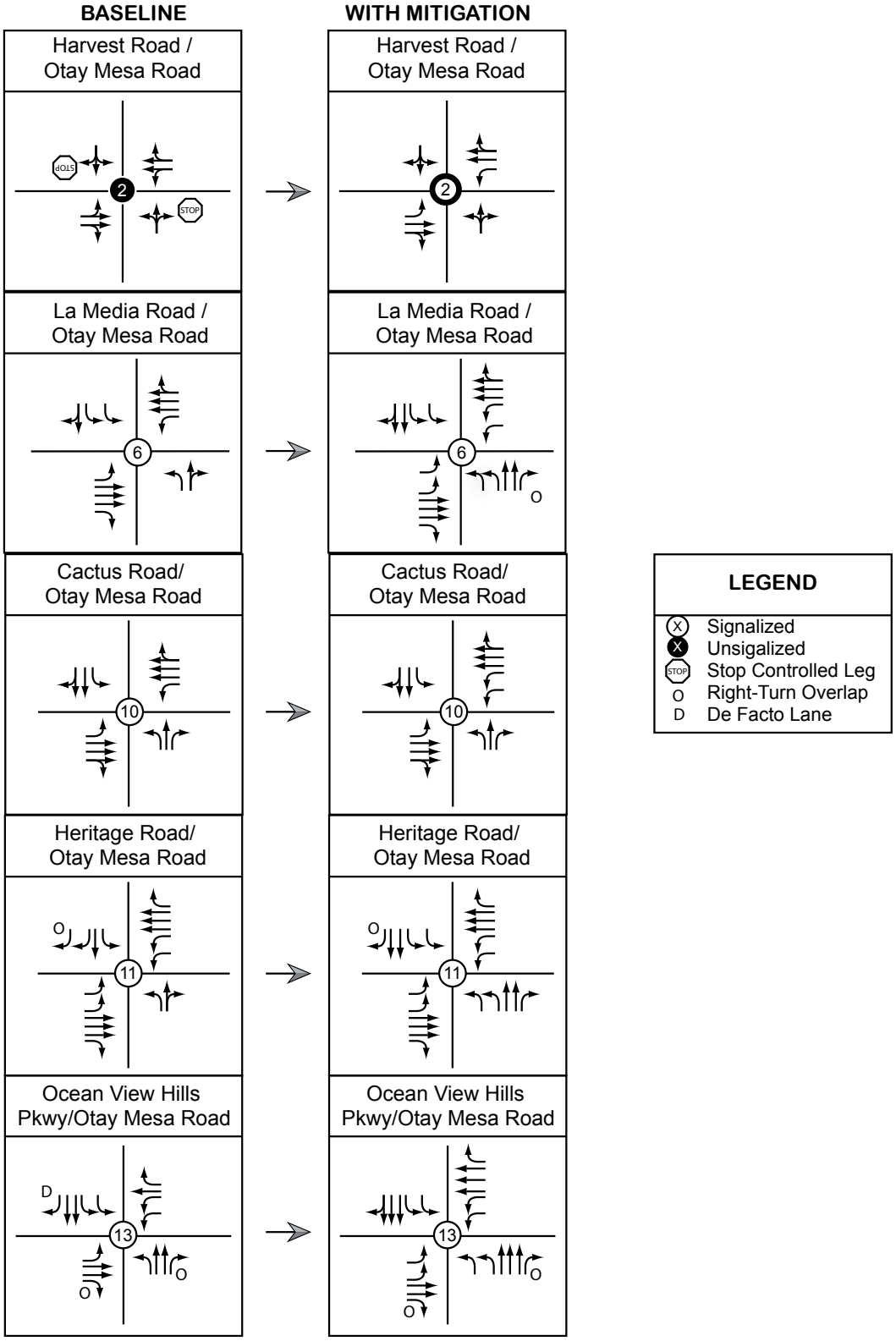
FIGURE 12-3



Horizon Year with Mitigation Intersection Geometrics

13 ADDITIONAL TOPICS

This section discusses on-site circulation, bicycle facilities, transit, and parking for the proposed project.

13.1 SITE ACCESS AND ON-SITE CIRCULATION

The two access locations for the proposed project site would be the currently signalized intersection of Otay Mesa Road and Piper Ranch Road and a right-in, right-out access on Otay Mesa Road at planned Avenida Costa Azul. The proposed project would construct the south legs of both intersections and modify the existing raised median along Otay Mesa Road to accommodate access to the site. The right-in, right-out access would be constructed in a manner to operate independently, but designed to allow the adjacent property to the west to build additional width onto the access.

Driveway access to Buildings 3 & 4 personal vehicle parking and truck bays is provided through a drive aisle located approximately 410 feet south of Piper Ranch Road at Otay Mesa Road and an access road at the southern boundary of the site. Access to Building 1 personal vehicle parking is provided through a driveway located approximately 450 feet south of the right-in right-out shared-access project driveway. Access to Building 2 personal vehicle parking lot is provided through a driveway located approximately 450 feet south of Piper Ranch Road at Otay Mesa Road. The access road at the southern boundary of the site provides access to the truck bays for Buildings 1 & 2. The site configuration allows vehicles to maneuver off Otay Mesa Road without impacting access to the site. It also provides spaces for vehicles to queue at the signalized intersection of Piper Ranch Road and Otay Mesa Road without impacting access to the site.

The on-site circulation and parking aisles configuration was found adequate for the project's proposed uses. Most parking aisles have access on both end that provide continuous circulation. Where parking drive aisles must terminate without a secondary access, turnaround areas are provided.

13.2 PEDESTRIAN FACILITIES

The project would construct new sidewalk facilities along its frontage on Otay Mesa Road per City of San Diego development requirements. An pedestrian crossing to cross Otay Mesa Road at the intersection of Piper Ranch Road and Otay Mesa Road would be included in the traffic signal modification required for the project. Currently a pedestrian crossing is allowed, but there are no marked crosswalks and no sidewalk or curb ramps on the south side of Otay Mesa Road. This crossing would assist in connecting the project site to the bus stop on the north side of Otay Mesa Road. With the project improvements, pedestrian facilities would be provided between the buildings on-site and along the project frontage of Otay Mesa Road.

13.3 BICYCLE FACILITIES

Otay Mesa Road is a planned Class II bicycle facility as designated in the Otay Mesa Community Plan. As part of the proposed project's frontage improvements that include widening of Otay Mesa Road on the south side, the roadway design will provide a Class II bicycle facility with a buffered bicycle lane (3-foot buffer, 7-foot bike lane).

Implementation of a Class II bicycle lane along the project frontage would be an isolated bicycle facility in the interim until other bicycle connections are implemented along Otay Mesa Road and other roadways in the community as identified in the Otay Mesa Community Plan. It is expected that bicycle use would be limited for users of the site until these additional facilities are provided. However, the proposed project would be providing connections to its site that would encourage non-vehicle travel in the future. This is important

to support Climate Action Plan goals and other efforts to reduce vehicle traffic in the City of San Diego. Further, the proposed project would be consistent with the Otay Mesa Community Plan's bicycle network.

13.4 TRANSIT

The project site is currently served by the Metropolitan Transit Service (MTS) Route 905 on weekdays. On weekends, Route 905 does not travel adjacent to the site. Route 905 connects the Iris Avenue Transit Station with the Otay Mesa Border Crossing. Route 905 operates from approximately 5:00 AM to 9:30 PM with 20 minute headways. **Appendix E** contains a copy of the current schedule for MTS Route 905.

There is an existing bus stop at the northwest corner of Otay Mesa Road and Piper Ranch Road for Route 905 that could be utilized by the proposed project site. Two new bus stops on Otay Mesa Road would be incorporated into the project site design. One stop would be east of the right-in, right-out driveway (Avenida Costa Azul), and the other stop would be just east of Piper Ranch Road. Access to the site from these new bus stops serving eastbound bus routes would be provided by a non-contiguous sidewalk connection along the project frontage and on-site connections to the buildings. A pedestrian crossing with pedestrian ramps at the signalized intersection of Otay Mesa Road and Piper Ranch Road is provided for pedestrians to access westbound bus routes.

The 2050 Regional Transportation Plan, prepared by the San Diego Association of Government (SANDAG), includes the addition of a Rapid Bus Service (Route 638) that would connect the San Ysidro Community with the Otay Mesa Community via Otay Mesa Road, Airway Road and the SR-905 Corridor as part of the Revenue Constrained Plan estimated to be implemented by Year 2035. This would provide additional bus connections for the proposed project. Information on this is provided in **Appendix I**.

13.5 PARKING

Per section 142.0527 of the City of San Diego's Municipal Code, the proposed project is required to provide 1 parking space per every 1,000 square feet of gross leasable area. For Phase 1 of the project, the minimum parking requirement would be 370 parking spaces. The proposed site plan includes 418 parking spaces for Phase 1 and would exceed the minimum requirement. For Phase 2 of the project, minimum parking requirement would be 482 parking spaces. The proposed site plan includes an additional 470 parking spaces added as part of Phase 2. The total parking requirement for the project site is 846 parking spaces and a total of 888 spaces are proposed. There would be an adequate number of parking spaces provided for Phase 1. Similarly, there would be an adequate number of parking spaces provided for buildout of Phases 1 and 2 combined. In addition, the project provides 143 parking spaces for truck trailers.

APPENDICES

APPENDIX A

EXISTING TRAFFIC COUNT DATA

APPENDIX B

INTERSECTION LOS WORKSHEETS

APPENDIX C

CUMULATIVE PROJECT INFORMATION

APPENDIX D

SANDAG SELECT ZONE MODEL

APPENDIX E

BUS ROUTE INFORMATION

APPENDIX F

FAIR SHARE CALCULATIONS

APPENDIX G

OTAY MESA PUBLIC FACILITIES FINANCING PLAN

APPENDIX H

OTAY MESA COMMUNITY PLAN SELECTED ALTERNATIVE 3B

APPENDIX I

SANDAG 2050 REGIONAL TRANSPORTATION PLAN (APPENDIX A)

APPENDIX J

CONCEPTUAL DESIGN FOR PROPOSED MITIGATION IMPROVEMENTS

APPENDIX K

CALTRANS RAMP METER DESIGN MANUAL EXCERPTS

APPENDIX L

ALTERNATIVE ACCESS CONTROL EVALUATION

APPENDICES

APPENDIX A

EXISTING TRAFFIC COUNT DATA

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Sanyo Ave and Otay Mesa Rd , Otay Mesa

Date: 1/18/2017

Day: Wednesday

Project #: 17-4014-009

City: Otay Mesa

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	400 PM

Peak Hour Summary

Southbound Approach (Sanyo Ave)

	Lanes 0	0	0		
AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach (Otay Mesa Rd)

Lanes	AM	NOON	PM
	130	0	540
0	0	0	0
2	346	0	102
0	348	0	165

Westbound Approach

AM	NOON	PM	Lanes
0	0	0	0
56	0	321	1
5	0	10	1
356	0	121	

Northbound Approach

AM	353	74	0	10	AM
NOON	0	0	0	0	NOON
PM	175	219	0	19	PM
		1.5	0	0.5	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	AM	NOON	PM
North Leg	0	0	0
East Leg	61	0	331
West Leg	130	0	540
West Leg	694	0	267
East Leg	356	0	121
South Leg	353	0	175
South Leg	84	0	238

Total Volume Per Leg

	AM	NOON	PM
North Leg	0	0	0
West Leg	824	0	807
East Leg	417	0	452
South Leg	437	0	413

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Harvest Rd and Otay Mesa Rd , Otay Mesa

Date: 1/18/2017

Day: Wednesday

Project #: 17-4014-008

City: Otay Mesa

AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	400 PM

Peak Hour Summary

Southbound Approach

Harvest Rd

Lanes	0	1	0		
AM	2	0	0	3	AM
NOON	0	0	0	0	NOON
PM	4	0	3	8	PM

Eastbound Approach

Otay Mesa Rd

Lanes	AM	NOON	PM
	125	0	548
0	3	0	5
2	700	0	262
0	3	0	1

Westbound Approach

AM	NOON	PM	Lanes
0	0	3	0
123	0	532	2
2	0	0	0
700	0	266	

Northbound Approach

AM	5	0	0	0	AM
NOON	0	0	0	0	NOON
PM	1	12	0	1	PM
		0	1	0	Lanes

CONTROL

No Control

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	AM	NOON	PM
North Leg	2	0	7
	3	0	8
West Leg	125	0	548
	706	0	268
East Leg	125	0	535
	700	0	266
South Leg	5	0	1
	0	0	13

Total Volume Per Leg

	AM	NOON	PM
North Leg	5	0	15
West Leg	831	0	816
East Leg	825	0	801
South Leg	5	0	14

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

SR 125 NB Ramps and Otay Mesa Rd , Otay Mesa

Date: 11/16/2016

Day: Wednesday

Project #: 16-4346-001

City: Otay Mesa

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	400 PM

Peak Hour Summary

Southbound Approach (SR 125 NB Ramps)

	Lanes	0	0	0		
AM		0	0	0	249	AM
NOON		0	0	0	0	NOON
PM		0	0	0	677	PM

Eastbound Approach (Otay Mesa Rd)

Lanes	AM	NOON	PM
	90	0	276
1	185	0	315
2	688	0	229
0	0	0	0

Westbound Approach

AM	NOON	PM	Lanes
64	0	362	1.5
90	0	276	1.5
0	0	0	0
688	0	229	

Northbound Approach

AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		0	0	0	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	0	249	AM
	0	0	NOON
	0	677	PM

West Leg			East Leg		
AM	NOON	PM			
90	0	276	154	0	638
873	0	544	688	0	229
			AM	NOON	PM

	South Leg	
AM	0	0
NOON	0	0
PM	0	0

Total Volume Per Leg

	North Leg
	249 AM
	0 NOON
	677 PM

West Leg			East Leg		
AM	NOON	PM			
963	0	820	842	0	867
			AM	NOON	PM

	South Leg
AM	0
NOON	0
PM	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

SR 125 SB Ramps and Otay Mesa Rd , Otay Mesa

Date: 11/16/2016

Day: Wednesday

Project #: 16-4346-002

City: Otay Mesa

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	400 PM

Peak Hour Summary

Southbound Approach — SR 125 SB Ramps

Lanes	1	0	2		
AM	424	0	440	0	AM
NOON	0	0	0	0	NOON
PM	222	0	120	0	PM

Eastbound Approach — Otay Mesa Rd

Lanes	AM	NOON	PM
	513	0	496
0	0	0	0
3	432	0	425
0	0	0	0

Westbound Approach

Lanes	AM	NOON	PM
0	0	0	0
3	89	0	274
0	0	0	0
	872	0	545

CONTROL: Signalized

Northbound Approach

AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		0	0	0	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	AM	NOON	PM
North Leg	864	0	
	0	0	
	342	0	
West Leg	513	0	496
	432	0	425
East Leg	89	0	274
	872	0	545
South Leg	0	0	
	0	0	
	0	0	

Total Volume Per Leg

	AM	NOON	PM
North Leg	864	0	342
West Leg	945	0	921
East Leg	961	0	819
South Leg	0	0	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Piper Ranch Rd and Otay Mesa Rd , Otay Mesa

Date: 11/16/2016

Day: Wednesday

Project #: 16-4346-003

City: Otay Mesa

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Peak Hour Summary

Southbound Approach (Piper Ranch Rd)

	Lanes 1.5	0	1.5		
AM	125	0	62	289	AM
NOON	0	0	0	0	NOON
PM	238	0	89	190	PM

Eastbound Approach (Otay Mesa Rd)

Lanes	AM	NOON	PM
	545	0	580
2	203	0	110
2	378	0	389
0	0	0	0

Westbound Approach

AM	NOON	PM	Lanes
86	0	80	1
420	0	342	3
0	0	0	0
440	0	478	

Northbound Approach

AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
		0	0	0	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	187	289	AM
	0	0	NOON
	327	190	PM

West Leg AM	NOON	PM	East Leg AM	NOON	PM
545	0	580	506	0	422
581	0	499	440	0	478

	South Leg	
AM	0	0
NOON	0	0
PM	0	0

Total Volume Per Leg

	North Leg
AM	476
NOON	0
PM	517

West Leg AM	NOON	PM	East Leg AM	NOON	PM
1126	0	1079	946	0	900

	South Leg
AM	0
NOON	0
PM	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

La Media Rd and Otay Mesa Rd , Otay Mesa

Date: 11/16/2016

Day: Wednesday

Project #: 16-4346-004

City: Otay Mesa

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	415 PM

Peak Hour Summary

Southbound Approach (La Media Rd)

	Lanes 0.5	0.5	2		
AM	17	93	27	195	AM
NOON	0	0	0	0	NOON
PM	47	187	34	209	PM

Eastbound Approach (Otay Mesa Rd)

Lanes	AM	NOON	PM
	245	0	296
1	40	0	57
3	171	0	155
1	83	0	134

Westbound Approach

AM	NOON	PM	Lanes
36	0	35	0.5
204	0	198	2.5
311	0	397	1
573	0	437	

Northbound Approach

				Lanes
AM	487	24	119	375	AM
NOON	0	0	0	0	NOON
PM	718	51	117	248	PM
		1	1	0	

CONTROL: Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	137	195	AM
	0	0	NOON
	268	209	PM

West Leg AM	NOON	PM	East Leg AM	NOON	PM
245	0	296	551	0	630
294	0	346	573	0	437

	South Leg	
AM	487	518
NOON	0	0
PM	718	416

Total Volume Per Leg

	North Leg
AM	332
NOON	0
PM	477

West Leg AM	NOON	PM	East Leg AM	NOON	PM
539	0	642	1124	0	1067

	South Leg
AM	1005
NOON	0
PM	1134

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

St Andrews Ave and Otay Mesa Rd , Otay Mesa

Date: 1/18/2017

Day: Wednesday

Project #: 17-4014-001

City: Otay Mesa

AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	400 PM

Peak Hour Summary

Southbound Approach (St Andrews Ave)

	Lanes 0	0	0		
AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach (Otay Mesa Rd)

Lanes	AM	NOON	PM
	346	0	363
0	0	0	0
3	222	0	371
0	21	0	57

Westbound Approach

AM	NOON	PM	Lanes
0	0	0	0
265	0	302	3
34	0	44	1
230	0	380	

Northbound Approach

AM	55	81	0	8	AM
NOON	0	0	0	0	NOON
PM	101	61	0	9	PM
		0	2	0	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	0	0	AM
	0	0	NOON
	0	0	PM

West Leg AM	NOON	PM	East Leg AM	NOON	PM
346	0	363	299	0	346
243	0	428	230	0	380

	South Leg	
AM	55	89
NOON	0	0
PM	101	70

Total Volume Per Leg

	North Leg
AM	0
NOON	0
PM	0

West Leg AM	NOON	PM	East Leg AM	NOON	PM
589	0	791	529	0	726

	South Leg
AM	144
NOON	0
PM	171

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Gailes Blvd and Otay Mesa Rd , Otay Mesa

Date: 1/18/2017

Day: Wednesday

Project #: 17-4014-002

City: Otay Mesa

AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	415 PM

Peak Hour Summary

Southbound Approach (Gailes Blvd)

	Lanes 0	0	0		
AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach (Otay Mesa Rd)

Lanes	AM	NOON	PM
	349	0	508
0	0	0	0
2.5	221	0	349
0.5	138	0	72

Westbound Approach

AM	NOON	PM	Lanes
0	0	0	0
306	0	318	3
38	0	41	1
239	0	406	

Northbound Approach

AM	176	43	0	18	AM
NOON	0	0	0	0	NOON
PM	113	190	0	57	PM
		1.5	0	0.5	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
AM	0	0	AM
NOON	0	0	NOON
PM	0	0	PM

West Leg AM	NOON	PM		East Leg AM	NOON	PM
349	0	508		344	0	359
359	0	421		239	0	406

	South Leg	
AM	176	61
NOON	0	0
PM	113	247

Total Volume Per Leg

	North Leg
AM	0
NOON	0
PM	0

West Leg AM	NOON	PM		East Leg AM	NOON	PM
708	0	929		583	0	765

	South Leg
AM	237
NOON	0
PM	360

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Britannia Blvd and Otay Mesa Rd , Otay Mesa

Date: 1/18/2017

Day: Wednesday

Project #: 17-4014-003

City: Otay Mesa

AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	415 PM

Peak Hour Summary

Southbound Approach (Britannia Blvd)

Lanes	0	0	0		
AM	0	0	0	0	AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM

Eastbound Approach (Otay Mesa Rd)

Lanes	AM	NOON	PM
	394	0	497
0	0	0	0
3	126	0	233
1	113	0	316

Westbound Approach

AM	NOON	PM	Lanes
0	0	0	0
184	0	246	3
163	0	247	1
353	0	411	

Northbound Approach

AM	276	210	0	227	AM
NOON	0	0	0	0	NOON
PM	563	251	0	178	PM
		2	0	1	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	0	0	AM
	0	0	NOON
	0	0	PM

West Leg AM	NOON	PM	East Leg AM	NOON	PM
394	0	497	347	0	493
239	0	549	353	0	411

	South Leg	
AM	276	437
NOON	0	0
PM	563	429

Total Volume Per Leg

	North Leg
AM	0
NOON	0
PM	0

West Leg AM	NOON	PM	East Leg AM	NOON	PM
633	0	1046	700	0	904

	South Leg
AM	713
NOON	0
PM	992

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Cactus Rd and Otay Mesa Rd , Otay Mesa

Date: 1/18/2017

Day: Wednesday

Project #: 17-4014-004

City: Otay Mesa

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	415 PM

Peak Hour Summary

Southbound Approach

Lanes	0	3	0		
AM	3	2	4	33	AM
NOON	0	0	0	0	NOON
PM	5	1	9	14	PM

Cactus Rd

Otay Mesa Rd

Eastbound Approach

	AM	NOON	PM
	320	0	423
1	9	0	6
3	167	0	358
0	56	0	81
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
23	0	6	0
253	0	356	3
131	0	146	1
252	0	545	
AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	189	64	1	81	AM
NOON	0	0	0	0	NOON
PM	228	62	2	178	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

North Leg

9	33	AM
0	0	NOON
15	14	PM

West Leg

AM	NOON	PM
320	0	423
232	0	445

East Leg

AM	NOON	PM
407	0	508
252	0	545

South Leg

AM	189	146
NOON	0	0
PM	228	242

Total Volume Per Leg

North Leg

42	AM
0	NOON
29	PM

West Leg

AM	NOON	PM
552	0	868

East Leg

AM	NOON	PM
659	0	1053

South Leg

AM	335
NOON	0
PM	470

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

La Media Rd and SR 905 WB Ramps , Otay Mesa

Date: 11/16/2016

Day: Wednesday

Project #: 16-4346-005

City: Otay Mesa

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Peak Hour Summary

Southbound Approach (La Media Rd)

	Lanes 0.5	3.5	0		
AM	23	512	0	553	AM
NOON	0	0	0	0	NOON
PM	22	730	1	467	PM

Eastbound Approach (SR 905 WB Ramps)

Lanes	AM	NOON	PM
	182	0	137
1	3	0	6
0.5	0	0	0
0.5	55	0	99

Westbound Approach

AM	NOON	PM	Lanes
125	0	145	1
65	0	27	0.5
42	0	60	1.5
64	0	212	

CONTROL: Signalized

Northbound Approach

AM	609	94	425	64	AM
NOON	0	0	0	0	NOON
PM	889	88	316	211	PM
		2	2	1	Lanes

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	535	553	AM
	0	0	NOON
	753	467	PM

West Leg AM	NOON	PM	East Leg AM	NOON	PM
182	0	137	232	0	232
58	0	105	64	0	212

	South Leg	
AM	609	583
NOON	0	0
PM	889	615

Total Volume Per Leg

	North Leg
AM	1088
NOON	0
PM	1220

West Leg AM	NOON	PM	East Leg AM	NOON	PM
240	0	242	296	0	444

	South Leg
AM	1192
NOON	0
PM	1504

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

La Media Rd and SR 905 WB On-Ramps , Otay Mesa

Date: 11/16/2016

Day: Wednesday

Project #: 16-4346-006

City: Otay Mesa

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Peak Hour Summary

Southbound Approach (La Media Rd)

	Lanes 1	3	0		
AM	298	324	0	578	AM
NOON	0	0	0	0	NOON
PM	416	487	0	611	PM

Eastbound Approach (SR 905 WB On-Ramps)

Lanes	AM	NOON	PM
	298	0	416
0	0	0	0
0	0	0	0
0	0	0	0

Westbound Approach

AM	NOON	PM	Lanes
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

Northbound Approach

AM	324	0	578	0	AM
NOON	0	0	0	0	NOON
PM	487	0	611	0	PM
		0	3	0	Lanes

CONTROL: No Control

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	622	578	AM
	0	0	NOON
	903	611	PM

West Leg AM	NOON	PM		East Leg AM	NOON	PM
298	0	416		0	0	0
0	0	0		0	0	0

	South Leg	
AM	324	578
NOON	0	0
PM	487	611

Total Volume Per Leg

	North Leg
AM	1200
NOON	0
PM	1514

West Leg AM	NOON	PM		East Leg AM	NOON	PM
298	0	416		0	0	0

	South Leg
AM	902
NOON	0
PM	1098

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Ocean View Hills Pkwy and Otay Mesa Rd , Otay Mesa

Date: 1/18/2017

Day: Wednesday

Project #: 17-4014-007

City: Otay Mesa

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	415 PM

Peak Hour Summary

Southbound Approach (Ocean View Hills Pkwy)

Lanes	0	2	2		
AM	0	440	186	368	AM
NOON	0	0	0	0	NOON
PM	0	215	142	666	PM

Eastbound Approach (Otay Mesa Rd)

Lanes	AM	NOON	PM
	5	0	19
1	0	0	1
2	0	0	1
1	5	0	11

Westbound Approach

Lanes	AM	NOON	PM
1	60	0	220
1	4	0	9
2	233	0	773
	750	0	514

Northbound Approach

Lanes	1	2	1
AM	678	1	308	564	AM
NOON	0	0	0	0	NOON
PM	999	10	445	371	PM

CONTROL: Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	626	368	AM
	0	0	NOON
	357	666	PM

West Leg	AM	NOON	PM
	5	0	19
	5	0	13

East Leg	AM	NOON	PM
	297	0	1002
	750	0	514

South Leg		
AM	678	873
NOON	0	0
PM	999	826

Total Volume Per Leg

North Leg	
994	AM
0	NOON
1023	PM

West Leg	AM	NOON	PM
	10	0	32

East Leg	AM	NOON	PM
	1047	0	1516

South Leg	
AM	1551
NOON	0
PM	1825

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Heritage Rd and Otay Mesa Rd , Otay Mesa

Date: 1/18/2017

Day: Wednesday

Project #: 17-4014-005

City: Otay Mesa

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	415 PM

Peak Hour Summary

Southbound Approach (Heritage Rd)

	Lanes 2	1	1		
AM	65	26	98	273	AM
NOON	0	0	0	0	NOON
PM	264	79	195	358	PM

Eastbound Approach (Otay Mesa Rd)

Lanes	AM	NOON	PM
	290	0	611
2	121	0	132
3	116	0	169
1	106	0	85

Westbound Approach

Lanes	AM	NOON	PM
1	117	0	183
3	166	0	206
2	43	0	42
	233	0	436

Northbound Approach

AM	175	59	35	19
NOON	0	0	0	0
PM	206	141	43	72
Lanes		1	1	0

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	189	273	AM
	0	0	NOON
	538	358	PM

West Leg AM	NOON	PM	East Leg AM	NOON	PM
290	0	611	326	0	431
343	0	386	233	0	436

	South Leg	
AM	175	113
NOON	0	0
PM	206	256

Total Volume Per Leg

	North Leg
AM	462
NOON	0
PM	896

West Leg AM	NOON	PM	East Leg AM	NOON	PM
633	0	997	559	0	867

	South Leg
AM	288
NOON	0
PM	462

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Corporate Center Dr and Otay Mesa Rd , Otay Mesa

Date: 1/18/2017

Day: Wednesday

Project #: 17-4014-006

City: Otay Mesa

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	415 PM

Peak Hour Summary

Southbound Approach (Corporate Center Dr)

	Lanes 2	0	1		
AM	59	0	29	396	AM
NOON	0	0	0	0	NOON
PM	413	0	102	269	PM

Eastbound Approach (Otay Mesa Rd)

Lanes	AM	NOON	PM
	264	0	994
2	357	0	183
3	313	0	281
0	0	0	0

Westbound Approach

	AM	NOON	PM	Lanes
	39	0	86	1
	205	0	581	3
	1	0	8	1
	342	0	383	

Northbound Approach

AM	1	0	0	0	AM
NOON	0	0	0	0	NOON
PM	8	0	0	0	PM
		0	0	0	Lanes

CONTROL: Signalized

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
	88	396	AM
	0	0	NOON
	515	269	PM

West Leg AM	NOON	PM	East Leg AM	NOON	PM
264	0	994	245	0	675
670	0	464	342	0	383

	South Leg	
AM	1	0
NOON	0	0
PM	8	0

Total Volume Per Leg

	North Leg
AM	484
NOON	0
PM	784

West Leg AM	NOON	PM	East Leg AM	NOON	PM
934	0	1458	587	0	1058

	South Leg
AM	1
NOON	0
PM	8

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

La Media Rd and SR 905 EB Ramps , Otay Mesa

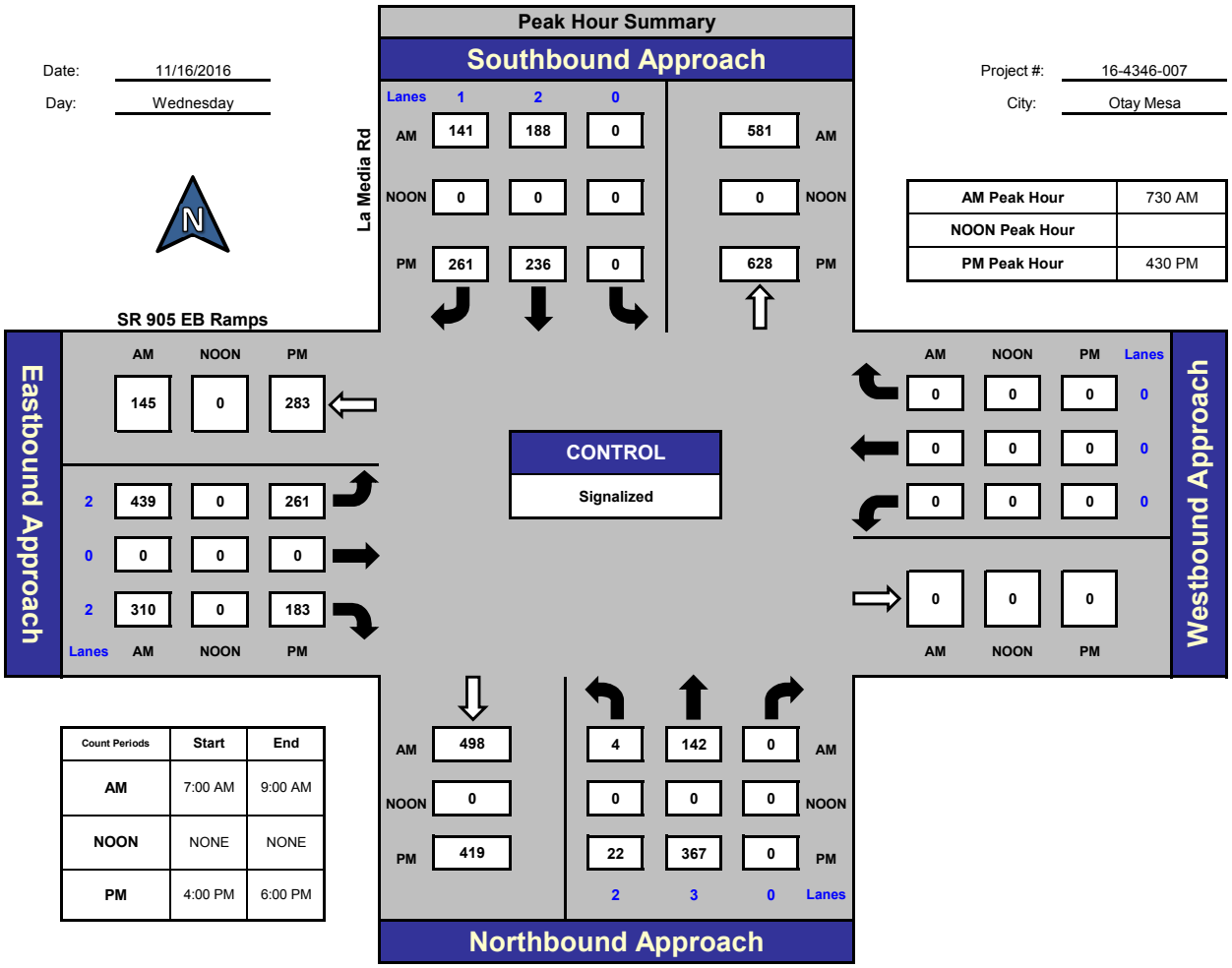
Date: 11/16/2016

Day: Wednesday

Project #: 16-4346-007

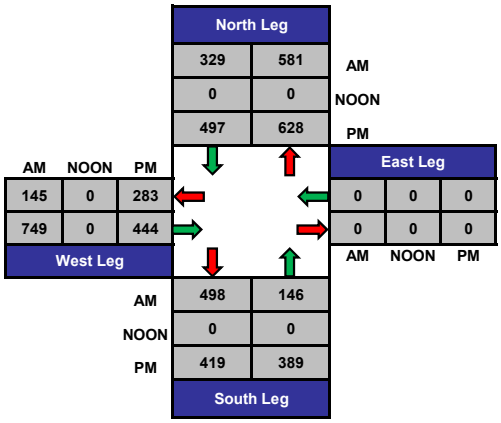
City: Otay Mesa

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

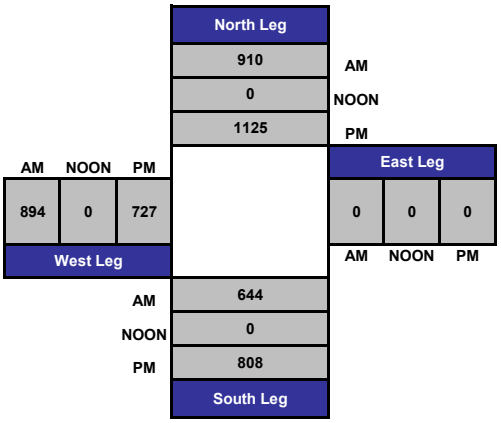


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Prepared by National Data & Surveying Services

CLASSIFICATION

Otay Mesa Rd E/O La Media Rd

Day: Thursday
Date: 2/1/2018

City: San Diego
Project #: CA18_4030_001

Summary

Time	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total	
00:00 AM	1	60	2	0	4	0	0	0	9	0	2	0	0	78	
01:00	0	60	8	0	2	0	0	0	16	0	2	0	0	88	
02:00	0	56	4	1	2	0	0	1	12	0	0	0	0	76	
03:00	0	91	10	0	5	0	0	1	10	0	0	0	0	117	
04:00	1	115	9	0	9	1	0	1	15	0	1	0	0	152	
05:00	1	254	15	0	18	6	0	8	35	0	2	0	0	339	
06:00	2	425	33	3	26	7	0	7	49	0	3	0	0	555	
07:00	7	752	66	4	37	12	0	12	48	0	9	0	0	947	122
08:00	5	684	76	7	41	19	0	11	75	0	12	0	0	930	165
09:00	4	593	68	2	65	8	1	16	68	0	3	0	0	828	
10:00	12	623	83	7	36	22	0	20	103	0	6	0	0	912	
11:00	9	652	81	9	43	14	1	13	100	0	12	0	0	934	
12:00 PM	3	794	79	8	52	15	0	18	104	0	12	0	0	1085	
13:00	11	756	86	8	55	21	1	34	84	0	8	0	0	1064	
14:00	6	756	75	7	33	18	0	10	70	0	11	0	0	986	
15:00	8	849	64	4	44	23	1	21	74	0	7	0	0	1095	
16:00	4	919	86	4	49	7	1	13	58	0	11	0	0	1152	143
17:00	6	747	64	3	35	11	1	12	71	0	1	0	0	951	134
18:00	8	464	43	6	14	6	1	3	59	0	0	0	0	604	
19:00	3	302	21	4	7	8	0	4	53	0	0	0	0	402	
20:00	2	192	18	3	10	3	0	5	18	0	0	0	0	251	
21:00	0	214	13	0	8	2	0	3	15	0	0	0	0	255	
22:00	1	143	9	0	8	1	0	2	11	0	0	0	0	175	
23:00	1	100	5	0	3	0	0	1	6	0	1	0	0	117	
Totals	95	10601	1018	80	606	204	7	216	1163		103			14093	
% of Totals	1%	75%	7%	1%	4%	1%	0%	2%	8%		1%			100%	

AM Volumes	42	4365	455	33	288	89	2	90	540	0	52	0	0	5956
% AM	0%	31%	3%	0%	2%	1%	0%	1%	4%		0%			42%
AM Peak Hour	10:00	07:00	10:00	11:00	09:00	10:00	09:00	10:00	10:00		08:00			07:00
Volume	12	752	83	9	65	22	1	20	103		12			947
PM Volumes	53	6236	563	47	318	115	5	126	623	0	51	0	0	8137
% PM	0%	44%	4%	0%	2%	1%	0%	1%	4%		0%			58%
PM Peak Hour	13:00	16:00	13:00	12:00	13:00	15:00	13:00	13:00	12:00		12:00			16:00
Volume	11	919	86	8	55	23	1	34	104		12			1152

Directional Peak Periods All Classes	AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
	Volume		%	Volume		%	Volume		%	Volume		%
	1877	⟷	13%	2149	⟷	15%	2103	⟷	15%	7964	⟷	57%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 >=4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Otay Mesa Rd W/O La Media Rd

Day: Thursday
Date: 2/1/2018

City: San Diego
Project #: CA18_4030_002

Summary

Time	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total	
00:00 AM	0	29	1	1	0	1	0	0	0	0	0	0	0	32	
01:00	0	18	0	0	1	2	0	0	0	0	0	0	0	21	
02:00	0	38	3	0	2	0	0	0	5	0	0	0	0	48	
03:00	0	42	1	0	0	0	0	2	5	0	0	0	0	50	
04:00	0	82	2	0	8	1	0	4	6	0	2	0	0	105	
05:00	2	141	11	1	5	1	1	1	7	0	1	0	0	171	
06:00	5	248	22	0	19	7	1	0	12	0	1	0	0	315	
07:00	7	429	29	2	25	8	0	4	31	0	3	0	0	538	73
08:00	3	423	31	8	33	15	1	5	47	0	2	0	0	568	111
09:00	7	449	30	6	44	13	0	6	46	0	1	0	0	602	
10:00	1	503	39	5	44	15	0	18	52	0	2	0	0	679	
11:00	4	615	48	4	44	18	0	21	55	0	2	0	0	811	
12:00 PM	7	668	38	5	46	19	1	14	61	0	1	0	0	860	
13:00	2	738	53	4	46	23	0	17	67	2	2	0	0	954	
14:00	9	692	43	6	36	21	1	13	63	1	1	0	0	886	
15:00	5	662	32	7	44	16	1	11	60	0	0	0	0	838	
16:00	10	641	34	7	43	11	1	12	45	0	0	0	0	804	119
17:00	7	517	20	7	36	9	2	10	48	0	0	0	0	656	112
18:00	6	290	19	4	23	5	0	5	20	0	0	0	0	372	
19:00	2	168	5	3	6	5	0	3	15	0	0	0	0	207	
20:00	0	118	2	0	5	0	0	0	9	0	0	0	0	134	
21:00	2	112	5	1	1	1	0	2	5	0	0	0	0	129	
22:00	0	64	5	0	1	1	0	2	2	0	0	0	0	75	
23:00	0	56	3	0	4	0	0	0	1	0	2	0	0	66	
Totals	79	7743	476	71	516	192	9	150	662	3	20			9921	**1623**
% of Totals	1%	78%	5%	1%	5%	2%	0%	2%	7%	0%	0%			100%	

AM Volumes	29	3017	217	27	225	81	3	61	266	0	14	0	0	3940
% AM	0%	30%	2%	0%	2%	1%	0%	1%	3%		0%			40%
AM Peak Hour	07:00	11:00	11:00	08:00	09:00	11:00	05:00	11:00	11:00		07:00			11:00
Volume	7	615	48	8	44	18	1	21	55		3			811
PM Volumes	50	4726	259	44	291	111	6	89	396	3	6	0	0	5981
% PM	1%	48%	3%	0%	3%	1%	0%	1%	4%	0%	0%			60%
PM Peak Hour	16:00	13:00	13:00	15:00	12:00	13:00	17:00	13:00	13:00	13:00	13:00			13:00
Volume	10	738	53	7	46	23	2	17	67	2	2			954

Directional Peak Periods All Classes	AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
	Volume		%	Volume		%	Volume		%	Volume		%
	1106	⟷	11%	1814	⟷	18%	1460	⟷	15%	5541	⟷	56%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 >=4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

La Media Rd Bet. Otay Mesa Rd & SR905

Day: Wednesday
Date: 11/16/2016

City: Otay Mesa
Project #: CA16_4347_003

DAILY TOTALS	NB	SB	EB	WB	Total
	7,716	10,454	0	0	18,170

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	20		29		0	0	49		12:00	112		200		0	0	312	
00:15	16		33		0	0	49		12:15	138		170		0	0	308	
00:30	21		21		0	0	42		12:30	112		162		0	0	274	
00:45	8	65	24	107	0	0	32	172	12:45	97	459	197	729	0	0	294	1188
01:00	6		14		0	0	20		13:00	124		167		0	0	291	
01:15	12		21		0	0	33		13:15	122		182		0	0	304	
01:30	13		27		0	0	40		13:30	158		172		0	0	330	
01:45	18	49	28	90	0	0	46	139	13:45	105	509	166	687	0	0	271	1196
02:00	7		12		0	0	19		14:00	106		210		0	0	316	
02:15	11		27		0	0	38		14:15	114		191		0	0	305	
02:30	17		20		0	0	37		14:30	135		196		0	0	331	
02:45	21	56	30	89	0	0	51	145	14:45	158	513	210	807	0	0	368	1320
03:00	16		33		0	0	49		15:00	115		210		0	0	325	
03:15	13		48		0	0	61		15:15	136		189		0	0	325	
03:30	25		41		0	0	66		15:30	138		178		0	0	316	
03:45	24	78	37	159	0	0	61	237	15:45	104	493	187	764	0	0	291	1257
04:00	27		41		0	0	68		16:00	106		191		0	0	297	
04:15	43		43		0	0	86		16:15	116		202		0	0	318	
04:30	30		63		0	0	93		16:30	109		185		0	0	294	
04:45	50	150	59	206	0	0	109	356	16:45	126	457	178	756	0	0	304	1213
05:00	59		55		0	0	114		17:00	108		210		0	0	318	
05:15	63		64		0	0	127		17:15	117		184		0	0	301	
05:30	90		64		0	0	154		17:30	80		171		0	0	251	
05:45	92	304	77	260	0	0	169	564	17:45	103	408	145	710	0	0	248	1118
06:00	89		76		0	0	165		18:00	104		164		0	0	268	
06:15	97		92		0	0	189		18:15	104		147		0	0	251	
06:30	122		83		0	0	205		18:30	79		133		0	0	212	
06:45	118	426	101	352	0	0	219	778	18:45	82	369	144	588	0	0	226	957
07:00	95		94		0	0	189		19:00	79		112		0	0	191	
07:15	139		118		0	0	257		19:15	74		124		0	0	198	
07:30	124		119		0	0	243		19:30	61		127		0	0	188	
07:45	145	503	144	475	0	0	289	978	19:45	77	291	79	442	0	0	156	733
08:00	149		114		0	0	263		20:00	83		109		0	0	192	
08:15	130		122		0	0	252		20:15	60		64		0	0	124	
08:30	101		128		0	0	229		20:30	53		80		0	0	133	
08:45	129	509	136	500	0	0	265	1009	20:45	52	248	68	321	0	0	120	569
09:00	132		139		0	0	271		21:00	57		83		0	0	140	
09:15	147		123		0	0	270		21:15	48		69		0	0	117	
09:30	109		145		0	0	254		21:30	37		64		0	0	101	
09:45	105	493	151	558	0	0	256	1051	21:45	53	195	50	266	0	0	103	461
10:00	115		136		0	0	251		22:00	30		45		0	0	75	
10:15	131		132		0	0	263		22:15	33		45		0	0	78	
10:30	113		177		0	0	290		22:30	33		54		0	0	87	
10:45	110	469	171	616	0	0	281	1085	22:45	24	120	30	174	0	0	54	294
11:00	115		158		0	0	273		23:00	31		29		0	0	60	
11:15	123		177		0	0	300		23:15	20		30		0	0	50	
11:30	114		184		0	0	298		23:30	15		35		0	0	50	
11:45	104	456	155	674	0	0	259	1130	23:45	30	96	30	124	0	0	60	220
TOTALS		3558		4086				7644	TOTALS		4158		6368				10526
SPLIT %		46.5%		53.5%				42.1%	SPLIT %		39.5%		60.5%				57.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	7,716	10,454	0	0	18,170

AM Peak Hour	07:15	11:15			11:15	PM Peak Hour	15:15	14:30			15:00
AM Pk Volume	557	716			1169	PM Pk Volume	547	807			1349
Pk Hr Factor	0.935	0.895			0.937	Pk Hr Factor	0.866	0.961			0.967
7 - 9 Volume	1012	975	0	0	1987	4 - 6 Volume	865	1466	0	0	2331
7 - 9 Peak Hour	07:15	07:45			07:15	4 - 6 Peak Hour	16:30	16:15			16:15
7 - 9 Pk Volume	557	508	0	0	1052	4 - 6 Pk Volume	460	775	0	0	1234
Pk Hr Factor	0.935	0.882	0.000	0.000	0.910	Pk Hr Factor	0.913	0.923	0.000	0.000	0.970

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Otay Mesa Rd Bet. Piper Ranch Rd & SR125 Ramps

Day: Wednesday
Date: 11/16/2016

City: Otay Mesa
Project #: CA16_4347_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,814	8,356	16,170

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00	0	0	15		12		27		12:00	0	0	108		157		265	
00:15	0	0	13		17		30		12:15	0	0	129		130		259	
00:30	0	0	26		15		41		12:30	0	0	123		131		254	
00:45	0	0	8	62	6	50	14	112	12:45	0	0	126	486	166	584	292	1070
01:00	0	0	10		11		21		13:00	0	0	139		166		305	
01:15	0	0	10		8		18		13:15	0	0	137		128		265	
01:30	0	0	8		18		26		13:30	0	0	137		143		280	
01:45	0	0	20	48	14	51	34	99	13:45	0	0	116	529	151	588	267	1117
02:00	0	0	10		5		15		14:00	0	0	138		155		293	
02:15	0	0	6		18		24		14:15	0	0	151		168		319	
02:30	0	0	13		4		17		14:30	0	0	159		143		302	
02:45	0	0	12	41	15	42	27	83	14:45	0	0	177	625	197	663	374	1288
03:00	0	0	11		4		15		15:00	0	0	120		199		319	
03:15	0	0	16		17		33		15:15	0	0	139		180		319	
03:30	0	0	17		22		39		15:30	0	0	141		210		351	
03:45	0	0	23	67	24	67	47	134	15:45	0	0	139	539	137	726	276	1265
04:00	0	0	16		15		31		16:00	0	0	119		205		324	
04:15	0	0	27		16		43		16:15	0	0	90		170		260	
04:30	0	0	16		30		46		16:30	0	0	127		180		307	
04:45	0	0	39	98	37	98	76	196	16:45	0	0	146	482	149	704	295	1186
05:00	0	0	36		27		63		17:00	0	0	136		179		315	
05:15	0	0	64		40		104		17:15	0	0	156		142		298	
05:30	0	0	108		43		151		17:30	0	0	103		120		223	
05:45	0	0	105	313	35	145	140	458	17:45	0	0	119	514	95	536	214	1050
06:00	0	0	78		57		135		18:00	0	0	81		123		204	
06:15	0	0	115		65		180		18:15	0	0	85		104		189	
06:30	0	0	140		102		242		18:30	0	0	68		79		147	
06:45	0	0	137	470	107	331	244	801	18:45	0	0	69	303	90	396	159	699
07:00	0	0	123		90		213		19:00	0	0	75		68		143	
07:15	0	0	153		116		269		19:15	0	0	63		81		144	
07:30	0	0	155		130		285		19:30	0	0	53		59		112	
07:45	0	0	155	586	145	481	300	1067	19:45	0	0	52	243	48	256	100	499
08:00	0	0	145		129		274		20:00	0	0	74		46		120	
08:15	0	0	135		148		283		20:15	0	0	46		40		86	
08:30	0	0	94		124		218		20:30	0	0	38		41		79	
08:45	0	0	104	478	160	561	264	1039	20:45	0	0	42	200	36	163	78	363
09:00	0	0	107		130		237		21:00	0	0	48		34		82	
09:15	0	0	120		137		257		21:15	0	0	43		41		84	
09:30	0	0	98		146		244		21:30	0	0	44		44		88	
09:45	0	0	104	429	140	553	244	982	21:45	0	0	46	181	35	154	81	335
10:00	0	0	103		117		220		22:00	0	0	29		46		75	
10:15	0	0	117		96		213		22:15	0	0	36		40		76	
10:30	0	0	104		134		238		22:30	0	0	26		22		48	
10:45	0	0	132	456	105	452	237	908	22:45	0	0	25	116	15	123	40	239
11:00	0	0	132		126		258		23:00	0	0	21		26		47	
11:15	0	0	97		129		226		23:15	0	0	16		14		30	
11:30	0	0	117		155		272		23:30	0	0	18		20		38	
11:45	0	0	125	471	130	540	255	1011	23:45	0	0	22	77	32	92	54	169
TOTALS				3519		3371		6890	TOTALS				4295		4985		9280
SPLIT %				51.1%		48.9%		42.6%	SPLIT %				46.3%		53.7%		57.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,814	8,356	16,170

AM Peak Hour			07:15	08:45	07:30	PM Peak Hour			14:30	15:15	15:15
AM Pk Volume			608	573	1142	PM Pk Volume			625	786	1363
Pk Hr Factor			0.981	0.895	0.952	Pk Hr Factor			0.883	0.936	0.905
7 - 9 Volume	0	0	1064	1042	2106	4 - 6 Volume	0	0	996	1240	2236
7 - 9 Peak Hour			07:15	08:00	07:30	4 - 6 Peak Hour			16:30	16:00	16:30
7 - 9 Pk Volume	0	0	608	561	1142	4 - 6 Pk Volume	0	0	565	704	1215
Pk Hr Factor	0.000	0.000	0.981	0.877	0.952	Pk Hr Factor	0.000	0.000	0.905	0.859	0.964

Prepared by NDS/ATD

VOLUME

Otay Mesa Rd Bet. Corporate Center Dr & Ocean View Hills Pkwy (32.568283, -117.010342)

Day: Wednesday
Date: 1/18/2017

City: Otay Mesa
Project #: CA17_4015_007

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,565	9,150	16,715

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			8		15		23		12:00			143		178		321	
0:15			3		11		14		12:15			152		172		324	
0:30			4		24		28		12:30			138		170		308	
0:45			7	22	6	56	13	78	12:45			170	603	159	679	329	1282
1:00			5		15		20		13:00			142		199		341	
1:15			3		6		9		13:15			159		140		299	
1:30			9		6		15		13:30			149		180		329	
1:45			6	23	8	35	14	58	13:45			157	607	163	682	320	1289
2:00			9		9		18		14:00			178		160		338	
2:15			12		5		17		14:15			137		217		354	
2:30			9		9		18		14:30			164		206		370	
2:45			10	40	14	37	24	77	14:45			143	622	189	772	332	1394
3:00			4		11		15		15:00			135		199		334	
3:15			6		5		11		15:15			140		182		322	
3:30			17		7		24		15:30			126		304		430	
3:45			18	45	16	39	34	84	15:45			155	556	185	870	340	1426
4:00			17		21		38		16:00			118		197		315	
4:15			12		34		46		16:15			126		203		329	
4:30			27		25		52		16:30			124		257		381	
4:45			29	85	27	107	56	192	16:45			115	483	196	853	311	1336
5:00			22		33		55		17:00			103		364		467	
5:15			40		40		80		17:15			86		264		350	
5:30			29		34		63		17:30			62		218		280	
5:45			66	157	51	158	117	315	17:45			74	325	184	1030	258	1355
6:00			46		58		104		18:00			92		145		237	
6:15			55		56		111		18:15			50		145		195	
6:30			95		51		146		18:30			62		91		153	
6:45			146	342	78	243	224	585	18:45			68	272	75	456	143	728
7:00			86		82		168		19:00			52		78		130	
7:15			90		83		173		19:15			39		75		114	
7:30			161		70		231		19:30			43		54		97	
7:45			209	546	87	322	296	868	19:45			36	170	62	269	98	439
8:00			176		69		245		20:00			54		63		117	
8:15			134		79		213		20:15			35		59		94	
8:30			132		89		221		20:30			28		38		66	
8:45			196	638	102	339	298	977	20:45			33	150	40	200	73	350
9:00			151		101		252		21:00			35		37		72	
9:15			127		115		242		21:15			32		54		86	
9:30			152		122		274		21:30			21		50		71	
9:45			125	555	120	458	245	1013	21:45			17	105	40	181	57	286
10:00			151		112		263		22:00			19		33		52	
10:15			131		123		254		22:15			24		24		48	
10:30			137		137		274		22:30			16		30		46	
10:45			146	565	153	525	299	1090	22:45			21	80	14	101	35	181
11:00			134		164		298		23:00			12		21		33	
11:15			140		170		310		23:15			6		12		18	
11:30			127		175		302		23:30			12		21		33	
11:45			131	532	163	672	294	1204	23:45			12	42	12	66	24	108
TOTALS				3550		2991		6541	TOTALS				4015		6159		10174
SPLIT %				54.3%		45.7%		39.1%	SPLIT %				39.5%		60.5%		60.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,565	9,150	16,715

AM Peak Hour			7:30	11:30	11:45	PM Peak Hour			13:15	16:30	16:30
AM Pk Volume			680	688	1247	PM Pk Volume			643	1081	1509
Pk Hr Factor			0.813	0.966	0.962	Pk Hr Factor			0.903	0.742	0.808
7 - 9 Volume	0	0	1184	661	1845	4 - 6 Volume	0	0	808	1883	2691
7 - 9 Peak Hour			7:30	8:00	7:30	4 - 6 Peak Hour			16:00	16:30	16:30
7 - 9 Pk Volume	0	0	680	339	985	4 - 6 Pk Volume	0	0	483	1081	1509
Pk Hr Factor	0.000	0.000	0.813	0.831	0.832	Pk Hr Factor	0.000	0.000	0.958	0.742	0.808

Prepared by NDS/ATD

VOLUME

Otay Mesa Rd Bet. Heritage Rd & Corporate Center Dr (32.568247, -117.002297)

Day: Wednesday
Date: 1/25/2017

City: Otay Mesa
Project #: CA17_4015_006

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,114	6,703	11,817

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			4		11		15		12:00			129		142		271	
0:15			8		11		19		12:15			104		116		220	
0:30			9		7		16		12:30			99		128		227	
0:45			3	24	1	30	4	54	12:45			95	427	120	506	215	933
1:00			6		12		18		13:00			84		133		217	
1:15			4		6		10		13:15			99		113		212	
1:30			3		6		9		13:30			122		133		255	
1:45			6	19	7	31	13	50	13:45			117	422	101	480	218	902
2:00			10		6		16		14:00			113		122		235	
2:15			5		4		9		14:15			99		157		256	
2:30			5		12		17		14:30			111		154		265	
2:45			5	25	15	37	20	62	14:45			106	429	125	558	231	987
3:00			5		8		13		15:00			95		155		250	
3:15			4		6		10		15:15			104		136		240	
3:30			9		4		13		15:30			90		185		275	
3:45			11	29	10	28	21	57	15:45			112	401	140	616	252	1017
4:00			8		19		27		16:00			96		145		241	
4:15			11		27		38		16:15			97		154		251	
4:30			21		18		39		16:30			95		172		267	
4:45			10	50	22	86	32	136	16:45			92	380	138	609	230	989
5:00			22		28		50		17:00			87		226		313	
5:15			15		27		42		17:15			79		181		260	
5:30			19		32		51		17:30			55		141		196	
5:45			41	97	31	118	72	215	17:45			60	281	125	673	185	954
6:00			23		45		68		18:00			42		92		134	
6:15			25		43		68		18:15			42		90		132	
6:30			38		37		75		18:30			39		64		103	
6:45			53	139	62	187	115	326	18:45			54	177	51	297	105	474
7:00			48		58		106		19:00			43		53		96	
7:15			52		73		125		19:15			49		54		103	
7:30			93		54		147		19:30			23		40		63	
7:45			94	287	81	266	175	553	19:45			27	142	51	198	78	340
8:00			110		51		161		20:00			34		54		88	
8:15			97		74		171		20:15			20		45		65	
8:30			78		72		150		20:30			21		31		52	
8:45			100	385	99	296	199	681	20:45			26	101	29	159	55	260
9:00			101		108		209		21:00			19		30		49	
9:15			84		78		162		21:15			23		41		64	
9:30			122		82		204		21:30			30		37		67	
9:45			82	389	98	366	180	755	21:45			14	86	35	143	49	229
10:00			87		93		180		22:00			14		25		39	
10:15			77		96		173		22:15			14		19		33	
10:30			87		98		185		22:30			22		24		46	
10:45			113	364	119	406	232	770	22:45			11	61	11	79	22	140
11:00			94		121		215		23:00			8		18		26	
11:15			101		122		223		23:15			5		12		17	
11:30			89		119		208		23:30			5		14		19	
11:45			94	378	116	478	210	856	23:45			3	21	12	56	15	77
TOTALS				2186		2329		4515	TOTALS				2928		4374		7302
SPLIT %				48.4%		51.6%		38.2%	SPLIT %				40.1%		59.9%		61.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,114	6,703	11,817

AM Peak Hour			11:45	11:45	11:45	PM Peak Hour			13:15	16:30	16:30
AM Pk Volume			426	502	928	PM Pk Volume			451	717	1070
Pk Hr Factor			0.826	0.884	0.856	Pk Hr Factor			0.924	0.793	0.855
7 - 9 Volume	0	0	672	562	1234	4 - 6 Volume	0	0	661	1282	1943
7 - 9 Peak Hour			7:30	8:00	8:00	4 - 6 Peak Hour			16:00	16:30	16:30
7 - 9 Pk Volume	0	0	394	296	681	4 - 6 Pk Volume	0	0	380	717	1070
Pk Hr Factor	0.000	0.000	0.895	0.747	0.856	Pk Hr Factor	0.000	0.000	0.979	0.793	0.855

Prepared by NDS/ATD

VOLUME

Otay Mesa Rd Bet. Cactus Rd & Heritage Rd (32.568178, -116.993583)

Day: Wednesday
Date: 1/18/2017

City: Otay Mesa
Project #: CA17_4015_005

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,064	5,698	10,762

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			9		9		18		12:00			114		109		223	
0:15			1		11		12		12:15			108		112		220	
0:30			4		3		7		12:30			98		133		231	
0:45			6	20	7	30	13	50	12:45			114	434	111	465	225	899
1:00			4		8		12		13:00			102		115		217	
1:15			2		4		6		13:15			100		106		206	
1:30			7		8		15		13:30			105		103		208	
1:45			2	15	9	29	11	44	13:45			113	420	118	442	231	862
2:00			4		9		13		14:00			90		119		209	
2:15			9		6		15		14:15			101		122		223	
2:30			8		14		22		14:30			135		115		250	
2:45			7	28	14	43	21	71	14:45			112	438	121	477	233	915
3:00			4		10		14		15:00			89		141		230	
3:15			6		6		12		15:15			126		118		244	
3:30			3		11		14		15:30			117		150		267	
3:45			7	20	12	39	19	59	15:45			125	457	103	512	228	969
4:00			6		14		20		16:00			116		101		217	
4:15			9		29		38		16:15			101		113		214	
4:30			11		18		29		16:30			103		120		223	
4:45			23	49	19	80	42	129	16:45			108	428	99	433	207	861
5:00			13		21		34		17:00			133		106		239	
5:15			24		23		47		17:15			97		103		200	
5:30			16		32		48		17:30			96		65		161	
5:45			26	79	44	120	70	199	17:45			60	386	65	339	125	725
6:00			30		32		62		18:00			102		60		162	
6:15			27		57		84		18:15			75		63		138	
6:30			44		52		96		18:30			48		38		86	
6:45			53	154	55	196	108	350	18:45			36	261	33	194	69	455
7:00			44		45		89		19:00			40		47		87	
7:15			33		63		96		19:15			27		31		58	
7:30			64		60		124		19:30			22		25		47	
7:45			59	200	74	242	133	442	19:45			19	108	35	138	54	246
8:00			73		72		145		20:00			13		36		49	
8:15			57		82		139		20:15			35		31		66	
8:30			41		87		128		20:30			19		17		36	
8:45			76	247	102	343	178	590	20:45			15	82	21	105	36	187
9:00			86		96		182		21:00			26		21		47	
9:15			83		95		178		21:15			18		35		53	
9:30			96		92		188		21:30			18		25		43	
9:45			85	350	100	383	185	733	21:45			6	68	24	105	30	173
10:00			91		88		179		22:00			15		21		36	
10:15			93		107		200		22:15			12		21		33	
10:30			96		108		204		22:30			12		15		27	
10:45			93	373	123	426	216	799	22:45			11	50	5	62	16	112
11:00			91		116		207		23:00			9		11		20	
11:15			96		100		196		23:15			5		10		15	
11:30			87		130		217		23:30			4		7		11	
11:45			100	374	109	455	209	829	23:45			5	23	12	40	17	63
TOTALS				1909		2386		4295	TOTALS				3155		3312		6467
SPLIT %				44.4%		55.6%		39.9%	SPLIT %				48.8%		51.2%		60.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,064	5,698	10,762

AM Peak Hour			11:45	10:45	11:45	PM Peak Hour			15:15	14:45	14:45
AM Pk Volume			420	469	883	PM Pk Volume			484	530	974
Pk Hr Factor			0.921	0.902	0.956	Pk Hr Factor			0.960	0.883	0.912
7 - 9 Volume	0	0	447	585	1032	4 - 6 Volume	0	0	814	772	1586
7 - 9 Peak Hour			7:30	8:00	8:00	4 - 6 Peak Hour			16:15	16:15	16:15
7 - 9 Pk Volume	0	0	253	343	590	4 - 6 Pk Volume	0	0	445	438	883
Pk Hr Factor	0.000	0.000	0.866	0.841	0.829	Pk Hr Factor	0.000	0.000	0.836	0.913	0.924

Prepared by NDS/ATD

VOLUME

Otay Mesa Rd Bet. Britannia Blvd & Cactus Rd (32.568044, -116.985083)

Day: Wednesday
Date: 1/18/2017

City: Otay Mesa
Project #: CA17_4015_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,579	6,073	11,652

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			8		8		16		12:00			107		109		216	
0:15			4		9		13		12:15			112		110		222	
0:30			4		2		6		12:30			94		110		204	
0:45			9	25	7	26	16	51	12:45			123	436	122	451	245	887
1:00			3		7		10		13:00			109		92		201	
1:15			4		3		7		13:15			116		115		231	
1:30			6		11		17		13:30			107		114		221	
1:45			6	19	11	32	17	51	13:45			119	451	110	431	229	882
2:00			5		11		16		14:00			103		107		210	
2:15			9		14		23		14:15			110		122		232	
2:30			6		13		19		14:30			128		115		243	
2:45			8	28	12	50	20	78	14:45			134	475	113	457	247	932
3:00			8		4		12		15:00			87		103		190	
3:15			7		5		12		15:15			114		117		231	
3:30			6		14		20		15:30			112		131		243	
3:45			5	26	17	40	22	66	15:45			125	438	90	441	215	879
4:00			11		20		31		16:00			140		128		268	
4:15			17		33		50		16:15			126		132		258	
4:30			20		24		44		16:30			120		133		253	
4:45			26	74	22	99	48	173	16:45			116	502	123	516	239	1018
5:00			16		24		40		17:00			168		104		272	
5:15			23		28		51		17:15			110		117		227	
5:30			31		34		65		17:30			112		71		183	
5:45			25	95	51	137	76	232	17:45			79	469	90	382	169	851
6:00			38		41		79		18:00			96		78		174	
6:15			30		59		89		18:15			74		70		144	
6:30			48		60		108		18:30			58		61		119	
6:45			58	174	55	215	113	389	18:45			51	279	46	255	97	534
7:00			50		54		104		19:00			49		53		102	
7:15			44		73		117		19:15			42		43		85	
7:30			54		58		112		19:30			25		54		79	
7:45			64	212	97	282	161	494	19:45			28	144	47	197	75	341
8:00			55		89		144		20:00			30		41		71	
8:15			75		95		170		20:15			34		41		75	
8:30			56		102		158		20:30			35		44		79	
8:45			79	265	118	404	197	669	20:45			31	130	27	153	58	283
9:00			79		101		180		21:00			33		33		66	
9:15			81		92		173		21:15			25		40		65	
9:30			103		100		203		21:30			30		31		61	
9:45			83	346	105	398	188	744	21:45			23	111	23	127	46	238
10:00			86		99		185		22:00			31		29		60	
10:15			95		106		201		22:15			16		21		37	
10:30			86		117		203		22:30			21		14		35	
10:45			99	366	96	418	195	784	22:45			11	79	4	68	15	147
11:00			97		113		210		23:00			11		14		25	
11:15			107		100		207		23:15			10		12		22	
11:30			104		128		232		23:30			8		11		19	
11:45			93	401	105	446	198	847	23:45			5	34	11	48	16	82
TOTALS				2031		2547		4578	TOTALS				3548		3526		7074
SPLIT %				44.4%		55.6%		39.3%	SPLIT %				50.2%		49.8%		60.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,579	6,073	11,652

AM Peak Hour			11:30	11:30	11:30	PM Peak Hour			16:15	16:00	16:15
AM Pk Volume			416	452	868	PM Pk Volume			530	516	1022
Pk Hr Factor			0.929	0.883	0.935	Pk Hr Factor			0.789	0.970	0.939
7 - 9 Volume	0	0	477	686	1163	4 - 6 Volume	0	0	971	898	1869
7 - 9 Peak Hour			8:00	8:00	8:00	4 - 6 Peak Hour			16:15	16:00	16:15
7 - 9 Pk Volume	0	0	265	404	669	4 - 6 Pk Volume	0	0	530	516	1022
Pk Hr Factor	0.000	0.000	0.839	0.856	0.849	Pk Hr Factor	0.000	0.000	0.789	0.970	0.939

Prepared by NDS/ATD

VOLUME

Otay Mesa Rd Bet. Gailes Blvd & Britannia Blvd (32.567944, -116.977367)

Day: Wednesday
Date: 1/25/2017

City: Otay Mesa
Project #: CA17_4015_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,499	5,303	10,802

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			6		8		14		12:00			105		86		191	
0:15			4		2		6		12:15			125		91		216	
0:30			5		8		13		12:30			115		92		207	
0:45			3	18	4	22	7	40	12:45			105	450	91	360	196	810
1:00			8		5		13		13:00			78		100		178	
1:15			4		7		11		13:15			90		93		183	
1:30			2		5		7		13:30			121		82		203	
1:45			4	18	3	20	7	38	13:45			124	413	104	379	228	792
2:00			6		14		20		14:00			109		108		217	
2:15			4		8		12		14:15			128		101		229	
2:30			7		2		9		14:30			122		123		245	
2:45			9	26	2	26	11	52	14:45			118	477	114	446	232	923
3:00			2		6		8		15:00			114		116		230	
3:15			7		12		19		15:15			97		115		212	
3:30			7		8		15		15:30			100		136		236	
3:45			9	25	7	33	16	58	15:45			125	436	116	483	241	919
4:00			8		7		15		16:00			122		113		235	
4:15			10		6		16		16:15			89		107		196	
4:30			20		23		43		16:30			104		149		253	
4:45			17	55	16	52	33	107	16:45			103	418	112	481	215	899
5:00			19		15		34		17:00			118		139		257	
5:15			21		24		45		17:15			102		96		198	
5:30			28		25		53		17:30			93		108		201	
5:45			38	106	30	94	68	200	17:45			80	393	76	419	156	812
6:00			41		35		76		18:00			50		86		136	
6:15			54		44		98		18:15			40		59		99	
6:30			82		52		134		18:30			47		46		93	
6:45			106	283	74	205	180	488	18:45			40	177	52	243	92	420
7:00			61		68		129		19:00			41		39		80	
7:15			57		86		143		19:15			36		45		81	
7:30			115		84		199		19:30			28		23		51	
7:45			94	327	119	357	213	684	19:45			27	132	22	129	49	261
8:00			82		75		157		20:00			25		26		51	
8:15			89		75		164		20:15			32		19		51	
8:30			74		92		166		20:30			14		18		32	
8:45			82	327	55	297	137	624	20:45			15	86	17	80	32	166
9:00			74		68		142		21:00			14		17		31	
9:15			80		73		153		21:15			21		20		41	
9:30			122		97		219		21:30			13		15		28	
9:45			84	360	92	330	176	690	21:45			13	61	16	68	29	129
10:00			87		78		165		22:00			16		16		32	
10:15			77		75		152		22:15			16		23		39	
10:30			102		73		175		22:30			16		10		26	
10:45			101	367	84	310	185	677	22:45			9	57	9	58	18	115
11:00			96		100		196		23:00			20		18		38	
11:15			125		79		204		23:15			4		10		14	
11:30			108		92		200		23:30			7		16		23	
11:45			116	445	81	352	197	797	23:45			11	42	15	59	26	101
TOTALS				2357		2098		4455	TOTALS				3142		3205		6347
SPLIT %				52.9%		47.1%		41.2%	SPLIT %				49.5%		50.5%		58.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,499	5,303	10,802

AM Peak Hour			11:45	7:15	11:45	PM Peak Hour			13:45	16:15	14:15
AM Pk Volume			461	364	811	PM Pk Volume			483	507	936
Pk Hr Factor			0.922	0.765	0.939	Pk Hr Factor			0.943	0.851	0.955
7 - 9 Volume	0	0	654	654	1308	4 - 6 Volume	0	0	811	900	1711
7 - 9 Peak Hour			7:30	7:15	7:30	4 - 6 Peak Hour			16:30	16:15	16:30
7 - 9 Pk Volume	0	0	380	364	733	4 - 6 Pk Volume	0	0	427	507	923
Pk Hr Factor	0.000	0.000	0.826	0.765	0.860	Pk Hr Factor	0.000	0.000	0.905	0.851	0.898

Prepared by NDS/ATD

VOLUME

Otay Mesa Rd Bet. St Andrews Ave & Gailes Blvd (32.567869, -116.972675)

Day: Wednesday
Date: 1/18/2017

City: Otay Mesa
Project #: CA17_4015_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,323	5,076	10,399

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			5		3		8		12:00			100		99		199	
0:15			4		6		10		12:15			122		117		239	
0:30			4		4		8		12:30			105		106		211	
0:45			4	17	6	19	10	36	12:45			129	456	88	410	217	866
1:00			5		6		11		13:00			110		101		211	
1:15			2		4		6		13:15			129		115		244	
1:30			8		4		12		13:30			119		111		230	
1:45			8	23	6	20	14	43	13:45			113	471	109	436	222	907
2:00			6		7		13		14:00			107		114		221	
2:15			4		4		8		14:15			133		76		209	
2:30			10		2		12		14:30			110		114		224	
2:45			5	25	8	21	13	46	14:45			143	493	114	418	257	911
3:00			3		0		3		15:00			98		123		221	
3:15			6		3		9		15:15			119		110		229	
3:30			2		9		11		15:30			111		134		245	
3:45			2	13	9	21	11	34	15:45			103	431	93	460	196	891
4:00			3		14		17		16:00			101		95		196	
4:15			12		12		24		16:15			105		105		210	
4:30			7		11		18		16:30			97		88		185	
4:45			12	34	9	46	21	80	16:45			83	386	80	368	163	754
5:00			16		8		24		17:00			128		86		214	
5:15			25		10		35		17:15			77		88		165	
5:30			37		21		58		17:30			89		60		149	
5:45			27	105	33	72	60	177	17:45			64	358	53	287	117	645
6:00			38		25		63		18:00			86		58		144	
6:15			28		57		85		18:15			90		59		149	
6:30			41		57		98		18:30			66		43		109	
6:45			38	145	58	197	96	342	18:45			68	310	41	201	109	511
7:00			56		61		117		19:00			35		36		71	
7:15			65		74		139		19:15			42		26		68	
7:30			55		77		132		19:30			30		26		56	
7:45			76	252	97	309	173	561	19:45			24	131	26	114	50	245
8:00			47		79		126		20:00			27		20		47	
8:15			66		88		154		20:15			22		20		42	
8:30			59		75		134		20:30			17		25		42	
8:45			63	235	75	317	138	552	20:45			23	89	24	89	47	178
9:00			68		81		149		21:00			15		23		38	
9:15			80		70		150		21:15			15		15		30	
9:30			112		83		195		21:30			24		25		49	
9:45			80	340	87	321	167	661	21:45			15	69	10	73	25	142
10:00			99		72		171		22:00			13		28		41	
10:15			95		102		197		22:15			12		17		29	
10:30			98		102		200		22:30			13		11		24	
10:45			90	382	97	373	187	755	22:45			16	54	2	58	18	112
11:00			126		111		237		23:00			8		13		21	
11:15			124		91		215		23:15			14		7		21	
11:30			109		99		208		23:30			7		8		15	
11:45			111	470	110	411	221	881	23:45			5	34	7	35	12	69
TOTALS				2041		2127		4168	TOTALS				3282		2949		6231
SPLIT %				49.0%		51.0%		40.1%	SPLIT %				52.7%		47.3%		59.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,323	5,076	10,399

AM Peak Hour			11:00	11:45	11:00	PM Peak Hour			14:00	14:45	14:45
AM Pk Volume			470	432	881	PM Pk Volume			493	481	952
Pk Hr Factor			0.933	0.923	0.929	Pk Hr Factor			0.862	0.897	0.926
7 - 9 Volume	0	0	487	626	1113	4 - 6 Volume	0	0	744	655	1399
7 - 9 Peak Hour			7:00	7:30	7:45	4 - 6 Peak Hour			16:15	16:00	16:15
7 - 9 Pk Volume	0	0	252	341	587	4 - 6 Pk Volume	0	0	413	368	772
Pk Hr Factor	0.000	0.000	0.829	0.879	0.848	Pk Hr Factor	0.000	0.000	0.807	0.876	0.902

Prepared by NDS/ATD

VOLUME

Otay Mesa Rd Bet. Harvest Rd & Sanyo Ave (32.567542, -116.942556)

Day: Wednesday
Date: 1/18/2017

City: Otay Mesa
Project #: CA17_4015_009

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,155	4,484	9,639

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			3		2		5		12:00			68		70		138	
0:15			5		5		10		12:15			86		84		170	
0:30			6		7		13		12:30			98		62		160	
0:45			0	14	3	17	3	31	12:45			87	339	67	283	154	622
1:00			5		8		13		13:00			93		75		168	
1:15			5		2		7		13:15			82		60		142	
1:30			0		11		11		13:30			114		86		200	
1:45			1	11	1	22	2	33	13:45			84	373	85	306	169	679
2:00			4		1		5		14:00			58		118		176	
2:15			3		1		4		14:15			69		123		192	
2:30			4		3		7		14:30			96		114		210	
2:45			4	15	4	9	8	24	14:45			85	308	106	461	191	769
3:00			4		2		6		15:00			56		141		197	
3:15			5		9		14		15:15			64		124		188	
3:30			18		8		26		15:30			72		122		194	
3:45			8	35	8	27	16	62	15:45			57	249	102	489	159	738
4:00			8		5		13		16:00			72		168		240	
4:15			12		8		20		16:15			65		135		200	
4:30			24		5		29		16:30			71		137		208	
4:45			35	79	11	29	46	108	16:45			73	281	97	537	170	818
5:00			31		12		43		17:00			61		121		182	
5:15			89		16		105		17:15			63		101		164	
5:30			128		21		149		17:30			62		77		139	
5:45			129	377	25	74	154	451	17:45			46	232	74	373	120	605
6:00			64		42		106		18:00			34		64		98	
6:15			82		53		135		18:15			35		74		109	
6:30			103		38		141		18:30			19		49		68	
6:45			146	395	12	145	158	540	18:45			31	119	53	240	84	359
7:00			134		31		165		19:00			22		33		55	
7:15			155		23		178		19:15			22		37		59	
7:30			194		33		227		19:30			21		28		49	
7:45			216	699	39	126	255	825	19:45			19	84	35	133	54	217
8:00			123		32		155		20:00			20		32		52	
8:15			113		47		160		20:15			21		35		56	
8:30			116		51		167		20:30			19		20		39	
8:45			98	450	41	171	139	621	20:45			16	76	16	103	32	179
9:00			91		35		126		21:00			17		18		35	
9:15			93		73		166		21:15			19		20		39	
9:30			97		73		170		21:30			33		12		45	
9:45			73	354	64	245	137	599	21:45			8	77	17	67	25	144
10:00			60		53		113		22:00			9		46		55	
10:15			69		73		142		22:15			12		25		37	
10:30			64		53		117		22:30			8		11		19	
10:45			67	260	61	240	128	500	22:45			10	39	16	98	26	137
11:00			63		43		106		23:00			5		11		16	
11:15			72		62		134		23:15			3		7		10	
11:30			71		61		132		23:30			9		11		20	
11:45			64	270	62	228	126	498	23:45			2	19	32	61	34	80
TOTALS				2959		1333		4292	TOTALS				2196		3151		5347
SPLIT %				68.9%		31.1%		44.5%	SPLIT %				41.1%		58.9%		55.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,155	4,484	9,639

AM Peak Hour			7:00	11:45	7:00	PM Peak Hour			12:45	15:45	16:00
AM Pk Volume			699	278	825	PM Pk Volume			376	542	818
Pk Hr Factor			0.809	0.827	0.809	Pk Hr Factor			0.825	0.807	0.852
7 - 9 Volume	0	0	1149	297	1446	4 - 6 Volume	0	0	513	910	1423
7 - 9 Peak Hour			7:00	8:00	7:00	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	699	171	825	4 - 6 Pk Volume	0	0	281	537	818
Pk Hr Factor	0.000	0.000	0.809	0.838	0.809	Pk Hr Factor	0.000	0.000	0.962	0.799	0.852

Prepared by NDS/ATD

VOLUME

Otay Mesa Rd Bet. SR125 NB Ramp & Harvest Rd (32.567575, -116.945569)

Day: Wednesday
Date: 1/18/2017

City: Otay Mesa
Project #: CA17_4015_008

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,190	4,605	9,795

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			2		2		4		12:00			70		77		147	
0:15			4		5		9		12:15			86		88		174	
0:30			6		7		13		12:30			98		60		158	
0:45			0	12	4	18	4	30	12:45			89	343	72	297	161	640
1:00			7		8		15		13:00			91		78		169	
1:15			4		2		6		13:15			86		58		144	
1:30			0		11		11		13:30			113		86		199	
1:45			1	12	1	22	2	34	13:45			87	377	88	310	175	687
2:00			4		1		5		14:00			58		118		176	
2:15			2		1		3		14:15			71		122		193	
2:30			6		5		11		14:30			101		120		221	
2:45			4	16	4	11	8	27	14:45			85	315	108	468	193	783
3:00			4		2		6		15:00			66		140		206	
3:15			9		9		18		15:15			59		135		194	
3:30			18		7		25		15:30			70		128		198	
3:45			8	39	8	26	16	65	15:45			57	252	101	504	158	756
4:00			8		5		13		16:00			72		175		247	
4:15			13		7		20		16:15			72		134		206	
4:30			21		5		26		16:30			69		136		205	
4:45			38	80	11	28	49	108	16:45			73	286	105	550	178	836
5:00			33		11		44		17:00			61		125		186	
5:15			87		16		103		17:15			60		109		169	
5:30			130		20		150		17:30			64		83		147	
5:45			137	387	29	76	166	463	17:45			49	234	68	385	117	619
6:00			66		43		109		18:00			31		67		98	
6:15			87		54		141		18:15			35		77		112	
6:30			109		39		148		18:30			21		54		75	
6:45			153	415	13	149	166	564	18:45			31	118	55	253	86	371
7:00			126		24		150		19:00			22		36		58	
7:15			166		27		193		19:15			20		38		58	
7:30			190		37		227		19:30			21		28		49	
7:45			202	684	43	131	245	815	19:45			20	83	36	138	56	221
8:00			127		34		161		20:00			21		36		57	
8:15			114		46		160		20:15			23		38		61	
8:30			115		41		156		20:30			17		20		37	
8:45			97	453	37	158	134	611	20:45			17	78	13	107	30	185
9:00			92		35		127		21:00			18		20		38	
9:15			87		78		165		21:15			18		21		39	
9:30			95		73		168		21:30			31		13		44	
9:45			71	345	66	252	137	597	21:45			8	75	16	70	24	145
10:00			61		53		114		22:00			9		43		52	
10:15			69		77		146		22:15			12		28		40	
10:30			61		56		117		22:30			8		11		19	
10:45			67	258	63	249	130	507	22:45			12	41	14	96	26	137
11:00			67		54		121		23:00			4		13		17	
11:15			68		64		132		23:15			4		8		12	
11:30			70		63		133		23:30			8		10		18	
11:45			63	268	63	244	126	512	23:45			3	19	32	63	35	82
TOTALS				2969		1364		4333	TOTALS				2221		3241		5462
SPLIT %				68.5%		31.5%		44.2%	SPLIT %				40.7%		59.3%		55.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,190	4,605	9,795

AM Peak Hour			7:15	11:30	7:15	PM Peak Hour			12:45	16:00	16:00
AM Pk Volume			685	291	826	PM Pk Volume			379	550	836
Pk Hr Factor			0.848	0.827	0.843	Pk Hr Factor			0.838	0.786	0.846
7 - 9 Volume	0	0	1137	289	1426	4 - 6 Volume	0	0	520	935	1455
7 - 9 Peak Hour			7:15	7:45	7:15	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	685	164	826	4 - 6 Pk Volume	0	0	286	550	836
Pk Hr Factor	0.000	0.000	0.848	0.891	0.843	Pk Hr Factor	0.000	0.000	0.979	0.786	0.846

APPENDIX B

INTERSECTION LOS WORKSHEETS

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	346	348	5	56	74	10
Future Volume (vph)	346	348	5	56	74	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.92		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2878		1556	1638	2989	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2878		1556	1638	2989	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	417	419	6	67	89	12
RTOR Reduction (vph)	148	0	0	0	10	0
Lane Group Flow (vph)	688	0	6	67	91	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	14.8		0.8	20.3	7.3	
Effective Green, g (s)	14.8		0.8	20.3	7.3	
Actuated g/C Ratio	0.38		0.02	0.52	0.19	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1094		32	854	560	
v/s Ratio Prot	c0.24		0.00	c0.04	c0.03	
v/s Ratio Perm						
v/c Ratio	0.63		0.19	0.08	0.16	
Uniform Delay, d1	9.8		18.7	4.6	13.2	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.1		2.8	0.0	0.1	
Delay (s)	11.0		21.6	4.7	13.4	
Level of Service	B		C	A	B	
Approach Delay (s)	11.0			6.1	13.4	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	38.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	700	3	2	123	0	0	0	0	0	0	2
Future Volume (Veh/h)	3	700	3	2	123	0	0	0	0	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	4	854	4	2	150	0	0	0	0	0	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	150			858			945	1018	429	589	1020	75
vC1, stage 1 conf vol							864	864		154	154	
vC2, stage 2 conf vol							81	154		435	866	
vCu, unblocked vol	150			858			945	1018	429	589	1020	75
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1332			696			279	324	537	501	322	928

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	431	431	77	75	0	2
Volume Left	4	0	2	0	0	0
Volume Right	0	4	0	0	0	2
cSH	1332	1700	696	1700	1700	928
Volume to Capacity	0.00	0.25	0.00	0.04	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.1	0.0	0.3	0.0	0.0	8.9
Lane LOS	A		A		A	A
Approach Delay (s)	0.1		0.1		0.0	8.9
Approach LOS					A	A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	185	688	90	64	0	0
Future Volume (vph)	185	688	90	64	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.96	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4071	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4071	1197		
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	210	782	102	73	0	0
RTOR Reduction (vph)	0	0	22	27	0	0
Lane Group Flow (vph)	210	782	113	13	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	7.5	30.4	10.0	10.0		
Effective Green, g (s)	7.5	30.4	10.0	10.0		
Actuated g/C Ratio	0.25	1.00	0.33	0.33		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	744	3112	1339	393		
v/s Ratio Prot	0.07	c0.25	0.03			
v/s Ratio Perm				0.01		
v/c Ratio	0.28	0.25	0.08	0.03		
Uniform Delay, d1	9.3	0.0	7.0	6.9		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.2	0.0	0.0	0.0		
Delay (s)	9.5	0.0	7.1	7.0		
Level of Service	A	A	A	A		
Approach Delay (s)		2.0	7.0		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	2.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	30.4	Sum of lost time (s)	12.9
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	432	89	0	440	424
Future Volume (vph)	0	432	89	0	440	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	480	99	0	489	471
RTOR Reduction (vph)	0	0	0	0	0	310
Lane Group Flow (vph)	0	480	99	0	489	161
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		9.8	9.8		12.0	12.0
Effective Green, g (s)		9.8	9.8		12.0	12.0
Actuated g/C Ratio		0.28	0.28		0.34	0.34
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1248	1248		1032	475
v/s Ratio Prot		c0.11	0.02		c0.16	0.12
v/s Ratio Perm						
v/c Ratio		0.38	0.08		0.47	0.34
Uniform Delay, d1		10.2	9.3		9.1	8.6
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.0		0.3	0.4
Delay (s)		10.4	9.4		9.4	9.0
Level of Service		B	A		A	A
Approach Delay (s)		10.4	9.4		9.2	
Approach LOS		B	A		A	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	35.1	Sum of lost time (s)	13.3
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	203	378	420	86	62	125
Future Volume (vph)	203	378	420	86	62	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frt	1.00	1.00	1.00	0.85	0.93	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (prot)	3019	3112	4472	1392	2868	1267
Flt Permitted	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (perm)	3019	3112	4472	1392	2868	1267
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	218	406	452	92	67	134
RTOR Reduction (vph)	0	0	0	67	59	59
Lane Group Flow (vph)	218	406	452	25	75	8
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	8.9	25.7	11.6	11.6	5.3	5.3
Effective Green, g (s)	8.9	25.7	11.6	11.6	5.3	5.3
Actuated g/C Ratio	0.21	0.59	0.27	0.27	0.12	0.12
Clearance Time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	620	1847	1198	372	351	155
v/s Ratio Prot	c0.07	0.13	c0.10		c0.03	
v/s Ratio Perm				0.02		0.01
v/c Ratio	0.35	0.22	0.38	0.07	0.21	0.05
Uniform Delay, d1	14.7	4.1	12.9	11.8	17.1	16.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1	0.2	0.1	0.3	0.1
Delay (s)	15.1	4.2	13.1	11.9	17.4	16.9
Level of Service	B	A	B	B	B	B
Approach Delay (s)		8.0	12.9		17.3	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	43.3	Sum of lost time (s)	17.5
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	171	83	311	204	36	24	119	375	27	93	17
Future Volume (vph)	40	171	83	311	204	36	24	119	375	27	93	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.89		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4371		1556	1451		3019	1600	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4371		1556	1451		3019	1600	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	190	92	346	227	40	27	132	417	30	103	19
RTOR Reduction (vph)	0	0	62	0	15	0	0	68	0	0	4	0
Lane Group Flow (vph)	44	190	30	346	252	0	27	481	0	30	118	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	7.5	46.4	46.4	22.8	61.7		5.0	46.9		4.0	46.8	
Effective Green, g (s)	7.5	46.4	46.4	22.8	61.7		5.0	46.9		4.0	46.8	
Actuated g/C Ratio	0.05	0.33	0.33	0.16	0.44		0.04	0.33		0.03	0.33	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0		2.0	5.3	
Lane Grp Cap (vph)	83	1482	461	253	1926		55	486		86	534	
v/s Ratio Prot	0.03	0.04		c0.22	c0.06		c0.02	c0.33		0.01	0.07	
v/s Ratio Perm			0.02									
v/c Ratio	0.53	0.13	0.07	1.37	0.13		0.49	0.99		0.35	0.22	
Uniform Delay, d1	64.5	32.7	32.0	58.6	23.2		66.3	46.3		66.7	33.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.2	0.2	0.3	188.6	0.1		2.5	38.2		0.9	0.5	
Delay (s)	67.8	32.9	32.3	247.2	23.4		68.7	84.6		67.6	34.0	
Level of Service	E	C	C	F	C		E	F		E	C	
Approach Delay (s)		37.4			149.7			83.8			40.6	
Approach LOS		D			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	95.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	222	21	34	265	81	8
Future Volume (vph)	222	21	34	265	81	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4413		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4413		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	239	23	37	285	87	9
RTOR Reduction (vph)	7	0	0	0	0	8
Lane Group Flow (vph)	255	0	37	285	87	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	17.4		1.3	22.7	6.5	6.5
Effective Green, g (s)	17.4		1.3	22.7	6.5	6.5
Actuated g/C Ratio	0.44		0.03	0.57	0.16	0.16
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1934		50	2557	254	227
v/s Ratio Prot	c0.06		c0.02	0.06	c0.06	
v/s Ratio Perm						0.00
v/c Ratio	0.13		0.74	0.11	0.34	0.01
Uniform Delay, d1	6.6		19.0	3.9	14.7	13.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0		43.5	0.0	0.8	0.0
Delay (s)	6.7		62.5	3.9	15.5	13.9
Level of Service	A		E	A	B	B
Approach Delay (s)	6.7			10.6	15.4	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	39.7	Sum of lost time (s)	14.5
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	221	138	38	306	43	18
Future Volume (vph)	221	138	38	306	43	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.94		1.00	1.00	0.96	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4214		1556	4472	2933	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	4214		1556	4472	2933	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	270	168	46	373	52	22
RTOR Reduction (vph)	49	0	0	0	21	0
Lane Group Flow (vph)	389	0	46	373	53	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	63.8		5.7	73.5	6.0	
Effective Green, g (s)	63.8		5.7	73.5	6.0	
Actuated g/C Ratio	0.71		0.06	0.82	0.07	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2987		98	3652	195	
v/s Ratio Prot	c0.09		c0.03	0.08	c0.02	
v/s Ratio Perm						
v/c Ratio	0.13		0.47	0.10	0.27	
Uniform Delay, d1	4.2		40.7	1.7	39.9	
Progression Factor	1.54		1.00	1.00	1.00	
Incremental Delay, d2	0.1		3.5	0.1	0.8	
Delay (s)	6.5		44.2	1.7	40.7	
Level of Service	A		D	A	D	
Approach Delay (s)	6.5			6.4	40.7	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	27.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	126	113	163	184	210	227
Future Volume (vph)	126	113	163	184	210	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	142	127	183	207	236	255
RTOR Reduction (vph)	0	57	0	0	0	220
Lane Group Flow (vph)	142	70	183	207	236	35
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	49.7	49.7	13.5	67.2	12.3	12.3
Effective Green, g (s)	49.7	49.7	13.5	67.2	12.3	12.3
Actuated g/C Ratio	0.55	0.55	0.15	0.75	0.14	0.14
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2469	768	233	3339	412	190
v/s Ratio Prot	0.03		c0.12	0.05	c0.08	
v/s Ratio Perm		c0.05				0.03
v/c Ratio	0.06	0.09	0.79	0.06	0.57	0.18
Uniform Delay, d1	9.3	9.5	36.9	3.0	36.4	34.4
Progression Factor	1.00	1.00	0.96	0.91	1.00	1.00
Incremental Delay, d2	0.0	0.2	15.8	0.0	1.9	0.5
Delay (s)	9.4	9.7	51.2	2.8	38.3	34.9
Level of Service	A	A	D	A	D	C
Approach Delay (s)	9.5			25.5	36.5	
Approach LOS	A			C	D	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	167	56	131	253	23	64	1	81	4	2	3
Future Volume (vph)	9	167	56	131	253	23	64	1	81	4	2	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.96		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4304		1556	4417		1556	1638	1392	1556	2832	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4304		1556	4417		1556	1638	1392	1556	2832	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	10	192	64	151	291	26	74	1	93	5	2	3
RTOR Reduction (vph)	0	38	0	0	5	0	0	0	81	0	5	0
Lane Group Flow (vph)	10	218	0	151	312	0	74	1	12	5	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.4	16.1		12.0	26.7		5.9	7.7	7.7	1.4	3.2	
Effective Green, g (s)	1.4	16.1		12.0	26.7		5.9	7.7	7.7	1.4	3.2	
Actuated g/C Ratio	0.02	0.26		0.19	0.43		0.10	0.12	0.12	0.02	0.05	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	35	1119		301	1905		148	203	173	35	146	
v/s Ratio Prot	0.01	c0.05		c0.10	0.07		c0.05	0.00		0.00	0.00	
v/s Ratio Perm									c0.01			
v/c Ratio	0.29	0.20		0.50	0.16		0.50	0.00	0.07	0.14	0.00	
Uniform Delay, d1	29.8	17.8		22.3	10.8		26.6	23.7	23.9	29.7	27.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.5	0.1		1.3	0.0		2.6	0.0	0.2	1.9	0.0	
Delay (s)	34.2	17.9		23.6	10.8		29.2	23.8	24.1	31.5	27.8	
Level of Service	C	B		C	B		C	C	C	C	C	
Approach Delay (s)		18.5			14.9			26.4			29.7	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	61.9	Sum of lost time (s)	24.7
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	116	106	43	166	117	59	35	19	98	26	65
Future Volume (vph)	121	116	106	43	166	117	59	35	19	98	26	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1551		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1551		1556	1638	2450
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	146	140	128	52	200	141	71	42	23	118	31	78
RTOR Reduction (vph)	0	0	49	0	0	59	0	17	0	0	0	65
Lane Group Flow (vph)	146	140	79	52	200	82	71	48	0	118	31	13
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	12.1	86.6	86.6	6.7	81.2	81.2	13.8	9.5		15.9	11.6	23.7
Effective Green, g (s)	12.1	86.6	86.6	6.7	81.2	81.2	13.8	9.5		15.9	11.6	23.7
Actuated g/C Ratio	0.09	0.62	0.62	0.05	0.58	0.58	0.10	0.07		0.11	0.08	0.17
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	260	2766	861	144	2593	807	153	105		176	135	414
v/s Ratio Prot	c0.05	0.03		0.02	0.04		0.05	c0.03		c0.08	0.02	0.00
v/s Ratio Perm			0.06			c0.06						0.00
v/c Ratio	0.56	0.05	0.09	0.36	0.08	0.10	0.46	0.46		0.67	0.23	0.03
Uniform Delay, d1	61.4	10.5	10.8	64.6	12.9	13.1	59.6	62.8		59.5	60.0	48.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.8	0.0	0.2	1.5	0.1	0.3	2.2	3.2		9.6	0.9	0.0
Delay (s)	64.2	10.5	11.0	66.1	13.0	13.4	61.8	65.9		69.2	60.9	48.6
Level of Service	E	B	B	E	B	B	E	E		E	E	D
Approach Delay (s)		29.6			20.2			63.8			61.0	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	357	313	0	205	39	29	59
Future Volume (vph)	357	313	0	205	39	29	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.80	0.80	0.92	0.80	0.80	0.80	0.80
Adj. Flow (vph)	446	391	0	256	49	36	74
RTOR Reduction (vph)	0	0	0	0	31	0	36
Lane Group Flow (vph)	446	391	0	256	18	36	38
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	13.3	27.4		10.4	16.0	5.6	22.9
Effective Green, g (s)	13.3	27.4		10.4	16.0	5.6	22.9
Actuated g/C Ratio	0.30	0.62		0.23	0.36	0.13	0.52
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	906	2765		1049	502	196	1266
v/s Ratio Prot	c0.15	0.09		c0.06	0.00	c0.02	0.02
v/s Ratio Perm					0.01		
v/c Ratio	0.49	0.14		0.24	0.04	0.18	0.03
Uniform Delay, d1	12.7	3.5		13.8	9.2	17.3	5.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.1	0.0	0.5	0.0
Delay (s)	13.2	3.6		13.9	9.2	17.8	5.3
Level of Service	B	A		B	A	B	A
Approach Delay (s)		8.7		13.1		9.4	
Approach LOS		A		B		A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	44.3	Sum of lost time (s)	18.3
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	5	233	4	60	1	308	564	186	440	0
Future Volume (vph)	0	0	5	233	4	60	1	308	564	186	440	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor			1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt			0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted			1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	0	0	7	307	5	79	1	405	742	245	579	0
RTOR Reduction (vph)	0	0	7	0	0	62	0	0	327	0	0	0
Lane Group Flow (vph)	0	0	0	307	5	17	1	405	415	245	579	0
Turn Type	Prot		pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)			1.8	15.0	13.5	13.5	1.8	19.4	34.4	12.4	30.0	
Effective Green, g (s)			1.8	15.0	13.5	13.5	1.8	19.4	34.4	12.4	30.0	
Actuated g/C Ratio			0.03	0.24	0.21	0.21	0.03	0.31	0.54	0.20	0.47	
Clearance Time (s)			5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			39	713	348	295	44	950	754	589	1470	
v/s Ratio Prot			0.00	0.10	0.00		0.00	0.13	c0.13	c0.08	0.19	
v/s Ratio Perm						0.01			0.17			
v/c Ratio			0.01	0.43	0.01	0.06	0.02	0.43	0.55	0.42	0.39	
Uniform Delay, d1			30.0	20.6	19.7	19.9	30.0	17.6	9.5	22.4	10.9	
Progression Factor			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.1	0.4	0.0	0.1	0.2	0.3	0.9	0.5	0.2	
Delay (s)			30.0	21.0	19.8	20.0	30.2	17.9	10.4	22.9	11.0	
Level of Service			C	C	B	C	C	B	B	C	B	
Approach Delay (s)		30.0			20.8			13.0			14.5	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	63.5	Sum of lost time (s)	23.4
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	55	42	65	125	94	425	64	0	512	23
Future Volume (vph)	3	0	55	42	65	125	94	425	64	0	512	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1551	1392	3019	3112	1392		5598	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1556	1392		1478	1551	1392	3019	3112	1392		5598	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	3	0	62	47	73	140	106	478	72	0	575	26
RTOR Reduction (vph)	0	58	0	0	0	118	0	0	36	0	6	0
Lane Group Flow (vph)	3	4	0	42	78	22	106	478	36	0	595	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm		NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2			
Actuated Green, G (s)	3.1	3.1		8.4	8.4	8.4	6.1	26.7	26.7		15.9	
Effective Green, g (s)	3.1	3.1		8.4	8.4	8.4	6.1	26.7	26.7		15.9	
Actuated g/C Ratio	0.06	0.06		0.16	0.16	0.16	0.11	0.50	0.50		0.30	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	90	80		232	243	218	344	1553	694		1663	
v/s Ratio Prot	0.00	c0.00		0.03	c0.05	0.02	0.04	c0.15			c0.11	
v/s Ratio Perm									0.03			
v/c Ratio	0.03	0.04		0.18	0.32	0.10	0.31	0.31	0.05		0.36	
Uniform Delay, d1	23.8	23.8		19.6	20.0	19.3	21.8	7.9	6.9		14.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.2	0.2		0.4	0.8	0.2	0.5	0.1	0.0		0.1	
Delay (s)	23.9	24.0		19.9	20.8	19.5	22.3	8.0	6.9		14.9	
Level of Service	C	C		B	C	B	C	A	A		B	
Approach Delay (s)		24.0			20.0			10.2			14.9	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	53.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	36.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	439	310	4	142	188	141
Future Volume (vph)	439	310	4	142	188	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	482	341	4	156	207	155
RTOR Reduction (vph)	0	229	0	0	0	68
Lane Group Flow (vph)	482	112	4	156	207	87
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	11.8	11.8	0.7	13.8	8.4	20.2
Effective Green, g (s)	11.8	11.8	0.7	13.8	8.4	20.2
Actuated g/C Ratio	0.33	0.33	0.02	0.39	0.23	0.56
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	995	807	59	1723	730	983
v/s Ratio Prot	c0.16	0.05	0.00	c0.03	c0.07	0.03
v/s Ratio Perm						0.03
v/c Ratio	0.48	0.14	0.07	0.09	0.28	0.09
Uniform Delay, d1	9.6	8.4	17.2	7.0	11.2	3.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	0.5	0.0	0.2	0.0
Delay (s)	9.9	8.5	17.7	7.0	11.4	3.6
Level of Service	A	A	B	A	B	A
Approach Delay (s)	9.4			7.3	8.1	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	35.8	Sum of lost time (s)	14.9
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	102	165	10	321	219	19
Future Volume (vph)	102	165	10	321	219	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.91		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2824		1556	1638	3002	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2824		1556	1638	3002	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	119	192	12	373	255	22
RTOR Reduction (vph)	128	0	0	0	6	0
Lane Group Flow (vph)	183	0	12	373	271	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	13.5		1.1	19.3	9.9	
Effective Green, g (s)	13.5		1.1	19.3	9.9	
Actuated g/C Ratio	0.33		0.03	0.48	0.24	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	941		42	780	733	
v/s Ratio Prot	0.06		0.01	c0.23	c0.09	
v/s Ratio Perm						
v/c Ratio	0.19		0.29	0.48	0.37	
Uniform Delay, d1	9.6		19.3	7.2	12.7	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.1		3.7	0.5	0.3	
Delay (s)	9.7		23.0	7.7	13.0	
Level of Service	A		C	A	B	
Approach Delay (s)	9.7			8.1	13.0	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	40.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	33.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	262	1	0	532	3	12	0	1	3	0	4
Future Volume (Veh/h)	5	262	1	0	532	3	12	0	1	3	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	305	1	0	619	3	14	0	1	3	0	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	622			306			632	940	153	786	938	311
vC1, stage 1 conf vol							318	318		620	620	
vC2, stage 2 conf vol							314	622		166	318	
vCu, unblocked vol	622			306			632	940	153	786	938	311
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	99			100			97	100	100	99	100	99
cM capacity (veh/h)	866			1156			515	397	823	390	401	645

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	158	154	413	209	15	8
Volume Left	6	0	0	0	14	3
Volume Right	0	1	0	3	1	5
cSH	866	1700	1700	1700	528	518
Volume to Capacity	0.01	0.09	0.24	0.12	0.03	0.02
Queue Length 95th (ft)	1	0	0	0	2	1
Control Delay (s)	0.4	0.0	0.0	0.0	12.0	12.1
Lane LOS	A				B	B
Approach Delay (s)	0.2		0.0		12.0	12.1
Approach LOS					B	B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	315	229	276	362	0	0
Future Volume (vph)	315	229	276	362	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.94	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	3975	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	3975	1197		
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	375	273	329	431	0	0
RTOR Reduction (vph)	0	0	123	123	0	0
Lane Group Flow (vph)	375	273	422	92	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	9.4	32.9	10.6	10.6		
Effective Green, g (s)	9.4	32.9	10.6	10.6		
Actuated g/C Ratio	0.29	1.00	0.32	0.32		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	862	3112	1280	385		
v/s Ratio Prot	c0.12	0.09	c0.11			
v/s Ratio Perm				0.08		
v/c Ratio	0.44	0.09	0.33	0.24		
Uniform Delay, d1	9.6	0.0	8.5	8.2		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.4	0.0	0.2	0.3		
Delay (s)	9.9	0.0	8.6	8.5		
Level of Service	A	A	A	A		
Approach Delay (s)		5.8	8.6		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	32.9	Sum of lost time (s)	12.9
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	425	274	0	120	222
Future Volume (vph)	0	425	274	0	120	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	447	288	0	126	234
RTOR Reduction (vph)	0	0	0	0	0	180
Lane Group Flow (vph)	0	447	288	0	126	54
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		9.8	9.8		7.0	7.0
Effective Green, g (s)		9.8	9.8		7.0	7.0
Actuated g/C Ratio		0.33	0.33		0.23	0.23
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1456	1456		702	323
v/s Ratio Prot		c0.10	0.06		c0.04	0.04
v/s Ratio Perm						
v/c Ratio		0.31	0.20		0.18	0.17
Uniform Delay, d1		7.6	7.3		9.3	9.2
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.1	0.1		0.1	0.2
Delay (s)		7.7	7.4		9.4	9.5
Level of Service		A	A		A	A
Approach Delay (s)		7.7	7.4		9.4	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	30.1	Sum of lost time (s)	13.3
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	110	389	342	80	89	238
Future Volume (vph)	110	389	342	80	89	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frt	1.00	1.00	1.00	0.85	0.91	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (prot)	3019	3112	4472	1392	2844	1267
Flt Permitted	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (perm)	3019	3112	4472	1392	2844	1267
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	118	418	368	86	96	256
RTOR Reduction (vph)	0	0	0	65	105	105
Lane Group Flow (vph)	118	418	368	21	119	23
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.6	20.8	10.0	10.0	7.2	7.2
Effective Green, g (s)	5.6	20.8	10.0	10.0	7.2	7.2
Actuated g/C Ratio	0.14	0.52	0.25	0.25	0.18	0.18
Clearance Time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	419	1606	1109	345	508	226
v/s Ratio Prot	0.04	c0.13	c0.08		c0.04	
v/s Ratio Perm				0.02		0.02
v/c Ratio	0.28	0.26	0.33	0.06	0.23	0.10
Uniform Delay, d1	15.5	5.4	12.4	11.6	14.2	13.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	0.2	0.1	0.2	0.2
Delay (s)	15.9	5.5	12.6	11.6	14.4	14.0
Level of Service	B	A	B	B	B	B
Approach Delay (s)		7.8	12.4		14.3	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	40.3	Sum of lost time (s)	17.5
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	155	134	397	198	35	51	117	248	34	187	47
Future Volume (vph)	57	155	134	397	198	35	51	117	248	34	187	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.90		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4370		1556	1471		3019	1588	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4370		1556	1471		3019	1588	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	61	167	144	427	213	38	55	126	267	37	201	51
RTOR Reduction (vph)	0	0	95	0	16	0	0	47	0	0	6	0
Lane Group Flow (vph)	61	167	49	427	235	0	55	346	0	37	246	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	8.8	47.2	47.2	22.9	61.3		8.3	44.7		5.3	42.6	
Effective Green, g (s)	8.8	47.2	47.2	22.9	61.3		8.3	44.7		5.3	42.6	
Actuated g/C Ratio	0.06	0.34	0.34	0.16	0.44		0.06	0.32		0.04	0.30	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0		2.0	5.3	
Lane Grp Cap (vph)	97	1507	469	254	1913		92	469		114	483	
v/s Ratio Prot	0.04	0.04		c0.27	c0.05		c0.04	c0.24		0.01	0.16	
v/s Ratio Perm			0.03									
v/c Ratio	0.63	0.11	0.10	1.68	0.12		0.60	0.74		0.32	0.51	
Uniform Delay, d1	64.0	32.0	31.9	58.5	23.4		64.2	42.4		65.6	40.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	8.8	0.1	0.4	323.1	0.1		6.8	7.2		0.6	2.0	
Delay (s)	72.8	32.1	32.3	381.6	23.5		71.0	49.7		66.2	42.1	
Level of Service	E	C	C	F	C		E	D		E	D	
Approach Delay (s)		38.9			249.1			52.3			45.2	
Approach LOS		D			F			D			D	

Intersection Summary			
HCM 2000 Control Delay	123.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	371	57	44	302	61	9
Future Volume (vph)	371	57	44	302	61	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4383		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4383		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	399	61	47	325	66	10
RTOR Reduction (vph)	12	0	0	0	0	9
Lane Group Flow (vph)	448	0	47	325	66	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	19.4		2.7	26.1	4.5	4.5
Effective Green, g (s)	19.4		2.7	26.1	4.5	4.5
Actuated g/C Ratio	0.47		0.07	0.64	0.11	0.11
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2068		102	2839	170	152
v/s Ratio Prot	c0.10		c0.03	0.07	c0.04	
v/s Ratio Perm						0.00
v/c Ratio	0.22		0.46	0.11	0.39	0.01
Uniform Delay, d1	6.4		18.5	3.0	17.0	16.3
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		3.3	0.0	1.5	0.0
Delay (s)	6.4		21.8	3.0	18.5	16.3
Level of Service	A		C	A	B	B
Approach Delay (s)	6.4			5.3	18.2	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	7.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	41.1	Sum of lost time (s)	14.5
Intersection Capacity Utilization	27.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	349	72	41	318	190	57
Future Volume (vph)	349	72	41	318	190	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.97		1.00	1.00	0.97	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4357		1556	4472	2954	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4357		1556	4472	2954	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	392	81	46	357	213	64
RTOR Reduction (vph)	16	0	0	0	22	0
Lane Group Flow (vph)	457	0	46	357	255	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	99.8		8.4	112.2	17.3	
Effective Green, g (s)	99.8		8.4	112.2	17.3	
Actuated g/C Ratio	0.71		0.06	0.80	0.12	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	3105		93	3583	365	
v/s Ratio Prot	c0.11		c0.03	0.08	c0.09	
v/s Ratio Perm						
v/c Ratio	0.15		0.49	0.10	0.70	
Uniform Delay, d1	6.4		63.7	3.0	58.9	
Progression Factor	1.21		1.00	1.00	1.00	
Incremental Delay, d2	0.1		4.1	0.1	5.8	
Delay (s)	7.9		67.8	3.1	64.6	
Level of Service	A		E	A	E	
Approach Delay (s)	7.9			10.4	64.6	
Approach LOS	A			B	E	

Intersection Summary			
HCM 2000 Control Delay	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	31.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	233	316	247	246	251	178
Future Volume (vph)	233	316	247	246	251	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	248	336	263	262	267	189
RTOR Reduction (vph)	0	163	0	0	0	165
Lane Group Flow (vph)	248	173	263	262	267	24
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	72.0	72.0	35.9	111.9	17.6	17.6
Effective Green, g (s)	72.0	72.0	35.9	111.9	17.6	17.6
Actuated g/C Ratio	0.51	0.51	0.26	0.80	0.13	0.13
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2299	715	399	3574	379	174
v/s Ratio Prot	0.06		c0.17	0.06	c0.09	
v/s Ratio Perm		c0.12				0.02
v/c Ratio	0.11	0.24	0.66	0.07	0.70	0.14
Uniform Delay, d1	17.5	18.9	46.6	3.0	58.7	54.4
Progression Factor	1.00	1.00	1.00	1.44	1.00	1.00
Incremental Delay, d2	0.1	0.8	3.8	0.0	5.9	0.4
Delay (s)	17.6	19.7	50.3	4.3	64.6	54.8
Level of Service	B	B	D	A	E	D
Approach Delay (s)	18.8			27.4	60.5	
Approach LOS	B			C	E	

Intersection Summary			
HCM 2000 Control Delay	33.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	358	81	146	356	6	62	2	178	9	1	5
Future Volume (vph)	6	358	81	146	356	6	62	2	178	9	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4348		1556	4460		1556	1638	1392	1556	2712	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4348		1556	4460		1556	1638	1392	1556	2712	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	398	90	162	396	7	69	2	198	10	1	6
RTOR Reduction (vph)	0	18	0	0	0	0	0	0	173	0	7	0
Lane Group Flow (vph)	7	470	0	162	403	0	69	2	25	10	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.5	34.8		12.9	46.2		8.8	10.9	10.9	1.5	3.6	
Effective Green, g (s)	1.5	34.8		12.9	46.2		8.8	10.9	10.9	1.5	3.6	
Actuated g/C Ratio	0.02	0.41		0.15	0.54		0.10	0.13	0.13	0.02	0.04	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	27	1784		236	2429		161	210	178	27	115	
v/s Ratio Prot	0.00	c0.11		c0.10	0.09		c0.04	0.00		0.01	0.00	
v/s Ratio Perm									c0.02			
v/c Ratio	0.26	0.26		0.69	0.17		0.43	0.01	0.14	0.37	0.00	
Uniform Delay, d1	41.1	16.5		34.0	9.7		35.6	32.2	32.8	41.2	38.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.1	0.1		8.0	0.1		1.8	0.0	0.4	8.4	0.0	
Delay (s)	46.2	16.6		42.1	9.8		37.5	32.3	33.2	49.6	38.9	
Level of Service	D	B		D	A		D	C	C	D	D	
Approach Delay (s)		17.0			19.1			34.3			45.2	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	84.8	Sum of lost time (s)	24.7
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	169	85	42	206	183	141	43	72	195	79	264
Future Volume (vph)	132	169	85	42	206	183	141	43	72	195	79	264
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1484		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1484		1556	1638	2450
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	147	188	94	47	229	203	157	48	80	217	88	293
RTOR Reduction (vph)	0	0	53	0	0	123	0	56	0	0	0	211
Lane Group Flow (vph)	147	188	41	47	229	80	157	72	0	217	88	82
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.2	52.0	52.0	6.2	47.0	47.0	18.0	12.4		28.1	22.5	33.7
Effective Green, g (s)	11.2	52.0	52.0	6.2	47.0	47.0	18.0	12.4		28.1	22.5	33.7
Actuated g/C Ratio	0.09	0.43	0.43	0.05	0.39	0.39	0.15	0.10		0.23	0.19	0.28
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	281	1937	603	155	1751	545	233	153		364	307	688
v/s Ratio Prot	c0.05	0.04		0.02	0.05		c0.10	c0.05		c0.14	0.05	0.01
v/s Ratio Perm			0.03			c0.06						0.02
v/c Ratio	0.52	0.10	0.07	0.30	0.13	0.15	0.67	0.47		0.60	0.29	0.12
Uniform Delay, d1	51.9	20.1	19.8	54.8	23.4	23.5	48.2	50.7		40.9	41.9	32.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.8	0.1	0.2	1.1	0.2	0.6	7.5	2.3		2.6	0.5	0.1
Delay (s)	53.6	20.2	20.1	55.9	23.6	24.1	55.7	52.9		43.5	42.4	32.2
Level of Service	D	C	C	E	C	C	E	D		D	D	C
Approach Delay (s)		31.6			27.0			54.5			37.8	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	183	281	0	581	86	102	413
Future Volume (vph)	183	281	0	581	86	102	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.82	0.82	0.92	0.82	0.82	0.82	0.82
Adj. Flow (vph)	223	343	0	709	105	124	504
RTOR Reduction (vph)	0	0	0	0	50	0	256
Lane Group Flow (vph)	223	343	0	709	55	124	248
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	11.5	32.4		17.2	29.1	11.9	27.4
Effective Green, g (s)	11.5	32.4		17.2	29.1	11.9	27.4
Actuated g/C Ratio	0.21	0.58		0.31	0.52	0.21	0.49
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	624	2605		1383	728	333	1207
v/s Ratio Prot	c0.07	0.08		c0.16	0.02	c0.08	0.10
v/s Ratio Perm					0.02		
v/c Ratio	0.36	0.13		0.51	0.08	0.37	0.21
Uniform Delay, d1	18.9	5.2		15.8	6.6	18.7	8.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.3	0.0	0.7	0.1
Delay (s)	19.2	5.3		16.1	6.6	19.4	8.0
Level of Service	B	A		B	A	B	A
Approach Delay (s)		10.8		14.9		10.3	
Approach LOS		B		B		B	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	55.6	Sum of lost time (s)	18.3
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	11	773	9	220	10	445	371	142	215	0
Future Volume (vph)	1	1	11	773	9	220	10	445	371	142	215	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	1	1	13	899	10	256	12	517	431	165	250	0
RTOR Reduction (vph)	0	0	12	0	0	148	0	0	145	0	0	0
Lane Group Flow (vph)	1	1	1	899	10	108	12	517	286	165	250	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.7	1.7	8.0	46.8	45.7	45.7	6.3	25.2	72.0	12.4	31.3	
Effective Green, g (s)	1.7	1.7	8.0	46.8	45.7	45.7	6.3	25.2	72.0	12.4	31.3	
Actuated g/C Ratio	0.02	0.02	0.07	0.43	0.42	0.42	0.06	0.23	0.66	0.11	0.29	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	24	48	102	1303	690	586	90	723	924	345	898	
v/s Ratio Prot	0.00	0.00	0.00	c0.30	0.01		0.01	c0.17	0.13	c0.05	0.08	
v/s Ratio Perm			0.00			c0.08			0.07			
v/c Ratio	0.04	0.02	0.01	0.69	0.01	0.18	0.13	0.72	0.31	0.48	0.28	
Uniform Delay, d1	52.5	52.5	46.5	24.9	18.2	19.7	48.5	38.3	7.7	45.0	29.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.7	0.2	0.0	1.5	0.0	0.2	0.7	3.4	0.2	1.0	0.2	
Delay (s)	53.3	52.7	46.6	26.5	18.3	19.8	49.1	41.7	7.9	46.0	30.0	
Level of Service	D	D	D	C	B	B	D	D	A	D	C	
Approach Delay (s)		47.4			24.9			26.6			36.4	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	108.4	Sum of lost time (s)	23.4
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	0	99	60	27	145	88	316	211	1	730	22
Future Volume (vph)	6	0	99	60	27	145	88	316	211	1	730	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		1.00	
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1526	1392	3019	3112	1392		5609	
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		0.93	
Satd. Flow (perm)	1556	1392		1478	1526	1392	3019	3112	1392		5229	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	0	103	62	28	151	92	329	220	1	760	23
RTOR Reduction (vph)	0	95	0	0	0	131	0	0	105	0	3	0
Lane Group Flow (vph)	6	8	0	45	46	20	92	329	115	0	781	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm	Perm	NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2	6		
Actuated Green, G (s)	4.5	4.5		7.6	7.6	7.6	5.8	29.8	29.8		19.3	
Effective Green, g (s)	4.5	4.5		7.6	7.6	7.6	5.8	29.8	29.8		19.3	
Actuated g/C Ratio	0.08	0.08		0.13	0.13	0.13	0.10	0.52	0.52		0.34	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	122	109		196	202	184	306	1621	725		1764	
v/s Ratio Prot	0.00	c0.01		c0.03	0.03	0.01	c0.03	0.11				
v/s Ratio Perm									0.08		c0.15	
v/c Ratio	0.05	0.07		0.23	0.23	0.11	0.30	0.20	0.16		0.44	
Uniform Delay, d1	24.4	24.4		22.2	22.2	21.8	23.8	7.3	7.2		14.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.2	0.3		0.6	0.6	0.3	0.6	0.1	0.1		0.2	
Delay (s)	24.5	24.7		22.8	22.8	22.1	24.4	7.4	7.3		14.9	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		24.7			22.3			9.8			14.9	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	261	183	22	367	236	261
Future Volume (vph)	261	183	22	367	236	261
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	278	195	23	390	251	278
RTOR Reduction (vph)	0	141	0	0	0	130
Lane Group Flow (vph)	278	54	23	390	251	148
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	9.4	9.4	0.9	14.3	8.7	18.1
Effective Green, g (s)	9.4	9.4	0.9	14.3	8.7	18.1
Actuated g/C Ratio	0.28	0.28	0.03	0.42	0.26	0.53
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	837	679	80	1886	798	952
v/s Ratio Prot	c0.09	0.02	0.01	c0.09	c0.08	0.04
v/s Ratio Perm						0.06
v/c Ratio	0.33	0.08	0.29	0.21	0.31	0.16
Uniform Delay, d1	9.8	9.1	16.2	6.2	10.2	4.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1	2.0	0.1	0.2	0.1
Delay (s)	10.0	9.1	18.2	6.3	10.4	4.1
Level of Service	A	A	B	A	B	A
Approach Delay (s)	9.6			6.9	7.1	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	33.9	Sum of lost time (s)	14.9
Intersection Capacity Utilization	28.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	351	348	5	72	74	10
Future Volume (vph)	351	348	5	72	74	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.93		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2880		1556	1638	2989	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2880		1556	1638	2989	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	423	419	6	87	89	12
RTOR Reduction (vph)	146	0	0	0	10	0
Lane Group Flow (vph)	696	0	6	87	91	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	14.9		0.8	20.4	7.3	
Effective Green, g (s)	14.9		0.8	20.4	7.3	
Actuated g/C Ratio	0.38		0.02	0.52	0.19	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1100		31	856	559	
v/s Ratio Prot	c0.24		0.00	c0.05	c0.03	
v/s Ratio Perm						
v/c Ratio	0.63		0.19	0.10	0.16	
Uniform Delay, d1	9.8		18.8	4.7	13.3	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.2		3.0	0.1	0.1	
Delay (s)	11.0		21.8	4.7	13.4	
Level of Service	B		C	A	B	
Approach Delay (s)	11.0			5.8	13.4	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	39.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	705	3	2	139	0	0	0	0	0	0	2
Future Volume (Veh/h)	3	705	3	2	139	0	0	0	0	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	4	860	4	2	170	0	0	0	0	0	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	170			864			961	1044	432	612	1046	85
vC1, stage 1 conf vol							870	870		174	174	
vC2, stage 2 conf vol							91	174		438	872	
vCu, unblocked vol	170			864			961	1044	432	612	1046	85
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1308			692			276	321	535	496	319	914

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	434	434	87	85	0	2
Volume Left	4	0	2	0	0	0
Volume Right	0	4	0	0	0	2
cSH	1308	1700	692	1700	1700	914
Volume to Capacity	0.00	0.26	0.00	0.05	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.1	0.0	0.3	0.0	0.0	8.9
Lane LOS	A		A		A	A
Approach Delay (s)	0.1		0.1		0.0	8.9
Approach LOS					A	A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	31.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	193	693	106	64	0	0
Future Volume (vph)	193	693	106	64	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.97	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4102	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4102	1197		
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	219	788	120	73	0	0
RTOR Reduction (vph)	0	0	20	30	0	0
Lane Group Flow (vph)	219	788	129	14	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	7.6	30.3	9.8	9.8		
Effective Green, g (s)	7.6	30.3	9.8	9.8		
Actuated g/C Ratio	0.25	1.00	0.32	0.32		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	757	3112	1326	387		
v/s Ratio Prot	0.07	c0.25	0.03			
v/s Ratio Perm				0.01		
v/c Ratio	0.29	0.25	0.10	0.04		
Uniform Delay, d1	9.2	0.0	7.2	7.0		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.2	0.0	0.0	0.0		
Delay (s)	9.4	0.0	7.2	7.1		
Level of Service	A	A	A	A		
Approach Delay (s)		2.1	7.2		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	2.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	30.3	Sum of lost time (s)	12.9
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	445	105	0	440	444
Future Volume (vph)	0	445	105	0	440	444
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	494	117	0	489	493
RTOR Reduction (vph)	0	0	0	0	0	326
Lane Group Flow (vph)	0	494	117	0	489	167
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		10.1	10.1		12.0	12.0
Effective Green, g (s)		10.1	10.1		12.0	12.0
Actuated g/C Ratio		0.29	0.29		0.34	0.34
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1275	1275		1023	471
v/s Ratio Prot		c0.11	0.03		c0.16	0.12
v/s Ratio Perm						
v/c Ratio		0.39	0.09		0.48	0.35
Uniform Delay, d1		10.2	9.3		9.2	8.8
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.0		0.4	0.5
Delay (s)		10.4	9.3		9.6	9.3
Level of Service		B	A		A	A
Approach Delay (s)		10.4	9.3		9.4	
Approach LOS		B	A		A	

Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	35.4	Sum of lost time (s)	13.3
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	378	156	35	420	86	67	2	13	62	4	125
Future Volume (vph)	203	378	156	35	420	86	67	2	13	62	4	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		0.95	0.91	0.95
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.87	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1423		1478	1294	1323
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1423		1478	1294	1323
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	218	406	168	38	452	92	72	2	14	67	4	134
RTOR Reduction (vph)	0	0	104	0	0	66	0	12	0	0	55	64
Lane Group Flow (vph)	218	406	64	38	452	26	72	4	0	60	18	8
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	6.3	21.7	21.7	1.7	16.4	16.4	6.4	6.4		6.2	6.2	6.2
Effective Green, g (s)	6.3	21.7	21.7	1.7	16.4	16.4	6.4	6.4		6.2	6.2	6.2
Actuated g/C Ratio	0.11	0.38	0.38	0.03	0.29	0.29	0.11	0.11		0.11	0.11	0.11
Clearance Time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	331	1693	527	89	1279	398	173	158		159	140	143
v/s Ratio Prot	c0.07	0.09		0.01	c0.10		c0.05	0.00		c0.04	0.01	
v/s Ratio Perm			0.05			0.02						0.01
v/c Ratio	0.66	0.24	0.12	0.43	0.35	0.07	0.42	0.02		0.38	0.13	0.05
Uniform Delay, d1	24.5	12.2	11.6	27.3	16.2	14.9	23.7	22.7		23.8	23.1	22.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.7	0.1	0.1	3.3	0.2	0.1	1.6	0.1		1.5	0.4	0.2
Delay (s)	29.2	12.2	11.7	30.6	16.4	14.9	25.3	22.7		25.3	23.5	23.1
Level of Service	C	B	B	C	B	B	C	C		C	C	C
Approach Delay (s)		16.8			17.1			24.9			23.9	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	57.3	Sum of lost time (s)	22.0
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	204	83	364	218	36	24	119	498	27	93	17
Future Volume (vph)	40	204	83	364	218	36	24	119	498	27	93	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.88		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4376		1556	1440		3019	1600	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4376		1556	1440		3019	1600	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	227	92	404	242	40	27	132	553	30	103	19
RTOR Reduction (vph)	0	0	62	0	14	0	0	90	0	0	4	0
Lane Group Flow (vph)	44	227	30	404	268	0	27	595	0	30	118	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	7.5	46.4	46.4	22.8	61.7		5.0	46.9		4.0	46.8	
Effective Green, g (s)	7.5	46.4	46.4	22.8	61.7		5.0	46.9		4.0	46.8	
Actuated g/C Ratio	0.05	0.33	0.33	0.16	0.44		0.04	0.33		0.03	0.33	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0		2.0	5.3	
Lane Grp Cap (vph)	83	1482	461	253	1928		55	482		86	534	
v/s Ratio Prot	0.03	c0.05		c0.26	0.06		c0.02	c0.41		0.01	0.07	
v/s Ratio Perm			0.02									
v/c Ratio	0.53	0.15	0.07	1.60	0.14		0.49	1.23		0.35	0.22	
Uniform Delay, d1	64.5	33.0	32.0	58.6	23.3		66.3	46.5		66.7	33.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.2	0.2	0.3	286.4	0.2		2.5	122.1		0.9	0.5	
Delay (s)	67.8	33.2	32.3	345.0	23.5		68.7	168.6		67.6	34.0	
Level of Service	E	C	C	F	C		E	F		E	C	
Approach Delay (s)		37.1			212.8			164.8			40.6	
Approach LOS		D			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	147.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	255	21	34	279	81	8
Future Volume (vph)	255	21	34	279	81	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4420		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4420		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	274	23	37	300	87	9
RTOR Reduction (vph)	6	0	0	0	0	8
Lane Group Flow (vph)	291	0	37	300	87	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	17.4		1.3	22.7	6.6	6.6
Effective Green, g (s)	17.4		1.3	22.7	6.6	6.6
Actuated g/C Ratio	0.44		0.03	0.57	0.17	0.17
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1932		50	2550	258	230
v/s Ratio Prot	c0.07		c0.02	0.07	c0.06	
v/s Ratio Perm						0.00
v/c Ratio	0.15		0.74	0.12	0.34	0.01
Uniform Delay, d1	6.7		19.1	3.9	14.7	13.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0		43.5	0.0	0.8	0.0
Delay (s)	6.8		62.6	4.0	15.4	13.9
Level of Service	A		E	A	B	B
Approach Delay (s)	6.8			10.4	15.3	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	39.8	Sum of lost time (s)	14.5
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	254	138	38	320	43	18
Future Volume (vph)	254	138	38	320	43	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.95		1.00	1.00	0.96	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4236		1556	4472	2933	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	4236		1556	4472	2933	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	310	168	46	390	52	22
RTOR Reduction (vph)	49	0	0	0	21	0
Lane Group Flow (vph)	429	0	46	390	53	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	63.8		5.7	73.5	6.0	
Effective Green, g (s)	63.8		5.7	73.5	6.0	
Actuated g/C Ratio	0.71		0.06	0.82	0.07	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	3002		98	3652	195	
v/s Ratio Prot	c0.10		c0.03	0.09	c0.02	
v/s Ratio Perm						
v/c Ratio	0.14		0.47	0.11	0.27	
Uniform Delay, d1	4.2		40.7	1.7	39.9	
Progression Factor	1.47		1.00	1.00	1.00	
Incremental Delay, d2	0.1		3.5	0.1	0.8	
Delay (s)	6.3		44.2	1.7	40.7	
Level of Service	A		D	A	D	
Approach Delay (s)	6.3			6.2	40.7	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.18		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	27.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	159	113	163	198	210	227
Future Volume (vph)	159	113	163	198	210	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	179	127	183	222	236	255
RTOR Reduction (vph)	0	57	0	0	0	220
Lane Group Flow (vph)	179	70	183	222	236	35
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	49.7	49.7	13.5	67.2	12.3	12.3
Effective Green, g (s)	49.7	49.7	13.5	67.2	12.3	12.3
Actuated g/C Ratio	0.55	0.55	0.15	0.75	0.14	0.14
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2469	768	233	3339	412	190
v/s Ratio Prot	0.04		c0.12	0.05	c0.08	
v/s Ratio Perm		c0.05				0.03
v/c Ratio	0.07	0.09	0.79	0.07	0.57	0.18
Uniform Delay, d1	9.4	9.5	36.9	3.0	36.4	34.4
Progression Factor	1.00	1.00	0.96	0.92	1.00	1.00
Incremental Delay, d2	0.1	0.2	15.8	0.0	1.9	0.5
Delay (s)	9.5	9.7	51.2	2.8	38.3	34.9
Level of Service	A	A	D	A	D	C
Approach Delay (s)	9.6			24.7	36.5	
Approach LOS	A			C	D	

Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	192	56	134	264	23	64	1	89	4	2	3
Future Volume (vph)	9	192	56	134	264	23	64	1	89	4	2	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.97		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4321		1556	4419		1556	1638	1392	1556	2832	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4321		1556	4419		1556	1638	1392	1556	2832	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	10	221	64	154	303	26	74	1	102	5	2	3
RTOR Reduction (vph)	0	32	0	0	5	0	0	0	89	0	5	0
Lane Group Flow (vph)	10	253	0	154	324	0	74	1	13	5	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.4	16.3		12.1	27.0		8.1	7.8	7.8	1.4	1.1	
Effective Green, g (s)	1.4	16.3		12.1	27.0		8.1	7.8	7.8	1.4	1.1	
Actuated g/C Ratio	0.02	0.26		0.19	0.43		0.13	0.13	0.13	0.02	0.02	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	34	1130		302	1915		202	205	174	34	50	
v/s Ratio Prot	0.01	c0.06		c0.10	0.07		c0.05	0.00		0.00	0.00	
v/s Ratio Perm									c0.01			
v/c Ratio	0.29	0.22		0.51	0.17		0.37	0.00	0.07	0.15	0.00	
Uniform Delay, d1	30.0	18.0		22.4	10.8		24.8	23.9	24.1	29.9	30.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.8	0.1		1.4	0.0		1.1	0.0	0.2	2.0	0.0	
Delay (s)	34.7	18.1		23.8	10.8		25.9	23.9	24.2	31.9	30.1	
Level of Service	C	B		C	B		C	C	C	C	C	
Approach Delay (s)		18.7			15.0			24.9			31.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	62.3	Sum of lost time (s)	24.7
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	134	106	43	173	120	59	35	19	106	26	65
Future Volume (vph)	121	134	106	43	173	120	59	35	19	106	26	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1551		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1551		1556	1638	2450
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	146	161	128	52	208	145	71	42	23	128	31	78
RTOR Reduction (vph)	0	0	50	0	0	62	0	17	0	0	0	64
Lane Group Flow (vph)	146	161	78	52	208	83	71	48	0	128	31	14
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	12.1	85.7	85.7	6.7	80.3	80.3	14.0	9.6		16.7	12.3	24.4
Effective Green, g (s)	12.1	85.7	85.7	6.7	80.3	80.3	14.0	9.6		16.7	12.3	24.4
Actuated g/C Ratio	0.09	0.61	0.61	0.05	0.57	0.57	0.10	0.07		0.12	0.09	0.17
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	260	2737	852	144	2565	798	155	106		185	143	427
v/s Ratio Prot	c0.05	0.04		0.02	0.05		0.05	c0.03		c0.08	c0.02	0.00
v/s Ratio Perm			0.06			c0.06						0.00
v/c Ratio	0.56	0.06	0.09	0.36	0.08	0.10	0.46	0.46		0.69	0.22	0.03
Uniform Delay, d1	61.4	10.9	11.2	64.6	13.3	13.5	59.4	62.7		59.2	59.4	48.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.8	0.0	0.2	1.5	0.1	0.3	2.1	3.1		10.6	0.8	0.0
Delay (s)	64.2	11.0	11.4	66.1	13.4	13.8	61.6	65.8		69.8	60.1	48.0
Level of Service	E	B	B	E	B	B	E	E		E	E	D
Approach Delay (s)		28.9			20.3			63.6			61.4	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	36.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	357	327	0	211	41	33	59
Future Volume (vph)	357	327	0	211	41	33	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.80	0.80	0.92	0.80	0.80	0.80	0.80
Adj. Flow (vph)	446	409	0	264	51	41	74
RTOR Reduction (vph)	0	0	0	0	32	0	36
Lane Group Flow (vph)	446	409	0	264	19	41	38
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	13.4	27.6		10.5	16.2	5.7	23.1
Effective Green, g (s)	13.4	27.6		10.5	16.2	5.7	23.1
Actuated g/C Ratio	0.30	0.62		0.24	0.36	0.13	0.52
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	907	2767		1052	505	198	1268
v/s Ratio Prot	c0.15	0.09		c0.06	0.00	c0.03	0.02
v/s Ratio Perm					0.01		
v/c Ratio	0.49	0.15		0.25	0.04	0.21	0.03
Uniform Delay, d1	12.8	3.6		13.9	9.2	17.4	5.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.1	0.0	0.5	0.0
Delay (s)	13.2	3.6		14.0	9.2	17.9	5.3
Level of Service	B	A		B	A	B	A
Approach Delay (s)		8.6		13.2		9.8	
Approach LOS		A		B		A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	44.6	Sum of lost time (s)	18.3
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	5	235	4	64	1	308	568	196	440	0
Future Volume (vph)	0	0	5	235	4	64	1	308	568	196	440	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor			1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt			0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted			1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	0	0	7	309	5	84	1	405	747	258	579	0
RTOR Reduction (vph)	0	0	7	0	0	66	0	0	324	0	0	0
Lane Group Flow (vph)	0	0	0	309	5	18	1	405	423	258	579	0
Turn Type	Prot		pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)			1.8	15.1	13.6	13.6	1.8	19.6	34.7	12.6	30.4	
Effective Green, g (s)			1.8	15.1	13.6	13.6	1.8	19.6	34.7	12.6	30.4	
Actuated g/C Ratio			0.03	0.24	0.21	0.21	0.03	0.31	0.54	0.20	0.47	
Clearance Time (s)			5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			39	712	348	295	43	953	754	594	1478	
v/s Ratio Prot			0.00	0.10	0.00		0.00	0.13	c0.13	c0.09	0.19	
v/s Ratio Perm						0.01			0.17			
v/c Ratio			0.01	0.43	0.01	0.06	0.02	0.42	0.56	0.43	0.39	
Uniform Delay, d1			30.2	20.8	19.9	20.1	30.2	17.7	9.6	22.6	10.8	
Progression Factor			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.1	0.4	0.0	0.1	0.2	0.3	1.0	0.5	0.2	
Delay (s)			30.3	21.2	19.9	20.2	30.5	18.0	10.6	23.1	11.0	
Level of Service			C	C	B	C	C	B	B	C	B	
Approach Delay (s)		30.3			21.0			13.2			14.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	23.4
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	55	42	65	133	94	536	64	0	564	25
Future Volume (vph)	7	0	55	42	65	133	94	536	64	0	564	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1551	1392	3019	3112	1392		5599	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1556	1392		1478	1551	1392	3019	3112	1392		5599	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	8	0	62	47	73	149	106	602	72	0	634	28
RTOR Reduction (vph)	0	58	0	0	0	125	0	0	36	0	6	0
Lane Group Flow (vph)	8	4	0	42	78	24	106	602	36	0	656	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm		NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2			
Actuated Green, G (s)	3.2	3.2		8.7	8.7	8.7	6.2	27.9	27.9		17.0	
Effective Green, g (s)	3.2	3.2		8.7	8.7	8.7	6.2	27.9	27.9		17.0	
Actuated g/C Ratio	0.06	0.06		0.16	0.16	0.16	0.11	0.51	0.51		0.31	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	90	80		233	244	219	339	1575	704		1727	
v/s Ratio Prot	c0.01	0.00		0.03	c0.05	0.02	0.04	c0.19			0.12	
v/s Ratio Perm									0.03			
v/c Ratio	0.09	0.05		0.18	0.32	0.11	0.31	0.38	0.05		0.38	
Uniform Delay, d1	24.6	24.5		20.1	20.6	19.9	22.5	8.3	6.9		14.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.2		0.4	0.8	0.2	0.5	0.2	0.0		0.1	
Delay (s)	25.0	24.7		20.5	21.3	20.1	23.0	8.5	6.9		15.1	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		24.8			20.5			10.3			15.1	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	55.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	40.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	544	310	4	148	192	144
Future Volume (vph)	544	310	4	148	192	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	598	341	4	163	211	158
RTOR Reduction (vph)	0	217	0	0	0	64
Lane Group Flow (vph)	598	124	4	163	211	94
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	13.9	13.9	0.7	14.2	8.8	22.7
Effective Green, g (s)	13.9	13.9	0.7	14.2	8.8	22.7
Actuated g/C Ratio	0.36	0.36	0.02	0.37	0.23	0.59
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1095	889	55	1658	715	1010
v/s Ratio Prot	c0.20	0.05	0.00	c0.04	c0.07	0.03
v/s Ratio Perm						0.03
v/c Ratio	0.55	0.14	0.07	0.10	0.30	0.09
Uniform Delay, d1	9.7	8.2	18.5	7.9	12.2	3.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.1	0.6	0.0	0.2	0.0
Delay (s)	10.3	8.3	19.0	7.9	12.4	3.4
Level of Service	B	A	B	A	B	A
Approach Delay (s)	9.5			8.2	8.6	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	38.3	Sum of lost time (s)	14.9
Intersection Capacity Utilization	29.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	113	165	10	330	219	19
Future Volume (vph)	113	165	10	330	219	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.91		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2835		1556	1638	3002	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2835		1556	1638	3002	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	131	192	12	384	255	22
RTOR Reduction (vph)	127	0	0	0	6	0
Lane Group Flow (vph)	196	0	12	384	271	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	13.8		1.1	19.6	10.0	
Effective Green, g (s)	13.8		1.1	19.6	10.0	
Actuated g/C Ratio	0.34		0.03	0.48	0.24	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	956		41	784	733	
v/s Ratio Prot	0.07		0.01	c0.23	c0.09	
v/s Ratio Perm						
v/c Ratio	0.20		0.29	0.49	0.37	
Uniform Delay, d1	9.6		19.5	7.2	12.8	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.1		3.9	0.5	0.3	
Delay (s)	9.8		23.5	7.7	13.1	
Level of Service	A		C	A	B	
Approach Delay (s)	9.8			8.2	13.1	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	40.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	33.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	273	1	0	541	3	12	0	1	3	0	4
Future Volume (Veh/h)	5	273	1	0	541	3	12	0	1	3	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	317	1	0	629	3	14	0	1	3	0	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	632			318			649	962	159	802	960	316
vC1, stage 1 conf vol							330	330		630	630	
vC2, stage 2 conf vol							320	632		172	330	
vCu, unblocked vol	632			318			649	962	159	802	960	316
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	99			100			97	100	100	99	100	99
cM capacity (veh/h)	858			1144			507	391	816	384	395	640

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	164	160	419	213	15	8
Volume Left	6	0	0	0	14	3
Volume Right	0	1	0	3	1	5
cSH	858	1700	1700	1700	520	512
Volume to Capacity	0.01	0.09	0.25	0.13	0.03	0.02
Queue Length 95th (ft)	1	0	0	0	2	1
Control Delay (s)	0.4	0.0	0.0	0.0	12.1	12.1
Lane LOS	A				B	B
Approach Delay (s)	0.2		0.0		12.1	12.1
Approach LOS					B	B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	25.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	333	240	285	362	0	0
Future Volume (vph)	333	240	285	362	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.94	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	3979	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	3979	1197		
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	396	286	339	431	0	0
RTOR Reduction (vph)	0	0	111	111	0	0
Lane Group Flow (vph)	396	286	444	104	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	9.7	33.4	10.8	10.8		
Effective Green, g (s)	9.7	33.4	10.8	10.8		
Actuated g/C Ratio	0.29	1.00	0.32	0.32		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	876	3112	1286	387		
v/s Ratio Prot	c0.13	0.09	c0.11			
v/s Ratio Perm				0.09		
v/c Ratio	0.45	0.09	0.35	0.27		
Uniform Delay, d1	9.7	0.0	8.6	8.4		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.4	0.0	0.2	0.4		
Delay (s)	10.1	0.0	8.8	8.7		
Level of Service	B	A	A	A		
Approach Delay (s)		5.8	8.8		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	33.4	Sum of lost time (s)	12.9
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	453	283	0	120	234
Future Volume (vph)	0	453	283	0	120	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	477	298	0	126	246
RTOR Reduction (vph)	0	0	0	0	0	189
Lane Group Flow (vph)	0	477	298	0	126	57
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		9.9	9.9		7.0	7.0
Effective Green, g (s)		9.9	9.9		7.0	7.0
Actuated g/C Ratio		0.33	0.33		0.23	0.23
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1465	1465		699	322
v/s Ratio Prot		c0.11	0.07		c0.04	0.04
v/s Ratio Perm						
v/c Ratio		0.33	0.20		0.18	0.18
Uniform Delay, d1		7.6	7.3		9.3	9.3
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.1	0.1		0.1	0.3
Delay (s)		7.8	7.4		9.4	9.6
Level of Service		A	A		A	A
Approach Delay (s)		7.8	7.4		9.5	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	30.2	Sum of lost time (s)	13.3
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	389	94	21	342	80	146	4	28	89	2	238
Future Volume (vph)	110	389	94	21	342	80	146	4	28	89	2	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		0.95	0.91	0.95
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.86	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1421		1478	1282	1323
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1421		1478	1282	1323
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	118	418	101	23	368	86	157	4	30	96	2	256
RTOR Reduction (vph)	0	0	71	0	0	67	0	24	0	0	105	113
Lane Group Flow (vph)	118	418	30	23	368	19	157	10	0	86	30	20
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	5.9	18.7	18.7	1.8	13.9	13.9	11.8	11.8		9.4	9.4	9.4
Effective Green, g (s)	5.9	18.7	18.7	1.8	13.9	13.9	11.8	11.8		9.4	9.4	9.4
Actuated g/C Ratio	0.09	0.30	0.30	0.03	0.22	0.22	0.19	0.19		0.15	0.15	0.15
Clearance Time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	282	1327	413	86	986	307	291	266		220	191	197
v/s Ratio Prot	c0.04	c0.09		0.01	c0.08		c0.10	0.01		c0.06	0.02	
v/s Ratio Perm			0.02			0.01						0.02
v/c Ratio	0.42	0.31	0.07	0.27	0.37	0.06	0.54	0.04		0.39	0.16	0.10
Uniform Delay, d1	26.9	17.2	15.9	30.0	20.9	19.4	23.1	20.9		24.2	23.4	23.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0	0.1	0.1	1.7	0.2	0.1	1.9	0.1		1.2	0.4	0.2
Delay (s)	27.9	17.3	16.0	31.6	21.1	19.5	25.1	21.0		25.4	23.7	23.4
Level of Service	C	B	B	C	C	B	C	C		C	C	C
Approach Delay (s)		19.1			21.3			24.3			24.0	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	63.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	175	134	513	228	35	51	117	322	34	187	47
Future Volume (vph)	57	175	134	513	228	35	51	117	322	34	187	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.89		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4381		1556	1458		3019	1588	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4381		1556	1458		3019	1588	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	61	188	144	552	245	38	55	126	346	37	201	51
RTOR Reduction (vph)	0	0	95	0	13	0	0	61	0	0	6	0
Lane Group Flow (vph)	61	188	49	552	270	0	55	411	0	37	246	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	8.8	47.2	47.2	22.8	61.2		8.3	44.8		5.3	42.7	
Effective Green, g (s)	8.8	47.2	47.2	22.8	61.2		8.3	44.8		5.3	42.7	
Actuated g/C Ratio	0.06	0.34	0.34	0.16	0.44		0.06	0.32		0.04	0.31	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0		2.0	5.3	
Lane Grp Cap (vph)	97	1507	469	253	1915		92	466		114	484	
v/s Ratio Prot	0.04	0.04		c0.35	c0.06		c0.04	c0.28		0.01	0.16	
v/s Ratio Perm			0.03									
v/c Ratio	0.63	0.12	0.10	2.18	0.14		0.60	0.88		0.32	0.51	
Uniform Delay, d1	64.0	32.1	31.9	58.6	23.6		64.2	45.1		65.6	40.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	8.8	0.2	0.4	544.6	0.2		6.8	18.8		0.6	1.9	
Delay (s)	72.8	32.3	32.3	603.2	23.8		71.0	63.9		66.2	42.0	
Level of Service	E	C	C	F	C		E	E		E	D	
Approach Delay (s)		38.6			406.9			64.7			45.1	
Approach LOS		D			F			E			D	

Intersection Summary			
HCM 2000 Control Delay	196.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	391	57	44	332	61	9
Future Volume (vph)	391	57	44	332	61	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4386		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4386		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	420	61	47	357	66	10
RTOR Reduction (vph)	11	0	0	0	0	9
Lane Group Flow (vph)	470	0	47	357	66	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	19.6		2.7	26.3	4.6	4.6
Effective Green, g (s)	19.6		2.7	26.3	4.6	4.6
Actuated g/C Ratio	0.47		0.07	0.64	0.11	0.11
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2076		101	2840	172	154
v/s Ratio Prot	c0.11		c0.03	0.08	c0.04	
v/s Ratio Perm						0.00
v/c Ratio	0.23		0.47	0.13	0.38	0.01
Uniform Delay, d1	6.4		18.7	3.0	17.1	16.4
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		3.4	0.0	1.4	0.0
Delay (s)	6.5		22.0	3.0	18.5	16.4
Level of Service	A		C	A	B	B
Approach Delay (s)	6.5			5.2	18.2	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	6.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	41.4	Sum of lost time (s)	14.5
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	369	72	41	348	190	57
Future Volume (vph)	369	72	41	348	190	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.98		1.00	1.00	0.97	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4362		1556	4472	2954	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4362		1556	4472	2954	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	415	81	46	391	213	64
RTOR Reduction (vph)	14	0	0	0	22	0
Lane Group Flow (vph)	482	0	46	391	255	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	99.8		8.4	112.2	17.3	
Effective Green, g (s)	99.8		8.4	112.2	17.3	
Actuated g/C Ratio	0.71		0.06	0.80	0.12	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	3109		93	3583	365	
v/s Ratio Prot	c0.11		c0.03	0.09	c0.09	
v/s Ratio Perm						
v/c Ratio	0.16		0.49	0.11	0.70	
Uniform Delay, d1	6.5		63.7	3.0	58.9	
Progression Factor	1.20		1.00	1.00	1.00	
Incremental Delay, d2	0.1		4.1	0.1	5.8	
Delay (s)	7.9		67.8	3.1	64.6	
Level of Service	A		E	A	E	
Approach Delay (s)	7.9			9.9	64.6	
Approach LOS	A			A	E	

Intersection Summary			
HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	31.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	253	316	247	276	251	178
Future Volume (vph)	253	316	247	276	251	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	269	336	263	294	267	189
RTOR Reduction (vph)	0	163	0	0	0	165
Lane Group Flow (vph)	269	173	263	294	267	24
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	72.0	72.0	35.9	111.9	17.6	17.6
Effective Green, g (s)	72.0	72.0	35.9	111.9	17.6	17.6
Actuated g/C Ratio	0.51	0.51	0.26	0.80	0.13	0.13
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2299	715	399	3574	379	174
v/s Ratio Prot	0.06		c0.17	0.07	c0.09	
v/s Ratio Perm		c0.12				0.02
v/c Ratio	0.12	0.24	0.66	0.08	0.70	0.14
Uniform Delay, d1	17.6	18.9	46.6	3.0	58.7	54.4
Progression Factor	1.00	1.00	0.99	1.48	1.00	1.00
Incremental Delay, d2	0.1	0.8	3.8	0.0	5.9	0.4
Delay (s)	17.7	19.7	50.1	4.5	64.6	54.8
Level of Service	B	B	D	A	E	D
Approach Delay (s)	18.8			26.0	60.5	
Approach LOS	B			C	E	

Intersection Summary			
HCM 2000 Control Delay	33.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	373	81	153	379	6	62	2	183	9	1	5
Future Volume (vph)	6	373	81	153	379	6	62	2	183	9	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4352		1556	4461		1556	1638	1392	1556	2712	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4352		1556	4461		1556	1638	1392	1556	2712	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	414	90	170	421	7	69	2	203	10	1	6
RTOR Reduction (vph)	0	17	0	0	0	0	0	0	177	0	7	0
Lane Group Flow (vph)	7	487	0	170	428	0	69	2	26	10	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.5	34.5		13.2	46.2		8.8	10.9	10.9	1.5	3.6	
Effective Green, g (s)	1.5	34.5		13.2	46.2		8.8	10.9	10.9	1.5	3.6	
Actuated g/C Ratio	0.02	0.41		0.16	0.54		0.10	0.13	0.13	0.02	0.04	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	27	1770		242	2430		161	210	178	27	115	
v/s Ratio Prot	0.00	c0.11		c0.11	0.10		c0.04	0.00		0.01	0.00	
v/s Ratio Perm									c0.02			
v/c Ratio	0.26	0.28		0.70	0.18		0.43	0.01	0.15	0.37	0.00	
Uniform Delay, d1	41.1	16.8		33.9	9.7		35.6	32.2	32.8	41.2	38.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.1	0.1		8.9	0.2		1.8	0.0	0.4	8.4	0.0	
Delay (s)	46.2	16.9		42.8	9.9		37.5	32.3	33.2	49.6	38.9	
Level of Service	D	B		D	A		D	C	C	D	D	
Approach Delay (s)		17.3			19.2			34.3			45.2	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	84.8	Sum of lost time (s)	24.7
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	180	85	42	222	190	141	43	72	200	79	264
Future Volume (vph)	132	180	85	42	222	190	141	43	72	200	79	264
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1484		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1484		1556	1638	2450
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	147	200	94	47	247	211	157	48	80	222	88	293
RTOR Reduction (vph)	0	0	54	0	0	129	0	56	0	0	0	209
Lane Group Flow (vph)	147	200	40	47	247	82	157	72	0	222	88	84
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.2	51.4	51.4	6.2	46.4	46.4	18.0	12.4		28.7	23.1	34.3
Effective Green, g (s)	11.2	51.4	51.4	6.2	46.4	46.4	18.0	12.4		28.7	23.1	34.3
Actuated g/C Ratio	0.09	0.43	0.43	0.05	0.39	0.39	0.15	0.10		0.24	0.19	0.29
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	281	1915	596	155	1729	538	233	153		372	315	700
v/s Ratio Prot	c0.05	0.04		0.02	0.06		c0.10	c0.05		c0.14	0.05	0.01
v/s Ratio Perm			0.03			c0.06						0.02
v/c Ratio	0.52	0.10	0.07	0.30	0.14	0.15	0.67	0.47		0.60	0.28	0.12
Uniform Delay, d1	51.9	20.5	20.2	54.8	23.9	24.0	48.2	50.7		40.5	41.3	31.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.8	0.1	0.2	1.1	0.2	0.6	7.5	2.3		2.6	0.5	0.1
Delay (s)	53.6	20.6	20.4	55.9	24.1	24.6	55.7	52.9		43.1	41.8	31.8
Level of Service	D	C	C	E	C	C	E	D		D	D	C
Approach Delay (s)		31.6			27.2			54.5			37.4	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	183	289	0	593	90	104	413
Future Volume (vph)	183	289	0	593	90	104	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.82	0.82	0.92	0.82	0.82	0.82	0.82
Adj. Flow (vph)	223	352	0	723	110	127	504
RTOR Reduction (vph)	0	0	0	0	52	0	257
Lane Group Flow (vph)	223	352	0	723	58	127	247
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	11.5	33.1		17.9	30.1	12.2	27.7
Effective Green, g (s)	11.5	33.1		17.9	30.1	12.2	27.7
Actuated g/C Ratio	0.20	0.58		0.32	0.53	0.22	0.49
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	613	2615		1414	740	335	1199
v/s Ratio Prot	c0.07	0.08		c0.16	0.02	c0.08	0.10
v/s Ratio Perm					0.02		
v/c Ratio	0.36	0.13		0.51	0.08	0.38	0.21
Uniform Delay, d1	19.4	5.3		15.8	6.5	19.0	8.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.3	0.0	0.7	0.1
Delay (s)	19.8	5.3		16.1	6.5	19.7	8.3
Level of Service	B	A		B	A	B	A
Approach Delay (s)		10.9		14.8		10.6	
Approach LOS		B		B		B	

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	56.6	Sum of lost time (s)	18.3
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	11	777	9	229	10	445	373	148	215	0
Future Volume (vph)	1	1	11	777	9	229	10	445	373	148	215	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	1	1	13	903	10	266	12	517	434	172	250	0
RTOR Reduction (vph)	0	0	12	0	0	154	0	0	146	0	0	0
Lane Group Flow (vph)	1	1	1	903	10	112	12	517	288	172	250	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.7	1.7	8.0	46.8	45.7	45.7	6.3	25.3	72.1	12.5	31.5	
Effective Green, g (s)	1.7	1.7	8.0	46.8	45.7	45.7	6.3	25.3	72.1	12.5	31.5	
Actuated g/C Ratio	0.02	0.02	0.07	0.43	0.42	0.42	0.06	0.23	0.66	0.12	0.29	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	24	48	102	1301	689	585	90	724	924	347	902	
v/s Ratio Prot	0.00	0.00	0.00	c0.30	0.01		0.01	c0.17	0.13	c0.06	0.08	
v/s Ratio Perm			0.00			c0.08			0.07			
v/c Ratio	0.04	0.02	0.01	0.69	0.01	0.19	0.13	0.71	0.31	0.50	0.28	
Uniform Delay, d1	52.6	52.6	46.6	25.1	18.3	19.8	48.6	38.3	7.7	45.1	29.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.7	0.2	0.0	1.6	0.0	0.2	0.7	3.4	0.2	1.1	0.2	
Delay (s)	53.4	52.8	46.7	26.7	18.3	20.0	49.2	41.7	7.9	46.2	29.9	
Level of Service	D	D	D	C	B	B	D	D	A	D	C	
Approach Delay (s)		47.5			25.1			26.6			36.6	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	108.6	Sum of lost time (s)	23.4
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	0	99	60	27	150	88	383	211	1	842	26
Future Volume (vph)	8	0	99	60	27	150	88	383	211	1	842	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		1.00	
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1526	1392	3019	3112	1392		5609	
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		0.93	
Satd. Flow (perm)	1556	1392		1478	1526	1392	3019	3112	1392		5229	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	8	0	103	62	28	156	92	399	220	1	877	27
RTOR Reduction (vph)	0	95	0	0	0	136	0	0	102	0	3	0
Lane Group Flow (vph)	8	8	0	45	46	20	92	399	118	0	902	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm	Perm	NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2	6		
Actuated Green, G (s)	4.5	4.5		7.8	7.8	7.8	5.9	31.9	31.9		21.3	
Effective Green, g (s)	4.5	4.5		7.8	7.8	7.8	5.9	31.9	31.9		21.3	
Actuated g/C Ratio	0.08	0.08		0.13	0.13	0.13	0.10	0.54	0.54		0.36	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	117	105		193	200	182	299	1668	746		1871	
v/s Ratio Prot	0.01	c0.01		c0.03	0.03	0.01	0.03	c0.13				
v/s Ratio Perm									0.08		c0.17	
v/c Ratio	0.07	0.07		0.23	0.23	0.11	0.31	0.24	0.16		0.48	
Uniform Delay, d1	25.6	25.6		23.2	23.2	22.8	24.9	7.3	7.0		14.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.2	0.3		0.6	0.6	0.3	0.6	0.1	0.1		0.2	
Delay (s)	25.8	25.9		23.8	23.7	23.1	25.5	7.4	7.1		15.0	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		25.9			23.3			9.7			15.0	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	59.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	325	183	22	371	245	268
Future Volume (vph)	325	183	22	371	245	268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	346	195	23	395	261	285
RTOR Reduction (vph)	0	137	0	0	0	127
Lane Group Flow (vph)	346	58	23	395	261	158
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	10.6	10.6	0.9	14.6	9.0	19.6
Effective Green, g (s)	10.6	10.6	0.9	14.6	9.0	19.6
Actuated g/C Ratio	0.30	0.30	0.03	0.41	0.25	0.55
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	903	733	76	1844	791	971
v/s Ratio Prot	c0.11	0.02	0.01	c0.09	c0.08	0.05
v/s Ratio Perm						0.06
v/c Ratio	0.38	0.08	0.30	0.21	0.33	0.16
Uniform Delay, d1	9.8	8.9	16.9	6.7	10.7	3.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.0	2.2	0.1	0.2	0.1
Delay (s)	10.1	8.9	19.2	6.8	11.0	4.0
Level of Service	B	A	B	A	B	A
Approach Delay (s)	9.7			7.4	7.3	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	8.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	35.4	Sum of lost time (s)	14.9
Intersection Capacity Utilization	28.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	204	83	364	218	36	24	119	498	27	93	17
Future Volume (vph)	40	204	83	364	218	36	24	119	498	27	93	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	5.2	4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	0.95	0.95	0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.91	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4376		1556	1410	1323	3019	1600	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4376		1556	1410	1323	3019	1600	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	227	92	404	242	40	27	132	553	30	103	19
RTOR Reduction (vph)	0	0	66	0	14	0	0	45	244	0	5	0
Lane Group Flow (vph)	44	227	26	404	268	0	27	308	88	30	117	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Actuated Green, G (s)	6.6	40.3	40.3	40.1	73.8		3.6	37.3	37.3	2.4	37.0	
Effective Green, g (s)	6.6	40.3	40.3	40.1	73.8		3.6	37.3	37.3	2.4	37.0	
Actuated g/C Ratio	0.05	0.29	0.29	0.29	0.53		0.03	0.27	0.27	0.02	0.26	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	5.2	4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0	5.0	2.0	5.3	
Lane Grp Cap (vph)	73	1287	400	445	2306		40	375	352	51	422	
v/s Ratio Prot	0.03	c0.05		c0.26	0.06		c0.02	c0.22		0.01	0.07	
v/s Ratio Perm			0.02						0.07			
v/c Ratio	0.60	0.18	0.07	0.91	0.12		0.68	0.82	0.25	0.59	0.28	
Uniform Delay, d1	65.4	37.4	36.2	48.2	16.7		67.6	48.2	40.4	68.3	40.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	9.2	0.3	0.3	21.5	0.1		29.9	14.9	0.8	10.7	0.8	
Delay (s)	74.7	37.7	36.5	69.7	16.8		97.6	63.1	41.2	79.0	41.7	
Level of Service	E	D	D	E	B		F	E	D	E	D	
Approach Delay (s)		41.9			47.9			54.2			49.1	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	49.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	175	134	513	228	35	51	117	322	34	187	47
Future Volume (vph)	57	175	134	513	228	35	51	117	322	34	187	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	5.2	4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	0.95	0.95	0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.93	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4381		1556	1442	1323	3019	1588	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4381		1556	1442	1323	3019	1588	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	61	188	144	552	245	38	55	126	346	37	201	51
RTOR Reduction (vph)	0	0	109	0	13	0	0	26	177	0	7	0
Lane Group Flow (vph)	61	188	35	552	270	0	55	221	48	37	245	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Actuated Green, G (s)	8.1	34.4	34.4	52.5	78.8		6.4	30.0	30.0	3.2	27.7	
Effective Green, g (s)	8.1	34.4	34.4	52.5	78.8		6.4	30.0	30.0	3.2	27.7	
Actuated g/C Ratio	0.06	0.25	0.25	0.38	0.56		0.05	0.21	0.21	0.02	0.20	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	5.2	4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0	5.0	2.0	5.3	
Lane Grp Cap (vph)	90	1098	342	583	2465		71	309	283	69	314	
v/s Ratio Prot	0.04	c0.04		c0.35	0.06		c0.04	c0.15		0.01	c0.15	
v/s Ratio Perm			0.03						0.04			
v/c Ratio	0.68	0.17	0.10	0.95	0.11		0.77	0.72	0.17	0.54	0.78	
Uniform Delay, d1	64.7	41.6	40.9	42.4	14.3		66.1	51.0	44.9	67.7	53.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	14.7	0.3	0.6	24.3	0.1		37.0	9.4	0.6	4.0	13.7	
Delay (s)	79.4	41.9	41.5	66.7	14.3		103.1	60.5	45.5	71.6	67.0	
Level of Service	E	D	D	E	B		F	E	D	E	E	
Approach Delay (s)		47.6			49.0			58.5			67.6	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	53.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	357	348	5	92	74	10
Future Volume (vph)	357	348	5	92	74	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.93		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2882		1556	1638	2989	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2882		1556	1638	2989	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	430	419	6	111	89	12
RTOR Reduction (vph)	142	0	0	0	10	0
Lane Group Flow (vph)	707	0	6	111	91	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	15.1		0.8	20.6	7.3	
Effective Green, g (s)	15.1		0.8	20.6	7.3	
Actuated g/C Ratio	0.39		0.02	0.53	0.19	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1110		31	860	556	
v/s Ratio Prot	c0.25		0.00	c0.07	c0.03	
v/s Ratio Perm						
v/c Ratio	0.64		0.19	0.13	0.16	
Uniform Delay, d1	9.8		18.9	4.7	13.4	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.2		3.0	0.1	0.1	
Delay (s)	11.0		21.9	4.8	13.5	
Level of Service	B		C	A	B	
Approach Delay (s)	11.0			5.7	13.5	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	39.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	34.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	711	3	2	159	0	0	0	0	0	0	2
Future Volume (Veh/h)	3	711	3	2	159	0	0	0	0	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	4	867	4	2	194	0	0	0	0	0	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	194			871			980	1075	436	640	1077	97
vC1, stage 1 conf vol							877	877		198	198	
vC2, stage 2 conf vol							103	198		442	879	
vCu, unblocked vol	194			871			980	1075	436	640	1077	97
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1280			687			273	317	532	488	315	897

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	438	438	99	97	0	2
Volume Left	4	0	2	0	0	0
Volume Right	0	4	0	0	0	2
cSH	1280	1700	687	1700	1700	897
Volume to Capacity	0.00	0.26	0.00	0.06	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.1	0.0	0.2	0.0	0.0	9.0
Lane LOS	A		A		A	A
Approach Delay (s)	0.1		0.1		0.0	9.0
Approach LOS					A	A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	204	699	126	64	0	0
Future Volume (vph)	204	699	126	64	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.98	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4135	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4135	1197		
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	232	794	143	73	0	0
RTOR Reduction (vph)	0	0	16	33	0	0
Lane Group Flow (vph)	232	794	151	16	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	7.7	30.4	9.8	9.8		
Effective Green, g (s)	7.7	30.4	9.8	9.8		
Actuated g/C Ratio	0.25	1.00	0.32	0.32		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	764	3112	1332	385		
v/s Ratio Prot	0.08	c0.26	0.04			
v/s Ratio Perm				0.01		
v/c Ratio	0.30	0.26	0.11	0.04		
Uniform Delay, d1	9.2	0.0	7.2	7.1		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.2	0.0	0.0	0.0		
Delay (s)	9.4	0.0	7.3	7.1		
Level of Service	A	A	A	A		
Approach Delay (s)		2.2	7.2		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	3.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	30.4	Sum of lost time (s)	12.9
Intersection Capacity Utilization	44.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	462	125	0	440	468
Future Volume (vph)	0	462	125	0	440	468
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	513	139	0	489	520
RTOR Reduction (vph)	0	0	0	0	0	342
Lane Group Flow (vph)	0	513	139	0	489	178
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		10.3	10.3		12.3	12.3
Effective Green, g (s)		10.3	10.3		12.3	12.3
Actuated g/C Ratio		0.29	0.29		0.34	0.34
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1283	1283		1034	476
v/s Ratio Prot		c0.11	0.03		c0.16	0.13
v/s Ratio Perm						
v/c Ratio		0.40	0.11		0.47	0.37
Uniform Delay, d1		10.3	9.4		9.3	8.9
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.0		0.3	0.5
Delay (s)		10.5	9.5		9.6	9.4
Level of Service		B	A		A	A
Approach Delay (s)		10.5	9.5		9.5	
Approach LOS		B	A		A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	35.9	Sum of lost time (s)	13.3
Intersection Capacity Utilization	44.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	241	378	266	80	420	86	117	4	30	62	9	125
Future Volume (vph)	241	378	266	80	420	86	117	4	30	62	9	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		0.95	0.91	0.95
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.88	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1420		1478	1311	1323
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1420		1478	1311	1323
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	259	406	286	86	452	92	126	4	32	67	10	134
RTOR Reduction (vph)	0	0	200	0	0	68	0	28	0	0	53	67
Lane Group Flow (vph)	259	406	86	86	452	24	126	8	0	60	23	8
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	6.6	17.5	17.5	4.9	15.1	15.1	8.1	8.1		6.2	6.2	6.2
Effective Green, g (s)	6.6	17.5	17.5	4.9	15.1	15.1	8.1	8.1		6.2	6.2	6.2
Actuated g/C Ratio	0.11	0.30	0.30	0.08	0.26	0.26	0.14	0.14		0.11	0.11	0.11
Clearance Time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	343	1349	420	255	1164	362	217	198		157	140	141
v/s Ratio Prot	c0.09	0.09		0.03	c0.10		c0.08	0.01		c0.04	0.02	
v/s Ratio Perm			0.06			0.02						0.01
v/c Ratio	0.76	0.30	0.21	0.34	0.39	0.07	0.58	0.04		0.38	0.17	0.06
Uniform Delay, d1	24.9	15.6	15.1	25.0	17.6	16.1	23.4	21.6		24.1	23.6	23.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	9.1	0.1	0.2	0.8	0.2	0.1	3.9	0.1		1.6	0.6	0.2
Delay (s)	34.0	15.7	15.3	25.8	17.9	16.2	27.3	21.7		25.7	24.1	23.4
Level of Service	C	B	B	C	B	B	C	C		C	C	C
Approach Delay (s)		20.6			18.7			26.0			24.3	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	246	83	434	236	36	24	119	655	27	93	17
Future Volume (vph)	40	246	83	434	236	36	24	119	655	27	93	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.87		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4383		1556	1430		3019	1600	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4383		1556	1430		3019	1600	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	273	92	482	262	40	27	132	728	30	103	19
RTOR Reduction (vph)	0	0	62	0	12	0	0	119	0	0	4	0
Lane Group Flow (vph)	44	273	30	482	290	0	27	741	0	30	118	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	7.5	46.4	46.4	22.8	61.7		5.0	46.9		4.0	46.8	
Effective Green, g (s)	7.5	46.4	46.4	22.8	61.7		5.0	46.9		4.0	46.8	
Actuated g/C Ratio	0.05	0.33	0.33	0.16	0.44		0.04	0.33		0.03	0.33	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0		2.0	5.3	
Lane Grp Cap (vph)	83	1482	461	253	1931		55	479		86	534	
v/s Ratio Prot	0.03	c0.06		c0.31	0.07		c0.02	c0.52		0.01	0.07	
v/s Ratio Perm			0.02									
v/c Ratio	0.53	0.18	0.07	1.91	0.15		0.49	1.55		0.35	0.22	
Uniform Delay, d1	64.5	33.3	32.0	58.6	23.4		66.3	46.5		66.7	33.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.2	0.3	0.3	421.8	0.2		2.5	256.3		0.9	0.5	
Delay (s)	67.8	33.6	32.3	480.4	23.6		68.7	302.9		67.6	34.0	
Level of Service	E	C	C	F	C		E	F		E	C	
Approach Delay (s)		37.0			304.4			295.7			40.6	
Approach LOS		D			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	234.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	92.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	297	21	34	297	81	8
Future Volume (vph)	297	21	34	297	81	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4426		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4426		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	319	23	37	319	87	9
RTOR Reduction (vph)	5	0	0	0	0	8
Lane Group Flow (vph)	337	0	37	319	87	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	17.6		1.3	22.9	6.6	6.6
Effective Green, g (s)	17.6		1.3	22.9	6.6	6.6
Actuated g/C Ratio	0.44		0.03	0.57	0.16	0.16
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1947		50	2560	256	229
v/s Ratio Prot	c0.08		c0.02	0.07	c0.06	
v/s Ratio Perm						0.00
v/c Ratio	0.17		0.74	0.12	0.34	0.01
Uniform Delay, d1	6.8		19.2	3.9	14.8	14.0
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0		43.5	0.0	0.8	0.0
Delay (s)	6.8		62.7	4.0	15.6	14.0
Level of Service	A		E	A	B	B
Approach Delay (s)	6.8			10.1	15.4	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	296	138	38	338	43	18
Future Volume (vph)	296	138	38	338	43	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.95		1.00	1.00	0.96	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4259		1556	4472	2933	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	4259		1556	4472	2933	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	361	168	46	412	52	22
RTOR Reduction (vph)	49	0	0	0	21	0
Lane Group Flow (vph)	480	0	46	412	53	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	63.8		5.7	73.5	6.0	
Effective Green, g (s)	63.8		5.7	73.5	6.0	
Actuated g/C Ratio	0.71		0.06	0.82	0.07	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	3019		98	3652	195	
v/s Ratio Prot	c0.11		c0.03	0.09	c0.02	
v/s Ratio Perm						
v/c Ratio	0.16		0.47	0.11	0.27	
Uniform Delay, d1	4.3		40.7	1.7	39.9	
Progression Factor	1.42		1.00	1.00	1.00	
Incremental Delay, d2	0.1		3.5	0.1	0.8	
Delay (s)	6.2		44.2	1.7	40.7	
Level of Service	A		D	A	D	
Approach Delay (s)	6.2			6.0	40.7	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.19		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	201	113	163	216	210	227
Future Volume (vph)	201	113	163	216	210	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	226	127	183	243	236	255
RTOR Reduction (vph)	0	57	0	0	0	220
Lane Group Flow (vph)	226	70	183	243	236	35
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	49.7	49.7	13.5	67.2	12.3	12.3
Effective Green, g (s)	49.7	49.7	13.5	67.2	12.3	12.3
Actuated g/C Ratio	0.55	0.55	0.15	0.75	0.14	0.14
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2469	768	233	3339	412	190
v/s Ratio Prot	c0.05		c0.12	0.05	c0.08	
v/s Ratio Perm		0.05				0.03
v/c Ratio	0.09	0.09	0.79	0.07	0.57	0.18
Uniform Delay, d1	9.5	9.5	36.9	3.1	36.4	34.4
Progression Factor	1.00	1.00	0.96	0.92	1.00	1.00
Incremental Delay, d2	0.1	0.2	15.8	0.0	1.9	0.5
Delay (s)	9.6	9.7	51.1	2.8	38.3	34.9
Level of Service	A	A	D	A	D	C
Approach Delay (s)	9.6			23.6	36.5	
Approach LOS	A			C	D	

Intersection Summary			
HCM 2000 Control Delay	24.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	225	56	139	278	23	64	1	99	4	2	3
Future Volume (vph)	9	225	56	139	278	23	64	1	99	4	2	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.97		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4339		1556	4421		1556	1638	1392	1556	2832	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4339		1556	4421		1556	1638	1392	1556	2832	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	10	259	64	160	320	26	74	1	114	5	2	3
RTOR Reduction (vph)	0	26	0	0	4	0	0	0	100	0	5	0
Lane Group Flow (vph)	10	297	0	160	342	0	74	1	14	5	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.4	16.7		12.4	27.7		8.2	7.8	7.8	1.4	1.0	
Effective Green, g (s)	1.4	16.7		12.4	27.7		8.2	7.8	7.8	1.4	1.0	
Actuated g/C Ratio	0.02	0.27		0.20	0.44		0.13	0.12	0.12	0.02	0.02	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	34	1150		306	1943		202	202	172	34	44	
v/s Ratio Prot	0.01	c0.07		c0.10	0.08		c0.05	0.00		0.00	0.00	
v/s Ratio Perm									c0.01			
v/c Ratio	0.29	0.26		0.52	0.18		0.37	0.00	0.08	0.15	0.00	
Uniform Delay, d1	30.3	18.3		22.7	10.7		25.0	24.2	24.4	30.2	30.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.8	0.1		1.6	0.0		1.1	0.0	0.2	2.0	0.0	
Delay (s)	35.1	18.4		24.3	10.8		26.2	24.2	24.6	32.2	30.5	
Level of Service	D	B		C	B		C	C	C	C	C	
Approach Delay (s)		18.9			15.0			25.2			31.4	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	63.0	Sum of lost time (s)	24.7
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	156	106	43	183	125	59	35	19	116	26	65
Future Volume (vph)	121	156	106	43	183	125	59	35	19	116	26	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1551		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1551		1556	1638	2450
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	146	188	128	52	220	151	71	42	23	140	31	78
RTOR Reduction (vph)	0	0	51	0	0	65	0	17	0	0	0	64
Lane Group Flow (vph)	146	188	77	52	220	86	71	48	0	140	31	14
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	12.1	84.7	84.7	6.7	79.3	79.3	14.2	9.5		17.8	13.1	25.2
Effective Green, g (s)	12.1	84.7	84.7	6.7	79.3	79.3	14.2	9.5		17.8	13.1	25.2
Actuated g/C Ratio	0.09	0.61	0.61	0.05	0.57	0.57	0.10	0.07		0.13	0.09	0.18
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	260	2705	842	144	2533	788	157	105		197	153	441
v/s Ratio Prot	c0.05	0.04		0.02	0.05		0.05	c0.03		c0.09	c0.02	0.00
v/s Ratio Perm			0.06			c0.06						0.00
v/c Ratio	0.56	0.07	0.09	0.36	0.09	0.11	0.45	0.46		0.71	0.20	0.03
Uniform Delay, d1	61.4	11.4	11.6	64.6	13.8	14.0	59.2	62.8		58.6	58.6	47.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.8	0.0	0.2	1.5	0.1	0.3	2.1	3.2		11.4	0.7	0.0
Delay (s)	64.2	11.5	11.8	66.1	13.9	14.3	61.3	65.9		70.1	59.3	47.4
Level of Service	E	B	B	E	B	B	E	E		E	E	D
Approach Delay (s)		28.2			20.5			63.5			61.6	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	36.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	357	344	0	218	43	38	59
Future Volume (vph)	357	344	0	218	43	38	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.80	0.80	0.92	0.80	0.80	0.80	0.80
Adj. Flow (vph)	446	430	0	272	54	48	74
RTOR Reduction (vph)	0	0	0	0	34	0	35
Lane Group Flow (vph)	446	430	0	273	20	48	39
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	13.6	27.9		10.6	16.5	5.9	23.5
Effective Green, g (s)	13.6	27.9		10.6	16.5	5.9	23.5
Actuated g/C Ratio	0.30	0.62		0.24	0.37	0.13	0.52
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	910	2766		1051	509	203	1276
v/s Ratio Prot	c0.15	0.10		c0.06	0.01	c0.03	0.02
v/s Ratio Perm					0.01		
v/c Ratio	0.49	0.16		0.26	0.04	0.24	0.03
Uniform Delay, d1	12.9	3.6		14.1	9.2	17.6	5.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.1	0.0	0.6	0.0
Delay (s)	13.3	3.7		14.2	9.2	18.2	5.3
Level of Service	B	A		B	A	B	A
Approach Delay (s)		8.6		13.4		10.3	
Approach LOS		A		B		B	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	45.1	Sum of lost time (s)	18.3
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	5	237	4	69	1	308	573	208	440	0
Future Volume (vph)	0	0	5	237	4	69	1	308	573	208	440	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor			1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt			0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected			1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted			1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	0	0	7	312	5	91	1	405	754	274	579	0
RTOR Reduction (vph)	0	0	7	0	0	72	0	0	321	0	0	0
Lane Group Flow (vph)	0	0	0	312	5	19	1	405	433	274	579	0
Turn Type	Prot		pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)			1.8	15.2	13.7	13.7	1.8	19.7	34.9	12.9	30.8	
Effective Green, g (s)			1.8	15.2	13.7	13.7	1.8	19.7	34.9	12.9	30.8	
Actuated g/C Ratio			0.03	0.24	0.21	0.21	0.03	0.31	0.54	0.20	0.48	
Clearance Time (s)			5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			38	711	347	295	43	950	753	603	1486	
v/s Ratio Prot			0.00	0.10	0.00		0.00	0.13	c0.14	c0.09	0.19	
v/s Ratio Perm						0.01			0.18			
v/c Ratio			0.01	0.44	0.01	0.07	0.02	0.43	0.58	0.45	0.39	
Uniform Delay, d1			30.5	21.0	20.1	20.3	30.5	17.9	9.9	22.7	10.8	
Progression Factor			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.1	0.4	0.0	0.1	0.2	0.3	1.1	0.5	0.2	
Delay (s)			30.5	21.4	20.1	20.4	30.7	18.2	10.9	23.2	11.0	
Level of Service			C	C	C	C	C	B	B	C	B	
Approach Delay (s)		30.5			21.2			13.5			14.9	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	64.5	Sum of lost time (s)	23.4
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	0	55	42	65	143	94	678	64	0	631	27
Future Volume (vph)	12	0	55	42	65	143	94	678	64	0	631	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1551	1392	3019	3112	1392		5600	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1556	1392		1478	1551	1392	3019	3112	1392		5600	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	13	0	62	47	73	161	106	762	72	0	709	30
RTOR Reduction (vph)	0	58	0	0	0	136	0	0	35	0	5	0
Lane Group Flow (vph)	13	4	0	42	78	25	106	762	37	0	734	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm		NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2			
Actuated Green, G (s)	3.4	3.4		8.9	8.9	8.9	6.2	29.0	29.0		18.1	
Effective Green, g (s)	3.4	3.4		8.9	8.9	8.9	6.2	29.0	29.0		18.1	
Actuated g/C Ratio	0.06	0.06		0.16	0.16	0.16	0.11	0.51	0.51		0.32	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	93	83		232	243	218	330	1594	713		1790	
v/s Ratio Prot	c0.01	0.00		0.03	c0.05	0.02	0.04	c0.24			0.13	
v/s Ratio Perm									0.03			
v/c Ratio	0.14	0.04		0.18	0.32	0.12	0.32	0.48	0.05		0.41	
Uniform Delay, d1	25.2	25.1		20.7	21.2	20.5	23.3	8.9	6.9		15.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.7	0.2		0.4	0.8	0.2	0.6	0.2	0.0		0.2	
Delay (s)	25.9	25.3		21.1	21.9	20.7	23.8	9.1	6.9		15.2	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		25.4			21.1			10.6			15.2	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	56.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	679	310	4	155	197	149
Future Volume (vph)	679	310	4	155	197	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	746	341	4	170	216	164
RTOR Reduction (vph)	0	199	0	0	0	61
Lane Group Flow (vph)	746	142	4	170	216	103
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	17.7	17.7	0.8	14.5	9.0	26.7
Effective Green, g (s)	17.7	17.7	0.8	14.5	9.0	26.7
Actuated g/C Ratio	0.42	0.42	0.02	0.34	0.21	0.63
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1260	1022	56	1529	660	1044
v/s Ratio Prot	c0.25	0.06	0.00	c0.04	c0.07	0.04
v/s Ratio Perm						0.03
v/c Ratio	0.59	0.14	0.07	0.11	0.33	0.10
Uniform Delay, d1	9.6	7.6	20.4	9.5	14.1	3.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1	0.5	0.0	0.3	0.0
Delay (s)	10.3	7.7	21.0	9.6	14.4	3.1
Level of Service	B	A	C	A	B	A
Approach Delay (s)	9.5			9.8	9.6	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	42.4	Sum of lost time (s)	14.9
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	817	89	0	736	0	38
Future Volume (Veh/h)	817	89	0	736	0	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	888	97	0	800	0	41
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				1287		
pX, platoon unblocked						
vC, conflicting volume			985		1155	296
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			985		1155	296
tC, single (s)			4.4		7.1	7.2
tC, 2 stage (s)						
tF (s)			2.4		3.7	3.5
p0 queue free %			100		100	94
cM capacity (veh/h)			618		170	660

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1
Volume Total	296	296	296	97	267	267	267	41
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	97	0	0	0	41
cSH	1700	1700	1700	1700	1700	1700	1700	660
Volume to Capacity	0.17	0.17	0.17	0.06	0.16	0.16	0.16	0.06
Queue Length 95th (ft)	0	0	0	0	0	0	0	5
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
Lane LOS								B
Approach Delay (s)	0.0				0.0			10.8
Approach LOS								B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	126	165	10	343	219	19
Future Volume (vph)	126	165	10	343	219	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.92		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2848		1556	1638	3002	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2848		1556	1638	3002	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	147	192	12	399	255	22
RTOR Reduction (vph)	126	0	0	0	6	0
Lane Group Flow (vph)	213	0	12	399	271	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	14.2		1.1	20.0	10.1	
Effective Green, g (s)	14.2		1.1	20.0	10.1	
Actuated g/C Ratio	0.34		0.03	0.48	0.24	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	976		41	791	732	
v/s Ratio Prot	0.07		0.01	c0.24	c0.09	
v/s Ratio Perm						
v/c Ratio	0.22		0.29	0.50	0.37	
Uniform Delay, d1	9.7		19.8	7.3	13.0	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.1		3.9	0.5	0.3	
Delay (s)	9.8		23.7	7.8	13.3	
Level of Service	A		C	A	B	
Approach Delay (s)	9.8			8.3	13.3	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	41.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	286	1	0	554	3	12	0	1	3	0	4
Future Volume (Veh/h)	5	286	1	0	554	3	12	0	1	3	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	333	1	0	644	3	14	0	1	3	0	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	647			334			672	992	167	825	992	324
vC1, stage 1 conf vol							346	346		646	646	
vC2, stage 2 conf vol							327	647		180	346	
vCu, unblocked vol	647			334			672	992	167	825	992	324
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	99			100			97	100	100	99	100	99
cM capacity (veh/h)	846			1127			496	383	806	376	387	633

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	172	168	429	218	15	8
Volume Left	6	0	0	0	14	3
Volume Right	0	1	0	3	1	5
cSH	846	1700	1700	1700	509	504
Volume to Capacity	0.01	0.10	0.25	0.13	0.03	0.02
Queue Length 95th (ft)	1	0	0	0	2	1
Control Delay (s)	0.4	0.0	0.0	0.0	12.3	12.3
Lane LOS	A				B	B
Approach Delay (s)	0.2		0.0		12.3	12.3
Approach LOS					B	B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	356	253	298	362	0	0
Future Volume (vph)	356	253	298	362	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.94	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	3986	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	3986	1197		
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	424	301	355	431	0	0
RTOR Reduction (vph)	0	0	94	94	0	0
Lane Group Flow (vph)	424	301	477	121	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	10.1	34.6	11.6	11.6		
Effective Green, g (s)	10.1	34.6	11.6	11.6		
Actuated g/C Ratio	0.29	1.00	0.34	0.34		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	881	3112	1336	401		
v/s Ratio Prot	c0.14	0.10	c0.12			
v/s Ratio Perm				0.10		
v/c Ratio	0.48	0.10	0.36	0.30		
Uniform Delay, d1	10.1	0.0	8.7	8.5		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.4	0.0	0.2	0.4		
Delay (s)	10.5	0.0	8.8	8.9		
Level of Service	B	A	A	A		
Approach Delay (s)		6.2	8.9		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	34.6	Sum of lost time (s)	12.9
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	490	296	0	120	249
Future Volume (vph)	0	490	296	0	120	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	516	312	0	126	262
RTOR Reduction (vph)	0	0	0	0	0	202
Lane Group Flow (vph)	0	516	312	0	126	60
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		10.1	10.1		7.0	7.0
Effective Green, g (s)		10.1	10.1		7.0	7.0
Actuated g/C Ratio		0.33	0.33		0.23	0.23
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1485	1485		695	320
v/s Ratio Prot		c0.12	0.07		0.04	c0.04
v/s Ratio Perm						
v/c Ratio		0.35	0.21		0.18	0.19
Uniform Delay, d1		7.7	7.3		9.4	9.4
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.1	0.1		0.1	0.3
Delay (s)		7.8	7.4		9.5	9.7
Level of Service		A	A		A	A
Approach Delay (s)		7.8	7.4		9.6	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	30.4	Sum of lost time (s)	13.3
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	191	389	162	49	342	80	252	8	65	89	5	238
Future Volume (vph)	191	389	162	49	342	80	252	8	65	89	5	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		0.95	0.91	0.95
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.87	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1420		1478	1287	1323
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1420		1478	1287	1323
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	205	418	174	53	368	86	271	9	70	96	5	256
RTOR Reduction (vph)	0	0	132	0	0	69	0	52	0	0	103	117
Lane Group Flow (vph)	205	418	42	53	368	17	271	27	0	86	32	19
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	5.8	16.7	16.7	3.0	13.2	13.2	18.1	18.1		9.5	9.5	9.5
Effective Green, g (s)	5.8	16.7	16.7	3.0	13.2	13.2	18.1	18.1		9.5	9.5	9.5
Actuated g/C Ratio	0.08	0.24	0.24	0.04	0.19	0.19	0.26	0.26		0.14	0.14	0.14
Clearance Time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	255	1088	338	132	860	267	410	374		204	178	183
v/s Ratio Prot	c0.07	c0.09		0.02	0.08		c0.17	0.02		c0.06	0.02	
v/s Ratio Perm			0.03			0.01						0.01
v/c Ratio	0.80	0.38	0.13	0.40	0.43	0.06	0.66	0.07		0.42	0.18	0.10
Uniform Delay, d1	30.8	21.7	20.3	31.9	24.4	22.6	22.5	19.0		27.0	26.1	25.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	16.6	0.2	0.2	2.0	0.3	0.1	4.0	0.1		1.4	0.5	0.2
Delay (s)	47.4	21.9	20.4	33.9	24.7	22.7	26.5	19.0		28.4	26.6	26.1
Level of Service	D	C	C	C	C	C	C	B		C	C	C
Approach Delay (s)		28.1			25.3			24.8			26.8	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	68.6	Sum of lost time (s)	22.0
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	201	134	661	267	35	51	117	418	34	187	47
Future Volume (vph)	57	201	134	661	267	35	51	117	418	34	187	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.88		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4393		1556	1446		3019	1588	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4393		1556	1446		3019	1588	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	61	216	144	711	287	38	55	126	449	37	201	51
RTOR Reduction (vph)	0	0	95	0	10	0	0	79	0	0	6	0
Lane Group Flow (vph)	61	216	49	711	315	0	55	496	0	37	246	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	8.8	47.2	47.2	22.8	61.2		8.3	44.8		5.3	42.7	
Effective Green, g (s)	8.8	47.2	47.2	22.8	61.2		8.3	44.8		5.3	42.7	
Actuated g/C Ratio	0.06	0.34	0.34	0.16	0.44		0.06	0.32		0.04	0.31	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0		2.0	5.3	
Lane Grp Cap (vph)	97	1507	469	253	1920		92	462		114	484	
v/s Ratio Prot	0.04	0.05		c0.46	c0.07		c0.04	c0.34		0.01	0.16	
v/s Ratio Perm			0.03									
v/c Ratio	0.63	0.14	0.10	2.81	0.16		0.60	1.07		0.32	0.51	
Uniform Delay, d1	64.0	32.3	31.9	58.6	23.9		64.2	47.6		65.6	40.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	8.8	0.2	0.4	825.5	0.2		6.8	63.1		0.6	1.9	
Delay (s)	72.8	32.5	32.3	884.1	24.1		71.0	110.7		66.2	42.0	
Level of Service	E	C	C	F	C		E	F		E	D	
Approach Delay (s)		38.3			614.3			107.2			45.1	
Approach LOS		D			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	308.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	96.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	417	57	44	371	61	9
Future Volume (vph)	417	57	44	371	61	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4391		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4391		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	448	61	47	399	66	10
RTOR Reduction (vph)	10	0	0	0	0	9
Lane Group Flow (vph)	499	0	47	399	66	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	20.0		2.7	26.7	4.6	4.6
Effective Green, g (s)	20.0		2.7	26.7	4.6	4.6
Actuated g/C Ratio	0.48		0.06	0.64	0.11	0.11
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2100		100	2856	171	153
v/s Ratio Prot	c0.11		c0.03	0.09	c0.04	
v/s Ratio Perm						0.00
v/c Ratio	0.24		0.47	0.14	0.39	0.01
Uniform Delay, d1	6.4		18.9	3.0	17.3	16.6
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		3.5	0.0	1.4	0.0
Delay (s)	6.5		22.3	3.0	18.7	16.6
Level of Service	A		C	A	B	B
Approach Delay (s)	6.5			5.1	18.5	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	41.8	Sum of lost time (s)	14.5
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	395	72	41	387	190	57
Future Volume (vph)	395	72	41	387	190	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.98		1.00	1.00	0.97	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4368		1556	4472	2954	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4368		1556	4472	2954	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	444	81	46	435	213	64
RTOR Reduction (vph)	13	0	0	0	22	0
Lane Group Flow (vph)	512	0	46	435	255	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	99.8		8.4	112.2	17.3	
Effective Green, g (s)	99.8		8.4	112.2	17.3	
Actuated g/C Ratio	0.71		0.06	0.80	0.12	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	3113		93	3583	365	
v/s Ratio Prot	c0.12		c0.03	0.10	c0.09	
v/s Ratio Perm						
v/c Ratio	0.16		0.49	0.12	0.70	
Uniform Delay, d1	6.5		63.7	3.1	58.9	
Progression Factor	1.19		1.00	1.00	1.00	
Incremental Delay, d2	0.1		4.1	0.1	5.8	
Delay (s)	7.9		67.8	3.1	64.6	
Level of Service	A		E	A	E	
Approach Delay (s)	7.9			9.3	64.6	
Approach LOS	A			A	E	

Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	279	316	247	315	251	178
Future Volume (vph)	279	316	247	315	251	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	297	336	263	335	267	189
RTOR Reduction (vph)	0	163	0	0	0	165
Lane Group Flow (vph)	297	173	263	335	267	24
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	72.0	72.0	35.9	111.9	17.6	17.6
Effective Green, g (s)	72.0	72.0	35.9	111.9	17.6	17.6
Actuated g/C Ratio	0.51	0.51	0.26	0.80	0.13	0.13
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2299	715	399	3574	379	174
v/s Ratio Prot	0.07		c0.17	0.07	c0.09	
v/s Ratio Perm		c0.12				0.02
v/c Ratio	0.13	0.24	0.66	0.09	0.70	0.14
Uniform Delay, d1	17.7	18.9	46.6	3.0	58.7	54.4
Progression Factor	1.00	1.00	0.99	1.51	1.00	1.00
Incremental Delay, d2	0.1	0.8	3.8	0.1	5.9	0.4
Delay (s)	17.8	19.7	49.8	4.7	64.6	54.8
Level of Service	B	B	D	A	E	D
Approach Delay (s)	18.8			24.5	60.5	
Approach LOS	B			C	E	

Intersection Summary			
HCM 2000 Control Delay	32.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	393	81	162	409	6	62	2	189	9	1	5
Future Volume (vph)	6	393	81	162	409	6	62	2	189	9	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4357		1556	4461		1556	1638	1392	1556	2712	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4357		1556	4461		1556	1638	1392	1556	2712	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	437	90	180	454	7	69	2	210	10	1	6
RTOR Reduction (vph)	0	19	0	0	1	0	0	0	176	0	7	0
Lane Group Flow (vph)	7	508	0	180	460	0	69	2	34	10	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.3	19.2		13.8	31.7		8.7	11.2	11.2	1.3	3.8	
Effective Green, g (s)	1.3	19.2		13.8	31.7		8.7	11.2	11.2	1.3	3.8	
Actuated g/C Ratio	0.02	0.27		0.20	0.45		0.12	0.16	0.16	0.02	0.05	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	28	1191		305	2014		192	261	222	28	146	
v/s Ratio Prot	0.00	c0.12		c0.12	0.10		c0.04	0.00		0.01	0.00	
v/s Ratio Perm									c0.02			
v/c Ratio	0.25	0.43		0.59	0.23		0.36	0.01	0.15	0.36	0.00	
Uniform Delay, d1	34.0	21.0		25.6	11.8		28.2	24.8	25.4	34.0	31.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.7	0.2		3.0	0.1		1.2	0.0	0.3	7.7	0.0	
Delay (s)	38.6	21.2		28.7	11.8		29.3	24.8	25.7	41.7	31.4	
Level of Service	D	C		C	B		C	C	C	D	C	
Approach Delay (s)		21.4			16.6			26.6			37.5	
Approach LOS		C			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	70.2	Sum of lost time (s)	24.7
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	193	85	42	243	199	141	43	72	206	79	264
Future Volume (vph)	132	193	85	42	243	199	141	43	72	206	79	264
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1484		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1484		1556	1638	2450
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	147	214	94	47	270	221	157	48	80	229	88	293
RTOR Reduction (vph)	0	0	54	0	0	137	0	56	0	0	0	207
Lane Group Flow (vph)	147	214	40	47	270	84	157	72	0	229	88	86
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.2	50.6	50.6	6.2	45.6	45.6	18.0	12.4		29.5	23.9	35.1
Effective Green, g (s)	11.2	50.6	50.6	6.2	45.6	45.6	18.0	12.4		29.5	23.9	35.1
Actuated g/C Ratio	0.09	0.42	0.42	0.05	0.38	0.38	0.15	0.10		0.25	0.20	0.29
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	281	1885	586	155	1699	528	233	153		382	326	716
v/s Ratio Prot	c0.05	0.05		0.02	c0.06		c0.10	c0.05		c0.15	0.05	0.01
v/s Ratio Perm			0.03			0.06						0.02
v/c Ratio	0.52	0.11	0.07	0.30	0.16	0.16	0.67	0.47		0.60	0.27	0.12
Uniform Delay, d1	51.9	21.1	20.7	54.8	24.5	24.5	48.2	50.7		40.0	40.7	31.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.8	0.1	0.2	1.1	0.2	0.6	7.5	2.3		2.5	0.4	0.1
Delay (s)	53.6	21.2	20.9	55.9	24.7	25.2	55.7	52.9		42.6	41.1	31.2
Level of Service	D	C	C	E	C	C	E	D		D	D	C
Approach Delay (s)		31.6			27.7			54.5			36.9	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	183	300	0	609	94	107	413
Future Volume (vph)	183	300	0	609	94	107	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.82	0.82	0.92	0.82	0.82	0.82	0.82
Adj. Flow (vph)	223	366	0	743	115	130	504
RTOR Reduction (vph)	0	0	0	0	53	0	258
Lane Group Flow (vph)	223	366	0	743	62	130	246
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	11.6	33.6		18.3	30.7	12.4	28.0
Effective Green, g (s)	11.6	33.6		18.3	30.7	12.4	28.0
Actuated g/C Ratio	0.20	0.59		0.32	0.54	0.22	0.49
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	611	2622		1428	745	336	1197
v/s Ratio Prot	c0.07	0.08		c0.17	0.02	c0.08	0.10
v/s Ratio Perm					0.03		
v/c Ratio	0.36	0.14		0.52	0.08	0.39	0.21
Uniform Delay, d1	19.7	5.3		15.9	6.5	19.2	8.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.3	0.0	0.7	0.1
Delay (s)	20.1	5.4		16.3	6.5	19.9	8.4
Level of Service	C	A		B	A	B	A
Approach Delay (s)		10.9		15.0		10.8	
Approach LOS		B		B		B	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	57.3	Sum of lost time (s)	18.3
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	11	781	9	240	10	445	376	156	215	0
Future Volume (vph)	1	1	11	781	9	240	10	445	376	156	215	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	1	1	13	908	10	279	12	517	437	181	250	0
RTOR Reduction (vph)	0	0	12	0	0	162	0	0	148	0	0	0
Lane Group Flow (vph)	1	1	1	908	10	117	12	517	289	181	250	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.7	1.7	8.0	46.8	45.7	45.7	6.3	25.4	72.2	12.8	31.9	
Effective Green, g (s)	1.7	1.7	8.0	46.8	45.7	45.7	6.3	25.4	72.2	12.8	31.9	
Actuated g/C Ratio	0.02	0.02	0.07	0.43	0.42	0.42	0.06	0.23	0.66	0.12	0.29	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	24	48	102	1296	686	583	89	725	922	354	910	
v/s Ratio Prot	0.00	0.00	0.00	c0.30	0.01		0.01	c0.17	0.13	c0.06	0.08	
v/s Ratio Perm			0.00			c0.08			0.07			
v/c Ratio	0.04	0.02	0.01	0.70	0.01	0.20	0.13	0.71	0.31	0.51	0.27	
Uniform Delay, d1	52.8	52.8	46.8	25.4	18.5	20.1	48.8	38.4	7.8	45.2	29.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.7	0.2	0.0	1.7	0.0	0.2	0.7	3.3	0.2	1.2	0.2	
Delay (s)	53.6	53.0	46.9	27.1	18.5	20.2	49.5	41.8	8.0	46.4	29.8	
Level of Service	D	D	D	C	B	C	D	D	A	D	C	
Approach Delay (s)		47.7			25.4			26.6			36.8	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	27.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	109.0	Sum of lost time (s)	23.4
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	0	99	60	27	156	88	470	211	1	986	30
Future Volume (vph)	11	0	99	60	27	156	88	470	211	1	986	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		1.00	
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1526	1392	3019	3112	1392		5609	
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		0.93	
Satd. Flow (perm)	1556	1392		1478	1526	1392	3019	3112	1392		5229	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	11	0	103	62	28	162	92	490	220	1	1027	31
RTOR Reduction (vph)	0	95	0	0	0	142	0	0	97	0	3	0
Lane Group Flow (vph)	11	8	0	45	46	21	92	490	123	0	1056	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm	Perm	NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2	6		
Actuated Green, G (s)	4.6	4.6		7.9	7.9	7.9	5.9	35.0	35.0		24.4	
Effective Green, g (s)	4.6	4.6		7.9	7.9	7.9	5.9	35.0	35.0		24.4	
Actuated g/C Ratio	0.07	0.07		0.13	0.13	0.13	0.09	0.56	0.56		0.39	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	113	101		185	191	175	283	1734	775		2031	
v/s Ratio Prot	c0.01	0.01		c0.03	0.03	0.01	0.03	c0.16				
v/s Ratio Perm									0.09		c0.20	
v/c Ratio	0.10	0.07		0.24	0.24	0.12	0.33	0.28	0.16		0.52	
Uniform Delay, d1	27.2	27.1		24.8	24.7	24.4	26.6	7.3	6.7		14.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.3		0.7	0.7	0.3	0.7	0.1	0.1		0.2	
Delay (s)	27.5	27.4		25.4	25.4	24.7	27.3	7.4	6.8		14.9	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		27.4			24.9			9.5			14.9	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	62.8	Sum of lost time (s)	20.0
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	407	183	22	375	256	277
Future Volume (vph)	407	183	22	375	256	277
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	433	195	23	399	272	295
RTOR Reduction (vph)	0	132	0	0	0	125
Lane Group Flow (vph)	433	63	23	399	272	170
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	12.0	12.0	0.9	15.0	9.4	21.4
Effective Green, g (s)	12.0	12.0	0.9	15.0	9.4	21.4
Actuated g/C Ratio	0.32	0.32	0.02	0.40	0.25	0.58
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	973	790	73	1803	786	991
v/s Ratio Prot	c0.14	0.03	0.01	c0.09	c0.09	0.06
v/s Ratio Perm						0.07
v/c Ratio	0.45	0.08	0.32	0.22	0.35	0.17
Uniform Delay, d1	10.0	8.8	17.8	7.3	11.4	3.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.0	2.5	0.1	0.3	0.1
Delay (s)	10.3	8.8	20.3	7.3	11.6	3.8
Level of Service	B	A	C	A	B	A
Approach Delay (s)	9.8			8.0	7.6	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	37.2	Sum of lost time (s)	14.9
Intersection Capacity Utilization	29.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	792	54	0	832	0	81
Future Volume (Veh/h)	792	54	0	832	0	81
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	861	59	0	904	0	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				1294		
pX, platoon unblocked						
vC, conflicting volume			920		1162	287
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			920		1162	287
tC, single (s)			4.4		7.1	7.2
tC, 2 stage (s)						
tF (s)			2.4		3.7	3.5
p0 queue free %			100		100	87
cM capacity (veh/h)			656		168	670

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1
Volume Total	287	287	287	59	301	301	301	88
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	59	0	0	0	88
cSH	1700	1700	1700	1700	1700	1700	1700	670
Volume to Capacity	0.17	0.17	0.17	0.03	0.18	0.18	0.18	0.13
Queue Length 95th (ft)	0	0	0	0	0	0	0	11
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2
Lane LOS								B
Approach Delay (s)	0.0				0.0			11.2
Approach LOS								B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	246	83	434	236	36	24	119	655	27	93	17
Future Volume (vph)	40	246	83	434	236	36	24	119	655	27	93	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	5.2	4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	0.95	0.95	0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.90	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4383		1556	1393	1323	3019	1600	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4383		1556	1393	1323	3019	1600	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	273	92	482	262	40	27	132	728	30	103	19
RTOR Reduction (vph)	0	0	77	0	12	0	0	54	273	0	4	0
Lane Group Flow (vph)	44	273	15	482	290	0	27	384	149	30	118	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Actuated Green, G (s)	7.5	23.4	23.4	43.2	59.1		5.0	49.5	49.5	4.0	49.4	
Effective Green, g (s)	7.5	23.4	23.4	43.2	59.1		5.0	49.5	49.5	4.0	49.4	
Actuated g/C Ratio	0.05	0.17	0.17	0.31	0.42		0.04	0.35	0.35	0.03	0.35	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	5.2	4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0	5.0	2.0	5.3	
Lane Grp Cap (vph)	83	747	232	480	1850		55	492	467	86	564	
v/s Ratio Prot	0.03	c0.06		c0.31	0.07		c0.02	c0.28		0.01	0.07	
v/s Ratio Perm			0.01						0.11			
v/c Ratio	0.53	0.37	0.07	1.00	0.16		0.49	0.78	0.32	0.35	0.21	
Uniform Delay, d1	64.5	51.7	49.1	48.4	25.0		66.3	40.4	33.0	66.7	31.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.2	1.4	0.6	42.1	0.2		2.5	9.1	0.8	0.9	0.4	
Delay (s)	67.8	53.1	49.6	90.5	25.2		68.7	49.5	33.8	67.6	32.1	
Level of Service	E	D	D	F	C		E	D	C	E	C	
Approach Delay (s)		53.9			65.4			42.6			39.1	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	52.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	201	134	661	267	35	51	117	418	34	187	47
Future Volume (vph)	57	201	134	661	267	35	51	117	418	34	187	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	5.2	4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	0.95	0.95	0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.91	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4393		1556	1422	1323	3019	1588	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4393		1556	1422	1323	3019	1588	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	61	216	144	711	287	38	55	126	449	37	201	51
RTOR Reduction (vph)	0	0	115	0	8	0	0	36	210	0	6	0
Lane Group Flow (vph)	61	216	29	711	317	0	55	261	68	37	246	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Actuated Green, G (s)	8.8	28.3	28.3	52.5	72.0		8.4	34.0	34.0	5.3	31.8	
Effective Green, g (s)	8.8	28.3	28.3	52.5	72.0		8.4	34.0	34.0	5.3	31.8	
Actuated g/C Ratio	0.06	0.20	0.20	0.38	0.51		0.06	0.24	0.24	0.04	0.23	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	5.2	4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0	5.0	2.0	5.3	
Lane Grp Cap (vph)	97	903	281	583	2259		93	345	321	114	360	
v/s Ratio Prot	0.04	c0.05		c0.46	0.07		c0.04	c0.18		0.01	0.15	
v/s Ratio Perm			0.02						0.05			
v/c Ratio	0.63	0.24	0.10	1.22	0.14		0.59	0.76	0.21	0.32	0.68	
Uniform Delay, d1	64.0	46.8	45.5	43.8	17.8		64.1	49.2	42.3	65.6	49.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.8	0.6	0.7	113.7	0.1		6.5	10.8	0.7	0.6	7.1	
Delay (s)	72.8	47.5	46.3	157.5	17.9		70.7	60.0	43.0	66.2	56.6	
Level of Service	E	D	D	F	B		E	E	D	E	E	
Approach Delay (s)		50.7			113.7			53.4			57.8	
Approach LOS		D			F			D			E	

Intersection Summary			
HCM 2000 Control Delay	79.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	465	364	5	113	98	10
Future Volume (vph)	465	364	5	113	98	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.93		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2907		1556	1638	2998	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2907		1556	1638	2998	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	560	439	6	136	118	12
RTOR Reduction (vph)	103	0	0	0	7	0
Lane Group Flow (vph)	896	0	6	136	123	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	20.0		0.8	25.5	8.2	
Effective Green, g (s)	20.0		0.8	25.5	8.2	
Actuated g/C Ratio	0.44		0.02	0.57	0.18	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1292		27	928	546	
v/s Ratio Prot	c0.31		0.00	c0.08	c0.04	
v/s Ratio Perm						
v/c Ratio	0.69		0.22	0.15	0.22	
Uniform Delay, d1	10.0		21.8	4.6	15.7	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.6		4.1	0.1	0.2	
Delay (s)	11.7		25.9	4.7	15.9	
Level of Service	B		C	A	B	
Approach Delay (s)	11.7			5.6	15.9	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	835	3	2	204	0	0	0	0	0	0	2
Future Volume (Veh/h)	3	835	3	2	204	0	0	0	0	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	4	1018	4	2	249	0	0	0	0	0	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	249			1022			1158	1281	511	770	1283	124
vC1, stage 1 conf vol							1028	1028		253	253	
vC2, stage 2 conf vol							130	253		517	1030	
vCu, unblocked vol	249			1022			1158	1281	511	770	1283	124
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1218			597			219	266	473	432	264	860

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	513	513	126	124	0	2
Volume Left	4	0	2	0	0	0
Volume Right	0	4	0	0	0	2
cSH	1218	1700	597	1700	1700	860
Volume to Capacity	0.00	0.30	0.00	0.07	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.1	0.0	0.2	0.0	0.0	9.2
Lane LOS	A		A		A	A
Approach Delay (s)	0.0		0.1		0.0	9.2
Approach LOS					A	A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	223	821	145	90	0	0
Future Volume (vph)	223	821	145	90	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.97	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4097	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4097	1197		
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	253	933	165	102	0	0
RTOR Reduction (vph)	0	0	29	42	0	0
Lane Group Flow (vph)	253	933	178	18	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	7.8	29.8	9.1	9.1		
Effective Green, g (s)	7.8	29.8	9.1	9.1		
Actuated g/C Ratio	0.26	1.00	0.31	0.31		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	790	3112	1251	365		
v/s Ratio Prot	0.08	c0.30	0.04			
v/s Ratio Perm				0.02		
v/c Ratio	0.32	0.30	0.14	0.05		
Uniform Delay, d1	8.9	0.0	7.5	7.3		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.2	0.1	0.1	0.1		
Delay (s)	9.1	0.1	7.6	7.4		
Level of Service	A	A	A	A		
Approach Delay (s)		2.0	7.5		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	3.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	29.8	Sum of lost time (s)	12.9
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	536	144	0	536	457
Future Volume (vph)	0	536	144	0	536	457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	596	160	0	596	508
RTOR Reduction (vph)	0	0	0	0	0	322
Lane Group Flow (vph)	0	596	160	0	596	186
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		11.9	11.9		14.5	14.5
Effective Green, g (s)		11.9	11.9		14.5	14.5
Actuated g/C Ratio		0.30	0.30		0.37	0.37
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1340	1340		1102	508
v/s Ratio Prot		c0.13	0.04		c0.20	0.13
v/s Ratio Perm						
v/c Ratio		0.44	0.12		0.54	0.37
Uniform Delay, d1		11.2	10.1		10.0	9.2
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.0		0.5	0.4
Delay (s)		11.5	10.1		10.5	9.7
Level of Service		B	B		B	A
Approach Delay (s)		11.5	10.1		10.1	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	39.7	Sum of lost time (s)	13.3
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	203	486	538	86	62	125
Future Volume (vph)	203	486	538	86	62	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frt	1.00	1.00	1.00	0.85	0.93	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (prot)	3019	3112	4472	1392	2868	1267
Flt Permitted	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (perm)	3019	3112	4472	1392	2868	1267
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	218	523	578	92	67	134
RTOR Reduction (vph)	0	0	0	64	59	59
Lane Group Flow (vph)	218	523	578	28	75	8
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	9.2	28.1	13.7	13.7	5.3	5.3
Effective Green, g (s)	9.2	28.1	13.7	13.7	5.3	5.3
Actuated g/C Ratio	0.20	0.61	0.30	0.30	0.12	0.12
Clearance Time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	607	1913	1340	417	332	146
v/s Ratio Prot	c0.07	0.17	c0.13		c0.03	
v/s Ratio Perm				0.02		0.01
v/c Ratio	0.36	0.27	0.43	0.07	0.23	0.05
Uniform Delay, d1	15.7	4.1	12.9	11.4	18.3	18.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	0.2	0.1	0.3	0.2
Delay (s)	16.1	4.2	13.1	11.5	18.7	18.1
Level of Service	B	A	B	B	B	B
Approach Delay (s)		7.7	12.9		18.5	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	45.7	Sum of lost time (s)	17.5
Intersection Capacity Utilization	34.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	45	304	376	485	337	41	18	93	151	435	34	181
Future Volume (vph)	45	304	376	485	337	41	18	93	151	435	34	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	1.00		0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.89		1.00	0.98
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4398			1556	1456		3019	1608
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4398			1556	1456		3019	1608
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	338	418	539	374	46	20	103	168	483	38	201
RTOR Reduction (vph)	0	0	259	0	9	0	0	0	63	0	0	4
Lane Group Flow (vph)	50	338	159	539	411	0	0	123	588	0	38	225
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA		Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2									
Actuated Green, G (s)	7.9	47.2	47.2	22.8	62.1			15.1	44.8		5.3	35.9
Effective Green, g (s)	7.9	47.2	47.2	22.8	62.1			15.1	44.8		5.3	35.9
Actuated g/C Ratio	0.06	0.34	0.34	0.16	0.44			0.11	0.32		0.04	0.26
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0		2.0	5.3
Lane Grp Cap (vph)	87	1507	469	253	1950			167	465		114	412
v/s Ratio Prot	0.03	0.08		c0.35	0.09			c0.08	c0.40		0.01	0.14
v/s Ratio Perm			c0.11									
v/c Ratio	0.57	0.22	0.34	2.13	0.21			0.74	1.26		0.33	0.55
Uniform Delay, d1	64.4	33.3	34.7	58.6	23.9			60.5	47.6		65.6	45.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	5.6	0.3	2.0	521.8	0.2			13.5	135.1		0.6	2.8
Delay (s)	70.0	33.6	36.7	580.4	24.2			74.0	182.7		66.3	47.8
Level of Service	E	C	D	F	C			E	F		E	D
Approach Delay (s)		37.5			336.8				165.4			50.5
Approach LOS		D			F				F			D

Intersection Summary			
HCM 2000 Control Delay	176.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	25
Future Volume (vph)	25
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	28
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	383	21	34	462	82	8
Future Volume (vph)	383	21	34	462	82	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4436		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4436		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	412	23	37	497	88	9
RTOR Reduction (vph)	4	0	0	0	0	7
Lane Group Flow (vph)	431	0	37	497	88	2
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	17.9		1.3	23.2	6.8	6.8
Effective Green, g (s)	17.9		1.3	23.2	6.8	6.8
Actuated g/C Ratio	0.44		0.03	0.57	0.17	0.17
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1960		49	2561	261	233
v/s Ratio Prot	0.10		c0.02	c0.11	c0.06	
v/s Ratio Perm						0.00
v/c Ratio	0.22		0.76	0.19	0.34	0.01
Uniform Delay, d1	7.0		19.4	4.2	14.9	14.0
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		48.1	0.0	0.8	0.0
Delay (s)	7.0		67.5	4.2	15.6	14.0
Level of Service	A		E	A	B	B
Approach Delay (s)	7.0			8.6	15.5	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	40.5	Sum of lost time (s)	14.5
Intersection Capacity Utilization	28.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	417	200	100	437	92	18
Future Volume (vph)	417	200	100	437	92	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.95		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4254		1556	4472	2975	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4254		1556	4472	2975	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	509	244	122	533	112	22
RTOR Reduction (vph)	88	0	0	0	19	0
Lane Group Flow (vph)	665	0	122	533	115	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	55.6		11.1	70.7	8.8	
Effective Green, g (s)	55.6		11.1	70.7	8.8	
Actuated g/C Ratio	0.62		0.12	0.79	0.10	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2628		191	3513	290	
v/s Ratio Prot	c0.16		c0.08	0.12	c0.04	
v/s Ratio Perm						
v/c Ratio	0.25		0.64	0.15	0.40	
Uniform Delay, d1	7.8		37.5	2.3	38.1	
Progression Factor	1.33		1.00	1.00	1.00	
Incremental Delay, d2	0.2		6.8	0.1	0.9	
Delay (s)	10.6		44.4	2.4	39.0	
Level of Service	B		D	A	D	
Approach Delay (s)	10.6			10.3	39.0	
Approach LOS	B			B	D	

Intersection Summary			
HCM 2000 Control Delay	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	33.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	268	140	201	289	268	303
Future Volume (vph)	268	140	201	289	268	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	301	157	226	325	301	340
RTOR Reduction (vph)	0	73	0	0	0	288
Lane Group Flow (vph)	301	84	226	325	301	52
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	48.2	48.2	13.5	65.7	13.8	13.8
Effective Green, g (s)	48.2	48.2	13.5	65.7	13.8	13.8
Actuated g/C Ratio	0.54	0.54	0.15	0.73	0.15	0.15
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2395	745	233	3264	462	213
v/s Ratio Prot	c0.07		c0.15	0.07	c0.10	
v/s Ratio Perm		0.06				0.04
v/c Ratio	0.13	0.11	0.97	0.10	0.65	0.24
Uniform Delay, d1	10.4	10.3	38.0	3.5	35.8	33.5
Progression Factor	1.00	1.00	0.94	0.85	1.00	1.00
Incremental Delay, d2	0.1	0.3	49.6	0.1	3.3	0.6
Delay (s)	10.5	10.6	85.5	3.1	39.1	34.1
Level of Service	B	B	F	A	D	C
Approach Delay (s)	10.6			36.9	36.5	
Approach LOS	B			D	D	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	428	67	137	373	23	75	1	97	4	2	3
Future Volume (vph)	9	428	67	137	373	23	75	1	97	4	2	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4381		1556	4433		1556	1638	1392	1556	2832	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4381		1556	4433		1556	1638	1392	1556	2832	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	10	492	77	157	429	26	86	1	111	5	2	3
RTOR Reduction (vph)	0	13	0	0	3	0	0	0	94	0	5	0
Lane Group Flow (vph)	10	556	0	157	452	0	86	1	17	5	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.4	19.9		13.0	31.5		9.0	10.9	10.9	1.4	3.3	
Effective Green, g (s)	1.4	19.9		13.0	31.5		9.0	10.9	10.9	1.4	3.3	
Actuated g/C Ratio	0.02	0.28		0.19	0.45		0.13	0.16	0.16	0.02	0.05	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	31	1247		289	1997		200	255	217	31	133	
v/s Ratio Prot	0.01	c0.13		c0.10	0.10		c0.06	0.00		0.00	0.00	
v/s Ratio Perm									c0.01			
v/c Ratio	0.32	0.45		0.54	0.23		0.43	0.00	0.08	0.16	0.00	
Uniform Delay, d1	33.8	20.5		25.8	11.7		28.1	24.9	25.2	33.7	31.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.0	0.3		2.1	0.1		1.5	0.0	0.2	2.4	0.0	
Delay (s)	39.7	20.7		27.8	11.8		29.6	24.9	25.4	36.1	31.7	
Level of Service	D	C		C	B		C	C	C	D	C	
Approach Delay (s)		21.1			15.9			27.2			33.9	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	69.9	Sum of lost time (s)	24.7
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	341	124	46	268	144	72	35	26	139	26	68
Future Volume (vph)	130	341	124	46	268	144	72	35	26	139	26	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1534		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1534		1556	1638	2450
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	157	411	149	55	323	173	87	42	31	167	31	82
RTOR Reduction (vph)	0	0	63	0	0	80	0	22	0	0	0	67
Lane Group Flow (vph)	157	411	86	55	323	93	87	51	0	167	31	15
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	12.6	81.1	81.1	6.8	75.3	75.3	18.4	10.1		20.7	12.4	25.0
Effective Green, g (s)	12.6	81.1	81.1	6.8	75.3	75.3	18.4	10.1		20.7	12.4	25.0
Actuated g/C Ratio	0.09	0.58	0.58	0.05	0.54	0.54	0.13	0.07		0.15	0.09	0.18
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	271	2590	806	146	2405	748	204	110		230	145	437
v/s Ratio Prot	c0.05	c0.09		0.02	0.07		0.06	c0.03		c0.11	0.02	0.00
v/s Ratio Perm			0.06			0.07						0.00
v/c Ratio	0.58	0.16	0.11	0.38	0.13	0.12	0.43	0.46		0.73	0.21	0.03
Uniform Delay, d1	61.2	13.6	13.2	64.5	16.1	16.0	55.9	62.3		56.9	59.3	47.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.0	0.1	0.3	1.6	0.1	0.3	1.4	3.0		10.8	0.7	0.0
Delay (s)	64.1	13.8	13.5	66.2	16.2	16.4	57.4	65.4		67.8	60.0	47.5
Level of Service	E	B	B	E	B	B	E	E		E	E	D
Approach Delay (s)		24.7			21.3			61.0			61.0	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	33.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	362	499	0	260	39	29	61
Future Volume (vph)	362	499	0	260	39	29	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.80	0.80	0.92	0.80	0.80	0.80	0.80
Adj. Flow (vph)	452	624	0	325	49	36	76
RTOR Reduction (vph)	0	0	0	0	31	0	36
Lane Group Flow (vph)	453	624	0	325	18	36	40
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	14.0	28.5		10.8	16.4	5.6	23.6
Effective Green, g (s)	14.0	28.5		10.8	16.4	5.6	23.6
Actuated g/C Ratio	0.31	0.63		0.24	0.36	0.12	0.52
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	930	2807		1063	502	191	1273
v/s Ratio Prot	c0.15	0.14		c0.07	0.00	c0.02	0.02
v/s Ratio Perm					0.01		
v/c Ratio	0.49	0.22		0.31	0.04	0.19	0.03
Uniform Delay, d1	12.8	3.7		14.2	9.4	17.9	5.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.2	0.0	0.5	0.0
Delay (s)	13.2	3.7		14.4	9.4	18.3	5.3
Level of Service	B	A		B	A	B	A
Approach Delay (s)		7.7		13.7		9.5	
Approach LOS		A		B		A	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	45.4	Sum of lost time (s)	18.3
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	2	5	339	4	182	1	332	823	323	448	0
Future Volume (vph)	3	2	5	339	4	182	1	332	823	323	448	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	4	3	7	446	5	239	1	437	1083	425	589	0
RTOR Reduction (vph)	0	0	7	0	0	164	0	0	279	0	0	0
Lane Group Flow (vph)	4	3	0	446	5	75	1	437	804	425	589	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.6	1.6	3.2	31.9	30.8	30.8	1.6	23.8	55.7	18.7	40.9	
Effective Green, g (s)	1.6	1.6	3.2	31.9	30.8	30.8	1.6	23.8	55.7	18.7	40.9	
Actuated g/C Ratio	0.02	0.02	0.03	0.32	0.31	0.31	0.02	0.24	0.57	0.19	0.42	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	25	50	45	979	513	436	25	753	788	574	1294	
v/s Ratio Prot	0.00	0.00	0.00	0.15	0.00		0.00	0.14	c0.33	c0.14	0.19	
v/s Ratio Perm			0.00			c0.05			0.25			
v/c Ratio	0.16	0.06	0.01	0.46	0.01	0.17	0.04	0.58	1.02	0.74	0.46	
Uniform Delay, d1	47.7	47.6	46.0	26.3	23.2	24.5	47.6	32.8	21.3	37.5	20.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.0	0.5	0.0	0.3	0.0	0.2	0.7	1.1	37.4	5.1	0.3	
Delay (s)	50.7	48.1	46.1	26.7	23.3	24.7	48.3	34.0	58.7	42.6	20.9	
Level of Service	D	D	D	C	C	C	D	C	E	D	C	
Approach Delay (s)		47.8			25.9			51.6			30.0	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	39.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	98.3	Sum of lost time (s)	23.4
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	0	55	42	65	179	94	689	64	0	726	33
Future Volume (vph)	17	0	55	42	65	179	94	689	64	0	726	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1551	1392	3019	3112	1392		5598	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1556	1392		1478	1551	1392	3019	3112	1392		5598	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	19	0	62	47	73	201	106	774	72	0	816	37
RTOR Reduction (vph)	0	57	0	0	0	170	0	0	36	0	5	0
Lane Group Flow (vph)	19	5	0	42	78	31	106	774	36	0	848	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm		NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2			
Actuated Green, G (s)	4.9	4.9		9.1	9.1	9.1	6.0	30.1	30.1		19.4	
Effective Green, g (s)	4.9	4.9		9.1	9.1	9.1	6.0	30.1	30.1		19.4	
Actuated g/C Ratio	0.08	0.08		0.15	0.15	0.15	0.10	0.51	0.51		0.33	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	128	114		226	237	213	304	1576	705		1828	
v/s Ratio Prot	c0.01	0.00		0.03	c0.05	0.02	0.04	c0.25			0.15	
v/s Ratio Perm									0.03			
v/c Ratio	0.15	0.04		0.19	0.33	0.14	0.35	0.49	0.05		0.46	
Uniform Delay, d1	25.3	25.1		21.9	22.4	21.8	24.9	9.6	7.4		15.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	0.2		0.4	0.8	0.3	0.7	0.2	0.0		0.2	
Delay (s)	25.9	25.3		22.3	23.2	22.1	25.6	9.9	7.5		16.1	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		25.4			22.4			11.4			16.1	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	597	310	7	245	243	179
Future Volume (vph)	597	310	7	245	243	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	656	341	8	269	267	197
RTOR Reduction (vph)	0	211	0	0	0	75
Lane Group Flow (vph)	656	130	8	269	267	122
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	15.7	15.7	0.8	15.3	9.8	25.5
Effective Green, g (s)	15.7	15.7	0.8	15.3	9.8	25.5
Actuated g/C Ratio	0.38	0.38	0.02	0.37	0.24	0.62
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1150	933	58	1660	740	1033
v/s Ratio Prot	c0.22	0.05	0.00	c0.06	c0.09	0.04
v/s Ratio Perm						0.04
v/c Ratio	0.57	0.14	0.14	0.16	0.36	0.12
Uniform Delay, d1	10.1	8.3	19.9	8.7	13.1	3.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	1.1	0.0	0.3	0.1
Delay (s)	10.8	8.4	21.0	8.7	13.4	3.3
Level of Service	B	A	C	A	B	A
Approach Delay (s)	10.0			9.1	9.1	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	41.2	Sum of lost time (s)	14.9
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	174	183	10	465	236	19
Future Volume (vph)	174	183	10	465	236	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.92		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2872		1556	1638	3003	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2872		1556	1638	3003	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	202	213	12	541	274	22
RTOR Reduction (vph)	126	0	0	0	5	0
Lane Group Flow (vph)	289	0	12	541	291	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	19.5		1.1	25.3	11.4	
Effective Green, g (s)	19.5		1.1	25.3	11.4	
Actuated g/C Ratio	0.41		0.02	0.53	0.24	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1166		35	863	713	
v/s Ratio Prot	0.10		0.01	c0.33	c0.10	
v/s Ratio Perm						
v/c Ratio	0.25		0.34	0.63	0.41	
Uniform Delay, d1	9.4		23.1	8.0	15.4	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.1		5.8	1.4	0.4	
Delay (s)	9.5		28.9	9.4	15.8	
Level of Service	A		C	A	B	
Approach Delay (s)	9.5			9.9	15.8	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	48.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	352	1	0	693	3	12	0	1	3	0	4
Future Volume (Veh/h)	5	352	1	0	693	3	12	0	1	3	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	409	1	0	806	3	14	0	1	3	0	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	809			410			830	1230	205	1025	1230	404
vC1, stage 1 conf vol							422	422		808	808	
vC2, stage 2 conf vol							408	809		218	422	
vCu, unblocked vol	809			410			830	1230	205	1025	1230	404
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	99			100			97	100	100	99	100	99
cM capacity (veh/h)	728			1052			430	318	760	298	322	558

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	210	206	537	272	15	8
Volume Left	6	0	0	0	14	3
Volume Right	0	1	0	3	1	5
cSH	728	1700	1700	1700	442	420
Volume to Capacity	0.01	0.12	0.32	0.16	0.03	0.02
Queue Length 95th (ft)	1	0	0	0	3	1
Control Delay (s)	0.4	0.0	0.0	0.0	13.4	13.7
Lane LOS	A				B	B
Approach Delay (s)	0.2		0.0		13.4	13.7
Approach LOS					B	B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	29.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	387	317	370	429	0	0
Future Volume (vph)	387	317	370	429	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.94	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	3993	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	3993	1197		
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	461	377	440	511	0	0
RTOR Reduction (vph)	0	0	73	73	0	0
Lane Group Flow (vph)	461	377	623	182	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	11.3	39.2	15.0	15.0		
Effective Green, g (s)	11.3	39.2	15.0	15.0		
Actuated g/C Ratio	0.29	1.00	0.38	0.38		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	870	3112	1527	458		
v/s Ratio Prot	c0.15	0.12	c0.16			
v/s Ratio Perm				0.15		
v/c Ratio	0.53	0.12	0.41	0.40		
Uniform Delay, d1	11.7	0.0	8.9	8.8		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.6	0.0	0.2	0.6		
Delay (s)	12.3	0.0	9.0	9.4		
Level of Service	B	A	A	A		
Approach Delay (s)		6.8	9.1		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	39.2	Sum of lost time (s)	12.9
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	564	365	0	156	264
Future Volume (vph)	0	564	365	0	156	264
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	594	384	0	164	278
RTOR Reduction (vph)	0	0	0	0	0	212
Lane Group Flow (vph)	0	594	384	0	164	66
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		10.5	10.5		7.4	7.4
Effective Green, g (s)		10.5	10.5		7.4	7.4
Actuated g/C Ratio		0.34	0.34		0.24	0.24
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1505	1505		716	330
v/s Ratio Prot		c0.13	0.09		c0.05	0.05
v/s Ratio Perm						
v/c Ratio		0.39	0.26		0.23	0.20
Uniform Delay, d1		7.9	7.5		9.6	9.5
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.1		0.2	0.3
Delay (s)		8.1	7.6		9.8	9.8
Level of Service		A	A		A	A
Approach Delay (s)		8.1	7.6		9.8	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	31.2	Sum of lost time (s)	13.3
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	110	529	514	80	89	238
Future Volume (vph)	110	529	514	80	89	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frt	1.00	1.00	1.00	0.85	0.91	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (prot)	3019	3112	4472	1392	2844	1267
Flt Permitted	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (perm)	3019	3112	4472	1392	2844	1267
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	118	569	553	86	96	256
RTOR Reduction (vph)	0	0	0	61	106	106
Lane Group Flow (vph)	118	569	553	25	118	22
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.8	23.5	12.5	12.5	7.4	7.4
Effective Green, g (s)	5.8	23.5	12.5	12.5	7.4	7.4
Actuated g/C Ratio	0.13	0.54	0.29	0.29	0.17	0.17
Clearance Time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	405	1692	1293	402	487	217
v/s Ratio Prot	0.04	c0.18	c0.12		c0.04	
v/s Ratio Perm				0.02		0.02
v/c Ratio	0.29	0.34	0.43	0.06	0.24	0.10
Uniform Delay, d1	16.8	5.5	12.4	11.1	15.5	15.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	0.2	0.1	0.3	0.2
Delay (s)	17.2	5.6	12.7	11.2	15.7	15.3
Level of Service	B	A	B	B	B	B
Approach Delay (s)		7.6	12.5		15.6	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	43.2	Sum of lost time (s)	17.5
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	62	387	236	881	437	49	64	94	146	269	39	223
Future Volume (vph)	62	387	236	881	437	49	64	94	146	269	39	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	1.00		0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.90		1.00	0.97
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4404			1556	1479		3019	1591
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4404			1556	1479		3019	1591
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	67	416	254	947	470	53	70	101	157	289	42	240
RTOR Reduction (vph)	0	0	168	0	8	0	0	0	41	0	0	6
Lane Group Flow (vph)	67	416	86	947	515	0	0	171	405	0	42	290
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA		Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2									
Actuated Green, G (s)	9.3	47.2	47.2	22.8	60.7			18.2	44.6		5.5	32.8
Effective Green, g (s)	9.3	47.2	47.2	22.8	60.7			18.2	44.6		5.5	32.8
Actuated g/C Ratio	0.07	0.34	0.34	0.16	0.43			0.13	0.32		0.04	0.23
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0		2.0	5.3
Lane Grp Cap (vph)	103	1507	469	253	1909			202	471		118	372
v/s Ratio Prot	0.04	0.09		c0.61	c0.12			c0.11	c0.27		0.01	0.18
v/s Ratio Perm			0.06									
v/c Ratio	0.65	0.28	0.18	3.74	0.27			0.85	0.86		0.36	0.78
Uniform Delay, d1	63.8	33.9	32.8	58.6	25.4			59.5	44.8		65.5	50.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	10.7	0.5	0.9	1244.0	0.3			25.5	16.0		0.7	11.7
Delay (s)	74.4	34.4	33.6	1302.6	25.8			85.1	60.7		66.2	62.0
Level of Service	E	C	C	F	C			F	E		E	E
Approach Delay (s)		37.8			848.3				67.5			62.5
Approach LOS		D			F				E			E

Intersection Summary			
HCM 2000 Control Delay	423.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	102.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	52
Future Volume (vph)	52
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	665	58	44	561	61	9
Future Volume (vph)	665	58	44	561	61	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4418		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4418		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	715	62	47	603	66	10
RTOR Reduction (vph)	6	0	0	0	0	9
Lane Group Flow (vph)	771	0	47	603	66	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	22.3		4.5	30.8	6.4	6.4
Effective Green, g (s)	22.3		4.5	30.8	6.4	6.4
Actuated g/C Ratio	0.47		0.09	0.65	0.13	0.13
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2065		146	2887	208	186
v/s Ratio Prot	c0.17		c0.03	0.13	c0.04	
v/s Ratio Perm						0.00
v/c Ratio	0.37		0.32	0.21	0.32	0.01
Uniform Delay, d1	8.2		20.2	3.5	18.7	17.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		1.3	0.0	0.9	0.0
Delay (s)	8.3		21.5	3.5	19.6	17.9
Level of Service	A		C	A	B	B
Approach Delay (s)	8.3			4.8	19.3	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	47.7	Sum of lost time (s)	14.5
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	617	109	78	549	295	57
Future Volume (vph)	617	109	78	549	295	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.98		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4371		1556	4472	2976	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4371		1556	4472	2976	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	693	122	88	617	331	64
RTOR Reduction (vph)	15	0	0	0	12	0
Lane Group Flow (vph)	800	0	88	617	383	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	89.2		13.2	106.4	23.1	
Effective Green, g (s)	89.2		13.2	106.4	23.1	
Actuated g/C Ratio	0.64		0.09	0.76	0.17	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2784		146	3398	491	
v/s Ratio Prot	c0.18		c0.06	0.14	c0.13	
v/s Ratio Perm						
v/c Ratio	0.29		0.60	0.18	0.78	
Uniform Delay, d1	11.3		60.9	4.7	56.0	
Progression Factor	2.31		1.00	1.00	1.00	
Incremental Delay, d2	0.3		6.8	0.1	7.9	
Delay (s)	26.4		67.7	4.8	63.9	
Level of Service	C		E	A	E	
Approach Delay (s)	26.4			12.7	63.9	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	416	358	332	428	297	219
Future Volume (vph)	416	358	332	428	297	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	443	381	353	455	316	233
RTOR Reduction (vph)	0	238	0	0	0	200
Lane Group Flow (vph)	443	143	353	455	316	33
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	52.4	52.4	53.1	109.5	20.0	20.0
Effective Green, g (s)	52.4	52.4	53.1	109.5	20.0	20.0
Actuated g/C Ratio	0.37	0.37	0.38	0.78	0.14	0.14
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1673	521	590	3497	431	198
v/s Ratio Prot	0.10		c0.23	0.10	c0.10	
v/s Ratio Perm		c0.10				0.02
v/c Ratio	0.26	0.27	0.60	0.13	0.73	0.17
Uniform Delay, d1	30.4	30.5	34.9	3.7	57.4	52.7
Progression Factor	1.00	1.00	1.04	1.60	1.00	1.00
Incremental Delay, d2	0.4	1.3	1.6	0.1	6.3	0.4
Delay (s)	30.8	31.8	37.8	6.0	63.8	53.1
Level of Service	C	C	D	A	E	D
Approach Delay (s)	31.3			19.9	59.3	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	585	95	160	663	6	76	2	183	9	1	5
Future Volume (vph)	6	585	95	160	663	6	76	2	183	9	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4378		1556	4465		1556	1638	1392	1556	2712	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4378		1556	4465		1556	1638	1392	1556	2712	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	650	106	178	737	7	84	2	203	10	1	6
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	176	0	7	0
Lane Group Flow (vph)	7	744	0	178	744	0	84	2	27	10	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.5	32.7		15.0	46.2		9.4	11.3	11.3	1.5	3.4	
Effective Green, g (s)	1.5	32.7		15.0	46.2		9.4	11.3	11.3	1.5	3.4	
Actuated g/C Ratio	0.02	0.38		0.18	0.54		0.11	0.13	0.13	0.02	0.04	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	27	1680		273	2421		171	217	184	27	108	
v/s Ratio Prot	0.00	c0.17		c0.11	0.17		c0.05	0.00		0.01	0.00	
v/s Ratio Perm									c0.02			
v/c Ratio	0.26	0.44		0.65	0.31		0.49	0.01	0.15	0.37	0.00	
Uniform Delay, d1	41.3	19.5		32.7	10.7		35.7	32.1	32.7	41.4	39.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.1	0.2		5.5	0.3		2.2	0.0	0.4	8.4	0.0	
Delay (s)	46.4	19.7		38.2	11.0		37.9	32.1	33.1	49.8	39.3	
Level of Service	D	B		D	B		D	C	C	D	D	
Approach Delay (s)		19.9			16.3			34.4			45.4	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	20.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	85.2	Sum of lost time (s)	24.7
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	352	102	48	447	257	162	43	75	250	79	273
Future Volume (vph)	136	352	102	48	447	257	162	43	75	250	79	273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1482		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1482		1556	1638	2450
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	151	391	113	53	497	286	180	48	83	278	88	303
RTOR Reduction (vph)	0	0	67	0	0	180	0	59	0	0	0	203
Lane Group Flow (vph)	151	391	46	53	497	106	180	72	0	278	88	100
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.3	49.3	49.3	6.4	44.4	44.4	21.1	12.4		30.6	21.9	33.2
Effective Green, g (s)	11.3	49.3	49.3	6.4	44.4	44.4	21.1	12.4		30.6	21.9	33.2
Actuated g/C Ratio	0.09	0.41	0.41	0.05	0.37	0.37	0.18	0.10		0.26	0.18	0.28
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	284	1837	571	161	1654	515	273	153		396	298	677
v/s Ratio Prot	c0.05	0.09		0.02	c0.11		0.12	c0.05		c0.18	0.05	0.01
v/s Ratio Perm			0.03			0.08						0.03
v/c Ratio	0.53	0.21	0.08	0.33	0.30	0.21	0.66	0.47		0.70	0.30	0.15
Uniform Delay, d1	51.8	22.8	21.5	54.7	26.8	25.8	46.1	50.7		40.6	42.4	32.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.9	0.3	0.3	1.2	0.5	0.9	5.7	2.3		5.6	0.6	0.1
Delay (s)	53.7	23.1	21.8	55.9	27.3	26.7	51.8	53.0		46.1	42.9	32.8
Level of Service	D	C	C	E	C	C	D	D		D	D	C
Approach Delay (s)		29.9			28.9			52.3			39.7	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	185	408	0	773	86	102	418
Future Volume (vph)	185	408	0	773	86	102	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.82	0.82	0.92	0.82	0.82	0.82	0.82
Adj. Flow (vph)	226	498	0	943	105	124	510
RTOR Reduction (vph)	0	0	0	0	45	0	274
Lane Group Flow (vph)	226	498	0	943	60	124	236
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	12.4	39.1		23.0	35.9	12.9	29.3
Effective Green, g (s)	12.4	39.1		23.0	35.9	12.9	29.3
Actuated g/C Ratio	0.20	0.62		0.36	0.57	0.20	0.46
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	591	2762		1624	789	317	1134
v/s Ratio Prot	c0.07	0.11		c0.21	0.02	c0.08	0.10
v/s Ratio Perm					0.03		
v/c Ratio	0.38	0.18		0.58	0.08	0.39	0.21
Uniform Delay, d1	22.1	5.2		16.3	6.2	21.8	10.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.5	0.0	0.8	0.1
Delay (s)	22.5	5.2		16.8	6.2	22.6	10.2
Level of Service	C	A		B	A	C	B
Approach Delay (s)		10.6		15.7		12.6	
Approach LOS		B		B		B	

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	18.3
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

13: Caliente Avenue/Ocean View Hills Parkway & Otay Mesa Road

Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	2	11	1021	9	415	10	457	535	328	239	0
Future Volume (vph)	3	2	11	1021	9	415	10	457	535	328	239	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	3	2	13	1187	10	483	12	531	622	381	278	0
RTOR Reduction (vph)	0	0	12	0	0	299	0	0	231	0	0	0
Lane Group Flow (vph)	3	2	1	1187	10	184	12	531	391	381	278	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.7	1.7	7.9	47.0	45.9	45.9	6.2	28.6	75.6	20.6	43.0	
Effective Green, g (s)	1.7	1.7	7.9	47.0	45.9	45.9	6.2	28.6	75.6	20.6	43.0	
Actuated g/C Ratio	0.01	0.01	0.07	0.39	0.38	0.38	0.05	0.24	0.63	0.17	0.36	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	22	44	91	1180	625	531	80	740	875	517	1113	
v/s Ratio Prot	0.00	0.00	0.00	c0.39	0.01		0.01	c0.17	0.17	c0.13	0.09	
v/s Ratio Perm			0.00			c0.13			0.11			
v/c Ratio	0.14	0.05	0.01	1.01	0.02	0.35	0.15	0.72	0.45	0.74	0.25	
Uniform Delay, d1	58.5	58.4	52.5	36.6	23.1	26.5	54.5	42.1	11.5	47.2	27.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.8	0.4	0.0	27.6	0.0	0.4	0.9	3.3	0.4	5.4	0.1	
Delay (s)	61.3	58.9	52.5	64.2	23.1	26.9	55.4	45.4	11.9	52.7	27.3	
Level of Service	E	E	D	E	C	C	E	D	B	D	C	
Approach Delay (s)		54.7			53.3			27.6			42.0	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	42.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.2	Sum of lost time (s)	23.4
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	0	99	60	27	250	88	672	211	1	1237	49
Future Volume (vph)	33	0	99	60	27	250	88	672	211	1	1237	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1526	1392	3019	3112	1392		5602	
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		0.93	
Satd. Flow (perm)	1556	1392		1478	1526	1392	3019	3112	1392		5222	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	34	0	103	62	28	260	92	700	220	1	1289	51
RTOR Reduction (vph)	0	95	0	0	0	227	0	0	94	0	4	0
Lane Group Flow (vph)	34	8	0	45	46	33	92	700	126	0	1337	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm	Perm	NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2	6		
Actuated Green, G (s)	5.5	5.5		8.7	8.7	8.7	5.9	39.6	39.6		29.0	
Effective Green, g (s)	5.5	5.5		8.7	8.7	8.7	5.9	39.6	39.6		29.0	
Actuated g/C Ratio	0.08	0.08		0.13	0.13	0.13	0.09	0.57	0.57		0.42	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	123	110		186	192	175	257	1783	797		2191	
v/s Ratio Prot	c0.02	0.01		c0.03	0.03	0.02	0.03	c0.22				
v/s Ratio Perm									0.09		c0.26	
v/c Ratio	0.28	0.07		0.24	0.24	0.19	0.36	0.39	0.16		0.61	
Uniform Delay, d1	29.9	29.4		27.2	27.2	27.0	29.8	8.1	6.9		15.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	1.2	0.3		0.7	0.6	0.5	0.9	0.1	0.1		0.5	
Delay (s)	31.2	29.7		27.9	27.9	27.6	30.7	8.3	7.0		16.1	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		30.1			27.6			10.0			16.1	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	69.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	450	183	23	533	410	368
Future Volume (vph)	450	183	23	533	410	368
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	479	195	24	567	436	391
RTOR Reduction (vph)	0	130	0	0	0	146
Lane Group Flow (vph)	479	65	24	567	436	245
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	14.1	14.1	0.9	17.9	12.3	26.4
Effective Green, g (s)	14.1	14.1	0.9	17.9	12.3	26.4
Actuated g/C Ratio	0.33	0.33	0.02	0.42	0.29	0.63
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1008	818	64	1896	907	1039
v/s Ratio Prot	c0.16	0.03	0.01	c0.13	c0.14	0.08
v/s Ratio Perm						0.10
v/c Ratio	0.48	0.08	0.38	0.30	0.48	0.24
Uniform Delay, d1	11.1	9.6	20.4	8.0	12.3	3.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	3.7	0.1	0.4	0.1
Delay (s)	11.5	9.7	24.0	8.1	12.7	3.6
Level of Service	B	A	C	A	B	A
Approach Delay (s)	10.9			8.7	8.4	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	42.2	Sum of lost time (s)	14.9
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	470	364	5	129	98	10
Future Volume (vph)	470	364	5	129	98	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.93		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2908		1556	1638	2998	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2908		1556	1638	2998	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	566	439	6	155	118	12
RTOR Reduction (vph)	101	0	0	0	7	0
Lane Group Flow (vph)	904	0	6	155	123	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	20.6		0.8	26.1	8.2	
Effective Green, g (s)	20.6		0.8	26.1	8.2	
Actuated g/C Ratio	0.45		0.02	0.57	0.18	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1313		27	937	539	
v/s Ratio Prot	c0.31		0.00	c0.09	c0.04	
v/s Ratio Perm						
v/c Ratio	0.69		0.22	0.17	0.23	
Uniform Delay, d1	9.9		22.1	4.6	16.0	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.5		4.1	0.1	0.2	
Delay (s)	11.5		26.2	4.7	16.2	
Level of Service	B		C	A	B	
Approach Delay (s)	11.5			5.5	16.2	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	45.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	840	3	2	220	0	0	0	0	0	0	2
Future Volume (Veh/h)	3	840	3	2	220	0	0	0	0	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	4	1024	4	2	268	0	0	0	0	0	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	268			1028			1174	1306	514	792	1308	134
vC1, stage 1 conf vol							1034	1034		272	272	
vC2, stage 2 conf vol							140	272		520	1036	
vCu, unblocked vol	268			1028			1174	1306	514	792	1308	134
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1197			593			217	264	470	427	262	848

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	516	516	136	134	0	2
Volume Left	4	0	2	0	0	0
Volume Right	0	4	0	0	0	2
cSH	1197	1700	593	1700	1700	848
Volume to Capacity	0.00	0.30	0.00	0.08	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.1	0.0	0.2	0.0	0.0	9.3
Lane LOS	A		A		A	A
Approach Delay (s)	0.1		0.1		0.0	9.3
Approach LOS					A	A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	231	826	161	90	0	0
Future Volume (vph)	231	826	161	90	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.97	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4117	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4117	1197		
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	262	939	183	102	0	0
RTOR Reduction (vph)	0	0	27	45	0	0
Lane Group Flow (vph)	263	939	194	19	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	7.9	29.7	8.9	8.9		
Effective Green, g (s)	7.9	29.7	8.9	8.9		
Actuated g/C Ratio	0.27	1.00	0.30	0.30		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	803	3112	1233	358		
v/s Ratio Prot	0.09	c0.30	0.05			
v/s Ratio Perm				0.02		
v/c Ratio	0.33	0.30	0.16	0.05		
Uniform Delay, d1	8.8	0.0	7.6	7.4		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.2	0.1	0.1	0.1		
Delay (s)	9.0	0.1	7.7	7.5		
Level of Service	A	A	A	A		
Approach Delay (s)		2.0	7.7		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	3.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	29.7	Sum of lost time (s)	12.9
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	549	160	0	536	477
Future Volume (vph)	0	549	160	0	536	477
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	610	178	0	596	530
RTOR Reduction (vph)	0	0	0	0	0	336
Lane Group Flow (vph)	0	610	178	0	596	194
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		12.1	12.1		14.7	14.7
Effective Green, g (s)		12.1	12.1		14.7	14.7
Actuated g/C Ratio		0.30	0.30		0.37	0.37
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1349	1349		1106	510
v/s Ratio Prot		c0.14	0.04		c0.20	0.14
v/s Ratio Perm						
v/c Ratio		0.45	0.13		0.54	0.38
Uniform Delay, d1		11.3	10.2		10.0	9.4
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.0		0.5	0.5
Delay (s)		11.6	10.2		10.5	9.8
Level of Service		B	B		B	A
Approach Delay (s)		11.6	10.2		10.2	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	40.1	Sum of lost time (s)	13.3
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	486	156	35	538	86	67	2	13	62	4	125
Future Volume (vph)	203	486	156	35	538	86	67	2	13	62	4	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		0.95	0.91	0.95
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.87	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1423		1478	1294	1323
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1423		1478	1294	1323
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	218	523	168	38	578	92	72	2	14	67	4	134
RTOR Reduction (vph)	0	0	100	0	0	63	0	12	0	0	55	64
Lane Group Flow (vph)	218	523	68	38	578	29	72	4	0	60	18	8
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	6.3	24.1	24.1	1.7	18.8	18.8	6.5	6.5		6.3	6.3	6.3
Effective Green, g (s)	6.3	24.1	24.1	1.7	18.8	18.8	6.5	6.5		6.3	6.3	6.3
Actuated g/C Ratio	0.11	0.40	0.40	0.03	0.31	0.31	0.11	0.11		0.11	0.11	0.11
Clearance Time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	317	1799	560	85	1403	436	168	154		155	136	139
v/s Ratio Prot	c0.07	0.12		0.01	c0.13		c0.05	0.00		c0.04	0.01	
v/s Ratio Perm			0.05			0.02						0.01
v/c Ratio	0.69	0.29	0.12	0.45	0.41	0.07	0.43	0.02		0.39	0.13	0.05
Uniform Delay, d1	25.9	12.1	11.2	28.6	16.2	14.4	25.0	23.9		25.0	24.3	24.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	6.1	0.1	0.1	3.7	0.2	0.1	1.8	0.1		1.6	0.4	0.2
Delay (s)	31.9	12.2	11.3	32.3	16.4	14.5	26.7	23.9		26.6	24.7	24.3
Level of Service	C	B	B	C	B	B	C	C		C	C	C
Approach Delay (s)		16.8			17.0			26.2			25.1	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	59.9	Sum of lost time (s)	22.0
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	45	337	376	538	351	41	18	93	151	558	34	181
Future Volume (vph)	45	337	376	538	351	41	18	93	151	558	34	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	1.00		0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.88		1.00	0.98
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4401			1556	1445		3019	1608
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4401			1556	1445		3019	1608
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	374	418	598	390	46	20	103	168	620	38	201
RTOR Reduction (vph)	0	0	258	0	9	0	0	0	82	0	0	4
Lane Group Flow (vph)	50	374	160	598	427	0	0	123	706	0	38	225
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA		Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2									
Actuated Green, G (s)	7.9	47.2	47.2	22.8	62.1			15.1	44.8		5.3	35.9
Effective Green, g (s)	7.9	47.2	47.2	22.8	62.1			15.1	44.8		5.3	35.9
Actuated g/C Ratio	0.06	0.34	0.34	0.16	0.44			0.11	0.32		0.04	0.26
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0		2.0	5.3
Lane Grp Cap (vph)	87	1507	469	253	1952			167	462		114	412
v/s Ratio Prot	0.03	0.08		c0.38	0.10			c0.08	c0.49		0.01	0.14
v/s Ratio Perm			c0.12									
v/c Ratio	0.57	0.25	0.34	2.36	0.22			0.74	1.53		0.33	0.55
Uniform Delay, d1	64.4	33.6	34.8	58.6	24.0			60.5	47.6		65.6	45.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	5.6	0.4	2.0	625.7	0.3			13.5	248.8		0.6	2.8
Delay (s)	70.0	34.0	36.7	684.3	24.3			74.0	296.4		66.3	47.8
Level of Service	E	C	D	F	C			E	F		E	D
Approach Delay (s)		37.5			406.0				266.4			50.5
Approach LOS		D			F				F			D

Intersection Summary			
HCM 2000 Control Delay	231.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	100.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	25
Future Volume (vph)	25
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	28
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	416	21	34	476	82	8
Future Volume (vph)	416	21	34	476	82	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4439		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4439		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	447	23	37	512	88	9
RTOR Reduction (vph)	3	0	0	0	0	7
Lane Group Flow (vph)	467	0	37	512	88	2
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	18.4		1.3	23.7	6.9	6.9
Effective Green, g (s)	18.4		1.3	23.7	6.9	6.9
Actuated g/C Ratio	0.45		0.03	0.58	0.17	0.17
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1987		49	2578	261	233
v/s Ratio Prot	c0.11		c0.02	0.11	c0.06	
v/s Ratio Perm						0.00
v/c Ratio	0.23		0.76	0.20	0.34	0.01
Uniform Delay, d1	7.0		19.7	4.2	15.1	14.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		48.1	0.0	0.8	0.0
Delay (s)	7.1		67.8	4.2	15.9	14.3
Level of Service	A		E	A	B	B
Approach Delay (s)	7.1			8.5	15.7	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	41.1	Sum of lost time (s)	14.5
Intersection Capacity Utilization	28.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	450	200	100	451	92	18
Future Volume (vph)	450	200	100	451	92	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.95		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4265		1556	4472	2975	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4265		1556	4472	2975	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	549	244	122	550	112	22
RTOR Reduction (vph)	81	0	0	0	19	0
Lane Group Flow (vph)	712	0	122	550	115	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	55.6		11.1	70.7	8.8	
Effective Green, g (s)	55.6		11.1	70.7	8.8	
Actuated g/C Ratio	0.62		0.12	0.79	0.10	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2634		191	3513	290	
v/s Ratio Prot	c0.17		c0.08	0.12	c0.04	
v/s Ratio Perm						
v/c Ratio	0.27		0.64	0.16	0.40	
Uniform Delay, d1	7.9		37.5	2.4	38.1	
Progression Factor	1.31		1.00	1.00	1.00	
Incremental Delay, d2	0.2		6.8	0.1	0.9	
Delay (s)	10.6		44.4	2.5	39.0	
Level of Service	B		D	A	D	
Approach Delay (s)	10.6			10.1	39.0	
Approach LOS	B			B	D	

Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	34.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	301	140	201	303	268	303
Future Volume (vph)	301	140	201	303	268	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	338	157	226	340	301	340
RTOR Reduction (vph)	0	73	0	0	0	288
Lane Group Flow (vph)	338	84	226	340	301	52
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	48.2	48.2	13.5	65.7	13.8	13.8
Effective Green, g (s)	48.2	48.2	13.5	65.7	13.8	13.8
Actuated g/C Ratio	0.54	0.54	0.15	0.73	0.15	0.15
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2395	745	233	3264	462	213
v/s Ratio Prot	c0.08		c0.15	0.08	c0.10	
v/s Ratio Perm		0.06				0.04
v/c Ratio	0.14	0.11	0.97	0.10	0.65	0.24
Uniform Delay, d1	10.5	10.3	38.0	3.6	35.8	33.5
Progression Factor	1.00	1.00	0.94	0.85	1.00	1.00
Incremental Delay, d2	0.1	0.3	49.6	0.1	3.3	0.6
Delay (s)	10.6	10.6	85.5	3.1	39.1	34.1
Level of Service	B	B	F	A	D	C
Approach Delay (s)	10.6			36.0	36.5	
Approach LOS	B			D	D	

Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	453	67	140	384	23	75	1	105	4	2	3
Future Volume (vph)	9	453	67	140	384	23	75	1	105	4	2	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4385		1556	4434		1556	1638	1392	1556	2832	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4385		1556	4434		1556	1638	1392	1556	2832	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	10	521	77	161	441	26	86	1	121	5	2	3
RTOR Reduction (vph)	0	11	0	0	3	0	0	0	102	0	5	0
Lane Group Flow (vph)	10	587	0	161	464	0	86	1	19	5	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.4	20.4		13.4	32.4		9.0	10.9	10.9	1.4	3.3	
Effective Green, g (s)	1.4	20.4		13.4	32.4		9.0	10.9	10.9	1.4	3.3	
Actuated g/C Ratio	0.02	0.29		0.19	0.46		0.13	0.15	0.15	0.02	0.05	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	30	1263		294	2029		197	252	214	30	132	
v/s Ratio Prot	0.01	c0.13		c0.10	0.10		c0.06	0.00		0.00	0.00	
v/s Ratio Perm									c0.01			
v/c Ratio	0.33	0.46		0.55	0.23		0.44	0.00	0.09	0.17	0.00	
Uniform Delay, d1	34.2	20.7		26.0	11.6		28.6	25.4	25.7	34.1	32.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.5	0.3		2.1	0.1		1.5	0.0	0.2	2.6	0.0	
Delay (s)	40.7	21.0		28.0	11.7		30.1	25.4	25.9	36.7	32.2	
Level of Service	D	C		C	B		C	C	C	D	C	
Approach Delay (s)		21.3			15.9			27.6			34.5	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	70.8	Sum of lost time (s)	24.7
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	359	124	46	275	147	72	35	26	147	26	68
Future Volume (vph)	130	359	124	46	275	147	72	35	26	147	26	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1534		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1534		1556	1638	2450
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	157	433	149	55	331	177	87	42	31	177	31	82
RTOR Reduction (vph)	0	0	64	0	0	83	0	22	0	0	0	67
Lane Group Flow (vph)	157	433	85	55	331	94	87	51	0	177	31	15
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	12.6	79.9	79.9	6.8	74.1	74.1	18.9	10.1		21.9	13.1	25.7
Effective Green, g (s)	12.6	79.9	79.9	6.8	74.1	74.1	18.9	10.1		21.9	13.1	25.7
Actuated g/C Ratio	0.09	0.57	0.57	0.05	0.53	0.53	0.13	0.07		0.16	0.09	0.18
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	271	2552	794	146	2366	736	210	110		243	153	449
v/s Ratio Prot	c0.05	c0.10		0.02	0.07		0.06	c0.03		c0.11	c0.02	0.00
v/s Ratio Perm			0.06			0.07						0.00
v/c Ratio	0.58	0.17	0.11	0.38	0.14	0.13	0.41	0.46		0.73	0.20	0.03
Uniform Delay, d1	61.2	14.3	13.7	64.5	16.8	16.6	55.5	62.3		56.2	58.6	46.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.0	0.1	0.3	1.6	0.1	0.4	1.3	3.0		10.4	0.7	0.0
Delay (s)	64.1	14.4	14.0	66.2	16.9	17.0	56.8	65.4		66.6	59.3	47.0
Level of Service	E	B	B	E	B	B	E	E		E	E	D
Approach Delay (s)		24.9			21.7			60.7			60.3	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	33.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	362	513	0	266	41	33	61
Future Volume (vph)	362	513	0	266	41	33	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.80	0.80	0.92	0.80	0.80	0.80	0.80
Adj. Flow (vph)	452	641	0	332	51	41	76
RTOR Reduction (vph)	0	0	0	0	33	0	36
Lane Group Flow (vph)	453	641	0	333	18	41	40
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	14.2	28.8		10.9	16.6	5.7	23.9
Effective Green, g (s)	14.2	28.8		10.9	16.6	5.7	23.9
Actuated g/C Ratio	0.31	0.63		0.24	0.36	0.12	0.52
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	936	2812		1064	504	193	1278
v/s Ratio Prot	c0.15	0.14		c0.07	0.00	c0.03	0.02
v/s Ratio Perm					0.01		
v/c Ratio	0.48	0.23		0.31	0.04	0.21	0.03
Uniform Delay, d1	12.8	3.7		14.4	9.4	18.0	5.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.2	0.0	0.6	0.0
Delay (s)	13.2	3.7		14.5	9.5	18.6	5.3
Level of Service	B	A		B	A	B	A
Approach Delay (s)		7.7		13.9		10.0	
Approach LOS		A		B		A	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	45.8	Sum of lost time (s)	18.3
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	2	5	341	4	186	1	332	827	333	448	0
Future Volume (vph)	3	2	5	341	4	186	1	332	827	333	448	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	4	3	7	449	5	245	1	437	1088	438	589	0
RTOR Reduction (vph)	0	0	7	0	0	169	0	0	280	0	0	0
Lane Group Flow (vph)	4	3	0	449	5	76	1	437	808	438	589	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.6	1.6	3.2	31.9	30.8	30.8	1.6	23.8	55.7	19.3	41.5	
Effective Green, g (s)	1.6	1.6	3.2	31.9	30.8	30.8	1.6	23.8	55.7	19.3	41.5	
Actuated g/C Ratio	0.02	0.02	0.03	0.32	0.31	0.31	0.02	0.24	0.56	0.20	0.42	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	25	50	45	973	510	433	25	748	783	589	1305	
v/s Ratio Prot	0.00	0.00	0.00	0.15	0.00		0.00	0.14	c0.33	c0.15	0.19	
v/s Ratio Perm			0.00			c0.05			0.25			
v/c Ratio	0.16	0.06	0.01	0.46	0.01	0.18	0.04	0.58	1.03	0.74	0.45	
Uniform Delay, d1	48.0	47.9	46.3	26.7	23.5	24.8	47.9	33.2	21.6	37.5	20.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.0	0.5	0.0	0.3	0.0	0.2	0.7	1.2	40.6	5.1	0.2	
Delay (s)	51.0	48.4	46.4	27.0	23.5	25.0	48.6	34.3	62.2	42.5	20.8	
Level of Service	D	D	D	C	C	C	D	C	E	D	C	
Approach Delay (s)		48.1			26.3			54.2			30.1	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	40.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	98.9	Sum of lost time (s)	23.4
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	0	55	42	65	187	94	800	64	0	778	35
Future Volume (vph)	21	0	55	42	65	187	94	800	64	0	778	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1551	1392	3019	3112	1392		5598	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1556	1392		1478	1551	1392	3019	3112	1392		5598	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	24	0	62	47	73	210	106	899	72	0	874	39
RTOR Reduction (vph)	0	57	0	0	0	178	0	0	35	0	5	0
Lane Group Flow (vph)	24	5	0	42	78	32	106	899	37	0	908	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm		NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2			
Actuated Green, G (s)	5.1	5.1		9.2	9.2	9.2	6.1	31.5	31.5		20.7	
Effective Green, g (s)	5.1	5.1		9.2	9.2	9.2	6.1	31.5	31.5		20.7	
Actuated g/C Ratio	0.08	0.08		0.15	0.15	0.15	0.10	0.52	0.52		0.34	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	129	116		222	233	209	301	1604	717		1896	
v/s Ratio Prot	c0.02	0.00		0.03	c0.05	0.02	0.04	c0.29			0.16	
v/s Ratio Perm									0.03			
v/c Ratio	0.19	0.04		0.19	0.33	0.15	0.35	0.56	0.05		0.48	
Uniform Delay, d1	26.1	25.8		22.7	23.2	22.6	25.7	10.1	7.4		15.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.7	0.2		0.4	0.9	0.3	0.7	0.5	0.0		0.2	
Delay (s)	26.8	25.9		23.1	24.1	22.9	26.4	10.5	7.4		16.1	
Level of Service	C	C		C	C	C	C	B	A		B	
Approach Delay (s)		26.2			23.2			11.9			16.1	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	61.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	702	310	7	251	247	182
Future Volume (vph)	702	310	7	251	247	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	771	341	8	276	271	200
RTOR Reduction (vph)	0	196	0	0	0	70
Lane Group Flow (vph)	771	145	8	276	271	130
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	19.0	19.0	0.8	15.5	10.0	29.0
Effective Green, g (s)	19.0	19.0	0.8	15.5	10.0	29.0
Actuated g/C Ratio	0.43	0.43	0.02	0.35	0.22	0.65
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1283	1041	54	1550	696	1061
v/s Ratio Prot	c0.26	0.06	0.00	c0.06	c0.09	0.05
v/s Ratio Perm						0.04
v/c Ratio	0.60	0.14	0.15	0.18	0.39	0.12
Uniform Delay, d1	9.9	7.9	21.6	10.2	14.8	3.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1	1.3	0.1	0.4	0.1
Delay (s)	10.7	7.9	22.9	10.2	15.1	3.0
Level of Service	B	A	C	B	B	A
Approach Delay (s)	9.9			10.6	10.0	
Approach LOS	A			B	A	

Intersection Summary			
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	44.7	Sum of lost time (s)	14.9
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	185	183	10	474	236	19
Future Volume (vph)	185	183	10	474	236	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.93		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2880		1556	1638	3003	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2880		1556	1638	3003	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	215	213	12	551	274	22
RTOR Reduction (vph)	126	0	0	0	5	0
Lane Group Flow (vph)	302	0	12	551	291	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	19.9		1.1	25.7	11.5	
Effective Green, g (s)	19.9		1.1	25.7	11.5	
Actuated g/C Ratio	0.41		0.02	0.53	0.24	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1181		35	867	712	
v/s Ratio Prot	0.11		0.01	c0.34	c0.10	
v/s Ratio Perm						
v/c Ratio	0.26		0.34	0.64	0.41	
Uniform Delay, d1	9.4		23.3	8.1	15.6	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.1		5.8	1.5	0.4	
Delay (s)	9.5		29.1	9.6	16.0	
Level of Service	A		C	A	B	
Approach Delay (s)	9.5			10.0	16.0	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	48.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	41.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	363	1	0	702	3	12	0	1	3	0	4
Future Volume (Veh/h)	5	363	1	0	702	3	12	0	1	3	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	422	1	0	816	3	14	0	1	3	0	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	819			423			848	1254	212	1042	1252	410
vC1, stage 1 conf vol							434	434		818	818	
vC2, stage 2 conf vol							413	819		224	435	
vCu, unblocked vol	819			423			848	1254	212	1042	1252	410
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	99			100			97	100	100	99	100	99
cM capacity (veh/h)	721			1039			423	313	752	293	317	554

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	217	212	544	275	15	8
Volume Left	6	0	0	0	14	3
Volume Right	0	1	0	3	1	5
cSH	721	1700	1700	1700	435	415
Volume to Capacity	0.01	0.12	0.32	0.16	0.03	0.02
Queue Length 95th (ft)	1	0	0	0	3	1
Control Delay (s)	0.4	0.0	0.0	0.0	13.6	13.8
Lane LOS	A				B	B
Approach Delay (s)	0.2		0.0		13.6	13.8
Approach LOS					B	B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	29.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	405	328	379	429	0	0
Future Volume (vph)	405	328	379	429	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.95	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	3996	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	3996	1197		
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	482	390	451	511	0	0
RTOR Reduction (vph)	0	0	66	66	0	0
Lane Group Flow (vph)	482	390	641	189	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	11.7	40.0	15.4	15.4		
Effective Green, g (s)	11.7	40.0	15.4	15.4		
Actuated g/C Ratio	0.29	1.00	0.39	0.39		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	883	3112	1538	460		
v/s Ratio Prot	c0.16	0.13	c0.16			
v/s Ratio Perm				0.16		
v/c Ratio	0.55	0.13	0.42	0.41		
Uniform Delay, d1	11.9	0.0	9.0	9.0		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.7	0.0	0.2	0.6		
Delay (s)	12.6	0.0	9.2	9.6		
Level of Service	B	A	A	A		
Approach Delay (s)		7.0	9.3		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	12.9
Intersection Capacity Utilization	40.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	592	374	0	156	276
Future Volume (vph)	0	592	374	0	156	276
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	623	394	0	164	291
RTOR Reduction (vph)	0	0	0	0	0	221
Lane Group Flow (vph)	0	623	394	0	164	70
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		10.6	10.6		7.6	7.6
Effective Green, g (s)		10.6	10.6		7.6	7.6
Actuated g/C Ratio		0.34	0.34		0.24	0.24
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1504	1504		728	335
v/s Ratio Prot		c0.14	0.09		c0.05	0.05
v/s Ratio Perm						
v/c Ratio		0.41	0.26		0.23	0.21
Uniform Delay, d1		8.1	7.6		9.6	9.5
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.1		0.2	0.3
Delay (s)		8.2	7.7		9.7	9.9
Level of Service		A	A		A	A
Approach Delay (s)		8.2	7.7		9.8	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	31.5	Sum of lost time (s)	13.3
Intersection Capacity Utilization	40.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	529	94	21	514	80	146	4	28	89	2	238
Future Volume (vph)	110	529	94	21	514	80	146	4	28	89	2	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		0.95	0.91	0.95
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.86	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1421		1478	1282	1323
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1421		1478	1282	1323
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	118	569	101	23	553	86	157	4	30	96	2	256
RTOR Reduction (vph)	0	0	68	0	0	64	0	25	0	0	105	114
Lane Group Flow (vph)	118	569	33	23	553	22	157	9	0	86	30	19
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	5.9	22.2	22.2	1.7	17.3	17.3	12.3	12.3		9.7	9.7	9.7
Effective Green, g (s)	5.9	22.2	22.2	1.7	17.3	17.3	12.3	12.3		9.7	9.7	9.7
Actuated g/C Ratio	0.09	0.33	0.33	0.03	0.26	0.26	0.18	0.18		0.14	0.14	0.14
Clearance Time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	265	1477	459	76	1151	358	284	260		213	185	190
v/s Ratio Prot	c0.04	c0.13		0.01	c0.12		c0.10	0.01		c0.06	0.02	
v/s Ratio Perm			0.02			0.02						0.01
v/c Ratio	0.45	0.39	0.07	0.30	0.48	0.06	0.55	0.04		0.40	0.16	0.10
Uniform Delay, d1	29.1	17.3	15.4	32.2	21.1	18.8	25.0	22.6		26.1	25.2	25.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.2	0.2	0.1	2.2	0.3	0.1	2.3	0.1		1.3	0.4	0.2
Delay (s)	30.3	17.4	15.5	34.4	21.5	18.9	27.3	22.6		27.4	25.6	25.2
Level of Service	C	B	B	C	C	B	C	C		C	C	C
Approach Delay (s)		19.1			21.6			26.4			25.9	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	67.2	Sum of lost time (s)	22.0
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	62	407	236	997	467	49	64	94	146	343	39	223
Future Volume (vph)	62	407	236	997	467	49	64	94	146	343	39	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	1.00		0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.89		1.00	0.97
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4407			1556	1466		3019	1591
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4407			1556	1466		3019	1591
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	67	438	254	1072	502	53	70	101	157	369	42	240
RTOR Reduction (vph)	0	0	168	0	8	0	0	0	52	0	0	6
Lane Group Flow (vph)	67	438	86	1072	547	0	0	171	474	0	42	290
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA		Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2									
Actuated Green, G (s)	9.3	47.2	47.2	22.8	60.7			18.2	44.6		5.5	32.8
Effective Green, g (s)	9.3	47.2	47.2	22.8	60.7			18.2	44.6		5.5	32.8
Actuated g/C Ratio	0.07	0.34	0.34	0.16	0.43			0.13	0.32		0.04	0.23
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0		2.0	5.3
Lane Grp Cap (vph)	103	1507	469	253	1910			202	467		118	372
v/s Ratio Prot	0.04	0.10		c0.69	c0.12			c0.11	c0.32		0.01	0.18
v/s Ratio Perm			0.06									
v/c Ratio	0.65	0.29	0.18	4.24	0.29			0.85	1.02		0.36	0.78
Uniform Delay, d1	63.8	34.1	32.8	58.6	25.6			59.5	47.7		65.5	50.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	10.7	0.5	0.9	1466.0	0.4			25.5	45.6		0.7	11.7
Delay (s)	74.4	34.6	33.6	1524.6	26.0			85.1	93.3		66.2	62.0
Level of Service	E	C	C	F	C			F	F		E	E
Approach Delay (s)		37.8			1013.4				91.3			62.5
Approach LOS		D			F				F			E

Intersection Summary			
HCM 2000 Control Delay	515.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.35		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	112.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	52
Future Volume (vph)	52
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	685	58	44	591	61	9
Future Volume (vph)	685	58	44	591	61	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4420		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4420		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	737	62	47	635	66	10
RTOR Reduction (vph)	5	0	0	0	0	9
Lane Group Flow (vph)	794	0	47	635	66	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	22.6		4.5	31.1	6.4	6.4
Effective Green, g (s)	22.6		4.5	31.1	6.4	6.4
Actuated g/C Ratio	0.47		0.09	0.65	0.13	0.13
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2081		145	2897	207	185
v/s Ratio Prot	c0.18		c0.03	0.14	c0.04	
v/s Ratio Perm						0.00
v/c Ratio	0.38		0.32	0.22	0.32	0.01
Uniform Delay, d1	8.2		20.3	3.5	18.8	18.0
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		1.3	0.0	0.9	0.0
Delay (s)	8.3		21.6	3.5	19.7	18.1
Level of Service	A		C	A	B	B
Approach Delay (s)	8.3			4.8	19.5	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	48.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	637	109	78	579	295	57
Future Volume (vph)	637	109	78	579	295	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.98		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4374		1556	4472	2976	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4374		1556	4472	2976	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	716	122	88	651	331	64
RTOR Reduction (vph)	15	0	0	0	12	0
Lane Group Flow (vph)	823	0	88	651	383	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	89.2		13.2	106.4	23.1	
Effective Green, g (s)	89.2		13.2	106.4	23.1	
Actuated g/C Ratio	0.64		0.09	0.76	0.17	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2786		146	3398	491	
v/s Ratio Prot	c0.19		c0.06	0.15	c0.13	
v/s Ratio Perm						
v/c Ratio	0.30		0.60	0.19	0.78	
Uniform Delay, d1	11.4		60.9	4.7	56.0	
Progression Factor	2.40		1.00	1.00	1.00	
Incremental Delay, d2	0.3		6.8	0.1	7.9	
Delay (s)	27.6		67.7	4.8	63.9	
Level of Service	C		E	A	E	
Approach Delay (s)	27.6			12.3	63.9	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	436	358	332	458	297	219
Future Volume (vph)	436	358	332	458	297	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	464	381	353	487	316	233
RTOR Reduction (vph)	0	238	0	0	0	200
Lane Group Flow (vph)	464	143	353	487	316	33
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	52.4	52.4	53.1	109.5	20.0	20.0
Effective Green, g (s)	52.4	52.4	53.1	109.5	20.0	20.0
Actuated g/C Ratio	0.37	0.37	0.38	0.78	0.14	0.14
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1673	521	590	3497	431	198
v/s Ratio Prot	c0.10		c0.23	0.11	c0.10	
v/s Ratio Perm		0.10				0.02
v/c Ratio	0.28	0.27	0.60	0.14	0.73	0.17
Uniform Delay, d1	30.6	30.5	34.9	3.7	57.4	52.7
Progression Factor	1.00	1.00	1.04	1.59	1.00	1.00
Incremental Delay, d2	0.4	1.3	1.6	0.1	6.3	0.4
Delay (s)	31.0	31.8	37.8	6.0	63.8	53.1
Level of Service	C	C	D	A	E	D
Approach Delay (s)	31.4			19.3	59.3	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	33.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	600	95	167	686	6	76	2	188	9	1	5
Future Volume (vph)	6	600	95	167	686	6	76	2	188	9	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4380		1556	4465		1556	1638	1392	1556	2712	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4380		1556	4465		1556	1638	1392	1556	2712	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	667	106	186	762	7	84	2	209	10	1	6
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	181	0	7	0
Lane Group Flow (vph)	7	762	0	186	769	0	84	2	28	10	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.5	32.3		15.5	46.3		9.4	11.3	11.3	1.5	3.4	
Effective Green, g (s)	1.5	32.3		15.5	46.3		9.4	11.3	11.3	1.5	3.4	
Actuated g/C Ratio	0.02	0.38		0.18	0.54		0.11	0.13	0.13	0.02	0.04	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	27	1658		282	2423		171	216	184	27	108	
v/s Ratio Prot	0.00	c0.17		c0.12	0.17		c0.05	0.00		0.01	0.00	
v/s Ratio Perm									c0.02			
v/c Ratio	0.26	0.46		0.66	0.32		0.49	0.01	0.15	0.37	0.00	
Uniform Delay, d1	41.4	19.9		32.4	10.8		35.7	32.1	32.8	41.4	39.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.1	0.2		5.5	0.3		2.2	0.0	0.4	8.4	0.0	
Delay (s)	46.4	20.1		37.9	11.1		37.9	32.2	33.1	49.8	39.3	
Level of Service	D	C		D	B		D	C	C	D	D	
Approach Delay (s)		20.4			16.3			34.5			45.5	
Approach LOS		C			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	85.3	Sum of lost time (s)	24.7
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	363	102	48	463	264	162	43	75	255	79	273
Future Volume (vph)	136	363	102	48	463	264	162	43	75	255	79	273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1482		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1482		1556	1638	2450
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	151	403	113	53	514	293	180	48	83	283	88	303
RTOR Reduction (vph)	0	0	67	0	0	185	0	59	0	0	0	193
Lane Group Flow (vph)	151	403	46	53	514	108	180	72	0	283	88	110
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.3	49.3	49.3	6.4	44.4	44.4	21.1	12.4		30.6	21.9	33.2
Effective Green, g (s)	11.3	49.3	49.3	6.4	44.4	44.4	21.1	12.4		30.6	21.9	33.2
Actuated g/C Ratio	0.09	0.41	0.41	0.05	0.37	0.37	0.18	0.10		0.26	0.18	0.28
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	284	1837	571	161	1654	515	273	153		396	298	677
v/s Ratio Prot	c0.05	0.09		0.02	c0.11		0.12	c0.05		c0.18	0.05	0.02
v/s Ratio Perm			0.03			0.08						0.03
v/c Ratio	0.53	0.22	0.08	0.33	0.31	0.21	0.66	0.47		0.71	0.30	0.16
Uniform Delay, d1	51.8	22.9	21.5	54.7	26.9	25.8	46.1	50.7		40.7	42.4	32.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.9	0.3	0.3	1.2	0.5	0.9	5.7	2.3		6.0	0.6	0.1
Delay (s)	53.7	23.2	21.8	55.9	27.4	26.8	51.8	53.0		46.7	42.9	33.0
Level of Service	D	C	C	E	C	C	D	D		D	D	C
Approach Delay (s)		29.9			28.9			52.3			40.1	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	185	416	0	785	90	104	418
Future Volume (vph)	185	416	0	785	90	104	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.82	0.82	0.92	0.82	0.82	0.82	0.82
Adj. Flow (vph)	226	507	0	957	110	127	510
RTOR Reduction (vph)	0	0	0	0	47	0	276
Lane Group Flow (vph)	226	507	0	957	63	127	234
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	12.5	40.0		23.8	36.9	13.1	29.6
Effective Green, g (s)	12.5	40.0		23.8	36.9	13.1	29.6
Actuated g/C Ratio	0.19	0.62		0.37	0.57	0.20	0.46
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	585	2777		1652	797	316	1126
v/s Ratio Prot	c0.07	0.11		c0.21	0.02	c0.08	0.10
v/s Ratio Perm					0.03		
v/c Ratio	0.39	0.18		0.58	0.08	0.40	0.21
Uniform Delay, d1	22.6	5.2		16.3	6.2	22.3	10.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.5	0.0	0.8	0.1
Delay (s)	23.0	5.2		16.8	6.2	23.1	10.5
Level of Service	C	A		B	A	C	B
Approach Delay (s)		10.7		15.7		13.0	
Approach LOS		B		B		B	

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	64.4	Sum of lost time (s)	18.3
Intersection Capacity Utilization	39.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	2	11	1025	9	424	10	457	537	334	239	0
Future Volume (vph)	3	2	11	1025	9	424	10	457	537	334	239	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	3	2	13	1192	10	493	12	531	624	388	278	0
RTOR Reduction (vph)	0	0	12	0	0	305	0	0	232	0	0	0
Lane Group Flow (vph)	3	2	1	1192	10	188	12	531	392	388	278	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.7	1.7	7.9	47.0	45.9	45.9	6.2	28.7	75.7	20.9	43.4	
Effective Green, g (s)	1.7	1.7	7.9	47.0	45.9	45.9	6.2	28.7	75.7	20.9	43.4	
Actuated g/C Ratio	0.01	0.01	0.07	0.39	0.38	0.38	0.05	0.24	0.63	0.17	0.36	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	21	43	91	1176	623	529	79	740	873	523	1119	
v/s Ratio Prot	0.00	0.00	0.00	c0.39	0.01		0.01	c0.17	0.17	c0.13	0.09	
v/s Ratio Perm			0.00			c0.13			0.11			
v/c Ratio	0.14	0.05	0.01	1.01	0.02	0.35	0.15	0.72	0.45	0.74	0.25	
Uniform Delay, d1	58.7	58.7	52.7	36.8	23.3	26.7	54.7	42.2	11.6	47.3	27.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.1	0.4	0.0	29.7	0.0	0.4	0.9	3.3	0.4	5.6	0.1	
Delay (s)	61.8	59.1	52.7	66.5	23.3	27.2	55.6	45.6	12.0	52.9	27.3	
Level of Service	E	E	D	E	C	C	E	D	B	D	C	
Approach Delay (s)		55.0			54.8			27.7			42.2	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	43.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.6	Sum of lost time (s)	23.4
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	0	99	60	27	255	88	739	211	1	1349	53
Future Volume (vph)	35	0	99	60	27	255	88	739	211	1	1349	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1526	1392	3019	3112	1392		5602	
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		0.93	
Satd. Flow (perm)	1556	1392		1478	1526	1392	3019	3112	1392		5223	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	36	0	103	62	28	266	92	770	220	1	1405	55
RTOR Reduction (vph)	0	95	0	0	0	235	0	0	90	0	4	0
Lane Group Flow (vph)	36	8	0	45	46	31	92	770	130	0	1457	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm	Perm	NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2	6		
Actuated Green, G (s)	5.7	5.7		8.5	8.5	8.5	6.1	42.7	42.7		31.9	
Effective Green, g (s)	5.7	5.7		8.5	8.5	8.5	6.1	42.7	42.7		31.9	
Actuated g/C Ratio	0.08	0.08		0.12	0.12	0.12	0.08	0.59	0.59		0.44	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	122	109		174	179	163	255	1840	823		2307	
v/s Ratio Prot	c0.02	0.01		c0.03	0.03	0.02	0.03	c0.25				
v/s Ratio Perm									0.09		c0.28	
v/c Ratio	0.30	0.07		0.26	0.26	0.19	0.36	0.42	0.16		0.63	
Uniform Delay, d1	31.4	30.8		29.0	29.0	28.8	31.2	8.0	6.6		15.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	1.4	0.3		0.8	0.8	0.6	0.9	0.2	0.1		0.6	
Delay (s)	32.7	31.1		29.8	29.7	29.3	32.1	8.2	6.7		16.2	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		31.5			29.4			9.9			16.2	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	72.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	514	183	23	537	419	375
Future Volume (vph)	514	183	23	537	419	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	547	195	24	571	446	399
RTOR Reduction (vph)	0	126	0	0	0	142
Lane Group Flow (vph)	547	69	24	571	446	257
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	15.6	15.6	0.9	18.6	13.0	28.6
Effective Green, g (s)	15.6	15.6	0.9	18.6	13.0	28.6
Actuated g/C Ratio	0.35	0.35	0.02	0.42	0.29	0.64
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1060	860	61	1873	911	1056
v/s Ratio Prot	c0.18	0.03	0.01	c0.13	c0.14	0.09
v/s Ratio Perm						0.10
v/c Ratio	0.52	0.08	0.39	0.30	0.49	0.24
Uniform Delay, d1	11.4	9.6	21.5	8.6	13.0	3.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	4.1	0.1	0.4	0.1
Delay (s)	11.8	9.6	25.6	8.7	13.4	3.5
Level of Service	B	A	C	A	B	A
Approach Delay (s)	11.3			9.4	8.7	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	44.4	Sum of lost time (s)	14.9
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	45	337	376	538	351	41	18	93	151	558	34	181
Future Volume (vph)	45	337	376	538	351	41	18	93	151	558	34	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2	5.2	4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	0.95	0.95	0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.91	0.85	1.00	0.98
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4401			1556	1420	1323	3019	1608
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4401			1556	1420	1323	3019	1608
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	374	418	598	390	46	20	103	168	620	38	201
RTOR Reduction (vph)	0	0	242	0	9	0	0	0	34	277	0	3
Lane Group Flow (vph)	50	374	176	598	427	0	0	123	370	107	38	226
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2							8		
Actuated Green, G (s)	7.3	26.7	26.7	58.4	77.8			15.4	41.8	41.8	3.2	30.5
Effective Green, g (s)	7.3	26.7	26.7	58.4	77.8			15.4	41.8	41.8	3.2	30.5
Actuated g/C Ratio	0.05	0.18	0.18	0.39	0.52			0.10	0.28	0.28	0.02	0.20
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2	5.2	4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0	5.0	2.0	5.3
Lane Grp Cap (vph)	75	796	247	605	2282			159	395	368	64	326
v/s Ratio Prot	0.03	0.08		c0.38	0.10			c0.08	c0.26		0.01	0.14
v/s Ratio Perm			c0.13							0.08		
v/c Ratio	0.67	0.47	0.71	0.99	0.19			0.77	0.94	0.29	0.59	0.69
Uniform Delay, d1	70.2	55.3	58.0	45.5	19.2			65.6	52.8	42.5	72.8	55.4
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.0	2.0	15.9	33.2	0.2			18.9	30.4	0.9	9.5	8.3
Delay (s)	86.1	57.3	74.0	78.7	19.4			84.5	83.2	43.4	82.2	63.7
Level of Service	F	E	E	E	B			F	F	D	F	E
Approach Delay (s)		67.3			53.7				66.6			66.3
Approach LOS		E			D				E			E

Intersection Summary			
HCM 2000 Control Delay	62.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	86.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	25
Future Volume (vph)	25
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	28
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	62	407	236	997	467	49	64	94	146	343	39	223
Future Volume (vph)	62	407	236	997	467	49	64	94	146	343	39	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2	5.2	4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	0.95	0.95	0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.94	0.85	1.00	0.97
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4407			1556	1456	1323	3019	1591
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4407			1556	1456	1323	3019	1591
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	67	438	254	1072	502	53	70	101	157	369	42	240
RTOR Reduction (vph)	0	0	107	0	8	0	0	0	18	188	0	6
Lane Group Flow (vph)	67	438	147	1072	547	0	0	171	257	63	42	290
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2							8		
Actuated Green, G (s)	9.5	28.3	28.3	61.0	79.8			15.0	37.6	37.6	3.2	26.7
Effective Green, g (s)	9.5	28.3	28.3	61.0	79.8			15.0	37.6	37.6	3.2	26.7
Actuated g/C Ratio	0.06	0.19	0.19	0.41	0.53			0.10	0.25	0.25	0.02	0.18
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2	5.2	4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0	5.0	2.0	5.3
Lane Grp Cap (vph)	98	843	262	632	2344			155	364	331	64	283
v/s Ratio Prot	0.04	0.10		c0.69	0.12			c0.11	0.18		0.01	c0.18
v/s Ratio Perm			c0.11							0.05		
v/c Ratio	0.68	0.52	0.56	1.70	0.23			1.10	0.71	0.19	0.66	1.03
Uniform Delay, d1	68.8	54.7	55.2	44.5	18.8			67.5	51.2	44.2	72.9	61.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.6	2.3	8.4	320.1	0.2			102.6	7.6	0.6	16.9	60.2
Delay (s)	83.3	57.0	63.6	364.6	19.0			170.1	58.8	44.8	89.8	121.9
Level of Service	F	E	E	F	B			F	E	D	F	F
Approach Delay (s)		61.6			246.7				81.1			117.9
Approach LOS		E			F				F			F

Intersection Summary			
HCM 2000 Control Delay	159.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	109.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	52
Future Volume (vph)	52
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	465	364	5	113	98	10
Future Volume (vph)	465	364	5	113	98	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.93		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2907		1556	1638	2998	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2907		1556	1638	2998	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	560	439	6	136	118	12
RTOR Reduction (vph)	103	0	0	0	7	0
Lane Group Flow (vph)	896	0	6	136	123	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	20.0		0.8	25.5	8.2	
Effective Green, g (s)	20.0		0.8	25.5	8.2	
Actuated g/C Ratio	0.44		0.02	0.57	0.18	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1292		27	928	546	
v/s Ratio Prot	c0.31		0.00	c0.08	c0.04	
v/s Ratio Perm						
v/c Ratio	0.69		0.22	0.15	0.22	
Uniform Delay, d1	10.0		21.8	4.6	15.7	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.6		4.1	0.1	0.2	
Delay (s)	11.7		25.9	4.7	15.9	
Level of Service	B		C	A	B	
Approach Delay (s)	11.7			5.6	15.9	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	835	3	2	204	0	0	0	0	0	0	2
Future Volume (Veh/h)	3	835	3	2	204	0	0	0	0	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	4	1018	4	2	249	0	0	0	0	0	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	249			1022			1158	1281	511	770	1283	124
vC1, stage 1 conf vol							1028	1028		253	253	
vC2, stage 2 conf vol							130	253		517	1030	
vCu, unblocked vol	249			1022			1158	1281	511	770	1283	124
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1218			597			219	266	473	432	264	860

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	513	513	126	124	0	2
Volume Left	4	0	2	0	0	0
Volume Right	0	4	0	0	0	2
cSH	1218	1700	597	1700	1700	860
Volume to Capacity	0.00	0.30	0.00	0.07	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.1	0.0	0.2	0.0	0.0	9.2
Lane LOS	A		A		A	A
Approach Delay (s)	0.0		0.1		0.0	9.2
Approach LOS					A	A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	223	821	145	90	0	0
Future Volume (vph)	223	821	145	90	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.97	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4097	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4097	1197		
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	253	933	165	102	0	0
RTOR Reduction (vph)	0	0	29	42	0	0
Lane Group Flow (vph)	253	933	178	18	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	7.8	29.8	9.1	9.1		
Effective Green, g (s)	7.8	29.8	9.1	9.1		
Actuated g/C Ratio	0.26	1.00	0.31	0.31		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	790	3112	1251	365		
v/s Ratio Prot	0.08	c0.30	0.04			
v/s Ratio Perm				0.02		
v/c Ratio	0.32	0.30	0.14	0.05		
Uniform Delay, d1	8.9	0.0	7.5	7.3		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.2	0.1	0.1	0.1		
Delay (s)	9.1	0.1	7.6	7.4		
Level of Service	A	A	A	A		
Approach Delay (s)		2.0	7.5		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	3.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	29.8	Sum of lost time (s)	12.9
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	536	144	0	536	457
Future Volume (vph)	0	536	144	0	536	457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	596	160	0	596	508
RTOR Reduction (vph)	0	0	0	0	0	322
Lane Group Flow (vph)	0	596	160	0	596	186
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		11.9	11.9		14.5	14.5
Effective Green, g (s)		11.9	11.9		14.5	14.5
Actuated g/C Ratio		0.30	0.30		0.37	0.37
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1340	1340		1102	508
v/s Ratio Prot		c0.13	0.04		c0.20	0.13
v/s Ratio Perm						
v/c Ratio		0.44	0.12		0.54	0.37
Uniform Delay, d1		11.2	10.1		10.0	9.2
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.0		0.5	0.4
Delay (s)		11.5	10.1		10.5	9.7
Level of Service		B	B		B	A
Approach Delay (s)		11.5	10.1		10.1	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	39.7	Sum of lost time (s)	13.3
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	203	486	538	86	62	125
Future Volume (vph)	203	486	538	86	62	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frt	1.00	1.00	1.00	0.85	0.93	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (prot)	3019	3112	4472	1392	2868	1267
Flt Permitted	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (perm)	3019	3112	4472	1392	2868	1267
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	218	523	578	92	67	134
RTOR Reduction (vph)	0	0	0	64	59	59
Lane Group Flow (vph)	218	523	578	28	75	8
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	9.2	28.1	13.7	13.7	5.3	5.3
Effective Green, g (s)	9.2	28.1	13.7	13.7	5.3	5.3
Actuated g/C Ratio	0.20	0.61	0.30	0.30	0.12	0.12
Clearance Time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	607	1913	1340	417	332	146
v/s Ratio Prot	c0.07	0.17	c0.13		c0.03	
v/s Ratio Perm				0.02		0.01
v/c Ratio	0.36	0.27	0.43	0.07	0.23	0.05
Uniform Delay, d1	15.7	4.1	12.9	11.4	18.3	18.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	0.2	0.1	0.3	0.2
Delay (s)	16.1	4.2	13.1	11.5	18.7	18.1
Level of Service	B	A	B	B	B	B
Approach Delay (s)		7.7	12.9		18.5	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	45.7	Sum of lost time (s)	17.5
Intersection Capacity Utilization	34.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	45	304	376	485	337	41	18	93	151	435	34	181
Future Volume (vph)	45	304	376	485	337	41	18	93	151	435	34	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	1.00		0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.89		1.00	0.98
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4398			1556	1456		3019	1608
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4398			1556	1456		3019	1608
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	338	418	539	374	46	20	103	168	483	38	201
RTOR Reduction (vph)	0	0	259	0	9	0	0	0	63	0	0	4
Lane Group Flow (vph)	50	338	159	539	411	0	0	123	588	0	38	225
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA		Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2									
Actuated Green, G (s)	7.9	47.2	47.2	22.8	62.1			15.1	44.8		5.3	35.9
Effective Green, g (s)	7.9	47.2	47.2	22.8	62.1			15.1	44.8		5.3	35.9
Actuated g/C Ratio	0.06	0.34	0.34	0.16	0.44			0.11	0.32		0.04	0.26
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0		2.0	5.3
Lane Grp Cap (vph)	87	1507	469	253	1950			167	465		114	412
v/s Ratio Prot	0.03	0.08		c0.35	0.09			c0.08	c0.40		0.01	0.14
v/s Ratio Perm			c0.11									
v/c Ratio	0.57	0.22	0.34	2.13	0.21			0.74	1.26		0.33	0.55
Uniform Delay, d1	64.4	33.3	34.7	58.6	23.9			60.5	47.6		65.6	45.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	5.6	0.3	2.0	521.8	0.2			13.5	135.1		0.6	2.8
Delay (s)	70.0	33.6	36.7	580.4	24.2			74.0	182.7		66.3	47.8
Level of Service	E	C	D	F	C			E	F		E	D
Approach Delay (s)		37.5			336.8				165.4			50.5
Approach LOS		D			F				F			D

Intersection Summary			
HCM 2000 Control Delay	176.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	25
Future Volume (vph)	25
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	28
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	383	21	34	462	82	8
Future Volume (vph)	383	21	34	462	82	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4436		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4436		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	412	23	37	497	88	9
RTOR Reduction (vph)	4	0	0	0	0	7
Lane Group Flow (vph)	431	0	37	497	88	2
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	17.9		1.3	23.2	6.8	6.8
Effective Green, g (s)	17.9		1.3	23.2	6.8	6.8
Actuated g/C Ratio	0.44		0.03	0.57	0.17	0.17
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1960		49	2561	261	233
v/s Ratio Prot	0.10		c0.02	c0.11	c0.06	
v/s Ratio Perm						0.00
v/c Ratio	0.22		0.76	0.19	0.34	0.01
Uniform Delay, d1	7.0		19.4	4.2	14.9	14.0
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		48.1	0.0	0.8	0.0
Delay (s)	7.0		67.5	4.2	15.6	14.0
Level of Service	A		E	A	B	B
Approach Delay (s)	7.0			8.6	15.5	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	40.5	Sum of lost time (s)	14.5
Intersection Capacity Utilization	28.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	417	200	100	437	92	18
Future Volume (vph)	417	200	100	437	92	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.95		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4254		1556	4472	2975	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4254		1556	4472	2975	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	509	244	122	533	112	22
RTOR Reduction (vph)	88	0	0	0	19	0
Lane Group Flow (vph)	665	0	122	533	115	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	55.6		11.1	70.7	8.8	
Effective Green, g (s)	55.6		11.1	70.7	8.8	
Actuated g/C Ratio	0.62		0.12	0.79	0.10	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2628		191	3513	290	
v/s Ratio Prot	c0.16		c0.08	0.12	c0.04	
v/s Ratio Perm						
v/c Ratio	0.25		0.64	0.15	0.40	
Uniform Delay, d1	7.8		37.5	2.3	38.1	
Progression Factor	1.33		1.00	1.00	1.00	
Incremental Delay, d2	0.2		6.8	0.1	0.9	
Delay (s)	10.6		44.4	2.4	39.0	
Level of Service	B		D	A	D	
Approach Delay (s)	10.6			10.3	39.0	
Approach LOS	B			B	D	

Intersection Summary			
HCM 2000 Control Delay	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	33.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	268	140	201	289	268	303
Future Volume (vph)	268	140	201	289	268	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	301	157	226	325	301	340
RTOR Reduction (vph)	0	73	0	0	0	288
Lane Group Flow (vph)	301	84	226	325	301	52
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	48.2	48.2	13.5	65.7	13.8	13.8
Effective Green, g (s)	48.2	48.2	13.5	65.7	13.8	13.8
Actuated g/C Ratio	0.54	0.54	0.15	0.73	0.15	0.15
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2395	745	233	3264	462	213
v/s Ratio Prot	c0.07		c0.15	0.07	c0.10	
v/s Ratio Perm		0.06				0.04
v/c Ratio	0.13	0.11	0.97	0.10	0.65	0.24
Uniform Delay, d1	10.4	10.3	38.0	3.5	35.8	33.5
Progression Factor	1.00	1.00	0.94	0.85	1.00	1.00
Incremental Delay, d2	0.1	0.3	49.6	0.1	3.3	0.6
Delay (s)	10.5	10.6	85.5	3.1	39.1	34.1
Level of Service	B	B	F	A	D	C
Approach Delay (s)	10.6			36.9	36.5	
Approach LOS	B			D	D	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	428	67	137	373	23	75	1	97	4	2	3
Future Volume (vph)	9	428	67	137	373	23	75	1	97	4	2	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4381		1556	4433		1556	1638	1392	1556	2832	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4381		1556	4433		1556	1638	1392	1556	2832	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	10	492	77	157	429	26	86	1	111	5	2	3
RTOR Reduction (vph)	0	13	0	0	3	0	0	0	94	0	5	0
Lane Group Flow (vph)	10	556	0	157	452	0	86	1	17	5	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.4	19.9		13.0	31.5		9.0	10.9	10.9	1.4	3.3	
Effective Green, g (s)	1.4	19.9		13.0	31.5		9.0	10.9	10.9	1.4	3.3	
Actuated g/C Ratio	0.02	0.28		0.19	0.45		0.13	0.16	0.16	0.02	0.05	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	31	1247		289	1997		200	255	217	31	133	
v/s Ratio Prot	0.01	c0.13		c0.10	0.10		c0.06	0.00		0.00	0.00	
v/s Ratio Perm									c0.01			
v/c Ratio	0.32	0.45		0.54	0.23		0.43	0.00	0.08	0.16	0.00	
Uniform Delay, d1	33.8	20.5		25.8	11.7		28.1	24.9	25.2	33.7	31.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.0	0.3		2.1	0.1		1.5	0.0	0.2	2.4	0.0	
Delay (s)	39.7	20.7		27.8	11.8		29.6	24.9	25.4	36.1	31.7	
Level of Service	D	C		C	B		C	C	C	D	C	
Approach Delay (s)		21.1			15.9			27.2			33.9	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	69.9	Sum of lost time (s)	24.7
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	341	124	46	268	144	72	35	26	139	26	68
Future Volume (vph)	130	341	124	46	268	144	72	35	26	139	26	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1534		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1534		1556	1638	2450
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	157	411	149	55	323	173	87	42	31	167	31	82
RTOR Reduction (vph)	0	0	63	0	0	80	0	22	0	0	0	67
Lane Group Flow (vph)	157	411	86	55	323	93	87	51	0	167	31	15
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	12.6	81.1	81.1	6.8	75.3	75.3	18.4	10.1		20.7	12.4	25.0
Effective Green, g (s)	12.6	81.1	81.1	6.8	75.3	75.3	18.4	10.1		20.7	12.4	25.0
Actuated g/C Ratio	0.09	0.58	0.58	0.05	0.54	0.54	0.13	0.07		0.15	0.09	0.18
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	271	2590	806	146	2405	748	204	110		230	145	437
v/s Ratio Prot	c0.05	c0.09		0.02	0.07		0.06	c0.03		c0.11	0.02	0.00
v/s Ratio Perm			0.06			0.07						0.00
v/c Ratio	0.58	0.16	0.11	0.38	0.13	0.12	0.43	0.46		0.73	0.21	0.03
Uniform Delay, d1	61.2	13.6	13.2	64.5	16.1	16.0	55.9	62.3		56.9	59.3	47.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.0	0.1	0.3	1.6	0.1	0.3	1.4	3.0		10.8	0.7	0.0
Delay (s)	64.1	13.8	13.5	66.2	16.2	16.4	57.4	65.4		67.8	60.0	47.5
Level of Service	E	B	B	E	B	B	E	E		E	E	D
Approach Delay (s)		24.7			21.3			61.0			61.0	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	33.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	362	499	0	260	39	29	61
Future Volume (vph)	362	499	0	260	39	29	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.80	0.80	0.92	0.80	0.80	0.80	0.80
Adj. Flow (vph)	452	624	0	325	49	36	76
RTOR Reduction (vph)	0	0	0	0	31	0	36
Lane Group Flow (vph)	453	624	0	325	18	36	40
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	14.0	28.5		10.8	16.4	5.6	23.6
Effective Green, g (s)	14.0	28.5		10.8	16.4	5.6	23.6
Actuated g/C Ratio	0.31	0.63		0.24	0.36	0.12	0.52
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	930	2807		1063	502	191	1273
v/s Ratio Prot	c0.15	0.14		c0.07	0.00	c0.02	0.02
v/s Ratio Perm					0.01		
v/c Ratio	0.49	0.22		0.31	0.04	0.19	0.03
Uniform Delay, d1	12.8	3.7		14.2	9.4	17.9	5.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.2	0.0	0.5	0.0
Delay (s)	13.2	3.7		14.4	9.4	18.3	5.3
Level of Service	B	A		B	A	B	A
Approach Delay (s)		7.7		13.7		9.5	
Approach LOS		A		B		A	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	45.4	Sum of lost time (s)	18.3
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	2	5	339	4	182	1	332	823	323	448	0
Future Volume (vph)	3	2	5	339	4	182	1	332	823	323	448	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	4	3	7	446	5	239	1	437	1083	425	589	0
RTOR Reduction (vph)	0	0	7	0	0	164	0	0	279	0	0	0
Lane Group Flow (vph)	4	3	0	446	5	75	1	437	804	425	589	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.6	1.6	3.2	31.9	30.8	30.8	1.6	23.8	55.7	18.7	40.9	
Effective Green, g (s)	1.6	1.6	3.2	31.9	30.8	30.8	1.6	23.8	55.7	18.7	40.9	
Actuated g/C Ratio	0.02	0.02	0.03	0.32	0.31	0.31	0.02	0.24	0.57	0.19	0.42	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	25	50	45	979	513	436	25	753	788	574	1294	
v/s Ratio Prot	0.00	0.00	0.00	0.15	0.00		0.00	0.14	c0.33	c0.14	0.19	
v/s Ratio Perm			0.00			c0.05			0.25			
v/c Ratio	0.16	0.06	0.01	0.46	0.01	0.17	0.04	0.58	1.02	0.74	0.46	
Uniform Delay, d1	47.7	47.6	46.0	26.3	23.2	24.5	47.6	32.8	21.3	37.5	20.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.0	0.5	0.0	0.3	0.0	0.2	0.7	1.1	37.4	5.1	0.3	
Delay (s)	50.7	48.1	46.1	26.7	23.3	24.7	48.3	34.0	58.7	42.6	20.9	
Level of Service	D	D	D	C	C	C	D	C	E	D	C	
Approach Delay (s)		47.8			25.9			51.6			30.0	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	39.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	98.3	Sum of lost time (s)	23.4
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	0	55	42	65	179	94	689	64	0	726	33
Future Volume (vph)	17	0	55	42	65	179	94	689	64	0	726	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1551	1392	3019	3112	1392		5598	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1556	1392		1478	1551	1392	3019	3112	1392		5598	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	19	0	62	47	73	201	106	774	72	0	816	37
RTOR Reduction (vph)	0	57	0	0	0	170	0	0	36	0	5	0
Lane Group Flow (vph)	19	5	0	42	78	31	106	774	36	0	848	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm		NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2			
Actuated Green, G (s)	4.9	4.9		9.1	9.1	9.1	6.0	30.1	30.1		19.4	
Effective Green, g (s)	4.9	4.9		9.1	9.1	9.1	6.0	30.1	30.1		19.4	
Actuated g/C Ratio	0.08	0.08		0.15	0.15	0.15	0.10	0.51	0.51		0.33	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	128	114		226	237	213	304	1576	705		1828	
v/s Ratio Prot	c0.01	0.00		0.03	c0.05	0.02	0.04	c0.25			0.15	
v/s Ratio Perm									0.03			
v/c Ratio	0.15	0.04		0.19	0.33	0.14	0.35	0.49	0.05		0.46	
Uniform Delay, d1	25.3	25.1		21.9	22.4	21.8	24.9	9.6	7.4		15.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	0.2		0.4	0.8	0.3	0.7	0.2	0.0		0.2	
Delay (s)	25.9	25.3		22.3	23.2	22.1	25.6	9.9	7.5		16.1	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		25.4			22.4			11.4			16.1	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	597	310	7	245	243	179
Future Volume (vph)	597	310	7	245	243	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	656	341	8	269	267	197
RTOR Reduction (vph)	0	211	0	0	0	75
Lane Group Flow (vph)	656	130	8	269	267	122
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	15.7	15.7	0.8	15.3	9.8	25.5
Effective Green, g (s)	15.7	15.7	0.8	15.3	9.8	25.5
Actuated g/C Ratio	0.38	0.38	0.02	0.37	0.24	0.62
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1150	933	58	1660	740	1033
v/s Ratio Prot	c0.22	0.05	0.00	c0.06	c0.09	0.04
v/s Ratio Perm						0.04
v/c Ratio	0.57	0.14	0.14	0.16	0.36	0.12
Uniform Delay, d1	10.1	8.3	19.9	8.7	13.1	3.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	1.1	0.0	0.3	0.1
Delay (s)	10.8	8.4	21.0	8.7	13.4	3.3
Level of Service	B	A	C	A	B	A
Approach Delay (s)	10.0			9.1	9.1	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	41.2	Sum of lost time (s)	14.9
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	174	183	10	465	236	19
Future Volume (vph)	174	183	10	465	236	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.92		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2872		1556	1638	3003	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2872		1556	1638	3003	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	202	213	12	541	274	22
RTOR Reduction (vph)	126	0	0	0	5	0
Lane Group Flow (vph)	289	0	12	541	291	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	19.5		1.1	25.3	11.4	
Effective Green, g (s)	19.5		1.1	25.3	11.4	
Actuated g/C Ratio	0.41		0.02	0.53	0.24	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1166		35	863	713	
v/s Ratio Prot	0.10		0.01	c0.33	c0.10	
v/s Ratio Perm						
v/c Ratio	0.25		0.34	0.63	0.41	
Uniform Delay, d1	9.4		23.1	8.0	15.4	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.1		5.8	1.4	0.4	
Delay (s)	9.5		28.9	9.4	15.8	
Level of Service	A		C	A	B	
Approach Delay (s)	9.5			9.9	15.8	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	48.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	352	1	0	693	3	12	0	1	3	0	4
Future Volume (Veh/h)	5	352	1	0	693	3	12	0	1	3	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	409	1	0	806	3	14	0	1	3	0	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	809			410			830	1230	205	1025	1230	404
vC1, stage 1 conf vol							422	422		808	808	
vC2, stage 2 conf vol							408	809		218	422	
vCu, unblocked vol	809			410			830	1230	205	1025	1230	404
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	99			100			97	100	100	99	100	99
cM capacity (veh/h)	728			1052			430	318	760	298	322	558

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	210	206	537	272	15	8
Volume Left	6	0	0	0	14	3
Volume Right	0	1	0	3	1	5
cSH	728	1700	1700	1700	442	420
Volume to Capacity	0.01	0.12	0.32	0.16	0.03	0.02
Queue Length 95th (ft)	1	0	0	0	3	1
Control Delay (s)	0.4	0.0	0.0	0.0	13.4	13.7
Lane LOS	A				B	B
Approach Delay (s)	0.2		0.0		13.4	13.7
Approach LOS					B	B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	29.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	387	317	370	429	0	0
Future Volume (vph)	387	317	370	429	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.94	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	3993	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	3993	1197		
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	461	377	440	511	0	0
RTOR Reduction (vph)	0	0	73	73	0	0
Lane Group Flow (vph)	461	377	623	182	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	11.3	39.2	15.0	15.0		
Effective Green, g (s)	11.3	39.2	15.0	15.0		
Actuated g/C Ratio	0.29	1.00	0.38	0.38		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	870	3112	1527	458		
v/s Ratio Prot	c0.15	0.12	c0.16			
v/s Ratio Perm				0.15		
v/c Ratio	0.53	0.12	0.41	0.40		
Uniform Delay, d1	11.7	0.0	8.9	8.8		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.6	0.0	0.2	0.6		
Delay (s)	12.3	0.0	9.0	9.4		
Level of Service	B	A	A	A		
Approach Delay (s)		6.8	9.1		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	39.2	Sum of lost time (s)	12.9
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	564	365	0	156	264
Future Volume (vph)	0	564	365	0	156	264
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	594	384	0	164	278
RTOR Reduction (vph)	0	0	0	0	0	212
Lane Group Flow (vph)	0	594	384	0	164	66
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		10.5	10.5		7.4	7.4
Effective Green, g (s)		10.5	10.5		7.4	7.4
Actuated g/C Ratio		0.34	0.34		0.24	0.24
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1505	1505		716	330
v/s Ratio Prot		c0.13	0.09		c0.05	0.05
v/s Ratio Perm						
v/c Ratio		0.39	0.26		0.23	0.20
Uniform Delay, d1		7.9	7.5		9.6	9.5
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.1		0.2	0.3
Delay (s)		8.1	7.6		9.8	9.8
Level of Service		A	A		A	A
Approach Delay (s)		8.1	7.6		9.8	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	31.2	Sum of lost time (s)	13.3
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	110	529	514	80	89	238
Future Volume (vph)	110	529	514	80	89	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frt	1.00	1.00	1.00	0.85	0.91	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (prot)	3019	3112	4472	1392	2844	1267
Flt Permitted	0.95	1.00	1.00	1.00	0.98	1.00
Satd. Flow (perm)	3019	3112	4472	1392	2844	1267
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	118	569	553	86	96	256
RTOR Reduction (vph)	0	0	0	61	106	106
Lane Group Flow (vph)	118	569	553	25	118	22
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	5.8	23.5	12.5	12.5	7.4	7.4
Effective Green, g (s)	5.8	23.5	12.5	12.5	7.4	7.4
Actuated g/C Ratio	0.13	0.54	0.29	0.29	0.17	0.17
Clearance Time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	405	1692	1293	402	487	217
v/s Ratio Prot	0.04	c0.18	c0.12		c0.04	
v/s Ratio Perm				0.02		0.02
v/c Ratio	0.29	0.34	0.43	0.06	0.24	0.10
Uniform Delay, d1	16.8	5.5	12.4	11.1	15.5	15.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	0.2	0.1	0.3	0.2
Delay (s)	17.2	5.6	12.7	11.2	15.7	15.3
Level of Service	B	A	B	B	B	B
Approach Delay (s)		7.6	12.5		15.6	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	43.2	Sum of lost time (s)	17.5
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	62	387	236	881	437	49	64	94	146	269	39	223
Future Volume (vph)	62	387	236	881	437	49	64	94	146	269	39	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	1.00		0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.90		1.00	0.97
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4404			1556	1479		3019	1591
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4404			1556	1479		3019	1591
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	67	416	254	947	470	53	70	101	157	289	42	240
RTOR Reduction (vph)	0	0	168	0	8	0	0	0	41	0	0	6
Lane Group Flow (vph)	67	416	86	947	515	0	0	171	405	0	42	290
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA		Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2									
Actuated Green, G (s)	9.3	47.2	47.2	22.8	60.7			18.2	44.6		5.5	32.8
Effective Green, g (s)	9.3	47.2	47.2	22.8	60.7			18.2	44.6		5.5	32.8
Actuated g/C Ratio	0.07	0.34	0.34	0.16	0.43			0.13	0.32		0.04	0.23
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0		2.0	5.3
Lane Grp Cap (vph)	103	1507	469	253	1909			202	471		118	372
v/s Ratio Prot	0.04	0.09		c0.61	c0.12			c0.11	c0.27		0.01	0.18
v/s Ratio Perm			0.06									
v/c Ratio	0.65	0.28	0.18	3.74	0.27			0.85	0.86		0.36	0.78
Uniform Delay, d1	63.8	33.9	32.8	58.6	25.4			59.5	44.8		65.5	50.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	10.7	0.5	0.9	1244.0	0.3			25.5	16.0		0.7	11.7
Delay (s)	74.4	34.4	33.6	1302.6	25.8			85.1	60.7		66.2	62.0
Level of Service	E	C	C	F	C			F	E		E	E
Approach Delay (s)		37.8			848.3				67.5			62.5
Approach LOS		D			F				E			E

Intersection Summary			
HCM 2000 Control Delay	423.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	102.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	52
Future Volume (vph)	52
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	665	58	44	561	61	9
Future Volume (vph)	665	58	44	561	61	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4418		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4418		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	715	62	47	603	66	10
RTOR Reduction (vph)	6	0	0	0	0	9
Lane Group Flow (vph)	771	0	47	603	66	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	22.3		4.5	30.8	6.4	6.4
Effective Green, g (s)	22.3		4.5	30.8	6.4	6.4
Actuated g/C Ratio	0.47		0.09	0.65	0.13	0.13
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2065		146	2887	208	186
v/s Ratio Prot	c0.17		c0.03	0.13	c0.04	
v/s Ratio Perm						0.00
v/c Ratio	0.37		0.32	0.21	0.32	0.01
Uniform Delay, d1	8.2		20.2	3.5	18.7	17.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		1.3	0.0	0.9	0.0
Delay (s)	8.3		21.5	3.5	19.6	17.9
Level of Service	A		C	A	B	B
Approach Delay (s)	8.3			4.8	19.3	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	47.7	Sum of lost time (s)	14.5
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	617	109	78	549	295	57
Future Volume (vph)	617	109	78	549	295	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.98		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4371		1556	4472	2976	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4371		1556	4472	2976	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	693	122	88	617	331	64
RTOR Reduction (vph)	15	0	0	0	12	0
Lane Group Flow (vph)	800	0	88	617	383	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	89.2		13.2	106.4	23.1	
Effective Green, g (s)	89.2		13.2	106.4	23.1	
Actuated g/C Ratio	0.64		0.09	0.76	0.17	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2784		146	3398	491	
v/s Ratio Prot	c0.18		c0.06	0.14	c0.13	
v/s Ratio Perm						
v/c Ratio	0.29		0.60	0.18	0.78	
Uniform Delay, d1	11.3		60.9	4.7	56.0	
Progression Factor	2.31		1.00	1.00	1.00	
Incremental Delay, d2	0.3		6.8	0.1	7.9	
Delay (s)	26.4		67.7	4.8	63.9	
Level of Service	C		E	A	E	
Approach Delay (s)	26.4			12.7	63.9	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	416	358	332	428	297	219
Future Volume (vph)	416	358	332	428	297	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	443	381	353	455	316	233
RTOR Reduction (vph)	0	238	0	0	0	200
Lane Group Flow (vph)	443	143	353	455	316	33
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	52.4	52.4	53.1	109.5	20.0	20.0
Effective Green, g (s)	52.4	52.4	53.1	109.5	20.0	20.0
Actuated g/C Ratio	0.37	0.37	0.38	0.78	0.14	0.14
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1673	521	590	3497	431	198
v/s Ratio Prot	0.10		c0.23	0.10	c0.10	
v/s Ratio Perm		c0.10				0.02
v/c Ratio	0.26	0.27	0.60	0.13	0.73	0.17
Uniform Delay, d1	30.4	30.5	34.9	3.7	57.4	52.7
Progression Factor	1.00	1.00	1.04	1.60	1.00	1.00
Incremental Delay, d2	0.4	1.3	1.6	0.1	6.3	0.4
Delay (s)	30.8	31.8	37.8	6.0	63.8	53.1
Level of Service	C	C	D	A	E	D
Approach Delay (s)	31.3			19.9	59.3	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	585	95	160	663	6	76	2	183	9	1	5
Future Volume (vph)	6	585	95	160	663	6	76	2	183	9	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4378		1556	4465		1556	1638	1392	1556	2712	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4378		1556	4465		1556	1638	1392	1556	2712	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	650	106	178	737	7	84	2	203	10	1	6
RTOR Reduction (vph)	0	13	0	0	1	0	0	0	173	0	7	0
Lane Group Flow (vph)	7	743	0	178	743	0	84	2	30	10	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.3	24.7		15.0	38.4		9.2	11.6	11.6	1.3	3.7	
Effective Green, g (s)	1.3	24.7		15.0	38.4		9.2	11.6	11.6	1.3	3.7	
Actuated g/C Ratio	0.02	0.32		0.19	0.50		0.12	0.15	0.15	0.02	0.05	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	26	1398		301	2218		185	245	208	26	129	
v/s Ratio Prot	0.00	c0.17		c0.11	0.17		c0.05	0.00		0.01	0.00	
v/s Ratio Perm									c0.02			
v/c Ratio	0.27	0.53		0.59	0.34		0.45	0.01	0.15	0.38	0.00	
Uniform Delay, d1	37.5	21.6		28.4	11.7		31.7	28.0	28.5	37.6	35.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.5	0.4		3.1	0.1		1.8	0.0	0.3	9.2	0.0	
Delay (s)	43.0	21.9		31.5	11.8		33.5	28.0	28.9	46.8	35.1	
Level of Service	D	C		C	B		C	C	C	D	D	
Approach Delay (s)		22.1			15.6			30.2			42.0	
Approach LOS		C			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	77.3	Sum of lost time (s)	24.7
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	352	102	48	447	257	162	43	75	250	79	273
Future Volume (vph)	136	352	102	48	447	257	162	43	75	250	79	273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1482		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1482		1556	1638	2450
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	151	391	113	53	497	286	180	48	83	278	88	303
RTOR Reduction (vph)	0	0	67	0	0	180	0	59	0	0	0	203
Lane Group Flow (vph)	151	391	46	53	497	106	180	72	0	278	88	100
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.3	49.3	49.3	6.4	44.4	44.4	21.1	12.4		30.6	21.9	33.2
Effective Green, g (s)	11.3	49.3	49.3	6.4	44.4	44.4	21.1	12.4		30.6	21.9	33.2
Actuated g/C Ratio	0.09	0.41	0.41	0.05	0.37	0.37	0.18	0.10		0.26	0.18	0.28
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	284	1837	571	161	1654	515	273	153		396	298	677
v/s Ratio Prot	c0.05	0.09		0.02	c0.11		0.12	c0.05		c0.18	0.05	0.01
v/s Ratio Perm			0.03			0.08						0.03
v/c Ratio	0.53	0.21	0.08	0.33	0.30	0.21	0.66	0.47		0.70	0.30	0.15
Uniform Delay, d1	51.8	22.8	21.5	54.7	26.8	25.8	46.1	50.7		40.6	42.4	32.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.9	0.3	0.3	1.2	0.5	0.9	5.7	2.3		5.6	0.6	0.1
Delay (s)	53.7	23.1	21.8	55.9	27.3	26.7	51.8	53.0		46.1	42.9	32.8
Level of Service	D	C	C	E	C	C	D	D		D	D	C
Approach Delay (s)		29.9			28.9			52.3			39.7	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	185	408	0	773	86	102	418
Future Volume (vph)	185	408	0	773	86	102	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.82	0.82	0.92	0.82	0.82	0.82	0.82
Adj. Flow (vph)	226	498	0	943	105	124	510
RTOR Reduction (vph)	0	0	0	0	45	0	274
Lane Group Flow (vph)	226	498	0	943	60	124	236
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	12.4	39.1		23.0	35.9	12.9	29.3
Effective Green, g (s)	12.4	39.1		23.0	35.9	12.9	29.3
Actuated g/C Ratio	0.20	0.62		0.36	0.57	0.20	0.46
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	591	2762		1624	789	317	1134
v/s Ratio Prot	c0.07	0.11		c0.21	0.02	c0.08	0.10
v/s Ratio Perm					0.03		
v/c Ratio	0.38	0.18		0.58	0.08	0.39	0.21
Uniform Delay, d1	22.1	5.2		16.3	6.2	21.8	10.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.5	0.0	0.8	0.1
Delay (s)	22.5	5.2		16.8	6.2	22.6	10.2
Level of Service	C	A		B	A	C	B
Approach Delay (s)		10.6		15.7		12.6	
Approach LOS		B		B		B	

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	18.3
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

13: Caliente Avenue/Ocean View Hills Parkway & Otay Mesa Road

Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	2	11	1021	9	415	10	457	535	328	239	0
Future Volume (vph)	3	2	11	1021	9	415	10	457	535	328	239	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	3	2	13	1187	10	483	12	531	622	381	278	0
RTOR Reduction (vph)	0	0	12	0	0	299	0	0	231	0	0	0
Lane Group Flow (vph)	3	2	1	1187	10	184	12	531	391	381	278	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.7	1.7	7.9	47.0	45.9	45.9	6.2	28.6	75.6	20.6	43.0	
Effective Green, g (s)	1.7	1.7	7.9	47.0	45.9	45.9	6.2	28.6	75.6	20.6	43.0	
Actuated g/C Ratio	0.01	0.01	0.07	0.39	0.38	0.38	0.05	0.24	0.63	0.17	0.36	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	22	44	91	1180	625	531	80	740	875	517	1113	
v/s Ratio Prot	0.00	0.00	0.00	c0.39	0.01		0.01	c0.17	0.17	c0.13	0.09	
v/s Ratio Perm			0.00			c0.13			0.11			
v/c Ratio	0.14	0.05	0.01	1.01	0.02	0.35	0.15	0.72	0.45	0.74	0.25	
Uniform Delay, d1	58.5	58.4	52.5	36.6	23.1	26.5	54.5	42.1	11.5	47.2	27.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.8	0.4	0.0	27.6	0.0	0.4	0.9	3.3	0.4	5.4	0.1	
Delay (s)	61.3	58.9	52.5	64.2	23.1	26.9	55.4	45.4	11.9	52.7	27.3	
Level of Service	E	E	D	E	C	C	E	D	B	D	C	
Approach Delay (s)		54.7			53.3			27.6			42.0	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	42.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.2	Sum of lost time (s)	23.4
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

14: La Media & St Andrew Ave/SR-905 WB Off Ramp

Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	0	99	60	27	250	88	672	211	1	1237	49
Future Volume (vph)	33	0	99	60	27	250	88	672	211	1	1237	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1526	1392	3019	3112	1392		5602	
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		0.93	
Satd. Flow (perm)	1556	1392		1478	1526	1392	3019	3112	1392		5222	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	34	0	103	62	28	260	92	700	220	1	1289	51
RTOR Reduction (vph)	0	95	0	0	0	227	0	0	94	0	4	0
Lane Group Flow (vph)	34	8	0	45	46	33	92	700	126	0	1337	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm	Perm	NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2	6		
Actuated Green, G (s)	5.5	5.5		8.7	8.7	8.7	5.9	39.6	39.6		29.0	
Effective Green, g (s)	5.5	5.5		8.7	8.7	8.7	5.9	39.6	39.6		29.0	
Actuated g/C Ratio	0.08	0.08		0.13	0.13	0.13	0.09	0.57	0.57		0.42	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	123	110		186	192	175	257	1783	797		2191	
v/s Ratio Prot	c0.02	0.01		c0.03	0.03	0.02	0.03	c0.22				
v/s Ratio Perm									0.09		c0.26	
v/c Ratio	0.28	0.07		0.24	0.24	0.19	0.36	0.39	0.16		0.61	
Uniform Delay, d1	29.9	29.4		27.2	27.2	27.0	29.8	8.1	6.9		15.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	1.2	0.3		0.7	0.6	0.5	0.9	0.1	0.1		0.5	
Delay (s)	31.2	29.7		27.9	27.9	27.6	30.7	8.3	7.0		16.1	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		30.1			27.6			10.0			16.1	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	69.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	450	183	23	533	410	368
Future Volume (vph)	450	183	23	533	410	368
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	479	195	24	567	436	391
RTOR Reduction (vph)	0	130	0	0	0	146
Lane Group Flow (vph)	479	65	24	567	436	245
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	14.1	14.1	0.9	17.9	12.3	26.4
Effective Green, g (s)	14.1	14.1	0.9	17.9	12.3	26.4
Actuated g/C Ratio	0.33	0.33	0.02	0.42	0.29	0.63
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1008	818	64	1896	907	1039
v/s Ratio Prot	c0.16	0.03	0.01	c0.13	c0.14	0.08
v/s Ratio Perm						0.10
v/c Ratio	0.48	0.08	0.38	0.30	0.48	0.24
Uniform Delay, d1	11.1	9.6	20.4	8.0	12.3	3.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	3.7	0.1	0.4	0.1
Delay (s)	11.5	9.7	24.0	8.1	12.7	3.6
Level of Service	B	A	C	A	B	A
Approach Delay (s)	10.9			8.7	8.4	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	42.2	Sum of lost time (s)	14.9
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	476	364	5	149	98	10
Future Volume (vph)	476	364	5	149	98	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.93		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2910		1556	1638	2998	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2910		1556	1638	2998	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	573	439	6	180	118	12
RTOR Reduction (vph)	99	0	0	0	7	0
Lane Group Flow (vph)	913	0	6	180	123	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	20.9		0.8	26.4	8.2	
Effective Green, g (s)	20.9		0.8	26.4	8.2	
Actuated g/C Ratio	0.46		0.02	0.58	0.18	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1325		27	942	535	
v/s Ratio Prot	c0.31		0.00	c0.11	c0.04	
v/s Ratio Perm						
v/c Ratio	0.69		0.22	0.19	0.23	
Uniform Delay, d1	9.9		22.2	4.7	16.1	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.5		4.1	0.1	0.2	
Delay (s)	11.4		26.4	4.8	16.4	
Level of Service	B		C	A	B	
Approach Delay (s)	11.4			5.5	16.4	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	45.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	846	3	2	240	0	0	0	0	0	0	2
Future Volume (Veh/h)	3	846	3	2	240	0	0	0	0	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	4	1032	4	2	293	0	0	0	0	0	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	293			1036			1194	1339	518	821	1341	146
vC1, stage 1 conf vol							1042	1042		297	297	
vC2, stage 2 conf vol							152	297		524	1044	
vCu, unblocked vol	293			1036			1194	1339	518	821	1341	146
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1170			589			214	260	467	419	258	831

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	520	520	148	146	0	2
Volume Left	4	0	2	0	0	0
Volume Right	0	4	0	0	0	2
cSH	1170	1700	589	1700	1700	831
Volume to Capacity	0.00	0.31	0.00	0.09	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.1	0.0	0.2	0.0	0.0	9.3
Lane LOS	A		A		A	A
Approach Delay (s)	0.1		0.1		0.0	9.3
Approach LOS					A	A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	242	832	181	90	0	0
Future Volume (vph)	242	832	181	90	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.98	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4138	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4138	1197		
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	275	945	206	102	0	0
RTOR Reduction (vph)	0	0	23	49	0	0
Lane Group Flow (vph)	275	945	216	20	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	8.0	29.6	8.7	8.7		
Effective Green, g (s)	8.0	29.6	8.7	8.7		
Actuated g/C Ratio	0.27	1.00	0.29	0.29		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	815	3112	1216	351		
v/s Ratio Prot	0.09	c0.30	0.05			
v/s Ratio Perm				0.02		
v/c Ratio	0.34	0.30	0.18	0.06		
Uniform Delay, d1	8.7	0.0	7.8	7.5		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.2	0.1	0.1	0.1		
Delay (s)	8.9	0.1	7.9	7.6		
Level of Service	A	A	A	A		
Approach Delay (s)		2.1	7.8		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	3.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	29.6	Sum of lost time (s)	12.9
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	566	180	0	536	501
Future Volume (vph)	0	566	180	0	536	501
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	629	200	0	596	557
RTOR Reduction (vph)	0	0	0	0	0	353
Lane Group Flow (vph)	0	629	200	0	596	204
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		12.3	12.3		14.8	14.8
Effective Green, g (s)		12.3	12.3		14.8	14.8
Actuated g/C Ratio		0.30	0.30		0.37	0.37
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1361	1361		1105	509
v/s Ratio Prot		c0.14	0.04		c0.20	0.15
v/s Ratio Perm						
v/c Ratio		0.46	0.15		0.54	0.40
Uniform Delay, d1		11.4	10.2		10.1	9.5
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.1		0.5	0.5
Delay (s)		11.6	10.3		10.6	10.0
Level of Service		B	B		B	B
Approach Delay (s)		11.6	10.3		10.3	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	40.4	Sum of lost time (s)	13.3
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	241	486	266	80	538	86	117	4	30	62	9	125
Future Volume (vph)	241	486	266	80	538	86	117	4	30	62	9	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		0.95	0.91	0.95
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.88	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1420		1478	1311	1323
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1420		1478	1311	1323
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	259	523	286	86	578	92	126	4	32	67	10	134
RTOR Reduction (vph)	0	0	193	0	0	66	0	28	0	0	53	67
Lane Group Flow (vph)	259	523	93	86	578	26	126	8	0	60	23	8
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	6.7	19.8	19.8	4.9	17.3	17.3	8.3	8.3		6.3	6.3	6.3
Effective Green, g (s)	6.7	19.8	19.8	4.9	17.3	17.3	8.3	8.3		6.3	6.3	6.3
Actuated g/C Ratio	0.11	0.33	0.33	0.08	0.29	0.29	0.14	0.14		0.10	0.10	0.10
Clearance Time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	333	1461	454	244	1276	397	213	194		153	136	137
v/s Ratio Prot	c0.09	0.12		0.03	c0.13		c0.08	0.01		c0.04	0.02	
v/s Ratio Perm			0.07			0.02						0.01
v/c Ratio	0.78	0.36	0.21	0.35	0.45	0.07	0.59	0.04		0.39	0.17	0.06
Uniform Delay, d1	26.2	15.6	14.7	26.3	17.8	15.8	24.6	22.7		25.4	24.8	24.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	10.9	0.2	0.2	0.9	0.3	0.1	4.4	0.1		1.7	0.6	0.2
Delay (s)	37.1	15.7	15.0	27.2	18.0	15.8	28.9	22.8		27.0	25.4	24.6
Level of Service	D	B	B	C	B	B	C	C		C	C	C
Approach Delay (s)		20.7			18.8			27.6			25.6	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	60.6	Sum of lost time (s)	22.0
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	45	379	376	608	369	41	18	93	151	715	34	181
Future Volume (vph)	45	379	376	608	369	41	18	93	151	715	34	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	1.00		0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.88		1.00	0.98
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4404			1556	1435		3019	1608
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4404			1556	1435		3019	1608
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	421	418	676	410	46	20	103	168	794	38	201
RTOR Reduction (vph)	0	0	257	0	8	0	0	0	104	0	0	4
Lane Group Flow (vph)	50	421	161	676	448	0	0	123	858	0	38	225
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA		Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2									
Actuated Green, G (s)	7.9	47.2	47.2	22.8	62.1			15.1	44.8		5.3	35.9
Effective Green, g (s)	7.9	47.2	47.2	22.8	62.1			15.1	44.8		5.3	35.9
Actuated g/C Ratio	0.06	0.34	0.34	0.16	0.44			0.11	0.32		0.04	0.26
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0		2.0	5.3
Lane Grp Cap (vph)	87	1507	469	253	1953			167	459		114	412
v/s Ratio Prot	0.03	0.09		c0.43	0.10			c0.08	c0.60		0.01	0.14
v/s Ratio Perm			c0.12									
v/c Ratio	0.57	0.28	0.34	2.67	0.23			0.74	1.87		0.33	0.55
Uniform Delay, d1	64.4	34.0	34.8	58.6	24.1			60.5	47.6		65.6	45.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	5.6	0.5	2.0	763.6	0.3			13.5	399.4		0.6	2.8
Delay (s)	70.0	34.4	36.8	822.2	24.4			74.0	447.0		66.3	47.8
Level of Service	E	C	D	F	C			E	F		E	D
Approach Delay (s)		37.5			500.8				404.7			50.5
Approach LOS		D			F				F			D

Intersection Summary			
HCM 2000 Control Delay	312.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	114.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	25
Future Volume (vph)	25
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	28
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	458	21	34	494	82	8
Future Volume (vph)	458	21	34	494	82	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4442		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4442		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	492	23	37	531	88	9
RTOR Reduction (vph)	3	0	0	0	0	8
Lane Group Flow (vph)	512	0	37	531	88	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	19.3		2.7	26.0	6.8	6.8
Effective Green, g (s)	19.3		2.7	26.0	6.8	6.8
Actuated g/C Ratio	0.45		0.06	0.60	0.16	0.16
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1979		97	2685	244	218
v/s Ratio Prot	c0.12		c0.02	0.12	c0.06	
v/s Ratio Perm						0.00
v/c Ratio	0.26		0.38	0.20	0.36	0.01
Uniform Delay, d1	7.5		19.5	3.9	16.3	15.4
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		2.5	0.0	0.9	0.0
Delay (s)	7.6		22.0	4.0	17.2	15.4
Level of Service	A		C	A	B	B
Approach Delay (s)	7.6			5.1	17.1	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	43.3	Sum of lost time (s)	14.5
Intersection Capacity Utilization	29.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	492	200	100	469	92	18
Future Volume (vph)	492	200	100	469	92	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.96		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4278		1556	4472	2975	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4278		1556	4472	2975	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	600	244	122	572	112	22
RTOR Reduction (vph)	74	0	0	0	19	0
Lane Group Flow (vph)	770	0	122	572	115	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	55.6		11.1	70.7	8.8	
Effective Green, g (s)	55.6		11.1	70.7	8.8	
Actuated g/C Ratio	0.62		0.12	0.79	0.10	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2642		191	3513	290	
v/s Ratio Prot	c0.18		c0.08	0.13	c0.04	
v/s Ratio Perm						
v/c Ratio	0.29		0.64	0.16	0.40	
Uniform Delay, d1	8.0		37.5	2.4	38.1	
Progression Factor	1.29		1.00	1.00	1.00	
Incremental Delay, d2	0.3		6.8	0.1	0.9	
Delay (s)	10.6		44.4	2.5	39.0	
Level of Service	B		D	A	D	
Approach Delay (s)	10.6			9.8	39.0	
Approach LOS	B			A	D	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	34.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	343	140	201	321	268	303
Future Volume (vph)	343	140	201	321	268	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	385	157	226	361	301	340
RTOR Reduction (vph)	0	73	0	0	0	288
Lane Group Flow (vph)	385	84	226	361	301	52
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	48.2	48.2	13.5	65.7	13.8	13.8
Effective Green, g (s)	48.2	48.2	13.5	65.7	13.8	13.8
Actuated g/C Ratio	0.54	0.54	0.15	0.73	0.15	0.15
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2395	745	233	3264	462	213
v/s Ratio Prot	c0.09		c0.15	0.08	c0.10	
v/s Ratio Perm		0.06				0.04
v/c Ratio	0.16	0.11	0.97	0.11	0.65	0.24
Uniform Delay, d1	10.6	10.3	38.0	3.6	35.8	33.5
Progression Factor	1.00	1.00	0.94	0.86	1.00	1.00
Incremental Delay, d2	0.1	0.3	49.6	0.1	3.3	0.6
Delay (s)	10.8	10.6	85.5	3.1	39.1	34.1
Level of Service	B	B	F	A	D	C
Approach Delay (s)	10.7			34.8	36.5	
Approach LOS	B			C	D	

Intersection Summary			
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	486	67	145	398	23	75	1	115	4	2	3
Future Volume (vph)	9	486	67	145	398	23	75	1	115	4	2	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4390		1556	4435		1556	1638	1392	1556	2832	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4390		1556	4435		1556	1638	1392	1556	2832	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	10	559	77	167	457	26	86	1	132	5	2	3
RTOR Reduction (vph)	0	11	0	0	3	0	0	0	112	0	5	0
Lane Group Flow (vph)	10	625	0	167	480	0	86	1	20	5	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.4	21.7		13.9	34.2		9.1	11.1	11.1	1.4	3.4	
Effective Green, g (s)	1.4	21.7		13.9	34.2		9.1	11.1	11.1	1.4	3.4	
Actuated g/C Ratio	0.02	0.30		0.19	0.47		0.12	0.15	0.15	0.02	0.05	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	29	1308		297	2083		194	249	212	29	132	
v/s Ratio Prot	0.01	c0.14		c0.11	0.11		c0.06	0.00		0.00	0.00	
v/s Ratio Perm									c0.01			
v/c Ratio	0.34	0.48		0.56	0.23		0.44	0.00	0.09	0.17	0.00	
Uniform Delay, d1	35.2	20.9		26.7	11.5		29.5	26.2	26.5	35.1	33.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	7.0	0.3		2.4	0.1		1.6	0.0	0.2	2.8	0.0	
Delay (s)	42.3	21.2		29.1	11.5		31.1	26.2	26.7	38.0	33.1	
Level of Service	D	C		C	B		C	C	C	D	C	
Approach Delay (s)		21.5			16.1			28.4			35.5	
Approach LOS		C			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	72.8	Sum of lost time (s)	24.7
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	381	124	46	285	152	72	35	26	157	26	68
Future Volume (vph)	130	381	124	46	285	152	72	35	26	157	26	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1534		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1534		1556	1638	2450
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	157	459	149	55	343	183	87	42	31	189	31	82
RTOR Reduction (vph)	0	0	66	0	0	88	0	22	0	0	0	66
Lane Group Flow (vph)	157	459	83	55	343	95	87	51	0	189	31	16
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	12.6	78.3	78.3	6.8	72.5	72.5	19.6	10.1		23.5	14.0	26.6
Effective Green, g (s)	12.6	78.3	78.3	6.8	72.5	72.5	19.6	10.1		23.5	14.0	26.6
Actuated g/C Ratio	0.09	0.56	0.56	0.05	0.52	0.52	0.14	0.07		0.17	0.10	0.19
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	271	2501	778	146	2315	720	217	110		261	163	465
v/s Ratio Prot	c0.05	c0.10		0.02	0.08		0.06	c0.03		c0.12	c0.02	0.00
v/s Ratio Perm			0.06			0.07						0.00
v/c Ratio	0.58	0.18	0.11	0.38	0.15	0.13	0.40	0.46		0.72	0.19	0.03
Uniform Delay, d1	61.2	15.2	14.5	64.5	17.6	17.5	54.9	62.3		55.2	57.8	46.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.0	0.2	0.3	1.6	0.1	0.4	1.2	3.0		9.5	0.6	0.0
Delay (s)	64.1	15.3	14.7	66.2	17.8	17.8	56.1	65.4		64.7	58.4	46.3
Level of Service	E	B	B	E	B	B	E	E		E	E	D
Approach Delay (s)		25.2			22.4			60.3			59.1	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	33.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	362	530	0	273	43	38	61
Future Volume (vph)	362	530	0	273	43	38	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.80	0.80	0.92	0.80	0.80	0.80	0.80
Adj. Flow (vph)	452	662	0	341	54	48	76
RTOR Reduction (vph)	0	0	0	0	34	0	36
Lane Group Flow (vph)	453	663	0	341	20	48	40
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	14.3	29.1		11.1	17.0	5.9	24.2
Effective Green, g (s)	14.3	29.1		11.1	17.0	5.9	24.2
Actuated g/C Ratio	0.31	0.63		0.24	0.37	0.13	0.52
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	932	2810		1072	511	198	1280
v/s Ratio Prot	c0.15	0.15		c0.08	0.00	c0.03	0.02
v/s Ratio Perm					0.01		
v/c Ratio	0.49	0.24		0.32	0.04	0.24	0.03
Uniform Delay, d1	13.0	3.8		14.5	9.4	18.2	5.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.2	0.0	0.6	0.0
Delay (s)	13.4	3.8		14.7	9.4	18.8	5.4
Level of Service	B	A		B	A	B	A
Approach Delay (s)		7.7		13.9		10.6	
Approach LOS		A		B		B	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	46.3	Sum of lost time (s)	18.3
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	2	5	343	4	191	1	332	832	345	448	0
Future Volume (vph)	3	2	5	343	4	191	1	332	832	345	448	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	4	3	7	451	5	251	1	437	1095	454	589	0
RTOR Reduction (vph)	0	0	7	0	0	174	0	0	282	0	0	0
Lane Group Flow (vph)	4	3	0	451	5	77	1	437	813	454	589	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.6	1.6	3.2	31.9	30.8	30.8	1.6	23.9	55.8	20.1	42.4	
Effective Green, g (s)	1.6	1.6	3.2	31.9	30.8	30.8	1.6	23.9	55.8	20.1	42.4	
Actuated g/C Ratio	0.02	0.02	0.03	0.32	0.31	0.31	0.02	0.24	0.56	0.20	0.42	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	24	49	44	964	505	429	24	745	778	608	1322	
v/s Ratio Prot	0.00	0.00	0.00	0.15	0.00		0.00	0.14	c0.33	c0.15	0.19	
v/s Ratio Perm			0.00			c0.06			0.25			
v/c Ratio	0.17	0.06	0.01	0.47	0.01	0.18	0.04	0.59	1.05	0.75	0.45	
Uniform Delay, d1	48.4	48.4	46.8	27.2	23.9	25.3	48.3	33.6	22.0	37.5	20.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.3	0.5	0.0	0.4	0.0	0.2	0.7	1.2	44.7	5.0	0.2	
Delay (s)	51.7	48.9	46.8	27.5	23.9	25.5	49.1	34.8	66.7	42.4	20.6	
Level of Service	D	D	D	C	C	C	D	C	E	D	C	
Approach Delay (s)		48.7			26.8			57.6			30.1	
Approach LOS		D			C			E			C	

Intersection Summary			
HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	23.4
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	0	55	42	65	197	94	942	64	0	845	37
Future Volume (vph)	26	0	55	42	65	197	94	942	64	0	845	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1551	1392	3019	3112	1392		5599	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1556	1392		1478	1551	1392	3019	3112	1392		5599	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	29	0	62	47	73	221	106	1058	72	0	949	42
RTOR Reduction (vph)	0	57	0	0	0	188	0	0	34	0	5	0
Lane Group Flow (vph)	29	5	0	42	78	33	106	1058	38	0	986	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm		NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2			
Actuated Green, G (s)	5.3	5.3		9.3	9.3	9.3	6.2	33.3	33.3		22.4	
Effective Green, g (s)	5.3	5.3		9.3	9.3	9.3	6.2	33.3	33.3		22.4	
Actuated g/C Ratio	0.08	0.08		0.15	0.15	0.15	0.10	0.53	0.53		0.35	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	130	116		217	228	204	296	1639	733		1984	
v/s Ratio Prot	c0.02	0.00		0.03	c0.05	0.02	0.04	c0.34			0.18	
v/s Ratio Perm									0.03			
v/c Ratio	0.22	0.04		0.19	0.34	0.16	0.36	0.65	0.05		0.50	
Uniform Delay, d1	27.0	26.6		23.7	24.2	23.5	26.6	10.7	7.3		16.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.9	0.2		0.4	0.9	0.4	0.7	0.9	0.0		0.2	
Delay (s)	27.9	26.8		24.1	25.1	23.9	27.4	11.6	7.3		16.2	
Level of Service	C	C		C	C	C	C	B	A		B	
Approach Delay (s)		27.1			24.2			12.7			16.2	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	63.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	837	310	7	258	252	187
Future Volume (vph)	837	310	7	258	252	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	920	341	8	284	277	205
RTOR Reduction (vph)	0	163	0	0	0	60
Lane Group Flow (vph)	920	178	8	284	277	145
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	28.2	28.2	1.0	15.7	10.0	38.2
Effective Green, g (s)	28.2	28.2	1.0	15.7	10.0	38.2
Actuated g/C Ratio	0.52	0.52	0.02	0.29	0.18	0.71
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1573	1277	55	1297	575	1114
v/s Ratio Prot	c0.30	0.07	0.00	c0.06	c0.09	0.07
v/s Ratio Perm						0.04
v/c Ratio	0.58	0.14	0.15	0.22	0.48	0.13
Uniform Delay, d1	8.9	6.7	26.1	14.6	19.7	2.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.1	1.2	0.1	0.6	0.1
Delay (s)	9.5	6.7	27.4	14.6	20.4	2.6
Level of Service	A	A	C	B	C	A
Approach Delay (s)	8.7			15.0	12.8	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	54.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1259	89	0	859	0	38
Future Volume (Veh/h)	1259	89	0	859	0	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1368	97	0	934	0	41
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				1287		
pX, platoon unblocked					0.98	
vC, conflicting volume			1465		1679	456
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1465		1620	456
tC, single (s)			4.4		7.1	7.2
tC, 2 stage (s)						
tF (s)			2.4		3.7	3.5
p0 queue free %			100		100	92
cM capacity (veh/h)			393		80	515

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1
Volume Total	456	456	456	97	311	311	311	41
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	97	0	0	0	41
cSH	1700	1700	1700	1700	1700	1700	1700	515
Volume to Capacity	0.27	0.27	0.27	0.06	0.18	0.18	0.18	0.08
Queue Length 95th (ft)	0	0	0	0	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6
Lane LOS								B
Approach Delay (s)	0.0				0.0			12.6
Approach LOS								B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	198	183	10	487	236	19
Future Volume (vph)	198	183	10	487	236	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.93		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2888		1556	1638	3003	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2888		1556	1638	3003	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	230	213	12	566	274	22
RTOR Reduction (vph)	123	0	0	0	5	0
Lane Group Flow (vph)	320	0	12	566	291	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	20.8		1.1	26.6	11.5	
Effective Green, g (s)	20.8		1.1	26.6	11.5	
Actuated g/C Ratio	0.42		0.02	0.54	0.23	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1216		34	882	699	
v/s Ratio Prot	0.11		0.01	c0.35	c0.10	
v/s Ratio Perm						
v/c Ratio	0.26		0.35	0.64	0.42	
Uniform Delay, d1	9.3		23.8	8.0	16.1	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.1		6.2	1.6	0.4	
Delay (s)	9.4		30.0	9.6	16.5	
Level of Service	A		C	A	B	
Approach Delay (s)	9.4			10.1	16.5	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	49.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	376	1	0	715	3	12	0	1	3	0	4
Future Volume (Veh/h)	5	376	1	0	715	3	12	0	1	3	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	437	1	0	831	3	14	0	1	3	0	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	834			438			870	1284	219	1064	1282	417
vC1, stage 1 conf vol							450	450		832	832	
vC2, stage 2 conf vol							420	834		232	450	
vCu, unblocked vol	834			438			870	1284	219	1064	1282	417
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	99			100			97	100	100	99	100	99
cM capacity (veh/h)	711			1025			414	307	744	287	311	547

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	224	220	554	280	15	8
Volume Left	6	0	0	0	14	3
Volume Right	0	1	0	3	1	5
cSH	711	1700	1700	1700	427	408
Volume to Capacity	0.01	0.13	0.33	0.16	0.04	0.02
Queue Length 95th (ft)	1	0	0	0	3	1
Control Delay (s)	0.4	0.0	0.0	0.0	13.7	14.0
Lane LOS	A				B	B
Approach Delay (s)	0.2		0.0		13.7	14.0
Approach LOS					B	B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	428	341	392	429	0	0
Future Volume (vph)	428	341	392	429	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.95	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4001	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4001	1197		
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	510	406	467	511	0	0
RTOR Reduction (vph)	0	0	56	56	0	0
Lane Group Flow (vph)	510	406	667	199	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	12.2	41.0	15.9	15.9		
Effective Green, g (s)	12.2	41.0	15.9	15.9		
Actuated g/C Ratio	0.30	1.00	0.39	0.39		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	898	3112	1551	464		
v/s Ratio Prot	c0.17	0.13	c0.17			
v/s Ratio Perm				0.17		
v/c Ratio	0.57	0.13	0.43	0.43		
Uniform Delay, d1	12.2	0.0	9.2	9.2		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.8	0.0	0.2	0.6		
Delay (s)	13.0	0.0	9.4	9.9		
Level of Service	B	A	A	A		
Approach Delay (s)		7.2	9.5		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	41.0	Sum of lost time (s)	12.9
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	629	387	0	156	291
Future Volume (vph)	0	629	387	0	156	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	662	407	0	164	306
RTOR Reduction (vph)	0	0	0	0	0	232
Lane Group Flow (vph)	0	662	407	0	164	74
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		11.0	11.0		7.7	7.7
Effective Green, g (s)		11.0	11.0		7.7	7.7
Actuated g/C Ratio		0.34	0.34		0.24	0.24
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1537	1537		726	334
v/s Ratio Prot		c0.15	0.09		c0.05	0.05
v/s Ratio Perm						
v/c Ratio		0.43	0.26		0.23	0.22
Uniform Delay, d1		8.1	7.6		9.8	9.7
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.1		0.2	0.3
Delay (s)		8.3	7.7		9.9	10.1
Level of Service		A	A		A	B
Approach Delay (s)		8.3	7.7		10.0	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	32.0	Sum of lost time (s)	13.3
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	191	529	162	49	514	80	252	8	65	89	5	238
Future Volume (vph)	191	529	162	49	514	80	252	8	65	89	5	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		0.95	0.91	0.95
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.87	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1420		1478	1287	1323
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1420		1478	1287	1323
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	205	569	174	53	553	86	271	9	70	96	5	256
RTOR Reduction (vph)	0	0	126	0	0	66	0	52	0	0	104	118
Lane Group Flow (vph)	205	569	48	53	553	20	271	27	0	86	31	18
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	5.8	20.1	20.1	3.0	16.6	16.6	18.1	18.1		9.8	9.8	9.8
Effective Green, g (s)	5.8	20.1	20.1	3.0	16.6	16.6	18.1	18.1		9.8	9.8	9.8
Actuated g/C Ratio	0.08	0.28	0.28	0.04	0.23	0.23	0.25	0.25		0.14	0.14	0.14
Clearance Time (s)	5.2	6.7	6.7	4.5	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	242	1243	386	125	1026	319	389	355		200	174	179
v/s Ratio Prot	c0.07	c0.13		0.02	c0.12		c0.17	0.02		c0.06	0.02	
v/s Ratio Perm			0.03			0.01						0.01
v/c Ratio	0.85	0.46	0.13	0.42	0.54	0.06	0.70	0.07		0.43	0.18	0.10
Uniform Delay, d1	32.8	21.6	19.5	33.8	24.5	21.8	24.6	20.7		28.7	27.7	27.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	23.0	0.3	0.1	2.3	0.5	0.1	5.4	0.1		1.5	0.5	0.3
Delay (s)	55.8	21.9	19.7	36.1	25.0	21.8	30.0	20.8		30.2	28.2	27.7
Level of Service	E	C	B	D	C	C	C	C		C	C	C
Approach Delay (s)		28.8			25.5			27.9			28.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	72.3	Sum of lost time (s)	22.0
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	62	433	236	1145	506	49	64	94	146	439	39	223
Future Volume (vph)	62	433	236	1145	506	49	64	94	146	439	39	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	1.00		0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.89		1.00	0.97
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4412			1556	1454		3019	1591
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4412			1556	1454		3019	1591
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	67	466	254	1231	544	53	70	101	157	472	42	240
RTOR Reduction (vph)	0	0	168	0	7	0	0	0	67	0	0	6
Lane Group Flow (vph)	67	466	86	1231	590	0	0	171	562	0	42	290
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA		Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2									
Actuated Green, G (s)	9.3	47.2	47.2	22.8	60.7			18.2	44.6		5.5	32.8
Effective Green, g (s)	9.3	47.2	47.2	22.8	60.7			18.2	44.6		5.5	32.8
Actuated g/C Ratio	0.07	0.34	0.34	0.16	0.43			0.13	0.32		0.04	0.23
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2		4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0		2.0	5.3
Lane Grp Cap (vph)	103	1507	469	253	1912			202	463		118	372
v/s Ratio Prot	0.04	0.10		c0.79	c0.13			c0.11	c0.39		0.01	0.18
v/s Ratio Perm			0.06									
v/c Ratio	0.65	0.31	0.18	4.87	0.31			0.85	1.21		0.36	0.78
Uniform Delay, d1	63.8	34.3	32.8	58.6	25.9			59.5	47.7		65.5	50.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	10.7	0.5	0.9	1748.4	0.4			25.5	114.9		0.7	11.7
Delay (s)	74.4	34.9	33.6	1807.0	26.3			85.1	162.6		66.2	62.0
Level of Service	E	C	C	F	C			F	F		E	E
Approach Delay (s)		37.8			1225.5				146.0			62.5
Approach LOS		D			F				F			E

Intersection Summary			
HCM 2000 Control Delay	641.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.55		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	126.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	52
Future Volume (vph)	52
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	711	58	44	630	61	9
Future Volume (vph)	711	58	44	630	61	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4421		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4421		1556	4472	1556	1392
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	765	62	47	677	66	10
RTOR Reduction (vph)	5	0	0	0	0	9
Lane Group Flow (vph)	822	0	47	677	66	1
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	22.9		4.5	31.4	6.4	6.4
Effective Green, g (s)	22.9		4.5	31.4	6.4	6.4
Actuated g/C Ratio	0.47		0.09	0.65	0.13	0.13
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2096		144	2907	206	184
v/s Ratio Prot	c0.19		c0.03	0.15	c0.04	
v/s Ratio Perm						0.00
v/c Ratio	0.39		0.33	0.23	0.32	0.01
Uniform Delay, d1	8.2		20.5	3.5	19.0	18.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1		1.3	0.0	0.9	0.0
Delay (s)	8.3		21.8	3.5	19.9	18.2
Level of Service	A		C	A	B	B
Approach Delay (s)	8.3			4.7	19.7	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	48.3	Sum of lost time (s)	14.5
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	663	109	78	618	295	57
Future Volume (vph)	663	109	78	618	295	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.98		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4377		1556	4472	2976	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4377		1556	4472	2976	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	745	122	88	694	331	64
RTOR Reduction (vph)	14	0	0	0	12	0
Lane Group Flow (vph)	853	0	88	694	383	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	89.2		13.2	106.4	23.1	
Effective Green, g (s)	89.2		13.2	106.4	23.1	
Actuated g/C Ratio	0.64		0.09	0.76	0.17	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2788		146	3398	491	
v/s Ratio Prot	c0.19		c0.06	0.16	c0.13	
v/s Ratio Perm						
v/c Ratio	0.31		0.60	0.20	0.78	
Uniform Delay, d1	11.4		60.9	4.8	56.0	
Progression Factor	2.42		1.00	1.00	1.00	
Incremental Delay, d2	0.3		6.8	0.1	7.9	
Delay (s)	27.9		67.7	4.9	63.9	
Level of Service	C		E	A	E	
Approach Delay (s)	27.9			12.0	63.9	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	462	358	332	497	297	219
Future Volume (vph)	462	358	332	497	297	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	491	381	353	529	316	233
RTOR Reduction (vph)	0	238	0	0	0	200
Lane Group Flow (vph)	491	143	353	529	316	33
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	52.4	52.4	53.1	109.5	20.0	20.0
Effective Green, g (s)	52.4	52.4	53.1	109.5	20.0	20.0
Actuated g/C Ratio	0.37	0.37	0.38	0.78	0.14	0.14
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1673	521	590	3497	431	198
v/s Ratio Prot	c0.11		c0.23	0.12	c0.10	
v/s Ratio Perm		0.10				0.02
v/c Ratio	0.29	0.27	0.60	0.15	0.73	0.17
Uniform Delay, d1	30.8	30.5	34.9	3.8	57.4	52.7
Progression Factor	1.00	1.00	1.03	1.58	1.00	1.00
Incremental Delay, d2	0.4	1.3	1.6	0.1	6.3	0.4
Delay (s)	31.2	31.8	37.4	6.1	63.8	53.1
Level of Service	C	C	D	A	E	D
Approach Delay (s)	31.5			18.6	59.3	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	33.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	620	95	176	716	6	76	2	194	9	1	5
Future Volume (vph)	6	620	95	176	716	6	76	2	194	9	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4382		1556	4466		1556	1638	1392	1556	2712	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4382		1556	4466		1556	1638	1392	1556	2712	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	689	106	196	796	7	84	2	216	10	1	6
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	184	0	7	0
Lane Group Flow (vph)	7	784	0	196	803	0	84	2	32	10	0	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	1.3	26.4		16.2	41.3		9.3	11.8	11.8	1.3	3.8	
Effective Green, g (s)	1.3	26.4		16.2	41.3		9.3	11.8	11.8	1.3	3.8	
Actuated g/C Ratio	0.02	0.33		0.20	0.51		0.12	0.15	0.15	0.02	0.05	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	25	1438		313	2294		179	240	204	25	128	
v/s Ratio Prot	0.00	c0.18		c0.13	0.18		c0.05	0.00		0.01	0.00	
v/s Ratio Perm									c0.02			
v/c Ratio	0.28	0.54		0.63	0.35		0.47	0.01	0.16	0.40	0.00	
Uniform Delay, d1	39.1	22.1		29.3	11.6		33.2	29.3	29.9	39.2	36.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.0	0.4		3.9	0.1		1.9	0.0	0.4	10.2	0.0	
Delay (s)	45.1	22.5		33.2	11.7		35.2	29.3	30.3	49.3	36.5	
Level of Service	D	C		C	B		D	C	C	D	D	
Approach Delay (s)		22.7			15.9			31.7			44.1	
Approach LOS		C			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	80.4	Sum of lost time (s)	24.7
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	376	102	48	484	273	162	43	75	261	79	273
Future Volume (vph)	136	376	102	48	484	273	162	43	75	261	79	273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1482		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1482		1556	1638	2450
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	151	418	113	53	538	303	180	48	83	290	88	303
RTOR Reduction (vph)	0	0	67	0	0	191	0	59	0	0	0	180
Lane Group Flow (vph)	151	418	46	53	538	112	180	72	0	290	88	123
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	11.3	49.3	49.3	6.4	44.4	44.4	21.1	12.5		30.5	21.9	33.2
Effective Green, g (s)	11.3	49.3	49.3	6.4	44.4	44.4	21.1	12.5		30.5	21.9	33.2
Actuated g/C Ratio	0.09	0.41	0.41	0.05	0.37	0.37	0.18	0.10		0.25	0.18	0.28
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	284	1837	571	161	1654	515	273	154		395	298	677
v/s Ratio Prot	c0.05	0.09		0.02	c0.12		0.12	c0.05		c0.19	0.05	0.02
v/s Ratio Perm			0.03			0.08						0.03
v/c Ratio	0.53	0.23	0.08	0.33	0.33	0.22	0.66	0.47		0.73	0.30	0.18
Uniform Delay, d1	51.8	23.0	21.5	54.7	27.1	25.9	46.1	50.6		41.0	42.4	33.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.9	0.3	0.3	1.2	0.5	1.0	5.7	2.2		6.9	0.6	0.1
Delay (s)	53.7	23.3	21.8	55.9	27.6	26.9	51.8	52.8		48.0	42.9	33.2
Level of Service	D	C	C	E	C	C	D	D		D	D	C
Approach Delay (s)		29.8			29.0			52.2			40.7	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	185	427	0	801	94	107	418
Future Volume (vph)	185	427	0	801	94	107	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.82	0.82	0.92	0.82	0.82	0.82	0.82
Adj. Flow (vph)	226	521	0	977	115	130	510
RTOR Reduction (vph)	0	0	0	0	49	0	275
Lane Group Flow (vph)	226	521	0	977	66	130	235
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	12.7	40.6		24.2	37.6	13.4	30.1
Effective Green, g (s)	12.7	40.6		24.2	37.6	13.4	30.1
Actuated g/C Ratio	0.19	0.62		0.37	0.58	0.21	0.46
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	587	2780		1657	801	319	1129
v/s Ratio Prot	c0.07	0.12		c0.22	0.02	c0.08	0.10
v/s Ratio Perm					0.03		
v/c Ratio	0.39	0.19		0.59	0.08	0.41	0.21
Uniform Delay, d1	22.9	5.3		16.6	6.2	22.5	10.5
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0		0.5	0.0	0.9	0.1
Delay (s)	23.3	5.3		17.1	6.2	23.4	10.6
Level of Service	C	A		B	A	C	B
Approach Delay (s)		10.8		15.9		13.2	
Approach LOS		B		B		B	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	65.3	Sum of lost time (s)	18.3
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

13: Caliente Avenue/Ocean View Hills Parkway & Otay Mesa Road

Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	2	11	1029	9	435	10	457	540	342	239	0
Future Volume (vph)	3	2	11	1029	9	435	10	457	540	342	239	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	3	2	13	1197	10	506	12	531	628	398	278	0
RTOR Reduction (vph)	0	0	12	0	0	314	0	0	235	0	0	0
Lane Group Flow (vph)	3	2	1	1197	10	192	12	531	393	398	278	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	1.7	1.7	7.9	47.0	45.9	45.9	6.2	28.8	75.8	21.3	43.9	
Effective Green, g (s)	1.7	1.7	7.9	47.0	45.9	45.9	6.2	28.8	75.8	21.3	43.9	
Actuated g/C Ratio	0.01	0.01	0.07	0.39	0.38	0.38	0.05	0.24	0.63	0.18	0.36	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	21	43	90	1171	620	527	79	740	871	531	1128	
v/s Ratio Prot	0.00	0.00	0.00	c0.40	0.01		0.01	c0.17	0.18	c0.13	0.09	
v/s Ratio Perm			0.00			c0.14			0.11			
v/c Ratio	0.14	0.05	0.01	1.02	0.02	0.36	0.15	0.72	0.45	0.75	0.25	
Uniform Delay, d1	59.0	58.9	52.9	37.0	23.5	27.1	54.9	42.4	11.8	47.4	27.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.1	0.4	0.0	32.1	0.0	0.4	0.9	3.3	0.4	5.8	0.1	
Delay (s)	62.1	59.3	53.0	69.1	23.5	27.5	55.8	45.7	12.2	53.1	27.1	
Level of Service	E	E	D	E	C	C	E	D	B	D	C	
Approach Delay (s)		55.2			56.6			27.9			42.4	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	44.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	121.1	Sum of lost time (s)	23.4
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	0	99	60	27	261	88	826	211	1	1493	57
Future Volume (vph)	38	0	99	60	27	261	88	826	211	1	1493	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1526	1392	3019	3112	1392		5603	
Flt Permitted	0.95	1.00		0.95	0.98	1.00	0.95	1.00	1.00		0.93	
Satd. Flow (perm)	1556	1392		1478	1526	1392	3019	3112	1392		5224	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	40	0	103	62	28	272	92	860	220	1	1555	59
RTOR Reduction (vph)	0	95	0	0	0	222	0	0	91	0	3	0
Lane Group Flow (vph)	40	8	0	45	46	50	92	860	129	0	1612	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm	Perm	NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2	6		
Actuated Green, G (s)	5.9	5.9		9.0	9.0	9.0	6.1	42.8	42.8		32.0	
Effective Green, g (s)	5.9	5.9		9.0	9.0	9.0	6.1	42.8	42.8		32.0	
Actuated g/C Ratio	0.08	0.08		0.12	0.12	0.12	0.08	0.59	0.59		0.44	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	125	112		182	188	171	252	1824	816		2289	
v/s Ratio Prot	c0.03	0.01		0.03	0.03	c0.04	0.03	c0.28				
v/s Ratio Perm									0.09		c0.31	
v/c Ratio	0.32	0.07		0.25	0.24	0.29	0.37	0.47	0.16		0.70	
Uniform Delay, d1	31.7	31.0		28.9	28.9	29.1	31.6	8.6	6.9		16.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	1.5	0.3		0.7	0.7	1.0	0.9	0.2	0.1		1.0	
Delay (s)	33.1	31.3		29.7	29.6	30.1	32.5	8.8	7.0		17.7	
Level of Service	C	C		C	C	C	C	A	A		B	
Approach Delay (s)		31.8			30.0			10.3			17.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	73.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	596	183	23	541	430	384
Future Volume (vph)	596	183	23	541	430	384
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	634	195	24	576	457	409
RTOR Reduction (vph)	0	122	0	0	0	140
Lane Group Flow (vph)	634	73	24	576	457	269
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	18.4	18.4	1.9	20.4	13.8	32.2
Effective Green, g (s)	18.4	18.4	1.9	20.4	13.8	32.2
Actuated g/C Ratio	0.38	0.38	0.04	0.42	0.28	0.66
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1133	920	117	1861	876	1059
v/s Ratio Prot	c0.21	0.03	0.01	c0.13	c0.15	0.10
v/s Ratio Perm						0.10
v/c Ratio	0.56	0.08	0.21	0.31	0.52	0.25
Uniform Delay, d1	12.1	9.8	22.8	9.6	14.8	3.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	0.9	0.1	0.6	0.1
Delay (s)	12.7	9.9	23.7	9.7	15.4	3.6
Level of Service	B	A	C	A	B	A
Approach Delay (s)	12.0			10.2	9.8	
Approach LOS	B			B	A	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	49.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1044	54	0	976	0	81
Future Volume (Veh/h)	1044	54	0	976	0	81
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1135	59	0	1061	0	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				1294		
pX, platoon unblocked					0.98	
vC, conflicting volume			1194		1489	378
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1194		1442	378
tC, single (s)			4.4		7.1	7.2
tC, 2 stage (s)						
tF (s)			2.4		3.7	3.5
p0 queue free %			100		100	85
cM capacity (veh/h)			508		107	581

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1
Volume Total	378	378	378	59	354	354	354	88
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	59	0	0	0	88
cSH	1700	1700	1700	1700	1700	1700	1700	581
Volume to Capacity	0.22	0.22	0.22	0.03	0.21	0.21	0.21	0.15
Queue Length 95th (ft)	0	0	0	0	0	0	0	13
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3
Lane LOS								B
Approach Delay (s)	0.0				0.0			12.3
Approach LOS								B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	45	379	376	608	369	41	18	93	151	715	34	181
Future Volume (vph)	45	379	376	608	369	41	18	93	151	715	34	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2	5.2	4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	0.95	0.95	0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.90	0.85	1.00	0.98
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4404			1556	1402	1323	3019	1608
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4404			1556	1402	1323	3019	1608
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	421	418	676	410	46	20	103	168	794	38	201
RTOR Reduction (vph)	0	0	228	0	9	0	0	0	46	329	0	3
Lane Group Flow (vph)	50	421	190	676	447	0	0	123	448	139	38	226
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2							8		
Actuated Green, G (s)	7.3	26.5	26.5	56.0	75.2			15.4	44.4	44.4	3.2	33.1
Effective Green, g (s)	7.3	26.5	26.5	56.0	75.2			15.4	44.4	44.4	3.2	33.1
Actuated g/C Ratio	0.05	0.18	0.18	0.37	0.50			0.10	0.30	0.30	0.02	0.22
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2	5.2	4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0	5.0	2.0	5.3
Lane Grp Cap (vph)	75	790	245	580	2207			159	414	391	64	354
v/s Ratio Prot	0.03	0.09		c0.43	0.10			c0.08	c0.32		0.01	0.14
v/s Ratio Perm			c0.14							0.10		
v/c Ratio	0.67	0.53	0.78	1.17	0.20			0.77	1.08	0.35	0.59	0.64
Uniform Delay, d1	70.2	56.1	58.9	47.0	20.8			65.6	52.8	41.5	72.8	53.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.0	2.6	21.0	92.1	0.2			18.9	68.3	1.2	9.5	5.5
Delay (s)	86.1	58.7	79.9	139.1	21.0			84.5	121.1	42.7	82.2	58.5
Level of Service	F	E	E	F	C			F	F	D	F	E
Approach Delay (s)		70.2			91.5				83.1			61.9
Approach LOS		E			F				F			E

Intersection Summary			
HCM 2000 Control Delay	80.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	90.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	25
Future Volume (vph)	25
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	28
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	62	433	236	1145	506	49	64	94	146	439	39	223
Future Volume (vph)	62	433	236	1145	506	49	64	94	146	439	39	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2	5.2	4.0	4.3
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91			1.00	0.95	0.95	0.97	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.92	0.85	1.00	0.97
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1556	4472	1392	1556	4412			1556	1435	1323	3019	1591
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1556	4472	1392	1556	4412			1556	1435	1323	3019	1591
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	67	466	254	1231	544	53	70	101	157	472	42	240
RTOR Reduction (vph)	0	0	111	0	7	0	0	0	25	226	0	6
Lane Group Flow (vph)	67	466	143	1231	590	0	0	171	302	76	42	290
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6		3	3	8		7	4
Permitted Phases			2							8		
Actuated Green, G (s)	9.1	24.3	24.3	65.0	80.2			15.0	37.6	37.6	3.2	26.7
Effective Green, g (s)	9.1	24.3	24.3	65.0	80.2			15.0	37.6	37.6	3.2	26.7
Actuated g/C Ratio	0.06	0.16	0.16	0.43	0.53			0.10	0.25	0.25	0.02	0.18
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7			4.0	5.2	5.2	4.0	4.3
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9			2.0	5.0	5.0	2.0	5.3
Lane Grp Cap (vph)	94	724	225	674	2358			155	359	331	64	283
v/s Ratio Prot	0.04	c0.10		c0.79	0.13			c0.11	0.21		0.01	c0.18
v/s Ratio Perm			0.10							0.06		
v/c Ratio	0.71	0.64	0.64	1.83	0.25			1.10	0.84	0.23	0.66	1.03
Uniform Delay, d1	69.2	58.8	58.7	42.5	18.7			67.5	53.3	44.7	72.9	61.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	19.1	4.4	13.0	377.7	0.3			102.6	17.3	0.7	16.9	60.2
Delay (s)	88.2	63.2	71.7	420.2	19.0			170.1	70.6	45.4	89.8	121.9
Level of Service	F	E	E	F	B			F	E	D	F	F
Approach Delay (s)		68.1			289.2				82.4			117.9
Approach LOS		E			F				F			F

Intersection Summary			
HCM 2000 Control Delay	183.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	117.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	52
Future Volume (vph)	52
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	56
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	339	692	40	88	246	47
Future Volume (vph)	339	692	40	88	246	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.90		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2799		1556	1638	2976	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2799		1556	1638	2976	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	368	752	43	96	267	51
RTOR Reduction (vph)	465	0	0	0	24	0
Lane Group Flow (vph)	655	0	43	96	294	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	17.3		1.5	23.5	10.5	
Effective Green, g (s)	17.3		1.5	23.5	10.5	
Actuated g/C Ratio	0.38		0.03	0.52	0.23	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1068		51	849	689	
v/s Ratio Prot	c0.23		c0.03	0.06	c0.10	
v/s Ratio Perm						
v/c Ratio	0.61		0.84	0.11	0.43	
Uniform Delay, d1	11.3		21.8	5.6	14.8	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.1		70.6	0.1	0.4	
Delay (s)	12.4		92.4	5.6	15.3	
Level of Service	B		F	A	B	
Approach Delay (s)	12.4			32.5	15.3	
Approach LOS	B			C	B	

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	45.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1201	256	22	497	2	114	2	10	2	2	24
Future Volume (Veh/h)	51	1201	256	22	497	2	114	2	10	2	2	24
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	1305	278	24	540	2	124	2	11	2	2	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	542			1583			1899	2144	792	1364	2282	271
vC1, stage 1 conf vol							1554	1554		589	589	
vC2, stage 2 conf vol							345	590		774	1693	
vCu, unblocked vol	542			1583			1899	2144	792	1364	2282	271
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	94			93			0	98	96	99	98	96
cM capacity (veh/h)	932			351			93	131	304	230	92	686

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	708	930	294	272	137	30
Volume Left	55	0	24	0	124	2
Volume Right	0	278	0	2	11	26
cSH	932	1700	351	1700	99	439
Volume to Capacity	0.06	0.55	0.07	0.16	1.38	0.07
Queue Length 95th (ft)	5	0	5	0	247	5
Control Delay (s)	1.5	0.0	2.5	0.0	298.4	13.8
Lane LOS	A		A		F	B
Approach Delay (s)	0.7		1.3		298.4	13.8
Approach LOS					F	B

Intersection Summary			
Average Delay	18.2		
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	466	1498	346	306	0	0
Future Volume (vph)	466	1498	346	306	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.95	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4031	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4031	1197		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	507	1628	376	333	0	0
RTOR Reduction (vph)	0	0	62	62	0	0
Lane Group Flow (vph)	507	1628	481	104	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	11.1	35.3	11.3	11.3		
Effective Green, g (s)	11.1	35.3	11.3	11.3		
Actuated g/C Ratio	0.31	1.00	0.32	0.32		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	949	3112	1290	383		
v/s Ratio Prot	0.17	c0.52	0.12			
v/s Ratio Perm				0.09		
v/c Ratio	0.53	0.52	0.37	0.27		
Uniform Delay, d1	10.0	0.0	9.3	8.9		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.6	0.2	0.2	0.4		
Delay (s)	10.6	0.2	9.4	9.3		
Level of Service	B	A	A	A		
Approach Delay (s)		2.6	9.4		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	4.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	35.3	Sum of lost time (s)	12.9
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1110	345	0	853	479
Future Volume (vph)	0	1110	345	0	853	479
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1207	375	0	927	521
RTOR Reduction (vph)	0	0	0	0	0	224
Lane Group Flow (vph)	0	1207	375	0	927	297
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		21.9	21.9		20.0	20.0
Effective Green, g (s)		21.9	21.9		20.0	20.0
Actuated g/C Ratio		0.40	0.40		0.36	0.36
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1774	1774		1093	504
v/s Ratio Prot		c0.27	0.08		c0.31	0.21
v/s Ratio Perm						
v/c Ratio		0.68	0.21		0.85	0.59
Uniform Delay, d1		13.8	11.0		16.2	14.3
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		1.1	0.1		6.3	1.8
Delay (s)		14.8	11.0		22.5	16.0
Level of Service		B	B		C	B
Approach Delay (s)		14.8	11.0		20.2	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	55.2	Sum of lost time (s)	13.3
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	400	993	661	203	245	455
Future Volume (vph)	400	993	661	203	245	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frt	1.00	1.00	1.00	0.85	0.93	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (prot)	3019	3112	4472	1392	2873	1267
Flt Permitted	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (perm)	3019	3112	4472	1392	2873	1267
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	435	1079	718	221	266	495
RTOR Reduction (vph)	0	0	0	154	192	191
Lane Group Flow (vph)	435	1079	718	67	322	56
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	8.0	29.6	16.4	16.4	12.2	12.2
Effective Green, g (s)	8.0	29.6	16.4	16.4	12.2	12.2
Actuated g/C Ratio	0.15	0.55	0.30	0.30	0.23	0.23
Clearance Time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	446	1702	1355	421	647	285
v/s Ratio Prot	c0.14	c0.35	0.16		c0.11	
v/s Ratio Perm				0.05		0.04
v/c Ratio	0.98	0.63	0.53	0.16	0.50	0.20
Uniform Delay, d1	23.0	8.5	15.6	13.8	18.3	17.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	35.9	0.8	0.4	0.2	0.6	0.3
Delay (s)	58.8	9.3	16.0	14.0	18.9	17.3
Level of Service	E	A	B	B	B	B
Approach Delay (s)		23.5	15.5		18.4	
Approach LOS		C	B		B	

Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	54.1	Sum of lost time (s)	17.5
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	635	323	474	569	265	417	526	474	336	269	351
Future Volume (vph)	79	635	323	474	569	265	417	526	474	336	269	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.93		1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4258		1556	1522		3019	1499	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4258		1556	1522		3019	1499	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	690	351	515	618	288	453	572	515	365	292	382
RTOR Reduction (vph)	0	0	287	0	53	0	0	21	0	0	31	0
Lane Group Flow (vph)	86	690	64	515	853	0	453	1066	0	365	643	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	12.6	27.3	27.3	33.0	47.7		29.0	55.8		14.0	41.7	
Effective Green, g (s)	12.6	27.3	27.3	33.0	47.7		29.0	55.8		14.0	41.7	
Actuated g/C Ratio	0.08	0.18	0.18	0.22	0.32		0.19	0.37		0.09	0.28	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0		2.0	5.3	
Lane Grp Cap (vph)	130	813	253	342	1354		300	566		281	416	
v/s Ratio Prot	0.06	c0.15		c0.33	0.20		c0.29	c0.70		0.12	0.43	
v/s Ratio Perm			0.05									
v/c Ratio	0.66	0.85	0.25	1.51	0.63		1.51	1.88		1.30	1.55	
Uniform Delay, d1	66.6	59.4	52.6	58.5	43.6		60.5	47.1		68.0	54.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	9.4	10.7	2.4	242.3	2.2		246.1	403.9		158.2	257.2	
Delay (s)	76.0	70.1	55.0	300.8	45.9		306.6	451.0		226.2	311.4	
Level of Service	E	E	D	F	D		F	F		F	F	
Approach Delay (s)		65.8			138.3			408.5			281.4	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	232.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.55		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	121.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1307	4	39	1336	24	50
Future Volume (vph)	1307	4	39	1336	24	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4470		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4470		1556	4472	1556	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1421	4	42	1452	26	54
RTOR Reduction (vph)	0	0	0	0	0	50
Lane Group Flow (vph)	1425	0	42	1452	26	4
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	29.0		1.5	34.5	3.9	3.9
Effective Green, g (s)	29.0		1.5	34.5	3.9	3.9
Actuated g/C Ratio	0.59		0.03	0.71	0.08	0.08
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2650		47	3155	124	111
v/s Ratio Prot	c0.32		0.03	c0.32	c0.02	
v/s Ratio Perm						0.00
v/c Ratio	0.54		0.89	0.46	0.21	0.04
Uniform Delay, d1	5.9		23.6	3.1	21.1	20.8
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2		91.2	0.1	0.8	0.1
Delay (s)	6.2		114.8	3.2	21.9	20.9
Level of Service	A		F	A	C	C
Approach Delay (s)	6.2			6.4	21.2	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	48.9	Sum of lost time (s)	14.5
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1307	143	30	1336	39	16
Future Volume (vph)	1307	143	30	1336	39	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.99		1.00	1.00	0.96	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4406		1556	4472	2936	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	4406		1556	4472	2936	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1421	155	33	1452	42	17
RTOR Reduction (vph)	10	0	0	0	16	0
Lane Group Flow (vph)	1566	0	33	1452	43	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	47.8		3.4	55.2	4.3	
Effective Green, g (s)	47.8		3.4	55.2	4.3	
Actuated g/C Ratio	0.68		0.05	0.79	0.06	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	3008		75	3526	180	
v/s Ratio Prot	c0.36		0.02	c0.32	c0.01	
v/s Ratio Perm						
v/c Ratio	0.52		0.44	0.41	0.24	
Uniform Delay, d1	5.5		32.4	2.3	31.3	
Progression Factor	1.28		1.00	1.00	1.00	
Incremental Delay, d2	0.5		4.1	0.4	0.7	
Delay (s)	7.5		36.5	2.7	32.0	
Level of Service	A		D	A	C	
Approach Delay (s)	7.5			3.4	32.0	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	6.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	891	762	292	921	693	414
Future Volume (vph)	891	762	292	921	693	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	968	828	317	1001	753	450
RTOR Reduction (vph)	0	564	0	0	0	283
Lane Group Flow (vph)	968	264	317	1001	753	167
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	19.9	19.9	13.4	37.3	22.2	22.2
Effective Green, g (s)	19.9	19.9	13.4	37.3	22.2	22.2
Actuated g/C Ratio	0.28	0.28	0.19	0.53	0.32	0.32
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1271	395	297	2382	957	441
v/s Ratio Prot	c0.22		c0.20	0.22	c0.25	
v/s Ratio Perm		0.19				0.12
v/c Ratio	0.76	0.67	1.07	0.42	0.79	0.38
Uniform Delay, d1	22.9	22.1	28.3	9.8	21.7	18.6
Progression Factor	1.00	1.00	1.24	1.64	1.00	1.00
Incremental Delay, d2	4.3	8.7	69.7	0.5	4.3	0.5
Delay (s)	27.2	30.8	104.8	16.6	26.1	19.1
Level of Service	C	C	F	B	C	B
Approach Delay (s)	28.9			37.8	23.5	
Approach LOS	C			D	C	

Intersection Summary			
HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	1438	116	453	1069	49	102	30	319	25	12	24
Future Volume (vph)	86	1438	116	453	1069	49	102	30	319	25	12	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4422		1556	4442		1556	1638	1392	1556	2801	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4422		1556	4442		1556	1638	1392	1556	2801	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	1563	126	492	1162	53	111	33	347	27	13	26
RTOR Reduction (vph)	0	5	0	0	2	0	0	0	308	0	25	0
Lane Group Flow (vph)	93	1684	0	492	1213	0	111	33	39	27	14	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	11.5	43.4		24.5	56.4		13.5	12.5	12.5	5.6	4.6	
Effective Green, g (s)	11.5	43.4		24.5	56.4		13.5	12.5	12.5	5.6	4.6	
Actuated g/C Ratio	0.10	0.39		0.22	0.51		0.12	0.11	0.11	0.05	0.04	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	161	1733		344	2263		189	184	157	78	116	
v/s Ratio Prot	0.06	c0.38		c0.32	0.27		c0.07	0.02		0.02	0.01	
v/s Ratio Perm									c0.03			
v/c Ratio	0.58	0.97		1.43	0.54		0.59	0.18	0.25	0.35	0.12	
Uniform Delay, d1	47.3	33.0		43.1	18.3		46.0	44.5	44.8	50.8	51.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.9	15.3		209.7	0.2		4.6	0.5	0.8	2.7	0.5	
Delay (s)	52.2	48.4		252.8	18.6		50.6	44.9	45.7	53.4	51.6	
Level of Service	D	D		F	B		D	D	D	D	D	
Approach Delay (s)		48.6			86.1			46.7			52.3	
Approach LOS		D			F			D			D	

Intersection Summary			
HCM 2000 Control Delay	64.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	110.7	Sum of lost time (s)	24.7
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	395	809	201	168	438	499	177	351	251	808	240	352
Future Volume (vph)	395	809	201	168	438	499	177	351	251	808	240	352
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1536		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1536		1556	1638	2450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	429	879	218	183	476	542	192	382	273	878	261	383
RTOR Reduction (vph)	0	0	167	0	0	424	0	17	0	0	0	150
Lane Group Flow (vph)	429	879	51	183	476	118	192	638	0	878	261	233
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	13.0	35.2	35.2	10.4	32.6	32.6	22.9	37.2		45.9	60.2	73.2
Effective Green, g (s)	13.0	35.2	35.2	10.4	32.6	32.6	22.9	37.2		45.9	60.2	73.2
Actuated g/C Ratio	0.09	0.23	0.23	0.07	0.22	0.22	0.15	0.25		0.31	0.40	0.49
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	261	1049	326	209	971	302	237	380		476	657	1195
v/s Ratio Prot	c0.14	c0.20		0.06	0.11		0.12	c0.42		c0.56	0.16	0.02
v/s Ratio Perm			0.04			0.08						0.08
v/c Ratio	1.64	0.84	0.16	0.88	0.49	0.39	0.81	1.68		1.84	0.40	0.19
Uniform Delay, d1	68.5	54.7	45.6	69.2	51.4	50.2	61.4	56.4		52.0	32.0	21.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	306.3	8.0	1.0	30.9	1.8	3.8	18.5	316.5		388.1	0.4	0.1
Delay (s)	374.8	62.7	46.6	100.1	53.2	54.0	80.0	372.9		440.2	32.4	21.8
Level of Service	F	E	D	F	D	D	E	F		F	C	C
Approach Delay (s)		148.1			60.7			306.5			265.0	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	188.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.52		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	128.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	509	1384	0	541	236	122	190
Future Volume (vph)	509	1384	0	541	236	122	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	553	1504	0	588	257	133	207
RTOR Reduction (vph)	0	0	0	0	156	0	85
Lane Group Flow (vph)	553	1504	0	588	101	133	122
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	21.0	38.1		13.4	23.4	10.0	35.0
Effective Green, g (s)	21.0	38.1		13.4	23.4	10.0	35.0
Actuated g/C Ratio	0.35	0.64		0.23	0.39	0.17	0.59
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1067	2868		1008	548	261	1443
v/s Ratio Prot	0.18	c0.34		0.13	0.03	c0.09	0.05
v/s Ratio Perm					0.04		
v/c Ratio	0.52	0.52		0.58	0.18	0.51	0.08
Uniform Delay, d1	15.2	5.8		20.5	11.8	22.5	5.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.2		0.9	0.2	1.6	0.0
Delay (s)	15.6	5.9		21.4	11.9	24.0	5.3
Level of Service	B	A		C	B	C	A
Approach Delay (s)		8.5		18.5		12.6	
Approach LOS		A		B		B	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	18.3
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

13: Caliente Avenue/Ocean View Hills Parkway & Otay Mesa Road

Timing Plan: AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	413	251	453	221	219	100	268	1016	442	473	41
Future Volume (vph)	41	413	251	453	221	219	100	268	1016	442	473	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	1392
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	449	273	492	240	238	109	291	1104	480	514	45
RTOR Reduction (vph)	0	0	87	0	0	143	0	0	55	0	0	34
Lane Group Flow (vph)	45	449	186	492	240	95	109	291	1049	480	514	11
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.5	25.2	36.4	34.3	49.9	49.9	11.2	17.5	51.8	25.2	31.5	31.5
Effective Green, g (s)	8.5	25.2	36.4	34.3	49.9	49.9	11.2	17.5	51.8	25.2	31.5	31.5
Actuated g/C Ratio	0.07	0.20	0.29	0.28	0.40	0.40	0.09	0.14	0.42	0.20	0.25	0.25
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	106	629	406	831	656	557	139	437	579	611	787	352
v/s Ratio Prot	0.03	c0.14	0.04	0.16	0.15		0.07	0.09	c0.50	c0.16	0.17	
v/s Ratio Perm			0.09			0.07			0.25			0.01
v/c Ratio	0.42	0.71	0.46	0.59	0.37	0.17	0.78	0.67	1.81	0.79	0.65	0.03
Uniform Delay, d1	55.7	46.3	36.0	39.0	26.2	24.0	55.5	50.7	36.4	47.1	41.6	35.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.7	3.8	0.8	1.1	0.3	0.1	24.5	3.8	372.2	6.6	2.0	0.0
Delay (s)	58.4	50.1	36.8	40.2	26.5	24.1	80.0	54.5	408.5	53.7	43.6	35.1
Level of Service	E	D	D	D	C	C	E	D	F	D	D	D
Approach Delay (s)		45.9			32.9			316.2			47.9	
Approach LOS		D			C			F			D	

Intersection Summary			
HCM 2000 Control Delay	138.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	124.5	Sum of lost time (s)	23.4
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	0	127	572	59	483	101	927	575	0	1044	51
Future Volume (vph)	28	0	127	572	59	483	101	927	575	0	1044	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1495	1392	3019	3112	1392		5595	
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1556	1392		1478	1495	1392	3019	3112	1392		5595	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	0	138	622	64	525	110	1008	625	0	1135	55
RTOR Reduction (vph)	0	131	0	0	0	113	0	0	345	0	9	0
Lane Group Flow (vph)	30	7	0	342	344	412	110	1008	280	0	1181	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm		NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2			
Actuated Green, G (s)	3.9	3.9		23.3	23.3	23.3	3.8	34.6	34.6		26.1	
Effective Green, g (s)	3.9	3.9		23.3	23.3	23.3	3.8	34.6	34.6		26.1	
Actuated g/C Ratio	0.05	0.05		0.30	0.30	0.30	0.05	0.45	0.45		0.34	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	78	70		446	451	420	148	1396	624		1894	
v/s Ratio Prot	c0.02	0.01		0.23	0.23	c0.30	0.04	c0.32			0.21	
v/s Ratio Perm									0.20			
v/c Ratio	0.38	0.10		0.77	0.76	0.98	0.74	0.72	0.45		0.62	
Uniform Delay, d1	35.4	34.9		24.4	24.4	26.7	36.2	17.3	14.7		21.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.1	0.6		7.7	7.5	38.7	18.1	1.9	0.5		0.6	
Delay (s)	38.6	35.6		32.1	31.9	65.4	54.3	19.2	15.2		22.0	
Level of Service	D	D		C	C	E	D	B	B		C	
Approach Delay (s)		36.1			46.5			20.0			22.0	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	77.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	76.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	661	1132	250	939	1073	240
Future Volume (vph)	661	1132	250	939	1073	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	718	1230	272	1021	1166	261
RTOR Reduction (vph)	0	240	0	0	0	4
Lane Group Flow (vph)	718	990	272	1021	1166	257
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	33.1	33.1	8.7	54.2	40.8	73.9
Effective Green, g (s)	33.1	33.1	8.7	54.2	40.8	73.9
Actuated g/C Ratio	0.34	0.34	0.09	0.56	0.42	0.76
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1024	831	269	2485	1302	1127
v/s Ratio Prot	0.24	c0.40	c0.09	0.23	c0.37	0.08
v/s Ratio Perm						0.11
v/c Ratio	0.70	1.19	1.01	0.41	0.90	0.23
Uniform Delay, d1	27.9	32.2	44.4	12.5	26.4	3.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	98.1	57.7	0.1	8.3	0.1
Delay (s)	30.1	130.3	102.1	12.6	34.7	3.6
Level of Service	C	F	F	B	C	A
Approach Delay (s)	93.4			31.4	29.0	
Approach LOS	F			C	C	

Intersection Summary			
HCM 2000 Control Delay	56.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	97.5	Sum of lost time (s)	14.9
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	183	326	47	303	558	21
Future Volume (vph)	183	326	47	303	558	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.90		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.95	
Satd. Flow (prot)	2813		1556	1638	3015	
Flt Permitted	1.00		0.95	1.00	0.95	
Satd. Flow (perm)	2813		1556	1638	3015	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	199	354	51	329	607	23
RTOR Reduction (vph)	256	0	0	0	3	0
Lane Group Flow (vph)	297	0	51	329	627	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	12.3		1.7	18.7	14.3	
Effective Green, g (s)	12.3		1.7	18.7	14.3	
Actuated g/C Ratio	0.28		0.04	0.42	0.32	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	781		59	691	973	
v/s Ratio Prot	0.11		0.03	c0.20	c0.21	
v/s Ratio Perm						
v/c Ratio	0.38		0.86	0.48	0.64	
Uniform Delay, d1	12.9		21.2	9.3	12.8	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.3		70.2	0.5	1.5	
Delay (s)	13.2		91.4	9.8	14.3	
Level of Service	B		F	A	B	
Approach Delay (s)	13.2			20.7	14.3	
Approach LOS	B			C	B	

Intersection Summary			
HCM 2000 Control Delay	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	44.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	559	114	8	1143	10	261	8	21	10	8	52
Future Volume (Veh/h)	26	559	114	8	1143	10	261	8	21	10	8	52
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	608	124	9	1242	11	284	9	23	11	9	57
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	1253			732			1426	1997	366	1653	2054	626
vC1, stage 1 conf vol							726	726		1266	1266	
vC2, stage 2 conf vol							700	1271		388	788	
vCu, unblocked vol	1253			732			1426	1997	366	1653	2054	626
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	94			99			0	94	96	93	95	86
cM capacity (veh/h)	480			782			212	163	592	149	178	394

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	332	428	630	632	316	77
Volume Left	28	0	9	0	284	11
Volume Right	0	124	0	11	23	57
cSH	480	1700	782	1700	221	286
Volume to Capacity	0.06	0.25	0.01	0.37	1.43	0.27
Queue Length 95th (ft)	5	0	1	0	459	27
Control Delay (s)	1.9	0.0	0.3	0.0	259.9	22.2
Lane LOS	A		A		F	C
Approach Delay (s)	0.8		0.2		259.9	22.2
Approach LOS					F	C

Intersection Summary			
Average Delay	35.1		
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	487	676	730	778	0	0
Future Volume (vph)	487	676	730	778	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.95	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4005	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4005	1197		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	529	735	793	846	0	0
RTOR Reduction (vph)	0	0	39	39	0	0
Lane Group Flow (vph)	529	735	1177	384	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	15.2	57.9	29.8	29.8		
Effective Green, g (s)	15.2	57.9	29.8	29.8		
Actuated g/C Ratio	0.26	1.00	0.51	0.51		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	792	3112	2061	616		
v/s Ratio Prot	c0.18	0.24	0.29			
v/s Ratio Perm				c0.32		
v/c Ratio	0.67	0.24	0.57	0.62		
Uniform Delay, d1	19.1	0.0	9.7	10.0		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	2.1	0.0	0.4	2.0		
Delay (s)	21.2	0.0	10.0	12.0		
Level of Service	C	A	B	B		
Approach Delay (s)		8.9	10.5		0.0	
Approach LOS		A	B		A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	57.9	Sum of lost time (s)	12.9
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	824	729	0	339	281
Future Volume (vph)	0	824	729	0	339	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	896	792	0	368	305
RTOR Reduction (vph)	0	0	0	0	0	108
Lane Group Flow (vph)	0	896	792	0	368	197
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		14.3	14.3		9.5	9.5
Effective Green, g (s)		14.3	14.3		9.5	9.5
Actuated g/C Ratio		0.39	0.39		0.26	0.26
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1723	1723		773	356
v/s Ratio Prot		c0.20	0.18		0.12	c0.14
v/s Ratio Perm						
v/c Ratio		0.52	0.46		0.48	0.55
Uniform Delay, d1		8.8	8.5		11.7	12.0
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.3	0.2		0.5	1.9
Delay (s)		9.0	8.7		12.2	13.8
Level of Service		A	A		B	B
Approach Delay (s)		9.0	8.7		12.9	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	37.1	Sum of lost time (s)	13.3
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	253	615	775	148	370	421
Future Volume (vph)	253	615	775	148	370	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Lane Util. Factor	0.97	0.95	0.91	1.00	0.97	0.91
Frt	1.00	1.00	1.00	0.85	0.95	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (prot)	3019	3112	4472	1392	2926	1267
Flt Permitted	0.95	1.00	1.00	1.00	0.97	1.00
Satd. Flow (perm)	3019	3112	4472	1392	2926	1267
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	275	668	842	161	402	458
RTOR Reduction (vph)	0	0	0	111	72	187
Lane Group Flow (vph)	275	668	842	50	518	83
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	8.7	33.7	19.8	19.8	17.3	17.3
Effective Green, g (s)	8.7	33.7	19.8	19.8	17.3	17.3
Actuated g/C Ratio	0.14	0.53	0.31	0.31	0.27	0.27
Clearance Time (s)	5.2	6.7	6.7	6.7	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	414	1656	1398	435	799	346
v/s Ratio Prot	c0.09	0.21	c0.19		c0.18	
v/s Ratio Perm				0.04		0.07
v/c Ratio	0.66	0.40	0.60	0.12	0.65	0.24
Uniform Delay, d1	25.9	8.8	18.4	15.5	20.3	17.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.0	0.2	0.7	0.1	1.8	0.4
Delay (s)	29.9	9.0	19.2	15.6	22.1	18.3
Level of Service	C	A	B	B	C	B
Approach Delay (s)		15.1	18.6		20.9	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	17.5
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	308	458	533	504	667	343	307	325	405	185	370	77
Future Volume (vph)	308	458	533	504	667	343	307	325	405	185	370	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.92		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4244		1556	1502		3019	1595	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4244		1556	1502		3019	1595	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	335	498	579	548	725	373	334	353	440	201	402	84
RTOR Reduction (vph)	0	0	253	0	66	0	0	32	0	0	5	0
Lane Group Flow (vph)	335	498	326	548	1032	0	334	761	0	201	481	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	30.0	28.3	28.3	37.0	35.3		23.0	43.9		10.9	32.7	
Effective Green, g (s)	30.0	28.3	28.3	37.0	35.3		23.0	43.9		10.9	32.7	
Actuated g/C Ratio	0.21	0.20	0.20	0.26	0.25		0.16	0.31		0.08	0.23	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0		2.0	5.3	
Lane Grp Cap (vph)	333	903	281	411	1070		255	470		235	372	
v/s Ratio Prot	0.22	0.11		c0.35	0.24		c0.21	c0.51		0.07	0.30	
v/s Ratio Perm			c0.23									
v/c Ratio	1.01	0.55	1.16	1.33	0.96		1.31	1.62		0.86	1.29	
Uniform Delay, d1	55.0	50.2	55.9	51.5	51.7		58.5	48.1		63.8	53.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	50.8	2.4	104.3	165.8	20.2		164.7	288.1		24.1	150.1	
Delay (s)	105.8	52.6	160.1	217.3	72.0		223.2	336.1		87.9	203.8	
Level of Service	F	D	F	F	E		F	F		F	F	
Approach Delay (s)		109.3			120.4			302.6			169.9	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	166.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1191	6	72	1051	14	45
Future Volume (vph)	1191	6	72	1051	14	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4468		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4468		1556	4472	1556	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1295	7	78	1142	15	49
RTOR Reduction (vph)	0	0	0	0	0	45
Lane Group Flow (vph)	1302	0	78	1142	15	4
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	25.9		4.0	33.9	3.9	3.9
Effective Green, g (s)	25.9		4.0	33.9	3.9	3.9
Actuated g/C Ratio	0.54		0.08	0.70	0.08	0.08
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2395		128	3138	125	112
v/s Ratio Prot	c0.29		c0.05	0.26	c0.01	
v/s Ratio Perm						0.00
v/c Ratio	0.54		0.61	0.36	0.12	0.04
Uniform Delay, d1	7.3		21.4	2.9	20.6	20.5
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3		8.0	0.1	0.4	0.1
Delay (s)	7.6		29.4	3.0	21.0	20.6
Level of Service	A		C	A	C	C
Approach Delay (s)	7.6			4.6	20.7	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	6.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	48.3	Sum of lost time (s)	14.5
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1191	63	36	1051	193	48
Future Volume (vph)	1191	63	36	1051	193	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.99		1.00	1.00	0.97	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4438		1556	4472	2964	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4438		1556	4472	2964	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1295	68	39	1142	210	52
RTOR Reduction (vph)	5	0	0	0	42	0
Lane Group Flow (vph)	1358	0	39	1142	220	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	41.5		3.6	49.1	10.4	
Effective Green, g (s)	41.5		3.6	49.1	10.4	
Actuated g/C Ratio	0.59		0.05	0.70	0.15	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2631		80	3136	440	
v/s Ratio Prot	c0.31		0.03	c0.26	c0.07	
v/s Ratio Perm						
v/c Ratio	0.52		0.49	0.36	0.50	
Uniform Delay, d1	8.4		32.3	4.2	27.4	
Progression Factor	1.13		1.00	1.00	1.00	
Incremental Delay, d2	0.5		4.6	0.3	0.9	
Delay (s)	10.0		36.9	4.5	28.3	
Level of Service	A		D	A	C	
Approach Delay (s)	10.0			5.6	28.3	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	884	741	467	951	835	301
Future Volume (vph)	884	741	467	951	835	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	961	805	508	1034	908	327
RTOR Reduction (vph)	0	528	0	0	0	217
Lane Group Flow (vph)	961	277	508	1034	908	110
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	18.5	18.5	13.5	36.0	23.5	23.5
Effective Green, g (s)	18.5	18.5	13.5	36.0	23.5	23.5
Actuated g/C Ratio	0.26	0.26	0.19	0.51	0.34	0.34
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1181	367	300	2299	1013	467
v/s Ratio Prot	c0.21		c0.33	0.23	c0.30	
v/s Ratio Perm		0.20				0.08
v/c Ratio	0.81	0.76	1.69	0.45	0.90	0.24
Uniform Delay, d1	24.1	23.7	28.2	10.7	22.1	16.8
Progression Factor	1.00	1.00	0.91	1.00	1.00	1.00
Incremental Delay, d2	6.2	13.5	325.6	0.6	10.4	0.3
Delay (s)	30.3	37.2	351.3	11.4	32.5	17.0
Level of Service	C	D	F	B	C	B
Approach Delay (s)	33.5			123.4	28.4	
Approach LOS	C			F	C	

Intersection Summary			
HCM 2000 Control Delay	62.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	989	118	336	1533	28	121	22	478	78	34	77
Future Volume (vph)	61	989	118	336	1533	28	121	22	478	78	34	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4400		1556	4460		1556	1638	1392	1556	2788	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4400		1556	4460		1556	1638	1392	1556	2788	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	1075	128	365	1666	30	132	24	520	85	37	84
RTOR Reduction (vph)	0	10	0	0	1	0	0	0	319	0	72	0
Lane Group Flow (vph)	66	1193	0	365	1695	0	132	24	201	85	49	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	8.7	34.4		26.6	52.3		15.6	22.4	22.4	10.3	17.1	
Effective Green, g (s)	8.7	34.4		26.6	52.3		15.6	22.4	22.4	10.3	17.1	
Actuated g/C Ratio	0.07	0.29		0.22	0.44		0.13	0.19	0.19	0.09	0.14	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	114	1278		349	1970		205	309	263	135	402	
v/s Ratio Prot	0.04	c0.27		c0.23	0.38		c0.08	0.01		0.05	0.02	
v/s Ratio Perm									c0.14			
v/c Ratio	0.58	0.93		1.05	0.86		0.64	0.08	0.77	0.63	0.12	
Uniform Delay, d1	53.1	40.9		45.9	29.8		48.8	39.5	45.5	52.2	44.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	7.0	12.4		60.7	5.2		6.8	0.1	12.5	8.9	0.1	
Delay (s)	60.0	53.3		106.6	35.0		55.5	39.6	58.0	61.1	44.3	
Level of Service	E	D		F	C		E	D	E	E	D	
Approach Delay (s)		53.7			47.6			56.9			51.2	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	51.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	118.4	Sum of lost time (s)	24.7
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	391	482	192	299	811	734	221	250	158	465	377	479
Future Volume (vph)	391	482	192	299	811	734	221	250	158	465	377	479
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1543		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1543		1556	1638	2450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	425	524	209	325	882	798	240	272	172	505	410	521
RTOR Reduction (vph)	0	0	165	0	0	400	0	16	0	0	0	81
Lane Group Flow (vph)	425	524	44	325	882	398	240	428	0	505	410	440
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	14.0	30.3	30.3	19.4	35.7	35.7	24.2	41.0		33.0	49.8	63.8
Effective Green, g (s)	14.0	30.3	30.3	19.4	35.7	35.7	24.2	41.0		33.0	49.8	63.8
Actuated g/C Ratio	0.10	0.21	0.21	0.13	0.25	0.25	0.17	0.28		0.23	0.34	0.44
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	291	934	290	403	1101	342	259	436		354	562	1078
v/s Ratio Prot	c0.14	0.12		0.11	0.20		0.15	c0.28		c0.32	0.25	0.04
v/s Ratio Perm			0.03			c0.29						0.14
v/c Ratio	1.46	0.56	0.15	0.81	0.80	1.17	0.93	0.98		1.43	0.73	0.41
Uniform Delay, d1	65.5	51.4	46.8	61.0	51.3	54.6	59.5	51.6		56.0	41.7	27.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	225.3	2.4	1.1	11.2	6.2	101.5	36.4	38.2		207.7	4.7	0.3
Delay (s)	290.8	53.8	47.9	72.2	57.5	156.2	95.9	89.8		263.7	46.4	28.0
Level of Service	F	D	D	E	E	F	F	F		F	D	C
Approach Delay (s)		139.7			99.1			92.0			116.1	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	111.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	98.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	262	580	0	1424	156	272	542
Future Volume (vph)	262	580	0	1424	156	272	542
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	285	630	0	1548	170	296	589
RTOR Reduction (vph)	0	0	0	0	54	0	343
Lane Group Flow (vph)	285	630	0	1548	116	296	246
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	10.0	48.7		35.0	54.0	19.0	33.0
Effective Green, g (s)	10.0	48.7		35.0	54.0	19.0	33.0
Actuated g/C Ratio	0.13	0.62		0.44	0.68	0.24	0.42
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	382	2756		1981	951	374	1023
v/s Ratio Prot	c0.09	0.14		c0.35	0.03	c0.19	0.10
v/s Ratio Perm					0.05		
v/c Ratio	0.75	0.23		0.78	0.12	0.79	0.24
Uniform Delay, d1	33.3	6.8		18.7	4.3	28.1	14.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	7.7	0.0		2.1	0.1	10.9	0.1
Delay (s)	41.0	6.8		20.8	4.4	39.0	15.0
Level of Service	D	A		C	A	D	B
Approach Delay (s)		17.5		19.2		23.0	
Approach LOS		B		B		C	

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	220	106	1041	418	464	254	476	532	264	213	41
Future Volume (vph)	42	220	106	1041	418	464	254	476	532	264	213	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	1392
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	239	115	1132	454	504	276	517	578	287	232	45
RTOR Reduction (vph)	0	0	67	0	0	242	0	0	211	0	0	33
Lane Group Flow (vph)	46	239	48	1132	454	262	276	517	367	287	232	12
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.2	35.6	48.1	14.6	40.9	40.9	12.5	25.8	40.4	16.6	29.9	29.9
Effective Green, g (s)	8.2	35.6	48.1	14.6	40.9	40.9	12.5	25.8	40.4	16.6	29.9	29.9
Actuated g/C Ratio	0.07	0.31	0.42	0.13	0.36	0.36	0.11	0.22	0.35	0.14	0.26	0.26
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	111	964	582	383	583	495	169	698	489	436	809	362
v/s Ratio Prot	0.03	0.08	0.01	c0.37	c0.28		c0.18	0.17	c0.10	0.10	c0.07	
v/s Ratio Perm			0.03			0.19			0.17			0.01
v/c Ratio	0.41	0.25	0.08	2.96	0.78	0.53	1.63	0.74	0.75	0.66	0.29	0.03
Uniform Delay, d1	51.1	29.6	20.1	50.2	33.0	29.4	51.2	41.4	32.8	46.5	34.0	31.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.5	0.1	0.1	887.1	6.5	1.0	310.1	4.2	6.4	3.6	0.2	0.0
Delay (s)	53.6	29.8	20.2	937.2	39.5	30.4	361.3	45.7	39.2	50.0	34.2	31.7
Level of Service	D	C	C	F	D	C	F	D	D	D	C	C
Approach Delay (s)		29.8			523.5			106.5			42.1	
Approach LOS		C			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	288.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	114.9	Sum of lost time (s)	23.4
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	0	267	252	67	219	145	737	787	1	1319	108
Future Volume (vph)	110	0	267	252	67	219	145	737	787	1	1319	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1512	1392	3019	3112	1392		5571	
Flt Permitted	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00		0.93	
Satd. Flow (perm)	1556	1392		1478	1512	1392	3019	3112	1392		5193	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	0	290	274	73	238	158	801	855	1	1434	117
RTOR Reduction (vph)	0	179	0	0	0	140	0	0	421	0	16	0
Lane Group Flow (vph)	120	111	0	173	174	98	158	801	434	0	1536	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm	Perm	NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2	6		
Actuated Green, G (s)	6.1	6.1		13.4	13.4	13.4	5.0	35.8	35.8		26.1	
Effective Green, g (s)	6.1	6.1		13.4	13.4	13.4	5.0	35.8	35.8		26.1	
Actuated g/C Ratio	0.09	0.09		0.19	0.19	0.19	0.07	0.51	0.51		0.37	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	134	120		280	286	264	213	1578	705		1919	
v/s Ratio Prot	0.08	c0.08		c0.12	0.12	0.07	0.05	0.26				
v/s Ratio Perm									c0.31		c0.30	
v/c Ratio	0.90	0.92		0.62	0.61	0.37	0.74	0.51	0.61		0.80	
Uniform Delay, d1	31.9	32.0		26.3	26.2	24.9	32.2	11.5	12.5		19.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	47.3	58.7		4.0	3.6	0.9	13.0	0.3	1.6		2.5	
Delay (s)	79.2	90.7		30.3	29.8	25.8	45.2	11.8	14.1		22.4	
Level of Service	E	F		C	C	C	D	B	B		C	
Approach Delay (s)		87.4			28.3			15.8			22.4	
Approach LOS		F			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	70.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	98.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	429	727	550	1247	713	406
Future Volume (vph)	429	727	550	1247	713	406
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	466	790	598	1355	775	441
RTOR Reduction (vph)	0	570	0	0	0	7
Lane Group Flow (vph)	466	220	598	1355	775	434
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	14.0	14.0	17.4	45.9	23.8	37.8
Effective Green, g (s)	14.0	14.0	17.4	45.9	23.8	37.8
Actuated g/C Ratio	0.20	0.20	0.25	0.65	0.34	0.54
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	602	489	749	2928	1056	851
v/s Ratio Prot	c0.15	0.09	c0.20	0.30	c0.25	0.10
v/s Ratio Perm						0.21
v/c Ratio	0.77	0.45	0.80	0.46	0.73	0.51
Uniform Delay, d1	26.6	24.7	24.7	6.0	20.4	10.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.2	0.7	5.9	0.1	2.7	0.5
Delay (s)	32.7	25.3	30.7	6.1	23.0	10.7
Level of Service	C	C	C	A	C	B
Approach Delay (s)	28.1			13.6	18.6	
Approach LOS	C			B	B	

Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	70.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	350	692	40	115	246	47
Future Volume (vph)	350	692	40	115	246	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.90		1.00	1.00	0.98	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	2802		1556	1638	2976	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	2802		1556	1638	2976	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	380	752	43	125	267	51
RTOR Reduction (vph)	463	0	0	0	24	0
Lane Group Flow (vph)	669	0	43	125	294	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	17.6		1.7	24.0	10.5	
Effective Green, g (s)	17.6		1.7	24.0	10.5	
Actuated g/C Ratio	0.38		0.04	0.52	0.23	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1076		57	858	682	
v/s Ratio Prot	c0.24		c0.03	0.08	c0.10	
v/s Ratio Perm						
v/c Ratio	0.62		0.75	0.15	0.43	
Uniform Delay, d1	11.4		21.8	5.6	15.1	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.1		42.7	0.1	0.4	
Delay (s)	12.5		64.5	5.7	15.5	
Level of Service	B		E	A	B	
Approach Delay (s)	12.5			20.8	15.5	
Approach LOS	B			C	B	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	45.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1212	256	22	524	2	114	2	10	2	2	24
Future Volume (Veh/h)	51	1212	256	22	524	2	114	2	10	2	2	24
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	1317	278	24	570	2	124	2	11	2	2	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	572			1595			1926	2186	798	1400	2324	286
vC1, stage 1 conf vol							1566	1566		619	619	
vC2, stage 2 conf vol							360	620		780	1705	
vCu, unblocked vol	572			1595			1926	2186	798	1400	2324	286
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	94			93			0	98	96	99	98	96
cM capacity (veh/h)	906			347			92	129	301	224	90	671

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	714	936	309	287	137	30
Volume Left	55	0	24	0	124	2
Volume Right	0	278	0	2	11	26
cSH	906	1700	347	1700	97	429
Volume to Capacity	0.06	0.55	0.07	0.17	1.41	0.07
Queue Length 95th (ft)	5	0	6	0	251	6
Control Delay (s)	1.6	0.0	2.5	0.0	311.3	14.0
Lane LOS	A		A		F	B
Approach Delay (s)	0.7		1.3		311.3	14.0
Approach LOS					F	B

Intersection Summary			
Average Delay	18.6		
Intersection Capacity Utilization	82.0%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	534	1509	373	306	0	0
Future Volume (vph)	534	1509	373	306	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.96	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4044	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4044	1197		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	580	1640	405	333	0	0
RTOR Reduction (vph)	0	0	49	49	0	0
Lane Group Flow (vph)	580	1640	519	121	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	12.4	37.4	12.1	12.1		
Effective Green, g (s)	12.4	37.4	12.1	12.1		
Actuated g/C Ratio	0.33	1.00	0.32	0.32		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	1000	3112	1308	387		
v/s Ratio Prot	0.19	c0.53	0.13			
v/s Ratio Perm				0.10		
v/c Ratio	0.58	0.53	0.40	0.31		
Uniform Delay, d1	10.3	0.0	9.8	9.5		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.8	0.2	0.2	0.5		
Delay (s)	11.2	0.2	10.0	10.0		
Level of Service	B	A	B	A		
Approach Delay (s)		3.0	10.0		0.0	
Approach LOS		A	B		A	

Intersection Summary			
HCM 2000 Control Delay	4.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	37.4	Sum of lost time (s)	12.9
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1189	372	0	853	639
Future Volume (vph)	0	1189	372	0	853	639
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1292	404	0	927	695
RTOR Reduction (vph)	0	0	0	0	0	204
Lane Group Flow (vph)	0	1292	404	0	927	491
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		23.1	23.1		21.0	21.0
Effective Green, g (s)		23.1	23.1		21.0	21.0
Actuated g/C Ratio		0.40	0.40		0.37	0.37
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1799	1799		1104	509
v/s Ratio Prot		c0.29	0.09		0.31	c0.35
v/s Ratio Perm						
v/c Ratio		0.72	0.22		0.84	0.96
Uniform Delay, d1		14.4	11.3		16.7	17.8
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		1.4	0.1		5.8	30.7
Delay (s)		15.8	11.3		22.4	48.5
Level of Service		B	B		C	D
Approach Delay (s)		15.8	11.3		33.6	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	57.4	Sum of lost time (s)	13.3
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	400	1021	115	186	728	203	49	13	51	245	31	455
Future Volume (vph)	400	1021	115	186	728	203	49	13	51	245	31	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	6.7	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		0.95	0.91	0.95
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	0.88	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1442		1478	1309	1323
Flt Permitted	0.95	1.00	1.00	0.24	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	777	4472	1392	1556	1442		1478	1309	1323
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	435	1110	125	202	791	221	53	14	55	266	34	495
RTOR Reduction (vph)	0	0	58	0	0	149	0	51	0	0	115	211
Lane Group Flow (vph)	435	1110	67	202	791	72	53	18	0	239	169	61
Turn Type	Prot	NA	Perm	Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases			2	6		6						4
Actuated Green, G (s)	15.8	54.2	54.2	33.2	33.2	33.2	7.4	7.4		22.9	22.9	22.9
Effective Green, g (s)	15.8	54.2	54.2	33.2	33.2	33.2	7.4	7.4		22.9	22.9	22.9
Actuated g/C Ratio	0.16	0.54	0.54	0.33	0.33	0.33	0.07	0.07		0.23	0.23	0.23
Clearance Time (s)	5.2	6.7	6.7	6.7	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	470	2392	744	254	1465	456	113	105		334	295	299
v/s Ratio Prot	c0.14	0.25			0.18		c0.03	0.01		c0.16	0.13	
v/s Ratio Perm			0.05	c0.26		0.05						0.05
v/c Ratio	0.93	0.46	0.09	0.80	0.54	0.16	0.47	0.17		0.72	0.57	0.21
Uniform Delay, d1	42.2	14.6	11.5	31.0	27.8	24.1	45.1	44.1		36.2	34.9	31.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	24.1	0.1	0.1	15.7	0.4	0.2	3.1	0.8		7.1	2.7	0.3
Delay (s)	66.3	14.7	11.6	46.6	28.2	24.3	48.1	44.9		43.3	37.6	32.2
Level of Service	E	B	B	D	C	C	D	D		D	D	C
Approach Delay (s)		27.9			30.6			46.3			37.4	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	31.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	101.3	Sum of lost time (s)	22.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	710	323	538	601	265	417	526	625	336	269	351
Future Volume (vph)	79	710	323	538	601	265	417	526	625	336	269	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.92		1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4266		1556	1505		3019	1499	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4266		1556	1505		3019	1499	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	772	351	585	653	288	453	572	679	365	292	382
RTOR Reduction (vph)	0	0	287	0	50	0	0	28	0	0	32	0
Lane Group Flow (vph)	86	772	64	585	891	0	453	1223	0	365	642	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	12.6	27.3	27.3	35.0	49.7		29.0	53.8		14.0	39.7	
Effective Green, g (s)	12.6	27.3	27.3	35.0	49.7		29.0	53.8		14.0	39.7	
Actuated g/C Ratio	0.08	0.18	0.18	0.23	0.33		0.19	0.36		0.09	0.26	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0		2.0	5.3	
Lane Grp Cap (vph)	130	813	253	363	1413		300	539		281	396	
v/s Ratio Prot	0.06	c0.17		c0.38	0.21		c0.29	c0.81		0.12	0.43	
v/s Ratio Perm			0.05									
v/c Ratio	0.66	0.95	0.25	1.61	0.63		1.51	2.27		1.30	1.62	
Uniform Delay, d1	66.6	60.7	52.6	57.5	42.4		60.5	48.1		68.0	55.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	9.4	21.4	2.4	287.7	2.1		246.1	576.8		158.2	291.4	
Delay (s)	76.0	82.1	55.0	345.2	44.5		306.6	624.9		226.2	346.5	
Level of Service	E	F	D	F	D		F	F		F	F	
Approach Delay (s)		73.8			159.8			540.3			304.2	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	286.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.75		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	135.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1382	4	39	1368	24	50
Future Volume (vph)	1382	4	39	1368	24	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4470		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4470		1556	4472	1556	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1502	4	42	1487	26	54
RTOR Reduction (vph)	0	0	0	0	0	50
Lane Group Flow (vph)	1506	0	42	1487	26	4
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	30.3		1.5	35.8	4.0	4.0
Effective Green, g (s)	30.3		1.5	35.8	4.0	4.0
Actuated g/C Ratio	0.60		0.03	0.71	0.08	0.08
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2692		46	3182	123	110
v/s Ratio Prot	c0.34		0.03	c0.33	c0.02	
v/s Ratio Perm						0.00
v/c Ratio	0.56		0.91	0.47	0.21	0.04
Uniform Delay, d1	6.0		24.3	3.1	21.7	21.4
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3		99.4	0.1	0.9	0.1
Delay (s)	6.3		123.7	3.2	22.5	21.5
Level of Service	A		F	A	C	C
Approach Delay (s)	6.3			6.5	21.9	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	6.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	50.3	Sum of lost time (s)	14.5
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1382	143	30	1368	39	16
Future Volume (vph)	1382	143	30	1368	39	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.99		1.00	1.00	0.96	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4409		1556	4472	2936	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	4409		1556	4472	2936	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1502	155	33	1487	42	17
RTOR Reduction (vph)	9	0	0	0	16	0
Lane Group Flow (vph)	1648	0	33	1487	43	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	47.8		3.4	55.2	4.3	
Effective Green, g (s)	47.8		3.4	55.2	4.3	
Actuated g/C Ratio	0.68		0.05	0.79	0.06	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	3010		75	3526	180	
v/s Ratio Prot	c0.37		0.02	c0.33	c0.01	
v/s Ratio Perm						
v/c Ratio	0.55		0.44	0.42	0.24	
Uniform Delay, d1	5.6		32.4	2.3	31.3	
Progression Factor	1.29		1.00	1.00	1.00	
Incremental Delay, d2	0.5		4.1	0.4	0.7	
Delay (s)	7.8		36.5	2.7	32.0	
Level of Service	A		D	A	C	
Approach Delay (s)	7.8			3.4	32.0	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	6.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	966	762	292	953	693	414
Future Volume (vph)	966	762	292	953	693	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1050	828	317	1036	753	450
RTOR Reduction (vph)	0	564	0	0	0	281
Lane Group Flow (vph)	1050	264	317	1036	753	169
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	19.9	19.9	13.4	37.3	22.2	22.2
Effective Green, g (s)	19.9	19.9	13.4	37.3	22.2	22.2
Actuated g/C Ratio	0.28	0.28	0.19	0.53	0.32	0.32
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1271	395	297	2382	957	441
v/s Ratio Prot	c0.23		c0.20	0.23	c0.25	
v/s Ratio Perm		0.19				0.12
v/c Ratio	0.83	0.67	1.07	0.43	0.79	0.38
Uniform Delay, d1	23.4	22.1	28.3	9.9	21.7	18.6
Progression Factor	1.00	1.00	1.24	1.64	1.00	1.00
Incremental Delay, d2	6.2	8.7	69.6	0.5	4.3	0.6
Delay (s)	29.7	30.8	104.8	16.8	26.1	19.1
Level of Service	C	C	F	B	C	B
Approach Delay (s)	30.2			37.4	23.5	
Approach LOS	C			D	C	

Intersection Summary			
HCM 2000 Control Delay	30.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	1496	116	461	1094	49	102	30	337	25	12	24
Future Volume (vph)	86	1496	116	461	1094	49	102	30	337	25	12	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4423		1556	4443		1556	1638	1392	1556	2801	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4423		1556	4443		1556	1638	1392	1556	2801	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	1626	126	501	1189	53	111	33	366	27	13	26
RTOR Reduction (vph)	0	5	0	0	2	0	0	0	324	0	25	0
Lane Group Flow (vph)	93	1747	0	501	1240	0	111	33	42	27	14	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	11.4	43.4		24.5	56.5		13.5	12.6	12.6	5.6	4.7	
Effective Green, g (s)	11.4	43.4		24.5	56.5		13.5	12.6	12.6	5.6	4.7	
Actuated g/C Ratio	0.10	0.39		0.22	0.51		0.12	0.11	0.11	0.05	0.04	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	160	1732		344	2265		189	186	158	78	118	
v/s Ratio Prot	0.06	c0.39		c0.32	0.28		c0.07	0.02		0.02	0.01	
v/s Ratio Perm									c0.03			
v/c Ratio	0.58	1.01		1.46	0.55		0.59	0.18	0.26	0.35	0.12	
Uniform Delay, d1	47.4	33.7		43.1	18.5		46.0	44.4	44.9	50.8	51.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.3	23.8		220.9	0.3		4.6	0.5	0.9	2.7	0.5	
Delay (s)	52.7	57.5		264.1	18.7		50.6	44.9	45.8	53.5	51.5	
Level of Service	D	E		F	B		D	D	D	D	D	
Approach Delay (s)		57.2			89.2			46.8			52.3	
Approach LOS		E			F			D			D	

Intersection Summary			
HCM 2000 Control Delay	69.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	110.8	Sum of lost time (s)	24.7
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	395	849	201	168	455	507	177	351	251	826	240	352
Future Volume (vph)	395	849	201	168	455	507	177	351	251	826	240	352
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1536		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1536		1556	1638	2450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	429	923	218	183	495	551	192	382	273	898	261	383
RTOR Reduction (vph)	0	0	167	0	0	435	0	17	0	0	0	146
Lane Group Flow (vph)	429	923	51	183	495	116	192	638	0	898	261	237
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	14.0	35.1	35.1	10.6	31.7	31.7	23.0	37.1		45.9	60.0	74.0
Effective Green, g (s)	14.0	35.1	35.1	10.6	31.7	31.7	23.0	37.1		45.9	60.0	74.0
Actuated g/C Ratio	0.09	0.23	0.23	0.07	0.21	0.21	0.15	0.25		0.31	0.40	0.49
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	281	1046	325	213	945	294	238	379		476	655	1208
v/s Ratio Prot	c0.14	c0.21		0.06	0.11		0.12	c0.42		c0.58	0.16	0.02
v/s Ratio Perm			0.04			0.08						0.08
v/c Ratio	1.53	0.88	0.16	0.86	0.52	0.40	0.81	1.68		1.89	0.40	0.20
Uniform Delay, d1	68.0	55.5	45.7	69.0	52.5	50.9	61.4	56.5		52.0	32.1	21.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	254.3	10.7	1.0	27.4	2.1	4.0	17.8	318.4		406.8	0.4	0.1
Delay (s)	322.3	66.2	46.7	96.3	54.5	54.9	79.2	374.9		458.9	32.5	21.4
Level of Service	F	E	D	F	D	D	E	F		F	C	C
Approach Delay (s)		133.5			60.9			307.9			278.1	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	187.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.54		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	129.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	509	1415	0	554	240	131	190
Future Volume (vph)	509	1415	0	554	240	131	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	553	1538	0	602	261	142	207
RTOR Reduction (vph)	0	0	0	0	154	0	85
Lane Group Flow (vph)	553	1538	0	602	107	142	122
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	21.0	38.7		14.0	25.0	11.0	36.0
Effective Green, g (s)	21.0	38.7		14.0	25.0	11.0	36.0
Actuated g/C Ratio	0.34	0.63		0.23	0.41	0.18	0.59
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1039	2837		1026	570	280	1445
v/s Ratio Prot	0.18	c0.34		0.13	0.03	c0.09	0.05
v/s Ratio Perm					0.04		
v/c Ratio	0.53	0.54		0.59	0.19	0.51	0.08
Uniform Delay, d1	16.1	6.2		20.9	11.5	22.6	5.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.2		0.9	0.2	1.4	0.0
Delay (s)	16.6	6.4		21.8	11.7	24.0	5.4
Level of Service	B	A		C	B	C	A
Approach Delay (s)		9.1		18.7		13.0	
Approach LOS		A		B		B	

Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	61.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	413	251	459	221	227	100	268	1029	460	473	41
Future Volume (vph)	41	413	251	459	221	227	100	268	1029	460	473	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	1392
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	449	273	499	240	247	109	291	1118	500	514	45
RTOR Reduction (vph)	0	0	87	0	0	149	0	0	55	0	0	33
Lane Group Flow (vph)	45	449	186	499	240	98	109	291	1063	500	514	12
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.5	25.4	36.6	34.3	50.1	50.1	11.2	17.6	51.9	26.2	32.6	32.6
Effective Green, g (s)	8.5	25.4	36.6	34.3	50.1	50.1	11.2	17.6	51.9	26.2	32.6	32.6
Actuated g/C Ratio	0.07	0.20	0.29	0.27	0.40	0.40	0.09	0.14	0.41	0.21	0.26	0.26
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	105	628	404	823	652	554	138	435	574	628	806	360
v/s Ratio Prot	0.03	c0.14	0.04	0.17	0.15		0.07	0.09	c0.50	c0.17	0.17	
v/s Ratio Perm			0.09			0.07			0.26			0.01
v/c Ratio	0.43	0.71	0.46	0.61	0.37	0.18	0.79	0.67	1.85	0.80	0.64	0.03
Uniform Delay, d1	56.3	46.8	36.5	39.9	26.7	24.5	56.1	51.3	37.0	47.3	41.4	34.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	3.9	0.8	1.3	0.4	0.2	25.2	3.9	390.3	6.9	1.7	0.0
Delay (s)	59.1	50.7	37.3	41.1	27.0	24.7	81.4	55.2	427.3	54.2	43.0	34.9
Level of Service	E	D	D	D	C	C	F	E	F	D	D	C
Approach Delay (s)		46.4			33.6			331.1			48.0	
Approach LOS		D			C			F			D	

Intersection Summary			
HCM 2000 Control Delay	143.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	125.8	Sum of lost time (s)	23.4
Intersection Capacity Utilization	101.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	0	127	572	59	501	101	1051	575	0	1104	55
Future Volume (vph)	37	0	127	572	59	501	101	1051	575	0	1104	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1495	1392	3019	3112	1392		5594	
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1556	1392		1478	1495	1392	3019	3112	1392		5594	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	0	138	622	64	545	110	1142	625	0	1200	60
RTOR Reduction (vph)	0	129	0	0	0	114	0	0	345	0	9	0
Lane Group Flow (vph)	40	9	0	342	344	431	110	1142	280	0	1251	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm		NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2			
Actuated Green, G (s)	5.1	5.1		23.5	23.5	23.5	3.9	35.6	35.6		27.0	
Effective Green, g (s)	5.1	5.1		23.5	23.5	23.5	3.9	35.6	35.6		27.0	
Actuated g/C Ratio	0.06	0.06		0.30	0.30	0.30	0.05	0.45	0.45		0.34	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	99	89		436	441	411	148	1393	623		1899	
v/s Ratio Prot	c0.03	0.01		0.23	0.23	c0.31	0.04	c0.37			0.22	
v/s Ratio Perm									0.20			
v/c Ratio	0.40	0.10		0.78	0.78	1.05	0.74	0.82	0.45		0.66	
Uniform Delay, d1	35.7	35.0		25.7	25.6	28.0	37.3	19.2	15.2		22.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	2.7	0.5		9.0	8.7	57.6	18.1	3.9	0.5		0.8	
Delay (s)	38.4	35.5		34.6	34.3	85.6	55.4	23.1	15.7		23.2	
Level of Service	D	D		C	C	F	E	C	B		C	
Approach Delay (s)		36.2			57.1			22.5			23.2	
Approach LOS		D			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	32.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	79.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	768	1132	250	957	1081	248
Future Volume (vph)	768	1132	250	957	1081	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	835	1230	272	1040	1175	270
RTOR Reduction (vph)	0	239	0	0	0	4
Lane Group Flow (vph)	835	991	272	1040	1175	266
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	33.1	33.1	8.7	54.4	41.0	74.1
Effective Green, g (s)	33.1	33.1	8.7	54.4	41.0	74.1
Actuated g/C Ratio	0.34	0.34	0.09	0.56	0.42	0.76
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1022	830	268	2490	1305	1128
v/s Ratio Prot	0.28	c0.40	c0.09	0.23	c0.38	0.08
v/s Ratio Perm						0.11
v/c Ratio	0.82	1.19	1.01	0.42	0.90	0.24
Uniform Delay, d1	29.5	32.3	44.5	12.5	26.4	3.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.2	98.9	58.8	0.1	8.8	0.1
Delay (s)	34.7	131.2	103.3	12.6	35.2	3.6
Level of Service	C	F	F	B	D	A
Approach Delay (s)	92.2			31.4	29.3	
Approach LOS	F			C	C	

Intersection Summary			
HCM 2000 Control Delay	56.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	97.7	Sum of lost time (s)	14.9
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1670	111	0	1404	0	76
Future Volume (Veh/h)	1670	111	0	1404	0	76
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1815	121	0	1526	0	83
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				1287		
pX, platoon unblocked					0.89	
vC, conflicting volume			1936		2324	605
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1936		2052	605
tC, single (s)			4.4		7.1	7.2
tC, 2 stage (s)						
tF (s)			2.4		3.7	3.5
p0 queue free %			100		100	80
cM capacity (veh/h)			250		36	408

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1
Volume Total	605	605	605	121	509	509	509	83
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	121	0	0	0	83
cSH	1700	1700	1700	1700	1700	1700	1700	408
Volume to Capacity	0.36	0.36	0.36	0.07	0.30	0.30	0.30	0.20
Queue Length 95th (ft)	0	0	0	0	0	0	0	19
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1
Lane LOS								C
Approach Delay (s)	0.0				0.0			16.1
Approach LOS								C

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	207	326	47	319	558	21
Future Volume (vph)	207	326	47	319	558	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2		4.7	6.2	5.1	
Lane Util. Factor	0.95		1.00	1.00	0.97	
Frt	0.91		1.00	1.00	0.99	
Flt Protected	1.00		0.95	1.00	0.95	
Satd. Flow (prot)	2827		1556	1638	3015	
Flt Permitted	1.00		0.95	1.00	0.95	
Satd. Flow (perm)	2827		1556	1638	3015	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	225	354	51	347	607	23
RTOR Reduction (vph)	252	0	0	0	3	0
Lane Group Flow (vph)	327	0	51	347	627	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	13.0		1.7	19.4	14.4	
Effective Green, g (s)	13.0		1.7	19.4	14.4	
Actuated g/C Ratio	0.29		0.04	0.43	0.32	
Clearance Time (s)	6.2		4.7	6.2	5.1	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	814		58	704	962	
v/s Ratio Prot	0.12		0.03	c0.21	c0.21	
v/s Ratio Perm						
v/c Ratio	0.40		0.88	0.49	0.65	
Uniform Delay, d1	12.9		21.6	9.3	13.2	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.3		75.1	0.5	1.6	
Delay (s)	13.2		96.7	9.8	14.8	
Level of Service	B		F	A	B	
Approach Delay (s)	13.2			21.0	14.8	
Approach LOS	B			C	B	

Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	45.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	583	114	8	1159	10	261	8	21	10	8	52
Future Volume (Veh/h)	26	583	114	8	1159	10	261	8	21	10	8	52
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	634	124	9	1260	11	284	9	23	11	9	57
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		875			1306							
pX, platoon unblocked												
vC, conflicting volume	1271			758			1462	2041	379	1684	2098	636
vC1, stage 1 conf vol							752	752		1284	1284	
vC2, stage 2 conf vol							710	1289		400	814	
vCu, unblocked vol	1271			758			1462	2041	379	1684	2098	636
tC, single (s)	4.4			4.4			7.8	6.8	7.2	7.8	6.8	7.2
tC, 2 stage (s)							6.8	5.8		6.8	5.8	
tF (s)	2.4			2.4			3.7	4.2	3.5	3.7	4.2	3.5
p0 queue free %	94			99			0	94	96	92	95	85
cM capacity (veh/h)	472			763			206	158	581	145	173	389

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	345	441	639	641	316	77
Volume Left	28	0	9	0	284	11
Volume Right	0	124	0	11	23	57
cSH	472	1700	763	1700	214	280
Volume to Capacity	0.06	0.26	0.01	0.38	1.48	0.27
Queue Length 95th (ft)	5	0	1	0	474	27
Control Delay (s)	1.9	0.0	0.3	0.0	279.1	22.6
Lane LOS	A		A		F	C
Approach Delay (s)	0.9		0.2		279.1	22.6
Approach LOS					F	C

Intersection Summary			
Average Delay	36.9		
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	633	700	746	778	0	0
Future Volume (vph)	633	700	746	778	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	3.0	7.2	7.2		
Lane Util. Factor	0.97	0.95	0.86	0.86		
Frt	1.00	1.00	0.95	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	3019	3112	4009	1197		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	3019	3112	4009	1197		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	688	761	811	846	0	0
RTOR Reduction (vph)	0	0	21	21	0	0
Lane Group Flow (vph)	688	761	1213	402	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	5	2	6			
Permitted Phases				6		
Actuated Green, G (s)	18.2	62.5	31.4	31.4		
Effective Green, g (s)	18.2	62.5	31.4	31.4		
Actuated g/C Ratio	0.29	1.00	0.50	0.50		
Clearance Time (s)	5.7	3.0	7.2	7.2		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	879	3112	2014	601		
v/s Ratio Prot	c0.23	0.24	0.30			
v/s Ratio Perm				c0.34		
v/c Ratio	0.78	0.24	0.60	0.67		
Uniform Delay, d1	20.3	0.0	11.1	11.7		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	4.6	0.0	0.5	2.8		
Delay (s)	24.9	0.0	11.6	14.5		
Level of Service	C	A	B	B		
Approach Delay (s)		11.9	12.3		0.0	
Approach LOS		B	B		A	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	62.5	Sum of lost time (s)	12.9
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	995	745	0	339	378
Future Volume (vph)	0	995	745	0	339	378
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.1	6.1
Lane Util. Factor		0.91	0.91		0.97	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		4472	4472		3019	1392
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		4472	4472		3019	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1082	810	0	368	411
RTOR Reduction (vph)	0	0	0	0	0	97
Lane Group Flow (vph)	0	1082	810	0	368	314
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4
Permitted Phases						
Actuated Green, G (s)		17.6	17.6		11.4	11.4
Effective Green, g (s)		17.6	17.6		11.4	11.4
Actuated g/C Ratio		0.42	0.42		0.27	0.27
Clearance Time (s)		7.2	7.2		6.1	6.1
Vehicle Extension (s)		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		1860	1860		813	375
v/s Ratio Prot		c0.24	0.18		0.12	c0.23
v/s Ratio Perm						
v/c Ratio		0.58	0.44		0.45	0.84
Uniform Delay, d1		9.5	8.8		12.9	14.6
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.5	0.2		0.4	14.9
Delay (s)		10.0	9.0		13.3	29.5
Level of Service		A	A		B	C
Approach Delay (s)		10.0	9.0		21.8	
Approach LOS		A	A		C	

Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	42.3	Sum of lost time (s)	13.3
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	253	676	70	113	816	148	106	28	110	370	19	421
Future Volume (vph)	253	676	70	113	816	148	106	28	110	370	19	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.7	6.7	6.7	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		0.95	0.91	0.95
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.88		1.00	0.91	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1441		1478	1334	1323
Flt Permitted	0.95	1.00	1.00	0.36	1.00	1.00	0.95	1.00		0.95	0.98	1.00
Satd. Flow (perm)	3019	4472	1392	1146	4472	1392	1556	1441		1478	1334	1323
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	275	735	76	123	887	161	115	30	120	402	21	458
RTOR Reduction (vph)	0	0	45	0	0	115	0	104	0	0	51	184
Lane Group Flow (vph)	275	735	31	123	887	46	115	46	0	306	245	95
Turn Type	Prot	NA	Perm	Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases			2	6		6						4
Actuated Green, G (s)	6.0	37.9	37.9	26.7	26.7	26.7	12.4	12.4		25.5	25.5	25.5
Effective Green, g (s)	6.0	37.9	37.9	26.7	26.7	26.7	12.4	12.4		25.5	25.5	25.5
Actuated g/C Ratio	0.06	0.41	0.41	0.29	0.29	0.29	0.13	0.13		0.28	0.28	0.28
Clearance Time (s)	5.2	6.7	6.7	6.7	6.7	6.7	4.5	4.5		5.6	5.6	5.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	195	1830	569	330	1289	401	208	192		407	367	364
v/s Ratio Prot	c0.09	0.16			c0.20		c0.07	0.03		c0.21	0.18	
v/s Ratio Perm			0.02	0.11		0.03						0.07
v/c Ratio	1.41	0.40	0.05	0.37	0.69	0.12	0.55	0.24		0.75	0.67	0.26
Uniform Delay, d1	43.3	19.3	16.5	26.3	29.3	24.3	37.5	35.9		30.7	29.8	26.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	212.2	0.1	0.0	0.7	1.5	0.1	3.2	0.6		7.6	4.6	0.4
Delay (s)	255.5	19.5	16.6	27.0	30.8	24.4	40.7	36.5		38.3	34.4	26.6
Level of Service	F	B	B	C	C	C	D	D		D	C	C
Approach Delay (s)		79.0			29.5			38.3			33.3	
Approach LOS		E			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	47.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	92.6	Sum of lost time (s)	22.0
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	308	504	533	642	736	343	307	325	497	185	370	77
Future Volume (vph)	308	504	533	642	736	343	307	325	497	185	370	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.91		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1556	4472	1392	1556	4258		1556	1489		3019	1595	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1556	4472	1392	1556	4258		1556	1489		3019	1595	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	335	548	579	698	800	373	334	353	540	201	402	84
RTOR Reduction (vph)	0	0	215	0	60	0	0	40	0	0	6	0
Lane Group Flow (vph)	335	548	364	698	1113	0	334	853	0	201	480	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2									
Actuated Green, G (s)	31.0	30.3	30.3	40.0	39.3		21.0	40.8		9.0	29.7	
Effective Green, g (s)	31.0	30.3	30.3	40.0	39.3		21.0	40.8		9.0	29.7	
Actuated g/C Ratio	0.22	0.22	0.22	0.29	0.28		0.15	0.29		0.06	0.21	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2		4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0		2.0	5.3	
Lane Grp Cap (vph)	344	967	301	444	1195		233	433		194	338	
v/s Ratio Prot	0.22	0.12		c0.45	0.26		c0.21	c0.57		0.07	0.30	
v/s Ratio Perm			c0.26									
v/c Ratio	0.97	0.57	1.21	1.57	0.93		1.43	1.97		1.04	1.42	
Uniform Delay, d1	54.1	49.0	54.9	50.0	49.0		59.5	49.6		65.5	55.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	41.1	2.4	120.4	268.1	14.1		217.9	445.1		74.4	206.2	
Delay (s)	95.2	51.4	175.3	318.1	63.1		277.4	494.7		139.9	261.4	
Level of Service	F	D	F	F	E		F	F		F	F	
Approach Delay (s)		110.5			158.3			435.6			225.8	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	218.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	114.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1237	6	72	1120	14	45
Future Volume (vph)	1237	6	72	1120	14	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4468		1556	4472	1556	1392
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4468		1556	4472	1556	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1345	7	78	1217	15	49
RTOR Reduction (vph)	0	0	0	0	0	45
Lane Group Flow (vph)	1352	0	78	1217	15	4
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	26.3		4.0	34.3	3.9	3.9
Effective Green, g (s)	26.3		4.0	34.3	3.9	3.9
Actuated g/C Ratio	0.54		0.08	0.70	0.08	0.08
Clearance Time (s)	6.5		4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2412		127	3149	124	111
v/s Ratio Prot	c0.30		c0.05	0.27	c0.01	
v/s Ratio Perm						0.00
v/c Ratio	0.56		0.61	0.39	0.12	0.04
Uniform Delay, d1	7.4		21.6	2.9	20.8	20.7
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3		8.5	0.1	0.4	0.1
Delay (s)	7.7		30.1	3.0	21.2	20.8
Level of Service	A		C	A	C	C
Approach Delay (s)	7.7			4.6	20.9	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	6.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	48.7	Sum of lost time (s)	14.5
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1237	63	36	1120	193	48
Future Volume (vph)	1237	63	36	1120	193	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		4.0	6.5	4.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frt	0.99		1.00	1.00	0.97	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	4439		1556	4472	2964	
Flt Permitted	1.00		0.95	1.00	0.96	
Satd. Flow (perm)	4439		1556	4472	2964	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1345	68	39	1217	210	52
RTOR Reduction (vph)	6	0	0	0	42	0
Lane Group Flow (vph)	1407	0	39	1217	220	0
Turn Type	NA		Prot	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases						
Actuated Green, G (s)	40.1		5.0	49.1	10.4	
Effective Green, g (s)	40.1		5.0	49.1	10.4	
Actuated g/C Ratio	0.57		0.07	0.70	0.15	
Clearance Time (s)	6.5		4.0	6.5	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2542		111	3136	440	
v/s Ratio Prot	c0.32		0.03	c0.27	c0.07	
v/s Ratio Perm						
v/c Ratio	0.55		0.35	0.39	0.50	
Uniform Delay, d1	9.4		31.0	4.3	27.4	
Progression Factor	1.19		1.00	1.00	1.00	
Incremental Delay, d2	0.6		1.9	0.4	0.9	
Delay (s)	11.7		32.9	4.7	28.3	
Level of Service	B		C	A	C	
Approach Delay (s)	11.7			5.5	28.3	
Approach LOS	B			A	C	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	930	741	467	1020	835	301
Future Volume (vph)	930	741	467	1020	835	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4472	1392	1556	4472	3019	1392
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4472	1392	1556	4472	3019	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1011	805	508	1109	908	327
RTOR Reduction (vph)	0	528	0	0	0	217
Lane Group Flow (vph)	1011	277	508	1109	908	110
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	18.5	18.5	13.5	36.0	23.5	23.5
Effective Green, g (s)	18.5	18.5	13.5	36.0	23.5	23.5
Actuated g/C Ratio	0.26	0.26	0.19	0.51	0.34	0.34
Clearance Time (s)	6.5	6.5	4.0	6.5	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1181	367	300	2299	1013	467
v/s Ratio Prot	c0.23		c0.33	0.25	c0.30	
v/s Ratio Perm		0.20				0.08
v/c Ratio	0.86	0.76	1.69	0.48	0.90	0.24
Uniform Delay, d1	24.5	23.7	28.2	11.0	22.1	16.8
Progression Factor	1.00	1.00	0.91	0.99	1.00	1.00
Incremental Delay, d2	8.1	13.5	325.5	0.7	10.4	0.3
Delay (s)	32.5	37.2	351.1	11.6	32.5	17.0
Level of Service	C	D	F	B	C	B
Approach Delay (s)	34.6			118.3	28.4	
Approach LOS	C			F	C	

Intersection Summary			
HCM 2000 Control Delay	61.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	1024	118	352	1586	28	121	22	489	78	34	77
Future Volume (vph)	61	1024	118	352	1586	28	121	22	489	78	34	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4402		1556	4460		1556	1638	1392	1556	2788	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4402		1556	4460		1556	1638	1392	1556	2788	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	1113	128	383	1724	30	132	24	532	85	37	84
RTOR Reduction (vph)	0	9	0	0	1	0	0	0	322	0	72	0
Lane Group Flow (vph)	66	1232	0	383	1753	0	132	24	210	85	49	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	8.7	35.3		27.6	54.2		15.8	23.2	23.2	10.3	17.7	
Effective Green, g (s)	8.7	35.3		27.6	54.2		15.8	23.2	23.2	10.3	17.7	
Actuated g/C Ratio	0.07	0.29		0.23	0.45		0.13	0.19	0.19	0.09	0.15	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	111	1283		354	1996		203	313	266	132	407	
v/s Ratio Prot	0.04	c0.28		c0.25	0.39		c0.08	0.01		0.05	0.02	
v/s Ratio Perm									c0.15			
v/c Ratio	0.59	0.96		1.08	0.88		0.65	0.08	0.79	0.64	0.12	
Uniform Delay, d1	54.5	42.2		46.8	30.4		50.0	40.2	46.6	53.6	44.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.3	16.5		71.5	4.7		7.2	0.1	14.7	10.3	0.1	
Delay (s)	62.8	58.7		118.2	35.2		57.3	40.3	61.3	63.9	45.1	
Level of Service	E	E		F	D		E	D	E	E	D	
Approach Delay (s)		58.9			50.1			59.8			52.8	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	54.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	121.1	Sum of lost time (s)	24.7
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	391	506	192	299	848	750	221	250	158	476	377	479
Future Volume (vph)	391	506	192	299	848	750	221	250	158	476	377	479
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	1556	1543		1556	1638	2450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	1556	1543		1556	1638	2450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	425	550	209	325	922	815	240	272	172	517	410	521
RTOR Reduction (vph)	0	0	165	0	0	400	0	16	0	0	0	80
Lane Group Flow (vph)	425	550	44	325	922	415	240	428	0	517	410	441
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6						4
Actuated Green, G (s)	14.0	30.3	30.3	19.4	35.7	35.7	24.2	41.0		33.0	49.8	63.8
Effective Green, g (s)	14.0	30.3	30.3	19.4	35.7	35.7	24.2	41.0		33.0	49.8	63.8
Actuated g/C Ratio	0.10	0.21	0.21	0.13	0.25	0.25	0.17	0.28		0.23	0.34	0.44
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	7.4	4.0	5.9		4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	291	934	290	403	1101	342	259	436		354	562	1078
v/s Ratio Prot	c0.14	0.12		0.11	0.21		0.15	c0.28		c0.33	0.25	0.04
v/s Ratio Perm			0.03			c0.30						0.14
v/c Ratio	1.46	0.59	0.15	0.81	0.84	1.21	0.93	0.98		1.46	0.73	0.41
Uniform Delay, d1	65.5	51.7	46.8	61.0	51.9	54.6	59.5	51.6		56.0	41.7	27.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	225.3	2.7	1.1	11.2	7.6	120.6	36.4	38.2		222.2	4.7	0.3
Delay (s)	290.8	54.5	47.9	72.2	59.5	175.2	95.9	89.8		278.2	46.4	28.0
Level of Service	F	D	D	E	E	F	F	F		F	D	C
Approach Delay (s)		138.1			107.2			92.0			122.6	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	116.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	98.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	262	599	0	1452	164	277	542
Future Volume (vph)	262	599	0	1452	164	277	542
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.3		7.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.91	1.00	1.00	0.88
Frt	1.00	1.00		1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3019	4472		4472	1392	1556	2450
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3019	4472		4472	1392	1556	2450
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	285	651	0	1578	178	301	589
RTOR Reduction (vph)	0	0	0	0	54	0	350
Lane Group Flow (vph)	285	651	0	1578	124	301	239
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	1	6	4	4	4 5
Permitted Phases					6		
Actuated Green, G (s)	9.0	48.7		36.0	55.0	19.0	32.0
Effective Green, g (s)	9.0	48.7		36.0	55.0	19.0	32.0
Actuated g/C Ratio	0.11	0.62		0.46	0.70	0.24	0.41
Clearance Time (s)	4.0	7.3		7.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	343	2756		2037	969	374	992
v/s Ratio Prot	c0.09	0.15		c0.35	0.03	c0.19	0.10
v/s Ratio Perm					0.06		
v/c Ratio	0.83	0.24		0.77	0.13	0.80	0.24
Uniform Delay, d1	34.3	6.8		18.1	4.0	28.3	15.5
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	15.6	0.0		1.9	0.1	11.9	0.1
Delay (s)	49.8	6.8		20.0	4.1	40.1	15.6
Level of Service	D	A		B	A	D	B
Approach Delay (s)		19.9		18.4		23.9	
Approach LOS		B		B		C	

Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	220	106	1053	418	480	254	476	540	275	213	41
Future Volume (vph)	42	220	106	1053	418	480	254	476	540	275	213	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	1392
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1556	3112	1392	3019	1638	1392	1556	3112	1392	3019	3112	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	239	115	1145	454	522	276	517	587	299	232	45
RTOR Reduction (vph)	0	0	67	0	0	246	0	0	209	0	0	33
Lane Group Flow (vph)	46	239	48	1145	454	276	276	517	378	299	232	12
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.2	35.7	48.2	14.6	41.0	41.0	12.5	25.9	40.5	17.0	30.4	30.4
Effective Green, g (s)	8.2	35.7	48.2	14.6	41.0	41.0	12.5	25.9	40.5	17.0	30.4	30.4
Actuated g/C Ratio	0.07	0.31	0.42	0.13	0.35	0.35	0.11	0.22	0.35	0.15	0.26	0.26
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	6.3
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	110	961	580	381	581	494	168	697	488	444	819	366
v/s Ratio Prot	0.03	0.08	0.01	c0.38	c0.28		c0.18	0.17	c0.10	0.10	c0.07	
v/s Ratio Perm			0.03			0.20			0.17			0.01
v/c Ratio	0.42	0.25	0.08	3.01	0.78	0.56	1.64	0.74	0.77	0.67	0.28	0.03
Uniform Delay, d1	51.4	29.9	20.3	50.5	33.3	30.0	51.5	41.7	33.4	46.6	33.9	31.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.1	0.1	909.4	6.8	1.4	314.5	4.3	7.5	4.0	0.2	0.0
Delay (s)	53.9	30.0	20.4	959.8	40.0	31.3	366.0	46.0	40.9	50.6	34.1	31.7
Level of Service	D	C	C	F	D	C	F	D	D	D	C	C
Approach Delay (s)		30.0			534.4			107.8			42.5	
Approach LOS		C			F			F			D	

Intersection Summary			
HCM 2000 Control Delay	294.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	115.5	Sum of lost time (s)	23.4
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	0	267	252	67	230	145	813	787	1	1449	116
Future Volume (vph)	115	0	267	252	67	230	145	813	787	1	1449	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	0.97	0.95	1.00		0.86	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1556	1392		1478	1512	1392	3019	3112	1392		5572	
Flt Permitted	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00		0.93	
Satd. Flow (perm)	1556	1392		1478	1512	1392	3019	3112	1392		5194	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	125	0	290	274	73	250	158	884	855	1	1575	126
RTOR Reduction (vph)	0	178	0	0	0	140	0	0	418	0	16	0
Lane Group Flow (vph)	125	112	0	173	174	110	158	884	437	0	1686	0
Turn Type	Split	NA		Split	NA	Prot	Prot	NA	Perm	Perm	NA	
Protected Phases	4	4		3	3	3	5	2			6	
Permitted Phases									2	6		
Actuated Green, G (s)	6.1	6.1		13.4	13.4	13.4	5.0	36.3	36.3		26.6	
Effective Green, g (s)	6.1	6.1		13.4	13.4	13.4	5.0	36.3	36.3		26.6	
Actuated g/C Ratio	0.09	0.09		0.19	0.19	0.19	0.07	0.51	0.51		0.37	
Clearance Time (s)	5.1	5.1		5.1	5.1	5.1	4.7	5.1	5.1		5.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	133	119		278	284	262	212	1588	710		1943	
v/s Ratio Prot	c0.08	0.08		c0.12	0.12	0.08	0.05	0.28				
v/s Ratio Perm									c0.31		c0.32	
v/c Ratio	0.94	0.94		0.62	0.61	0.42	0.75	0.56	0.61		0.87	
Uniform Delay, d1	32.3	32.3		26.5	26.5	25.4	32.4	11.9	12.4		20.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	59.0	62.8		4.3	3.9	1.1	13.3	0.4	1.6		4.4	
Delay (s)	91.4	95.1		30.8	30.4	26.5	45.7	12.3	14.0		25.0	
Level of Service	F	F		C	C	C	D	B	B		C	
Approach Delay (s)		94.0			28.9			15.9			25.0	
Approach LOS		F			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	71.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Intersection Sign configuration not allowed in HCM analysis.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	494	727	550	1258	729	422
Future Volume (vph)	494	727	550	1258	729	422
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Lane Util. Factor	0.97	0.88	0.97	0.91	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3019	2450	3019	4472	3112	1392
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3019	2450	3019	4472	3112	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	537	790	598	1367	792	459
RTOR Reduction (vph)	0	553	0	0	0	7
Lane Group Flow (vph)	537	237	598	1367	792	452
Turn Type	Prot	Prot	Prot	NA	NA	pm+ov
Protected Phases	4	4	5	2	6	4
Permitted Phases						6
Actuated Green, G (s)	15.7	15.7	17.4	47.2	25.1	40.8
Effective Green, g (s)	15.7	15.7	17.4	47.2	25.1	40.8
Actuated g/C Ratio	0.21	0.21	0.24	0.65	0.34	0.56
Clearance Time (s)	5.1	5.1	4.7	5.1	5.1	5.1
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	648	526	718	2887	1068	874
v/s Ratio Prot	c0.18	0.10	c0.20	0.31	c0.25	0.11
v/s Ratio Perm						0.21
v/c Ratio	0.83	0.45	0.83	0.47	0.74	0.52
Uniform Delay, d1	27.4	25.0	26.5	6.6	21.1	10.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.6	0.6	8.2	0.1	2.8	0.5
Delay (s)	36.0	25.6	34.7	6.7	24.0	10.6
Level of Service	D	C	C	A	C	B
Approach Delay (s)	29.8			15.2	19.0	
Approach LOS	C			B	B	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	73.1	Sum of lost time (s)	14.9
Intersection Capacity Utilization	62.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1418	68	0	1720	0	162
Future Volume (Veh/h)	1418	68	0	1720	0	162
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1541	74	0	1870	0	176
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				1294		
pX, platoon unblocked					0.87	
vC, conflicting volume			1615		2164	514
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1615		1814	514
tC, single (s)			4.4		7.1	7.2
tC, 2 stage (s)						
tF (s)			2.4		3.7	3.5
p0 queue free %			100		100	63
cM capacity (veh/h)			340		52	471

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1
Volume Total	514	514	514	74	623	623	623	176
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	74	0	0	0	176
cSH	1700	1700	1700	1700	1700	1700	1700	471
Volume to Capacity	0.30	0.30	0.30	0.04	0.37	0.37	0.37	0.37
Queue Length 95th (ft)	0	0	0	0	0	0	0	43
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.1
Lane LOS								C
Approach Delay (s)	0.0				0.0			17.1
Approach LOS								C

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	1212	256	22	524	2	114	2	10	2	2	24
Future Volume (vph)	51	1212	256	22	524	2	114	2	10	2	2	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.97		1.00	1.00			0.99			0.88	
Flt Protected	0.95	1.00		0.95	1.00			0.96			1.00	
Satd. Flow (prot)	1556	3031		1556	3110			1550			1441	
Flt Permitted	0.95	1.00		0.95	1.00			0.72			0.98	
Satd. Flow (perm)	1556	3031		1556	3110			1174			1420	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	1317	278	24	570	2	124	2	11	2	2	26
RTOR Reduction (vph)	0	20	0	0	0	0	0	5	0	0	21	0
Lane Group Flow (vph)	55	1575	0	24	572	0	0	132	0	0	9	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)	3.9	38.2		1.7	36.0			12.1			12.1	
Effective Green, g (s)	3.9	38.2		1.7	36.0			12.1			12.1	
Actuated g/C Ratio	0.06	0.58		0.03	0.55			0.18			0.18	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	92	1767		40	1709			216			262	
v/s Ratio Prot	c0.04	c0.52		0.02	0.18							
v/s Ratio Perm								c0.11			0.01	
v/c Ratio	0.60	0.89		0.60	0.33			0.61			0.03	
Uniform Delay, d1	30.0	11.8		31.6	8.1			24.5			21.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	10.0	6.1		21.9	0.1			5.1			0.1	
Delay (s)	40.1	18.0		53.5	8.3			29.6			22.0	
Level of Service	D	B		D	A			C			C	
Approach Delay (s)		18.7			10.1			29.6			22.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	710	323	538	601	265	417	526	625	336	269	351
Future Volume (vph)	79	710	323	538	601	265	417	526	625	336	269	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	4.0	4.0	4.3	
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91		0.97	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3019	4472	1392	3019	4266		3019	3112	1392	3019	2847	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3019	4472	1392	3019	4266		3019	3112	1392	3019	2847	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	772	351	585	653	288	453	572	679	365	292	382
RTOR Reduction (vph)	0	0	265	0	56	0	0	0	58	0	131	0
Lane Group Flow (vph)	86	772	86	585	885	0	453	572	621	365	543	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov	Prot	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2						8			
Actuated Green, G (s)	8.0	33.8	33.8	32.6	58.4		23.5	35.1	67.7	18.6	31.1	
Effective Green, g (s)	8.0	33.8	33.8	32.6	58.4		23.5	35.1	67.7	18.6	31.1	
Actuated g/C Ratio	0.06	0.24	0.24	0.23	0.42		0.17	0.25	0.48	0.13	0.22	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	4.0	4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0	2.0	2.0	5.3	
Lane Grp Cap (vph)	172	1079	336	702	1779		506	780	673	401	632	
v/s Ratio Prot	0.03	c0.17		0.19	0.21		c0.15	0.18	c0.21	0.12	0.19	
v/s Ratio Perm			0.06						0.23			
v/c Ratio	0.50	0.72	0.26	0.83	0.50		0.90	0.73	0.92	0.91	0.86	
Uniform Delay, d1	64.1	48.7	42.9	51.1	30.0		57.0	48.2	33.7	59.9	52.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8	4.1	1.8	8.0	1.0		17.7	4.3	18.0	23.9	12.3	
Delay (s)	64.9	52.8	44.8	59.2	31.0		74.8	52.5	51.8	83.8	64.7	
Level of Service	E	D	D	E	C		E	D	D	F	E	
Approach Delay (s)		51.3			41.8			58.1			71.4	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	54.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	1496	116	461	1094	49	102	30	337	25	12	24
Future Volume (vph)	86	1496	116	461	1094	49	102	30	337	25	12	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		0.97	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4423		3019	4443		1556	1638	1392	1556	2801	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4423		3019	4443		1556	1638	1392	1556	2801	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	1626	126	501	1189	53	111	33	366	27	13	26
RTOR Reduction (vph)	0	5	0	0	2	0	0	0	324	0	25	0
Lane Group Flow (vph)	93	1747	0	501	1240	0	111	33	42	27	14	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	11.4	43.4		24.5	56.5		13.5	12.6	12.6	5.6	4.7	
Effective Green, g (s)	11.4	43.4		24.5	56.5		13.5	12.6	12.6	5.6	4.7	
Actuated g/C Ratio	0.10	0.39		0.22	0.51		0.12	0.11	0.11	0.05	0.04	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	160	1732		667	2265		189	186	158	78	118	
v/s Ratio Prot	0.06	c0.39		c0.17	0.28		c0.07	0.02		0.02	0.01	
v/s Ratio Perm									c0.03			
v/c Ratio	0.58	1.01		0.75	0.55		0.59	0.18	0.26	0.35	0.12	
Uniform Delay, d1	47.4	33.7		40.3	18.5		46.0	44.4	44.9	50.8	51.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.3	23.8		4.8	0.3		4.6	0.5	0.9	2.7	0.5	
Delay (s)	52.7	57.5		45.1	18.7		50.6	44.9	45.8	53.5	51.5	
Level of Service	D	E		D	B		D	D	D	D	D	
Approach Delay (s)		57.2			26.3			46.8			52.3	
Approach LOS		E			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	110.8	Sum of lost time (s)	24.7
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	395	849	201	168	455	507	177	351	251	826	240	352
Future Volume (vph)	395	849	201	168	455	507	177	351	251	826	240	352
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	4.0	4.0	5.9	5.9	4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	3019	3112	1392	3019	3112	1392
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	3019	3112	1392	3019	3112	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	429	923	218	183	495	551	192	382	273	898	261	383
RTOR Reduction (vph)	0	0	152	0	0	35	0	0	162	0	0	83
Lane Group Flow (vph)	429	923	66	183	495	516	192	382	111	898	261	300
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Actuated Green, G (s)	24.1	45.1	45.1	13.7	34.7	83.1	14.9	21.5	21.5	48.4	55.0	79.1
Effective Green, g (s)	24.1	45.1	45.1	13.7	34.7	83.1	14.9	21.5	21.5	48.4	55.0	79.1
Actuated g/C Ratio	0.16	0.30	0.30	0.09	0.23	0.55	0.10	0.14	0.14	0.32	0.37	0.53
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	4.0	4.0	5.9	5.9	4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	485	1344	418	275	1034	771	299	446	199	974	1141	734
v/s Ratio Prot	c0.14	c0.21		0.06	0.11	0.22	0.06	c0.12		c0.30	0.08	0.07
v/s Ratio Perm			0.05			0.15			0.08			0.15
v/c Ratio	0.88	0.69	0.16	0.67	0.48	0.67	0.64	0.86	0.56	0.92	0.23	0.41
Uniform Delay, d1	61.6	46.2	38.5	65.9	49.8	23.7	65.0	62.7	59.8	49.0	32.8	21.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.2	2.9	0.8	6.0	1.6	2.2	4.7	14.9	3.4	13.7	0.1	0.4
Delay (s)	78.8	49.1	39.3	71.9	51.4	25.9	69.6	77.6	63.2	62.7	32.9	21.7
Level of Service	E	D	D	E	D	C	E	E	E	E	C	C
Approach Delay (s)		55.9			43.0			71.2			47.5	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	52.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

13: Caliente Avenue/Ocean View Hills Parkway & Otay Mesa Road

Timing Plan: AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	413	251	459	221	227	100	268	1029	460	473	41
Future Volume (vph)	41	413	251	459	221	227	100	268	1029	460	473	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	3019	4472	1392	3019	4418	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	3019	4472	1392	3019	4418	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	449	273	499	240	247	109	291	1118	500	514	45
RTOR Reduction (vph)	0	0	91	0	0	153	0	0	54	0	7	0
Lane Group Flow (vph)	45	449	182	499	240	94	109	291	1064	500	552	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	8.6	18.6	29.7	34.1	43.0	43.0	11.1	13.4	47.5	24.2	26.5	
Effective Green, g (s)	8.6	18.6	29.7	34.1	43.0	43.0	11.1	13.4	47.5	24.2	26.5	
Actuated g/C Ratio	0.08	0.17	0.26	0.30	0.38	0.38	0.10	0.12	0.42	0.21	0.24	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	230	738	367	914	1707	531	297	532	587	648	1039	
v/s Ratio Prot	0.01	c0.10	0.05	0.17	0.05		0.04	0.07	c0.55	c0.17	0.12	
v/s Ratio Perm			0.08			0.07			0.22			
v/c Ratio	0.20	0.61	0.50	0.55	0.14	0.18	0.37	0.55	1.81	0.77	0.53	
Uniform Delay, d1	48.8	43.6	35.1	32.8	22.7	23.1	47.5	46.7	32.5	41.6	37.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	1.4	1.1	0.7	0.0	0.2	0.8	1.2	372.6	5.7	0.5	
Delay (s)	49.2	45.0	36.2	33.5	22.8	23.2	48.2	47.9	405.1	47.3	38.1	
Level of Service	D	D	D	C	C	C	D	D	F	D	D	
Approach Delay (s)		42.1			28.3			311.0			42.5	
Approach LOS		D			C			F			D	

Intersection Summary			
HCM 2000 Control Delay	133.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	112.6	Sum of lost time (s)	23.4
Intersection Capacity Utilization	99.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	583	114	8	1159	10	261	8	21	10	8	52
Future Volume (vph)	26	583	114	8	1159	10	261	8	21	10	8	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.98		1.00	1.00			0.99			0.90	
Flt Protected	0.95	1.00		0.95	1.00			0.96			0.99	
Satd. Flow (prot)	1556	3036		1556	3108			1552			1464	
Flt Permitted	0.95	1.00		0.95	1.00			0.69			0.94	
Satd. Flow (perm)	1556	3036		1556	3108			1124			1391	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	634	124	9	1260	11	284	9	23	11	9	57
RTOR Reduction (vph)	0	21	0	0	1	0	0	4	0	0	39	0
Lane Group Flow (vph)	28	737	0	9	1270	0	0	312	0	0	38	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)	1.8	30.6		0.9	29.7			20.5			20.5	
Effective Green, g (s)	1.8	30.6		0.9	29.7			20.5			20.5	
Actuated g/C Ratio	0.03	0.47		0.01	0.45			0.31			0.31	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	42	1418		21	1409			351			435	
v/s Ratio Prot	c0.02	0.24		0.01	c0.41							
v/s Ratio Perm								c0.28			0.03	
v/c Ratio	0.67	0.52		0.43	0.90			0.89			0.09	
Uniform Delay, d1	31.6	12.3		32.0	16.5			21.4			15.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	33.4	0.3		13.4	8.3			22.7			0.1	
Delay (s)	64.9	12.6		45.5	24.8			44.1			16.0	
Level of Service	E	B		D	C			D			B	
Approach Delay (s)		14.5			25.0			44.1			16.0	
Approach LOS		B			C			D			B	

Intersection Summary			
HCM 2000 Control Delay	23.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	308	504	533	642	736	343	307	325	497	185	370	77
Future Volume (vph)	308	504	533	642	736	343	307	325	497	185	370	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	4.0	4.0	4.3	
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91		0.97	0.95	1.00	0.97	0.95	
Frt	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3019	4472	1392	3019	4258		3019	3112	1392	3019	3031	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3019	4472	1392	3019	4258		3019	3112	1392	3019	3031	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	335	548	579	698	800	373	334	353	540	201	402	84
RTOR Reduction (vph)	0	0	238	0	76	0	0	0	36	0	16	0
Lane Group Flow (vph)	335	548	341	698	1097	0	334	353	504	201	470	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	pm+ov	Prot	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases			2						8			
Actuated Green, G (s)	14.8	25.1	25.1	26.5	36.8		15.3	31.5	58.0	7.0	24.1	
Effective Green, g (s)	14.8	25.1	25.1	26.5	36.8		15.3	31.5	58.0	7.0	24.1	
Actuated g/C Ratio	0.13	0.23	0.23	0.24	0.33		0.14	0.29	0.53	0.06	0.22	
Clearance Time (s)	4.0	6.7	6.7	4.0	6.7		4.0	5.2	4.0	4.0	4.3	
Vehicle Extension (s)	2.0	5.0	5.0	2.0	4.9		2.0	5.0	2.0	2.0	5.3	
Lane Grp Cap (vph)	406	1020	317	727	1424		419	891	733	192	664	
v/s Ratio Prot	0.11	0.12		c0.23	0.26		c0.11	0.11	c0.17	c0.07	0.15	
v/s Ratio Perm			c0.25						0.20			
v/c Ratio	0.83	0.54	1.08	0.96	0.77		0.80	0.40	0.69	1.05	0.71	
Uniform Delay, d1	46.3	37.3	42.5	41.2	32.8		45.8	31.6	19.3	51.5	39.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	12.2	2.0	72.4	23.8	4.1		9.5	0.6	2.2	77.8	4.5	
Delay (s)	58.6	39.4	114.9	65.0	36.9		55.3	32.2	21.4	129.3	44.2	
Level of Service	E	D	F	E	D		E	C	C	F	D	
Approach Delay (s)		73.7			47.4			33.8			69.1	
Approach LOS		E			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	54.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	19.9
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	1024	118	352	1586	28	121	22	489	78	34	77
Future Volume (vph)	61	1024	118	352	1586	28	121	22	489	78	34	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Lane Util. Factor	1.00	0.91		0.97	0.91		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	4402		3019	4460		1556	1638	1392	1556	2788	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1556	4402		3019	4460		1556	1638	1392	1556	2788	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	1113	128	383	1724	30	132	24	532	85	37	84
RTOR Reduction (vph)	0	9	0	0	1	0	0	0	320	0	71	0
Lane Group Flow (vph)	66	1232	0	383	1753	0	132	24	212	85	50	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			
Actuated Green, G (s)	8.5	39.6		19.6	50.7		15.7	22.9	22.9	10.4	17.6	
Effective Green, g (s)	8.5	39.6		19.6	50.7		15.7	22.9	22.9	10.4	17.6	
Actuated g/C Ratio	0.07	0.34		0.17	0.43		0.13	0.20	0.20	0.09	0.15	
Clearance Time (s)	5.7	7.2		5.7	7.2		5.7	6.1	6.1	5.7	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	112	1487		504	1929		208	320	271	138	418	
v/s Ratio Prot	0.04	0.28		c0.13	c0.39		c0.08	0.01		0.05	0.02	
v/s Ratio Perm									c0.15			
v/c Ratio	0.59	0.83		0.76	0.91		0.63	0.07	0.78	0.62	0.12	
Uniform Delay, d1	52.7	35.7		46.6	31.1		48.0	38.5	44.8	51.5	43.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	7.7	4.0		6.5	6.7		6.2	0.1	13.6	7.9	0.1	
Delay (s)	60.4	39.6		53.1	37.8		54.2	38.6	58.4	59.4	43.2	
Level of Service	E	D		D	D		D	D	E	E	D	
Approach Delay (s)		40.7			40.5			56.9			49.9	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	43.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	117.2	Sum of lost time (s)	24.7
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	391	506	192	299	848	750	221	250	158	476	377	479
Future Volume (vph)	391	506	192	299	848	750	221	250	158	476	377	479
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.4	7.4	4.0	7.4	4.0	4.0	5.9	5.9	4.0	5.9	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	3019	3112	1392	3019	3112	1392
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	3019	3112	1392	3019	3112	1392
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	425	550	209	325	922	815	240	272	172	517	410	521
RTOR Reduction (vph)	0	0	130	0	0	101	0	0	149	0	0	45
Lane Group Flow (vph)	425	550	79	325	922	714	240	272	23	517	410	476
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Actuated Green, G (s)	27.4	55.1	55.1	20.7	48.4	77.1	16.8	19.2	19.2	28.7	31.1	58.5
Effective Green, g (s)	27.4	55.1	55.1	20.7	48.4	77.1	16.8	19.2	19.2	28.7	31.1	58.5
Actuated g/C Ratio	0.19	0.38	0.38	0.14	0.33	0.53	0.12	0.13	0.13	0.20	0.21	0.40
Clearance Time (s)	4.0	7.4	7.4	4.0	7.4	4.0	4.0	5.9	5.9	4.0	5.9	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	570	1699	528	430	1492	740	349	412	184	597	667	561
v/s Ratio Prot	0.14	0.12		0.11	0.21	c0.19	0.08	0.09		0.17	0.13	c0.16
v/s Ratio Perm			0.06			0.32			0.02			0.18
v/c Ratio	0.75	0.32	0.15	0.76	0.62	0.96	0.69	0.66	0.12	0.87	0.61	0.85
Uniform Delay, d1	55.5	31.8	29.6	59.7	40.5	32.6	61.6	59.8	55.5	56.3	51.5	39.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.3	0.5	0.6	7.4	1.9	24.5	5.5	3.9	0.3	12.5	1.7	11.4
Delay (s)	60.8	32.3	30.2	67.1	42.5	57.1	67.1	63.7	55.8	68.8	53.2	50.6
Level of Service	E	C	C	E	D	E	E	E	E	E	D	D
Approach Delay (s)		42.1			52.1			62.9			57.9	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	52.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	21.3
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	220	106	1053	418	480	254	476	540	275	213	41
Future Volume (vph)	42	220	106	1053	418	480	254	476	540	275	213	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3019	4472	1392	3019	4472	1392	3019	4472	1392	3019	4363	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3019	4472	1392	3019	4472	1392	3019	4472	1392	3019	4363	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	239	115	1145	454	522	276	517	587	299	232	45
RTOR Reduction (vph)	0	0	73	0	0	255	0	0	203	0	24	0
Lane Group Flow (vph)	46	239	42	1145	454	267	276	517	384	299	253	0
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	5.9	22.5	34.0	15.4	30.9	30.9	11.5	17.4	32.8	15.1	21.0	
Effective Green, g (s)	5.9	22.5	34.0	15.4	30.9	30.9	11.5	17.4	32.8	15.1	21.0	
Actuated g/C Ratio	0.06	0.24	0.37	0.17	0.33	0.33	0.12	0.19	0.35	0.16	0.23	
Clearance Time (s)	5.2	5.6	5.2	5.2	6.7	6.7	5.2	6.3	5.2	5.2	6.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	192	1085	510	501	1490	464	374	839	492	491	988	
v/s Ratio Prot	0.02	0.05	0.01	c0.38	0.10		0.09	0.12	c0.13	c0.10	c0.06	
v/s Ratio Perm			0.02			c0.19			0.15			
v/c Ratio	0.24	0.22	0.08	2.29	0.30	0.58	0.74	0.62	0.78	0.61	0.26	
Uniform Delay, d1	41.3	28.1	19.2	38.6	22.9	25.5	39.1	34.6	26.7	36.1	29.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	0.1	0.1	584.8	0.1	1.7	7.4	1.4	7.9	2.1	0.1	
Delay (s)	41.9	28.2	19.2	623.4	23.0	27.2	46.6	35.9	34.6	38.2	29.6	
Level of Service	D	C	B	F	C	C	D	D	C	D	C	
Approach Delay (s)		27.2			348.2			37.5			34.1	
Approach LOS		C			F			D			C	

Intersection Summary			
HCM 2000 Control Delay	183.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	92.7	Sum of lost time (s)	23.4
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

APPENDIX C

CUMULATIVE PROJECT INFORMATION

APPENDIX C

TRIP GENERATION SUMMARY FOR CUMULATIVE PROJECTS

Project Name	Location	Land Use	Units[1]		Trip Rate[2]	Daily Trip	AM Peak-Hour % of ADT[2]	AM Peak-Hour In:Out Ratio[2]	AM Peak-Hour In	AM Peak-Hour Out	AM Peak-Hour Total	PM Peak-Hour % of ADT[2]	PM Peak-Hour In:Out Ratio[2]	PM Peak-Hour In	PM Peak-Hour Out	PM Peak-Hour Total
						Cumulative[3] Trips										
Proposed																
Lumina Phase 1	Not included in cumulative projects, OY after project open.	Multiple Dwelling Unit - Over 20 dwelling uni	129			6,774			108	434	542			427	183	610
		Shopping Center - Community (100,000 sq	63			4,377			79	52	131			219	219	438
		Subtotal				**11,151**			**187**	**486**	**673**			**646**	**402**	**1,048**
Lumina Phase 2	Not included in cumulative projects, OY after project open.	Multiple Dwelling Unit - Over 20 dwelling uni	526	DU		3,156			51	201	252			199	85	284
		Multiple Dwelling Unit - Under 20 dwelling u	213	DU		1,704			27	109	136			119	51	170
		Park - Developed	7			330			7	6	13			13	13	26
		Elementary School	6			857			159	107	266			65	98	163
		Internal Capture (9.4%)			9%	-1,617			-41	-85	-126			-98	-61	-159
		Subtotal				**4,430**			**203**	**338**	**541**			**298**	**186**	**484**
Palm Promenade (AMC Theater)	Not included; trips would be minimal in Study Area	Movie Theater	73			5,874			14	4	18			329	141	470
		Shopping Center - Community (100,000 sq	73			3,573			64	43	107			179	178	357
		Movie Theater - Existing	107			-8,558			-21	-5	-26			-480	-205	-685
		Subtotal				**889**			**57**	**42**	**99**			**28**	**114**	**142**
Candlelight	Included as cumulative project using Near Term assumptions from study.	Multiple Dwelling Unit - Over 20 dwelling uni	475	du		2,850	8%	0.20 0.80	46	182	228	9%	0.70 0.30	180	77	257
		Subtotal				**2,850**			**46**	**182**	**228**			**180**	**77**	**257**
Metro Airpark	Phase 1 included as cumulative project	Airport	64	flights		326	6%		12	8	20	7%		11	12	23
		Commercial Office	118	ksf		1,916	13%		224	25	249	14%		54	214	268
		Restaurant - High Turnover (sit-down)	11	ksf		1,144	8%		46	46	92	8%		55	37	92
		Truck Terminal	30	acre		900	9%		32	49	81	9%		36	45	81
		Solar Field	67	acre		2			1	0	1			0	1	1
		Subtotal				**4,288**			**315**	**127**	**442**			**156**	**309**	**465**
La Media Retail	Included as cumulative project, based on coordination with La Media Retail project team	Commercial-Retail	107	ksf		7,469	3%		134	90	224	10%		374	373	747
		Restaurant - Fast Food (with or without drive	14	ksf		1,215	4%		29	20	49	10%		61	61	122
		Drugstore	6	ksf		4,200	4%		101	67	168	8%		168	168	336
		Gasoline Station - With food mart & fully auto	12	vfs		1,860	8%		75	74	149	9%		84	83	167
		Pass by and Diverted				-6,084			-156	-123	-279			-280	-280	-560
		Subtotal				**8,660**			**183**	**127**	**310**			**407**	**405**	**812**
La Media 7-11	Included as cumulative project, information based on email communication with City staff	Gasoline Station - With food mart	10	vfs	150 / vfs	1,500	8%	0.50 0.50	60	60	120	8%	0.50 0.50	60	60	120
		Subtotal				**1,500**			**60**	**60**	**120**			**60**	**60**	**120**
Otay Mesa Travel Plaza	Not assumed to be in foreseable future					440			16	17	33	9%		18	17	35
		Subtotal				**440**			**16**	**17**	**33**			**18**	**17**	**35**
USMS Secured Vehicle Lot	Included as cumulative project, using cumulative project information from Metro Airpark Project				/	125		:					:			
		Subtotal				**125**			**0**	**0**	**0**			**0**	**0**	**0**
Otay Business Park	Not assumed to be in foreseable future				/	17,184		:					:			
		Subtotal				**17,184**			**0**	**0**	**0**			**0**	**0**	**0**
Playa del Sol	Included as cumulative project, using cumulative project information from Metro Airpark Project	Residential			/	9,432	8%	0.20 0.80	151	604	755	10%	0.70 0.30	660	283	943
		Subtotal				**9,432**			**151**	**604**	**755**			**660**	**283**	**943**
National Enterprises Storage and Recycling Facility	Not assumed to be in foreseable future	Truck Terminal			#N/A / 0	2,400	9%	0.40 : 0.60	86	130	216	8%	0.50 : 0.50	96	96	192
		Subtotal				**2,400**			**86**	**130**	**216**			**96**	**96**	**192**
Southbay	Included as cumulative project, using cumulative project information from Metro Airpark Project	Warehousing				1,678	15%	0.70 0.30	176	76	252	16%	0.40 0.60	107	161	268
		Subtotal				**1,678**			**176**	**76**	**252**			**107**	**161**	**268**
Southview	Included as cumulative project, using traffic study from 2006	Multi-Family Housing				3,318	8%	0.20 0.80	53	212	265	9%	0.70 0.30	209	90	299
		Subtotal				**3,318**			**53**	**212**	**265**			**209**	**90**	**299**
Handler	Included as cumulative project, using Michael Baker Traffic Study, April 2016	Motel	189	rm	9 / rm	1,701	8%	4.00 : 6.00	54	82	136	9%	4.00 : 6.00	61	92	153
		Restaurant - High Turnover (sit-down)	24	ksf	104 / ksf	2,496	8%	5.00 : 5.00	100	100	200	8%	6.00 : 4.00	120	80	200
		Restaurant - Fast Food (with or without drive	6	ksf	420 / ksf	2,520	4%	6.00 : 4.00	60	41	101	8%	5.00 : 5.00	101	101	202
		Subtotal				**6,717**			**214**	**223**	**437**			**282**	**273**	**555**
Sunroad 250	Not assumed to be in foreseable future	Specific Plan				34,124			1,090	1,695	2,785			2,000	1,474	3,474
		Subtotal				**34,124**			**1,090**	**1,695**	**2,785**			**2,000**	**1,474**	**3,474**
NET CUMULATIVE PROJECTS TRIP GENERATION =						**38,568**			**1,198**	**1,611**	**2,809**			**2,061**	**1,658**	**3,719**

Note

1. DU = dwelling unit; ksf = one thousand square feet
2. Trip rates referenced from the City of San Diego Land Development Code - Trip Generation Manual, May 2003.
3. Cumulative trips are the total trips generated by the site exclusive of pass-by trips already on the roadway.

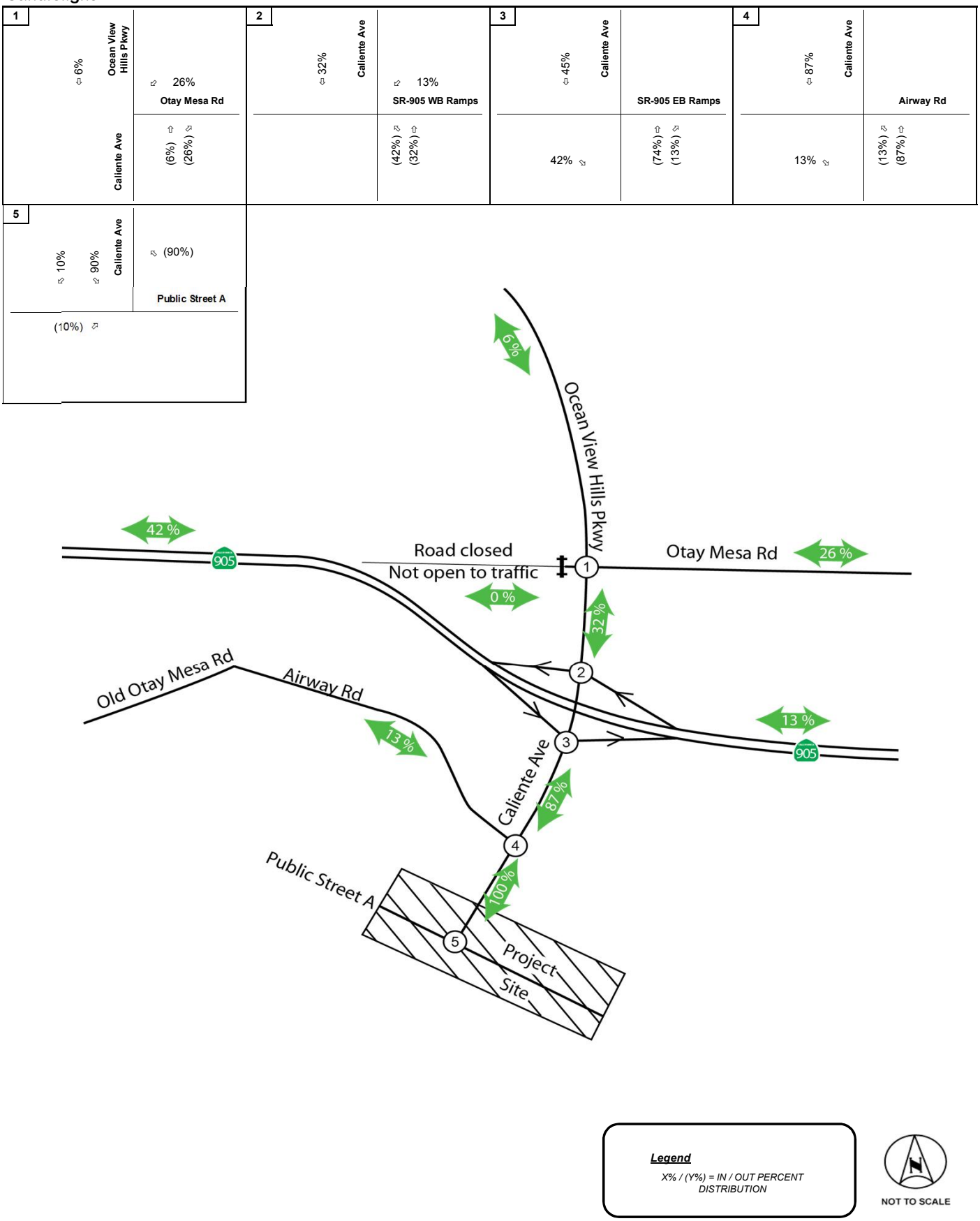
TABLE 4-1
TRIP GENERATION SUMMARY

Land Use		Units[1]	Daily Trip Rate[2]	Daily Trips	AM Peak-Hour % of ADT[2]	AM Peak-Hour In:Out Ratio[2]	AM Peak-Hour In	AM Peak-Hour Out	AM Peak-Hour Total	PM Peak-Hour % of ADT[2]	PM Peak-Hour In:Out Ratio[2]	PM Peak-Hour In	PM Peak-Hour Out	PM Peak-Hour Total
Driveway Trips[3]														
Proposed														
Candlelight	Multiple Dwelling Unit - Over 20 dwelling units/acre	475 du	6 / du	2,850	8%	2.00 : 8.00	46	182	228	9%	7.00 : 3.00	180	77	257
Proposed Total				**2,850**			**46**	**182**	**228**			**180**	**77**	**257**
NET TRIP GENERATION =				**2,850**			**46**	**182**	**228**			**180**	**77**	**257**

Note:
1. DU = Dwelling Unit
2. Trip rates referenced from the City of San Diego Land Development Code - Trip Generation Manual, May 2003.
3. Driveway trips are the total number of trips generated by a site.

K:\SND_TPTO\095809001-Candlelight\Excel\[809001TG01.xlsm]Summary

Candlelight



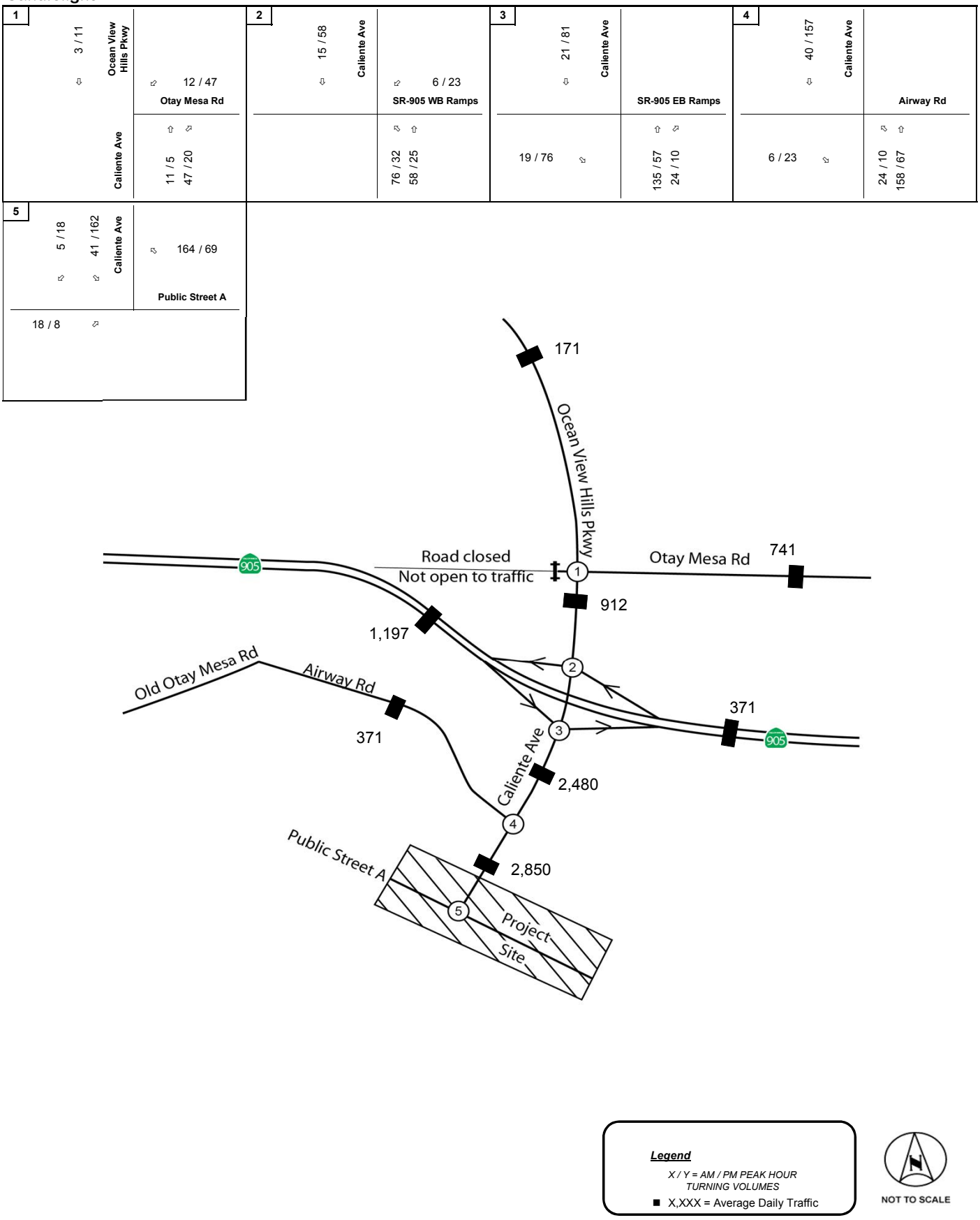
Kimley-Horn and Associates, Inc.

FIGURE 4-1

Existing and Near Term Conditions Project Trip Distribution

K:\SND_TPTO\095809001-Candlelight\Excel\[809001TA01.xlsm]NT Dist Figure 1-16

Candlelight



Kimley-Horn and Associates, Inc.

FIGURE 4-3

Existing and Near Term Conditions Project Trip Assignment

K:\SND_TPTO\095809001-Candlelight\Excel\[809001TA01.xlsm]NT Proj Assign Figure 1-16

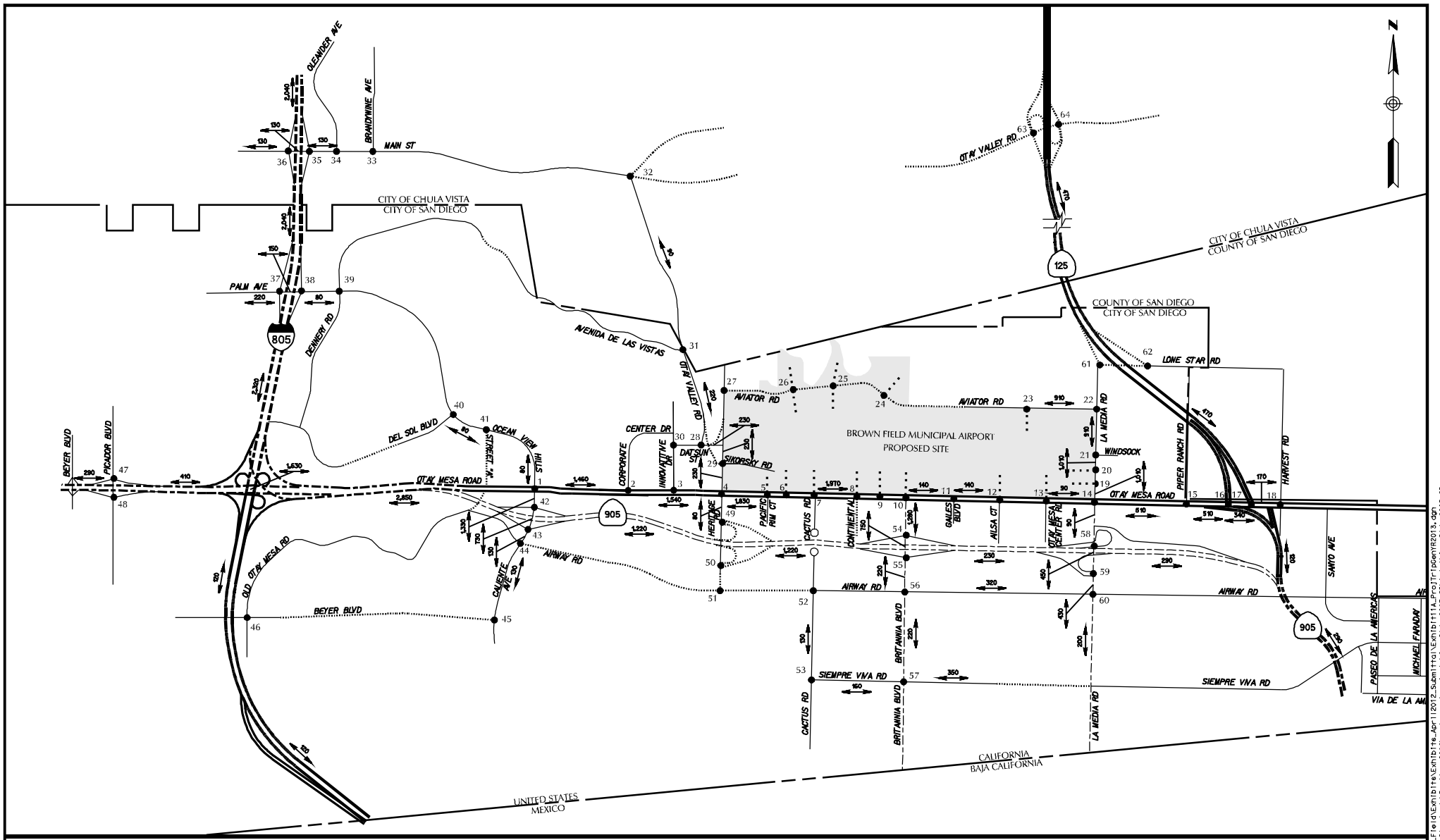


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EXHIBIT 11A

PHASE 1 TRIP ASSIGNMENT FOR YEAR 2013 (PHASE 1 OPENING YEAR) SCENARIO

METROPOLITAN AIRPARK TRAFFIC IMPACT ANALYSIS

LEGEND

● = STUDY INTERSECTION
- - - - = PROJECT ACCESS
..... = FUTURE ROAD
—·— = TRUCK ROUTE
XX,XXX = ADT

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Plaza La Media

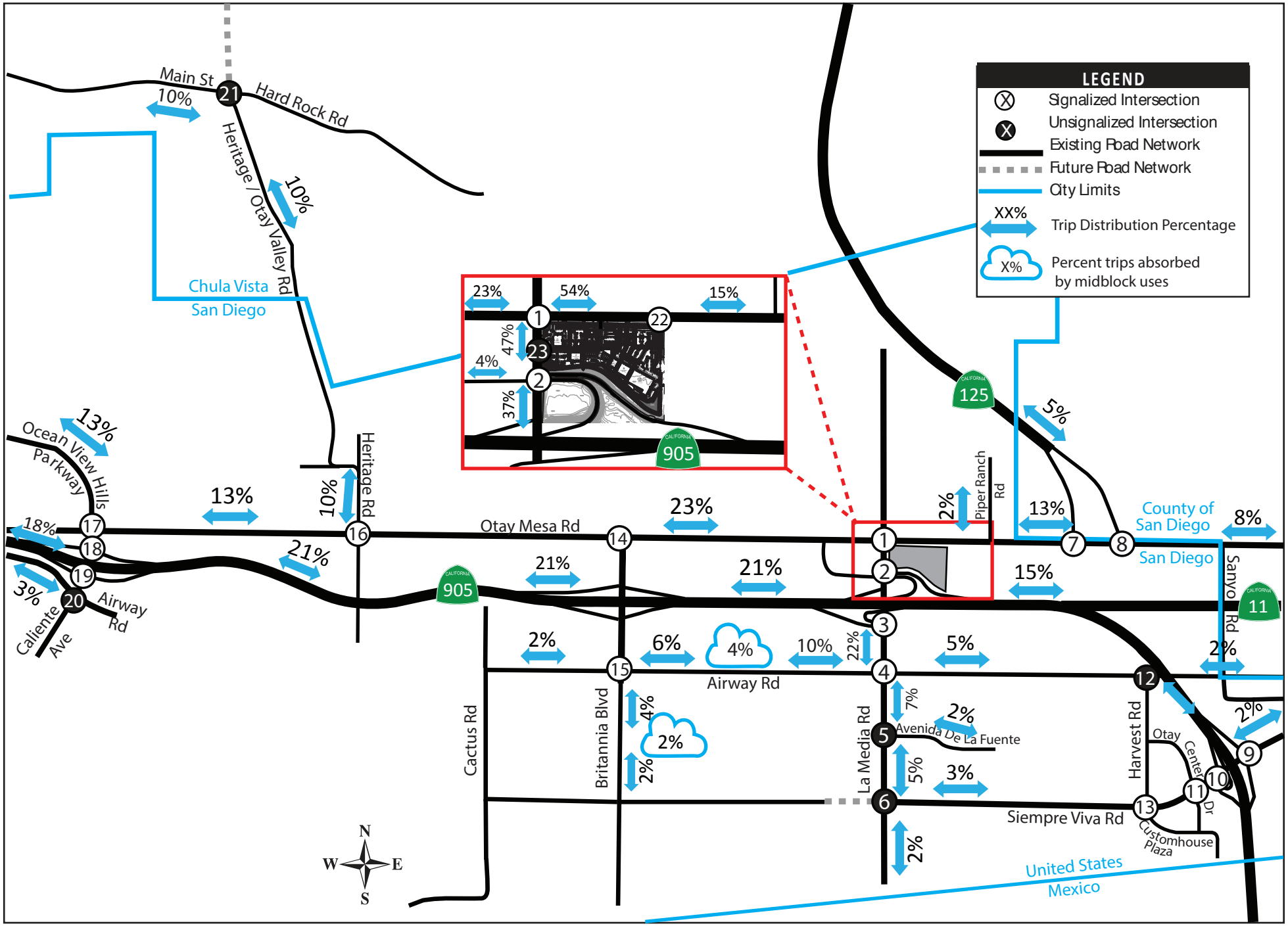

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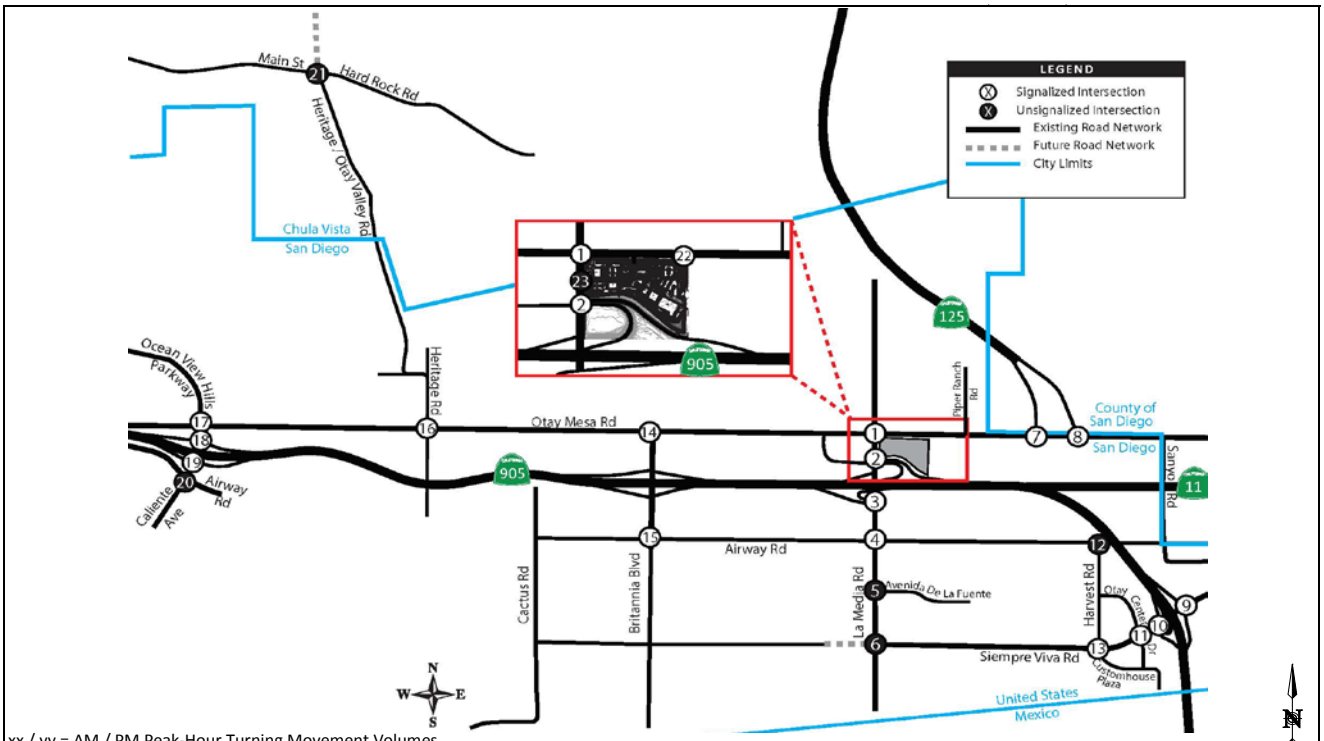
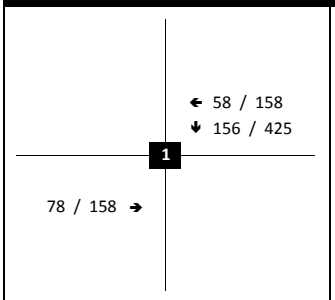
Figure 5-1
Opening Year 2018 Project Trip Distribution

Plaza La Media

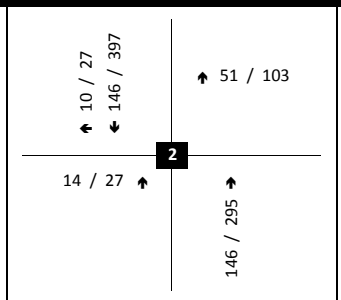


xx / yy = AM / PM Peak-Hour Turning Movement Volumes
The naming convention for intersections is North-South / East-West

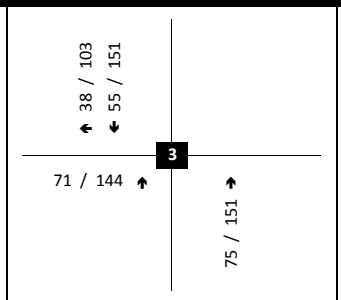
La Media Rd @ Otay Mesa Rd



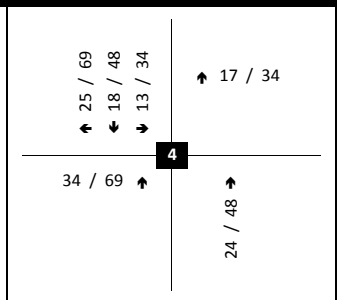
La Media Rd @ SR-905 WB Ramps



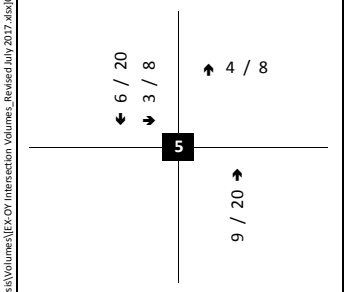
La Media Rd @ SR-905 EB Ramps



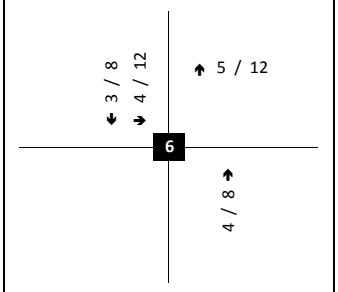
La Media Rd @ Airway Rd



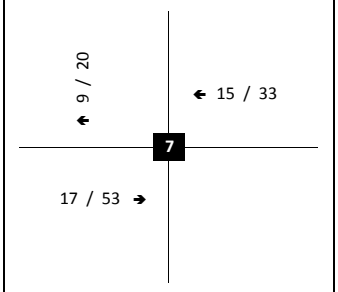
La Media Rd @ Avenida de la Fuente



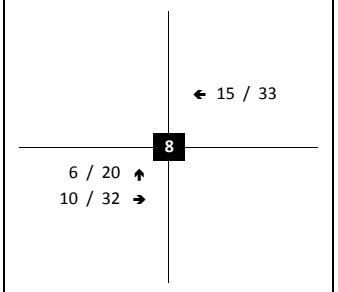
La Media Rd @ Siempre Viva Rd



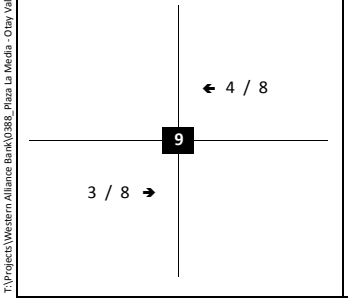
SR-125 SB Ramp @ Otay Mesa Rd



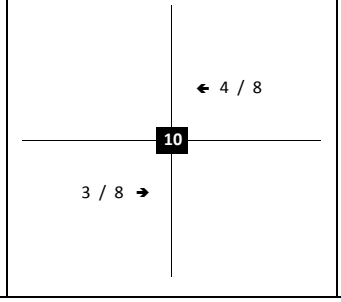
SR-125 NB Ramp @ Otay Mesa Rd



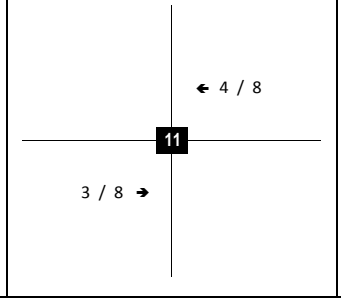
SR-905 NB Ramps @ Siempre Viva Rd



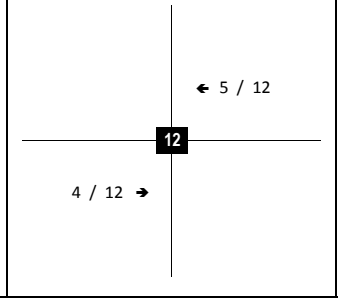
SR-905 SB Ramps @ Siempre Viva Rd



Otay Center Dr @ Siempre Viva Rd



Harvest Rd @ Airway Rd

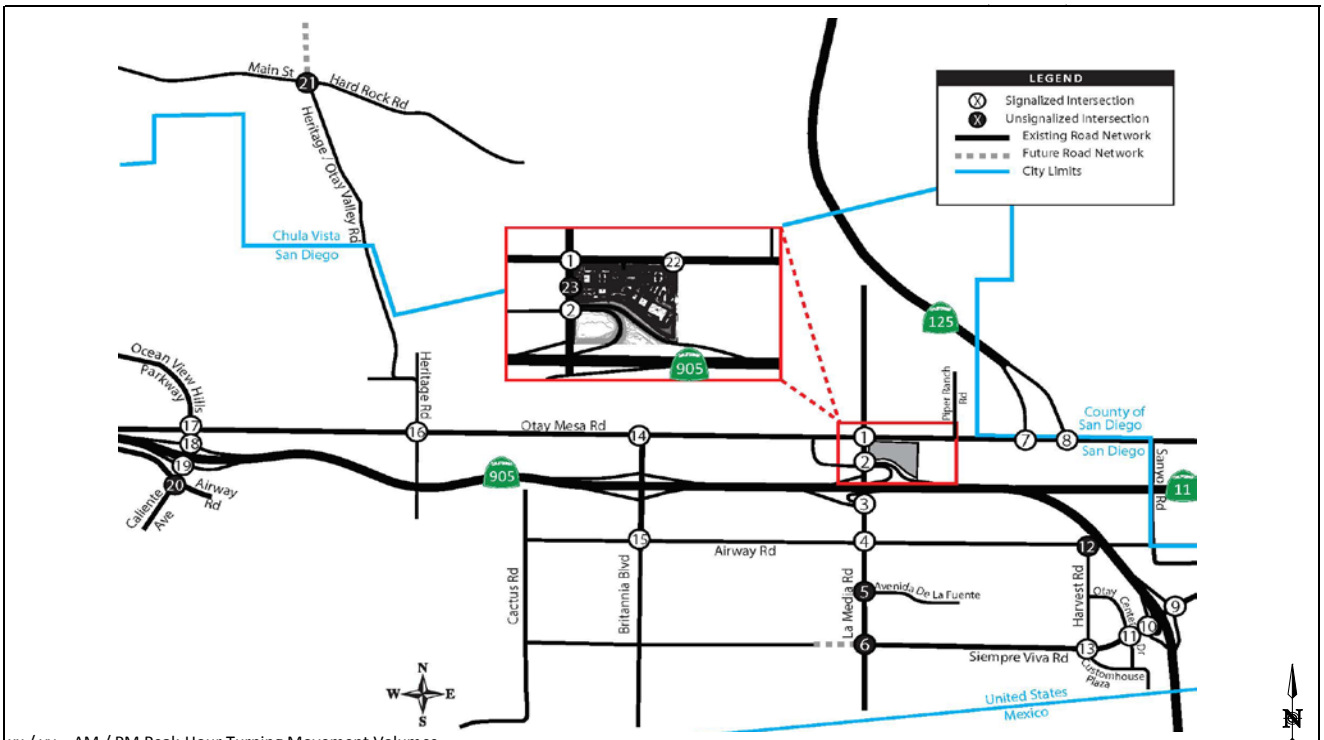


T:\Projects\Western Alliance Bank\0388_Plaza La Media - Otay Valley TIA\Analysis\Volumes\[EX-OY Intersection Volumes_Revised July 2017.xlsx]OY Proj As

Figure 5-3a

Opening Year 2018 Peak Hour Project Trip Assignment

Plaza La Media



xx / yy = AM / PM Peak-Hour Turning Movement Volumes
The naming convention for intersections is North-South / East-West

Harvest Rd / Customhouse Plaza @ Siempre Viva Rd

13: ← 4 / 8; → 3 / 8

Britannia Blvd @ Otay Mesa Rd

14: ← 29 / 93; → 42 / 94

Britannia Blvd @ Airway Rd

15: ← 3 / 8; ↓ 5 / 16; → 4 / 8; → 7 / 16

Heritage Rd @ Otay Mesa Rd

16: ↑ 13 / 41; ← 17 / 53; → 18 / 41; → 24 / 53

Ocean View Hills Pkwy / Caliente Ave @ Otay Mesa Rd

17: ↑ 17 / 53; → 24 / 53

Caliente Ave @ SR-905 WB Ramps

18: ↓ 4 / 12

Caliente Ave @ SR-905 EB Ramps

19: ↓ 4 / 12; → 5 / 12

Caliente Ave @ Airway Rd

20: ← 4 / 12; ↑ 5 / 12

Heritage Rd @ Hard Rock Rd / Main St

21: ↓ 18 / 41; ↑ 13 / 41

Avenida Costa Azul @ Otay Mesa Rd

22: ↓ 51 / 103; ← 213 / 582; → 38 / 103; ↓ 78 / 158

La Media Rd @ Project Driveway

23: ↓ 156 / 425; → 210 / 426

T:\Projects\Western Alliance Bank\0388_Plaza La Media - Otay Valley TIA\Analysis\Volumes\[EX-OY Intersection Volumes_Revised July 2017.xlsx]OY Proj As

Figure 5-3b

Opening Year 2018 Peak Hour Project Trip Assignment

Rausch, Tyler

From: Gonsalves, Ann <AGonsalves@sandiego.gov>
Sent: Thursday, October 26, 2017 1:04 PM
To: Loomis, Mychal
Cc: Shabihkhani, Amin
Subject: FW: Otay Mesa 7Eleven on La Media

Follow Up Flag: Follow up
Flag Status: Completed

Mychal,

Just fyi for the Sunroad Otay study. This is the best info we have so far.

Thanks,
Ann

Ann French Gonsalves, RTE
Senior Traffic Engineer
City of San Diego
Development Services Department
619-446-5294
sandiego.gov

CONFIDENTIAL COMMUNICATION
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From: Mahzari, Farah
Sent: Thursday, October 26, 2017 1:00 PM
To: Gonsalves, Ann <AGonsalves@sandiego.gov>
Subject: Otay Mesa 7Elevan

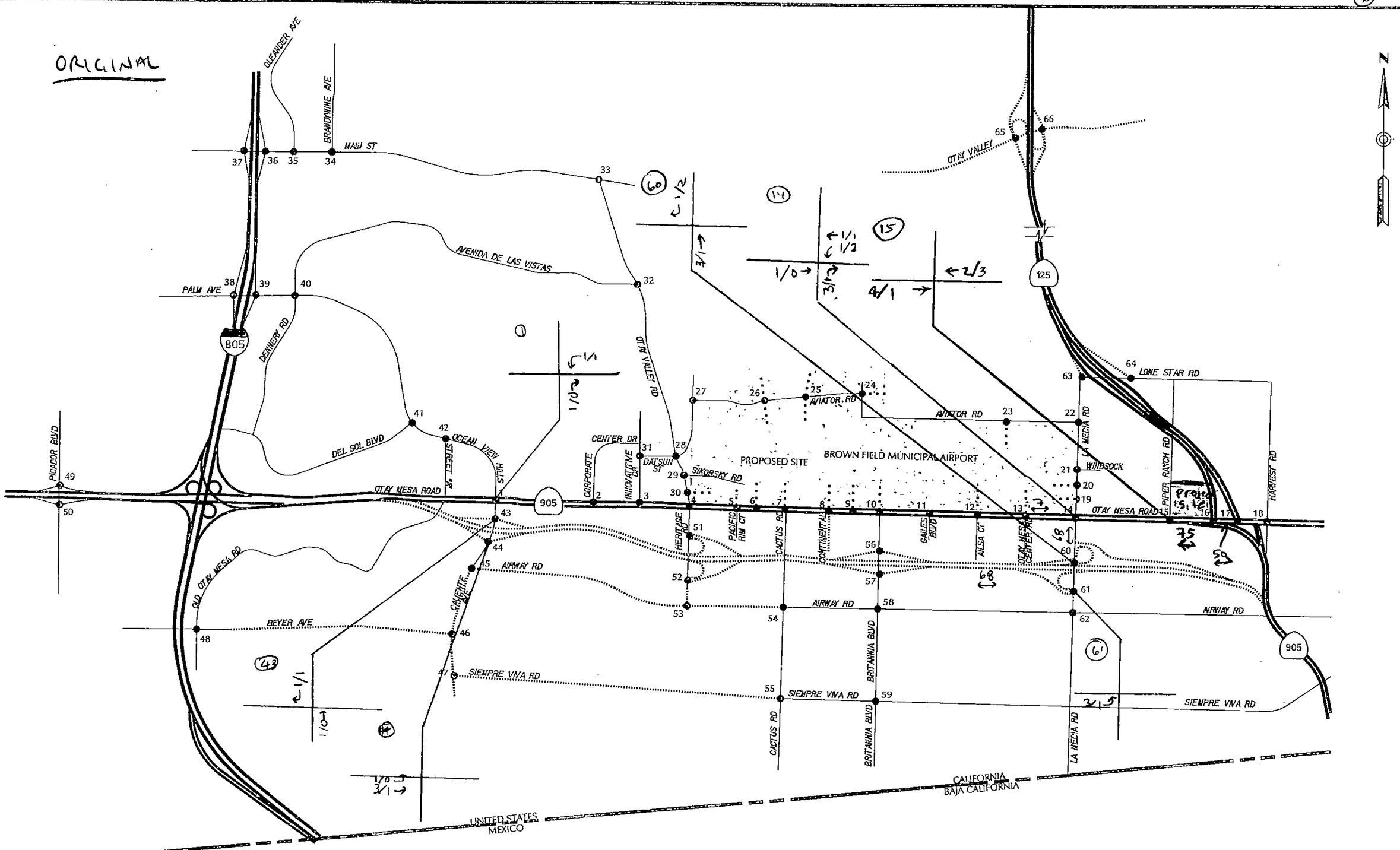
Hi Ann,

Project proposes:

One fuel canopy, 5 Dispensaries
One story convenient store addition (870 S.F. ??)
New accessible Men's and Women's bathrooms

Thanks,
Farah Mahzari

ORIGINAL



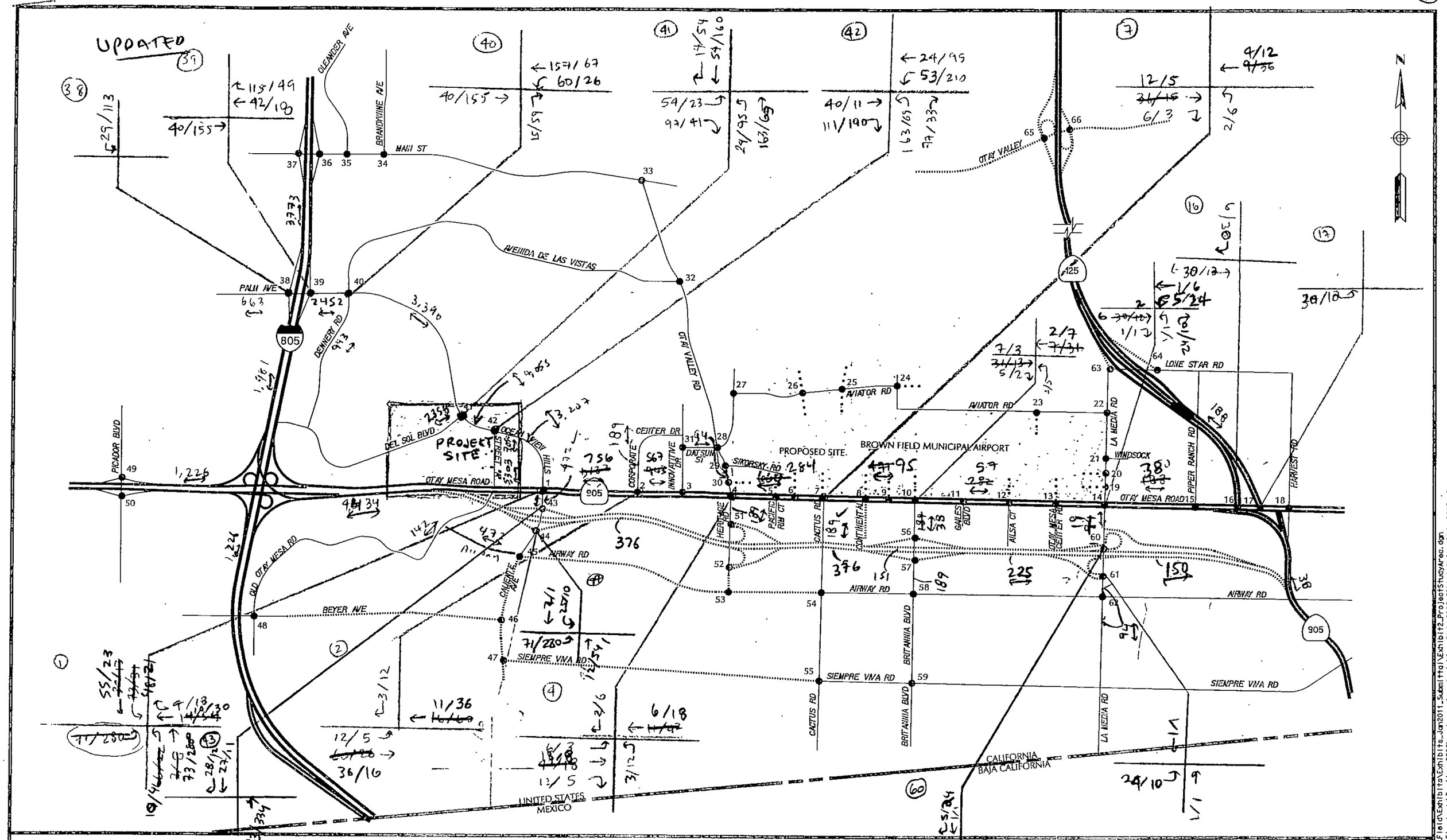
RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165

EXHIBIT 2
PROJECT STUDY AREA
BROWN FIELD TRAFFIC ANALYSIS

USMS Seized Vehicle Lot
XXX ADT

LEGEND
= STUDY INTERSECTION
= PROJECT ACCESS
= FUTURE ROAD

T:\15818_Brown_Field\Exhibits\Exhibits_Jan2011_Submittal\Exhibit2_ProjectStudyArea.dgn
\\arv_jvol\RickStandards\Bentley_2006\workspace\projects\CorpStds_2005_SD\jlot\CorpStds_2005_SD.pen



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5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291.0707
(FAX)619.291.4165

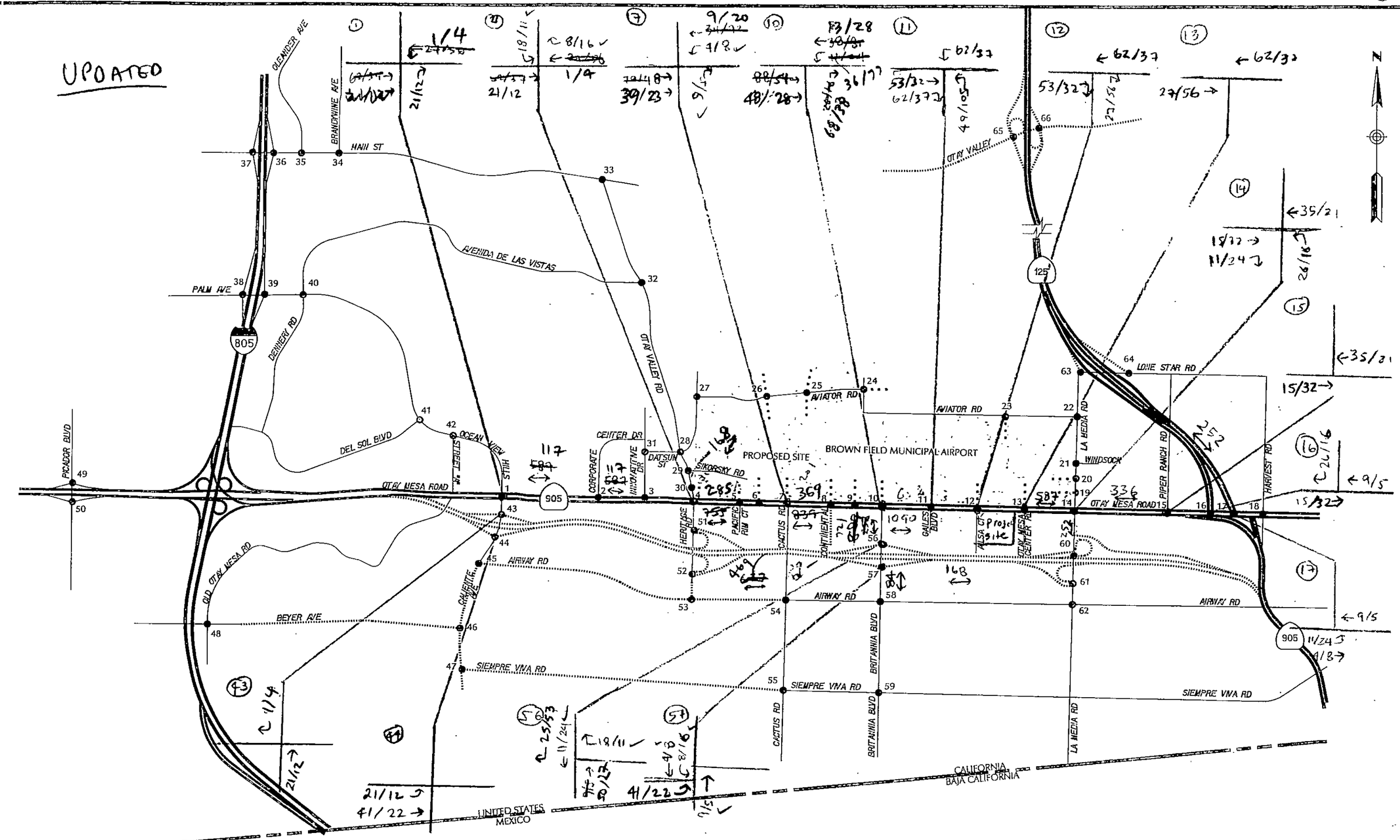
EXHIBIT 2

PROJECT STUDY AREA

BROWN FIELD TRAFFIC ANALYSIS

PLAYA DEL SOL
XXX ADT

LEGEND
● = STUDY INTERSECTION
• • • • = PROJECT ACCESS
..... = FUTURE ROAD



RICK ENGINEERING COMPANY
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619.291.0707
(FAX)619.291.4165

EXHIBIT 2
PROJECT STUDY AREA
BROWN FIELD TRAFFIC ANALYSIS

SOUTHBAY PROJECT
XXX ADT

LEGEND
● = STUDY INTERSECTION
• • • • = PROJECT ACCESS
····· = FUTURE ROAD

TABLE 4-1
TRIP GENERATION SUMMARY FOR THE SOUTHVIEW PROJECT

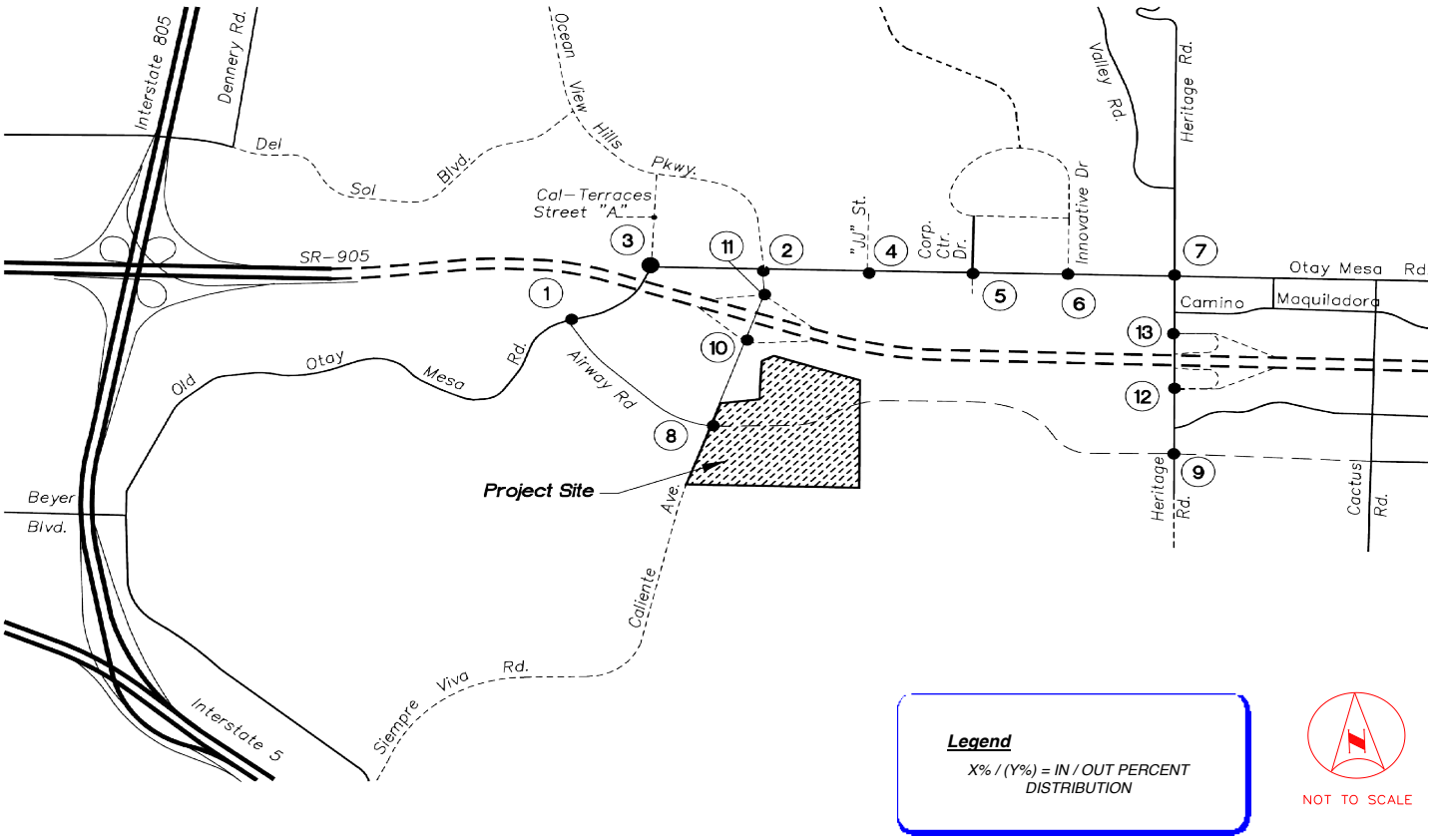
Land Use [c]	Units[a][c]	Trip Rate[b]	Daily Trips	AM Peak-Hour					PM Peak-Hour				
				% of ADT[b]	In:Out Ratio[b]	In	Out	Total	% of ADT[b]	In:Out Ratio[b]	In	Out	Total
PROPOSED													
Lot 1													
Multi-Family Dwelling Units	156 DU	6 / DU	936	8%	20 : 80	15	60	75	9%	70 : 30	59	25	84
Lot 2													
Multi-Family Dwelling Units	216 DU	6 / DU	1296	8%	20 : 80	21	83	104	9%	70 : 30	82	35	117
Lot 3													
Multi-Family Dwelling Units	181 DU	6 / DU	1086	8%	20 : 80	17	70	87	9%	70 : 30	68	30	98
Total	**553**		**3,318**			**53**	**213**	**266**			**209**	**90**	**299**

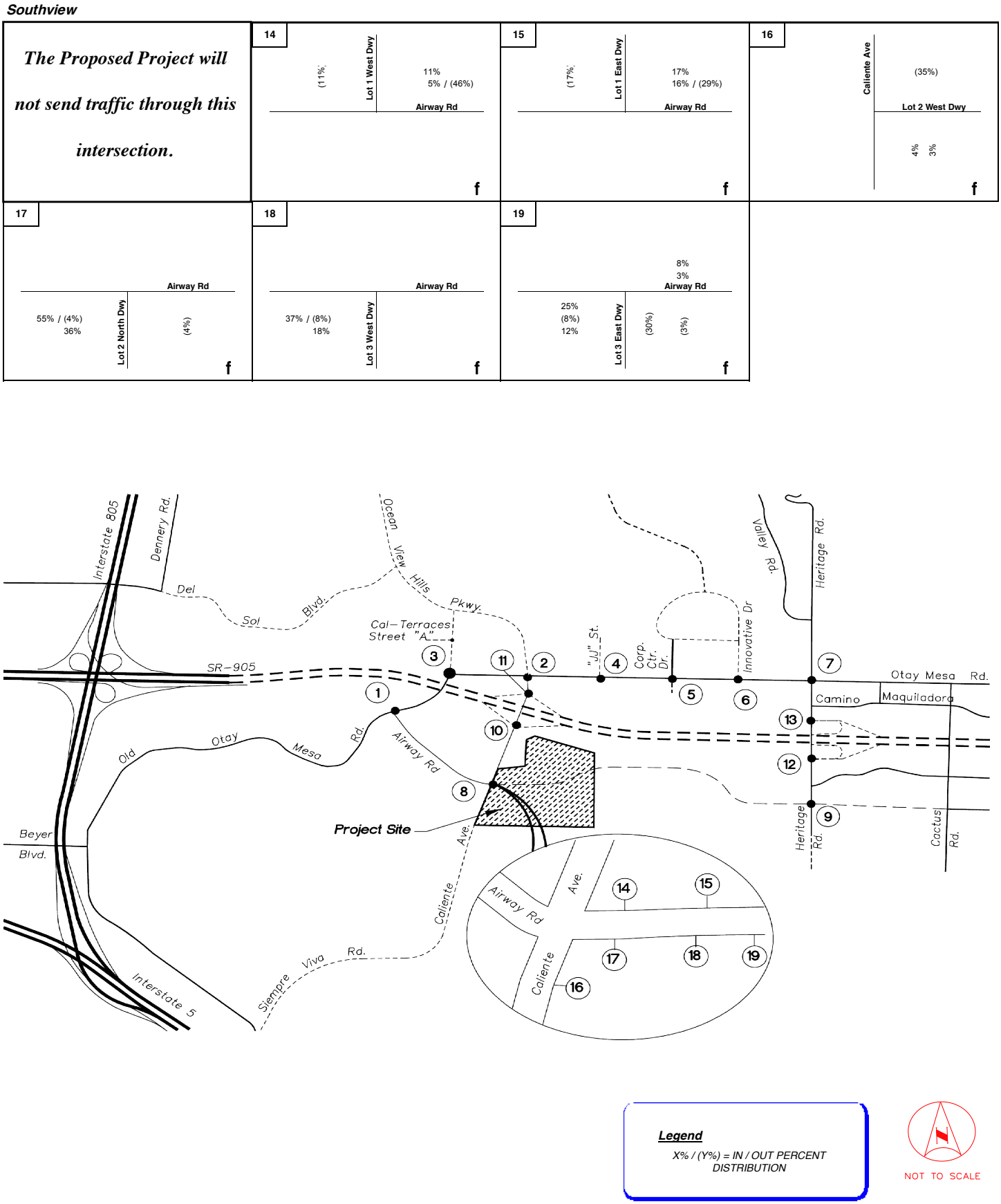
Note:
(a) DU = Dwelling Unit
(b) Trip rates referenced from the May 2003 City of San Diego *Trip Generation Manual* , Table 1.
(c) The number of units per lot was calculated by multiplying the area of each lot by 30 units/acre, which is assumed for a RM-2-6 rezone

K:\095372000\Excel\January 2006\[372000tg06.xls]Trip Generation

1 Old Otay M. Rd (13%) Airway Rd 13% f	**2** 6% Ocean View Hill 19% Otay Mesa Rd Caliente Ave (6%) (19%) f	***The Proposed Project will not send traffic through this intersection.***	**4** 2% "JJ" St 17% Otay Mesa Rd (2) (17%) f
5 2% Corp. Center Dr 13% Otay Mesa Rd (2) (13) (2) 2% f	**6** 1% Innovative Dr 12% Otay Mesa Rd (1) (12) f	**7** 4% Heritage Rd 5% Otay Mesa Rd (4) (5) (3) 3% f	**8** 69% Caliente Ave (42) (8) 5% / (8%) Airway Rd 13% (8) (27) 4% * See note below f
9 1% Heritage Rd 7% Airway Rd (1) (7) (3) 3% f	**10** 34% Caliente Ave SR-905 EB Off-Ramp SR-905 EB On-Ramp 35% (60) (9) f	**11** 25% Caliente Ave 9% SR-905 WB On-Ramp SR-905 WB Off-Ramp (35) (25) f	***The Proposed Project will not send traffic through this intersection.***

* The following is the percentage of left turns that are U-turns: Westbound left In (5%);Northbound left out(3%);Westbound left out (4%)





Kimley-Horn and Associates, Inc.

Figure 4-3.1

Build-Out Project Trip Distribution (With Airway Rd)-Study Intersections

K:\095372000\Excel\December 2005\[372000TA05.xls](BOwA)DIST 13-24

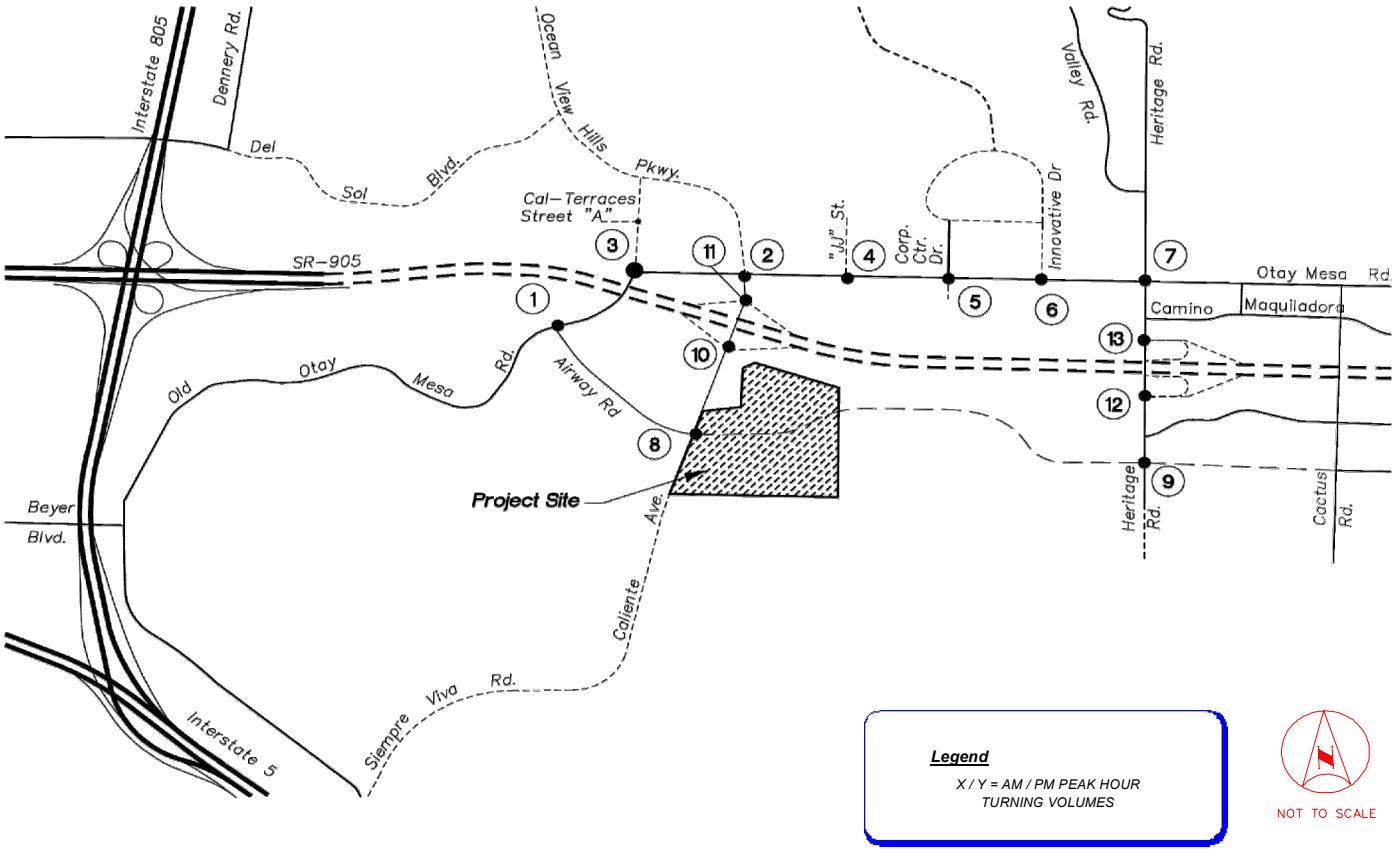
Southview

1 Old Otay M. Rd	28 / 12 Airway Rd 7 / 28	**2** 4 / 13 Caliente Ave	11 / 40 Otay Mesa Rd 13 / 6 41 / 18
5 2 / 5 Corp. Center Dr 5 / 2 28 / 12 5 / 2	7 / 28 Otay Mesa Rd 2 / 5	**6** 1 / 3 Innovative Dr 3 / 1 26 / 11	7 / 26 Otay Mesa Rd
9 1 / 3 Heritage Rd 3 / 1 15 / 7 7 / 3	4 / 15 Airway Rd 2 / 7	**10** 19 / 72 Caliente Ave SR-905 EB Off-Ramp 19 / 74	SR-905 EB On-Ramp 128 / 54 20 / 9

The Proposed Project will not send traffic through this intersection.

4 2 / 0 "JJ" St 5 / 2 37 / 16	10 / 36 Otay Mesa Rd
7 3 / 9 Heritage Rd 9 / 4 11 / 5 7 / 3	3 / 11 Otay Mesa Rd 2 / 7
8 37 / 145 Caliente Ave Airway Rd 7 / 28	90 / 38 18 / 8 20 / 18 18 / 8 58 / 25 3 / 9
11 14 / 53 Caliente Ave SR-905 WB On-Ramp	5 / 19 SR-905 WB Off-Ramp 75 / 32 54 / 23

The Proposed Project will not send traffic through this intersection.



Kimley-Horn and Associates, Inc.

Figure 4-7
Build-Out Project Trip Assignment (With Airway Rd)-Study Intersections

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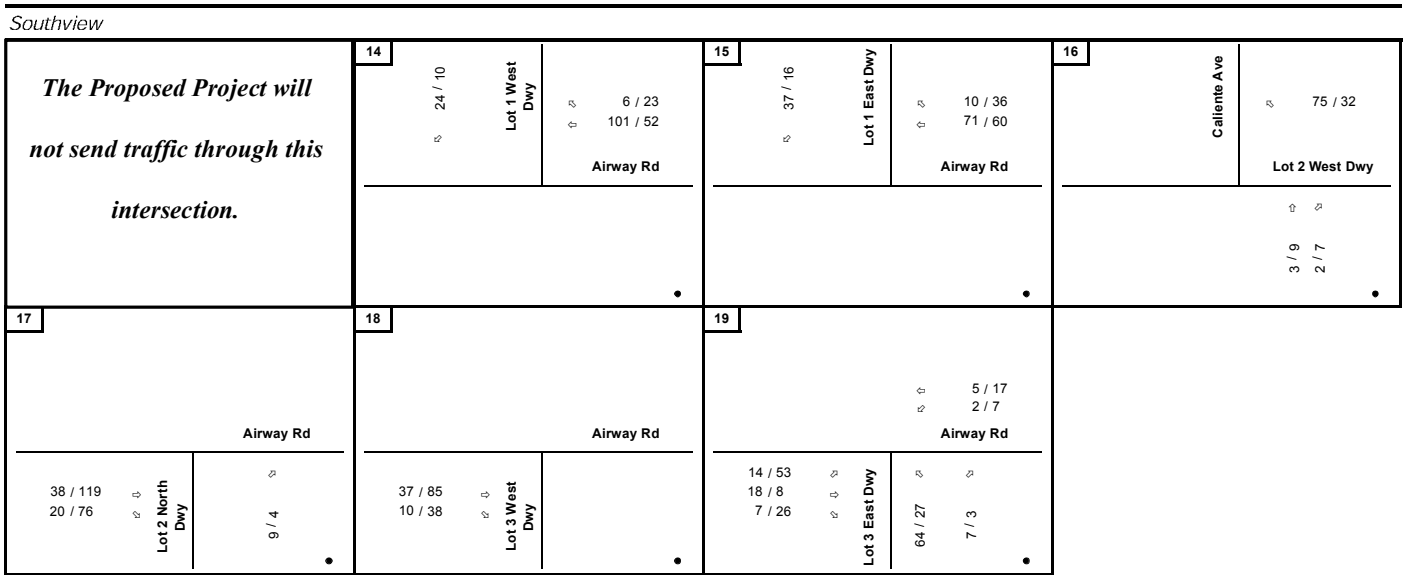
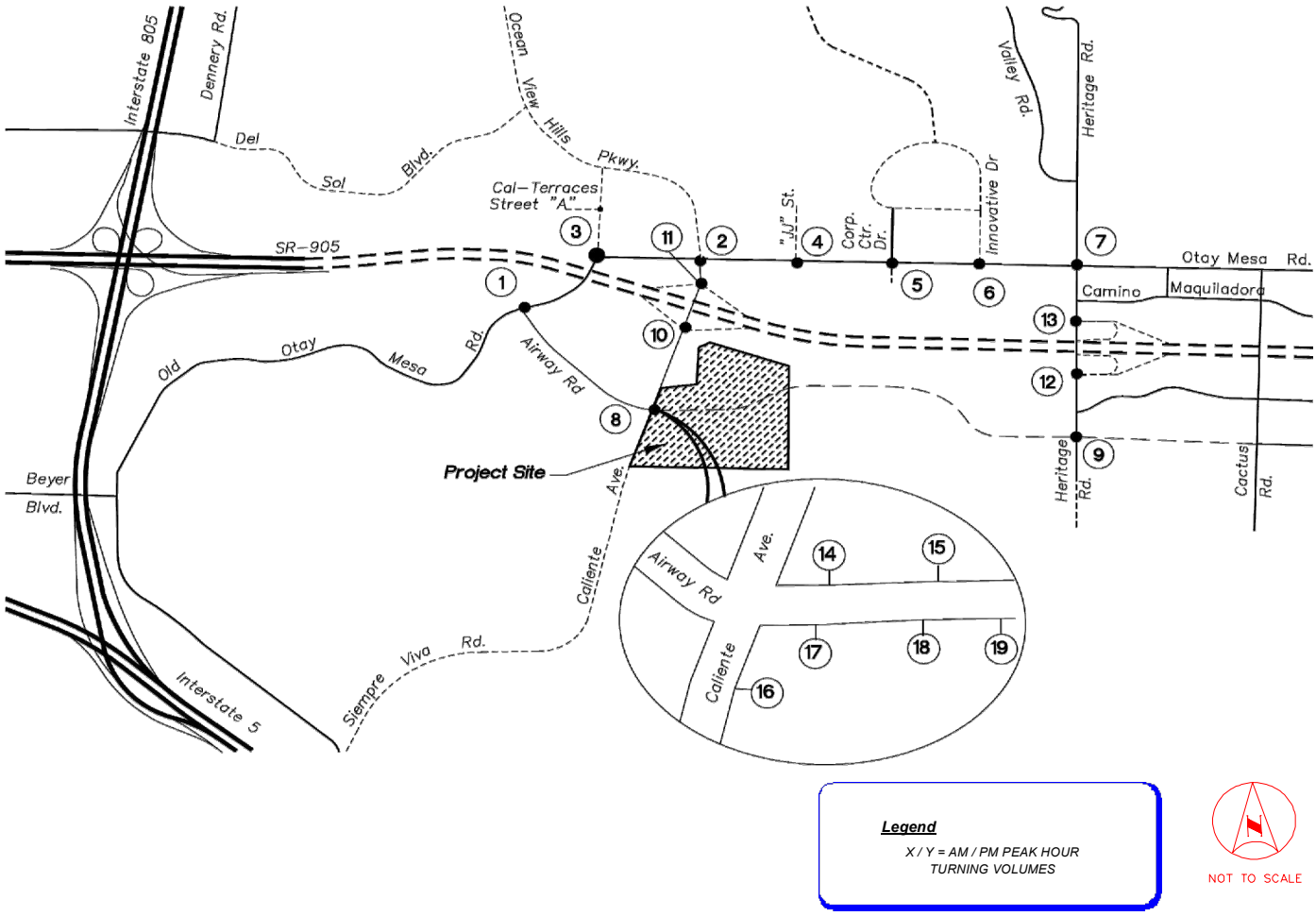


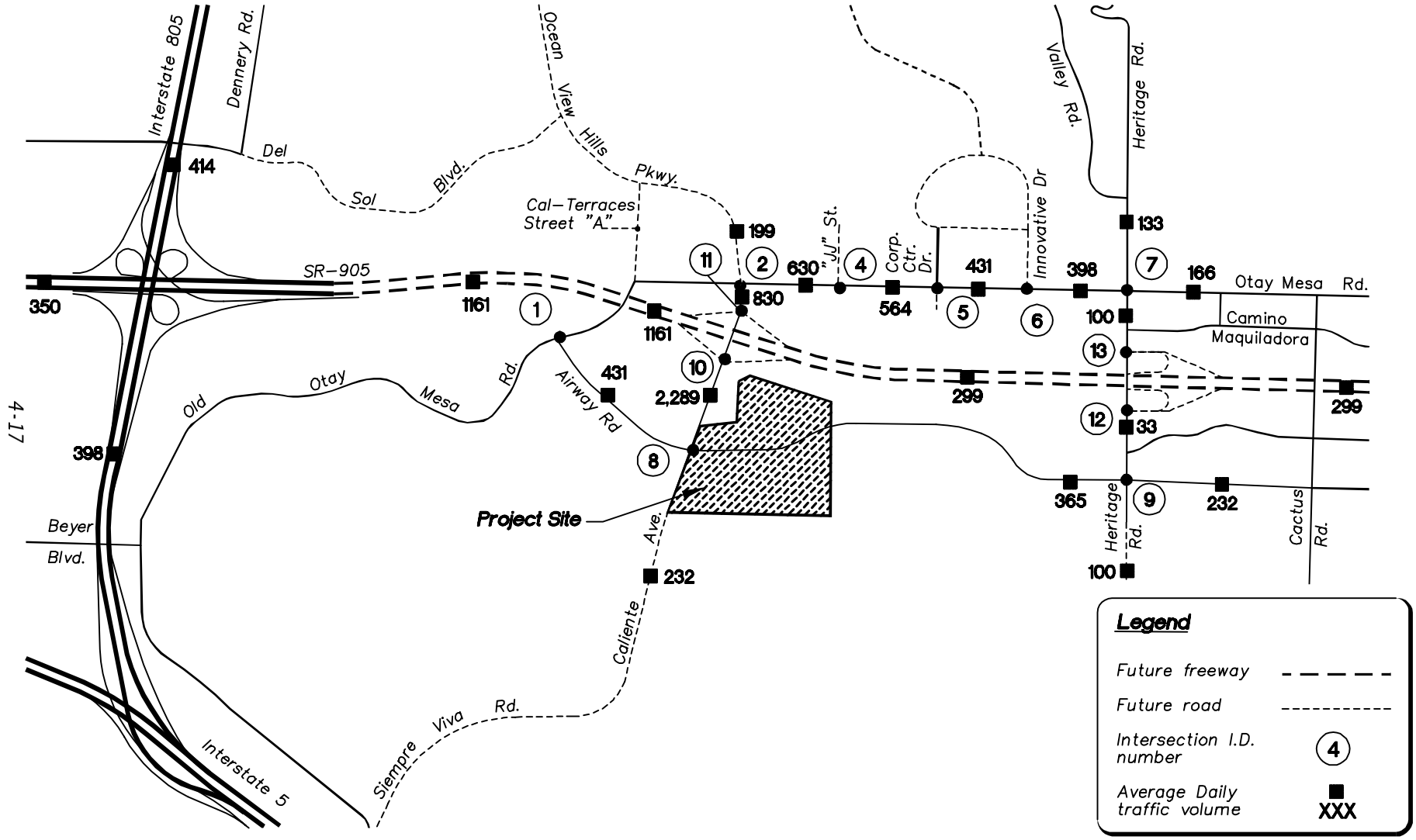


Kimley-Horn and Associates, Inc.

Figure 4-7.1

Build-Out Project Trip Assignment (With Airway Rd)-Study Intersections

K:\095372000\Excel\January 2006\[372000TA06.xls]BO(wi A)Proj Assign 13-24



Kimley-Horn and Associates, Inc.

Figure 4-8
Build-Out Project Trip Assignment (With Airway Rd) - Roadway Segments

K:\095372000\Figures\January 2006\Buildout with Airway Project Trip Assignments.dwg 1-12-06-11:49 AM

Michael Baker
INTERNATIONAL

April 27, 2016

Dr. Gerald Handler
HANDLER COMMERCIAL
9523 La Jolla Farms Road
La Jolla, CA 92037

Subject: Handler Property Focused Traffic Analysis

Dear Dr. Handler,

This focused traffic analysis has been prepared by Michael Baker International to evaluate the proposed modification of the July 26, 2011 Conditions of Approval and Site Development Permit (No. 388242) conditions that were adopted by the City of San Diego for the original 45-acre Vesting Tentative Map for the Handler Property. Since the adoption of the 2011 Conditions of Approval, the Tentative Map site of the property was reduced to 21.3 acres after the Caltrans acquisition of approximately 24 acres to construct the State Route 905 freeway.

The July 26, 2011 Conditions of Approval had included required off-site improvements at the intersection of Otay Mesa Road / Ocean Hills Parkway, and construction on those improvements have since been completed.

This study evaluates the proposed modification of the following Conditions of Approval for on-site street sections (Street A, Street B and Street C) and the two site access intersections at Otay Mesa Road (Street B at Otay Mesa Road, Street C at Otay Mesa Road):

<u>Condition #41</u>

- STREET B: Dedicate 84' of ROW and construct 64' of pavement, curb, gutter and a 5' sidewalk. Also, dedicate 92' of ROW for portion of Street B and construct 200' of the intersection with Otay Mesa Road with 72' of pavement to include one 18' southbound lane, a 4' raised median, two 12' northbound left-turn lanes, a 12' northbound through lane, and a 14' northbound right-turn lane. Construct at southern terminus of Street B a 55' curb radius cul-de-sac within 65' ROW including curb, gutter and 5' sidewalk.

Proposed Condition #41 Modification: Reduce Street B pavement width from 72' to 64' at the intersection with Otay Mesa Road, to include the following: one 18' southbound lane, a 4' raised median, two 12' northbound left-turn lanes, and one 18' northbound shared through/right-turn lane.

<u>Condition #45</u>

- Construct second westbound left-turn lane on Otay Mesa Road at the intersection with Street B.

Project Trip Generation

To determine the trips forecast to be generated by the proposed project, published trip generation rates from the City of San Diego Trip Generation Manual (May 2003) were utilized. Trip generation for the proposed project is presented in Table 1.

As shown in Table 1, the currently proposed project is forecast to generate a total of 9,021 daily trips, 554 a.m. peak hour trips, and 739 p.m. peak hour trips.

Table 1
Project Trip Generation

Trip Generation Rates (City of San Diego)

Land Use	Units	Daily Trip Rate	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Motel	rooms	9	8%	40%	60%	9%	40%	60%
Restaurant (Sit Down High Turnover)	TSF	130	8%	50%	50%	8%	60%	40%
Fast-Food Restaurant with Drive-Thru	TSF	700	4%	60%	40%	8%	50%	50%

Forecast Project Generated Trips

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Motel	189 rooms	1,701	136	54	82	153	61	92
Restaurant (Sit Down High Turnover)	24 TSF	3,120	250	125	125	250	150	100
Fast-Food Restaurant with Drive-Thru	6 TSF	4,200	168	101	67	336	168	168
Total Project Trips		**9,021**	**554**	**280**	**274**	**739**	**379**	**360**

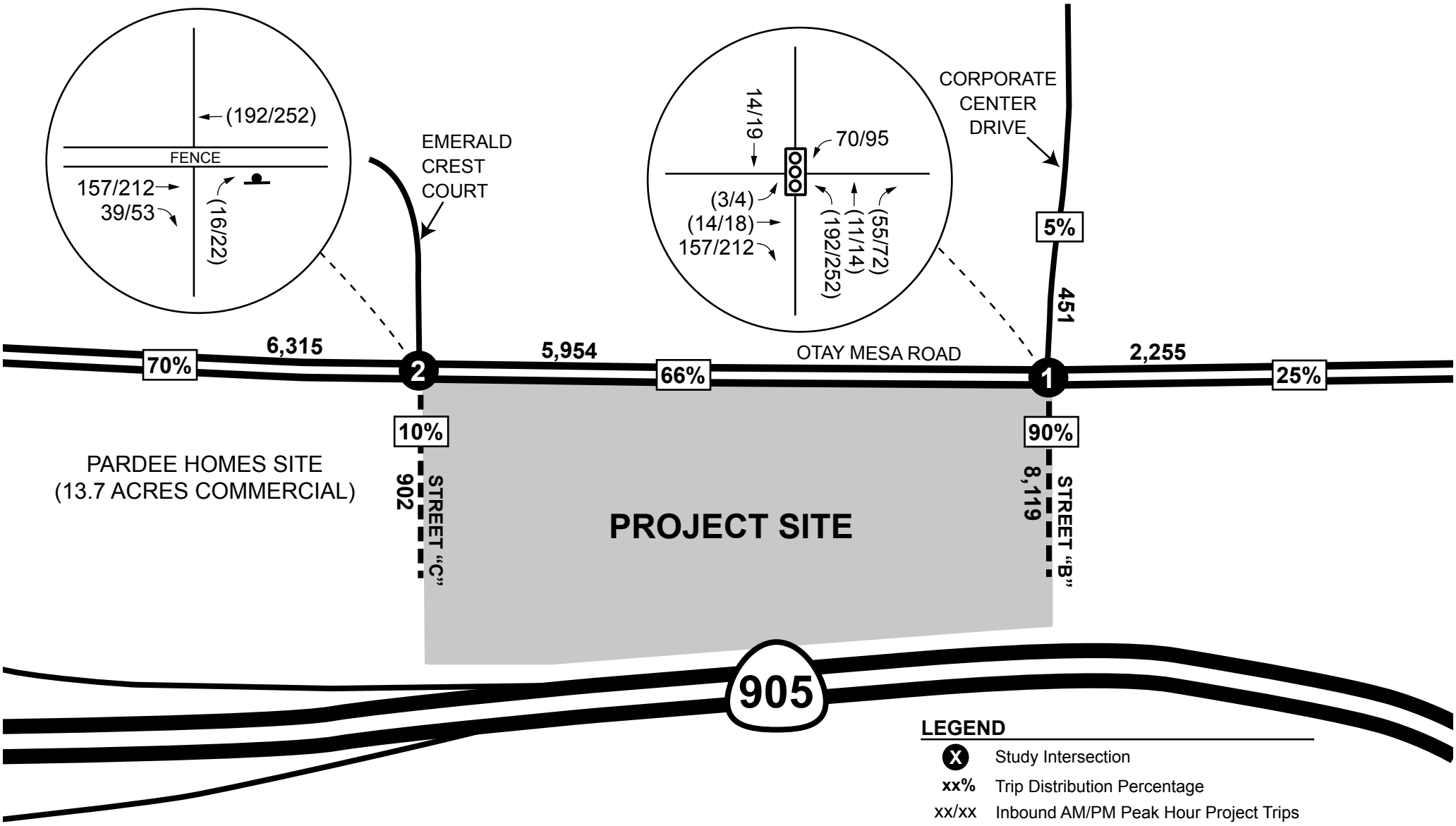
Source: City of San Diego *Trip Generation Manual* (May 2003).
TSF = Thousand Square-Feet

Trip Distribution and Trip Assignment

The distribution of project-related trips is primarily based on access to the site from the recently constructed SR-905 freeway, and from nearby residential communities. It is assumed that approximately 70% of the trips distribute to the west of the project site toward Ocean View Hills Parkway and the SR-905 / Caliente Avenue interchange. Approximately 25% of the trips distribute to the east on Otay Mesa Road, and approximately 5% distribute north on Corporate Center Drive.

The distribution of project trips at Street B and Street C would differ between the scenarios that assume a signal or no signal at the intersection of Otay Mesa Road / Street C. Without a signal at Otay Mesa Road / Street C, all westbound traffic exiting the site would need to make a left-turn at the signal at Otay Mesa Road / Street B-Corporate Center Drive.

The project trip distribution and trip assignment without a signal at Otay Mesa Road / Street C is graphically illustrated in **Exhibit 4**. **Exhibit 5** shows the trip distribution and trip assignment with a signal at Otay Mesa Road / Street C.



LEGEND

X	Study Intersection
xx%	Trip Distribution Percentage
xx/xx	Inbound AM/PM Peak Hour Project Trips
(xx/xx)	Outbound AM/PM Peak Hour Project Trips
X,XXX	Daily Project Trips
	Signalized Intersection
	Stop Sign

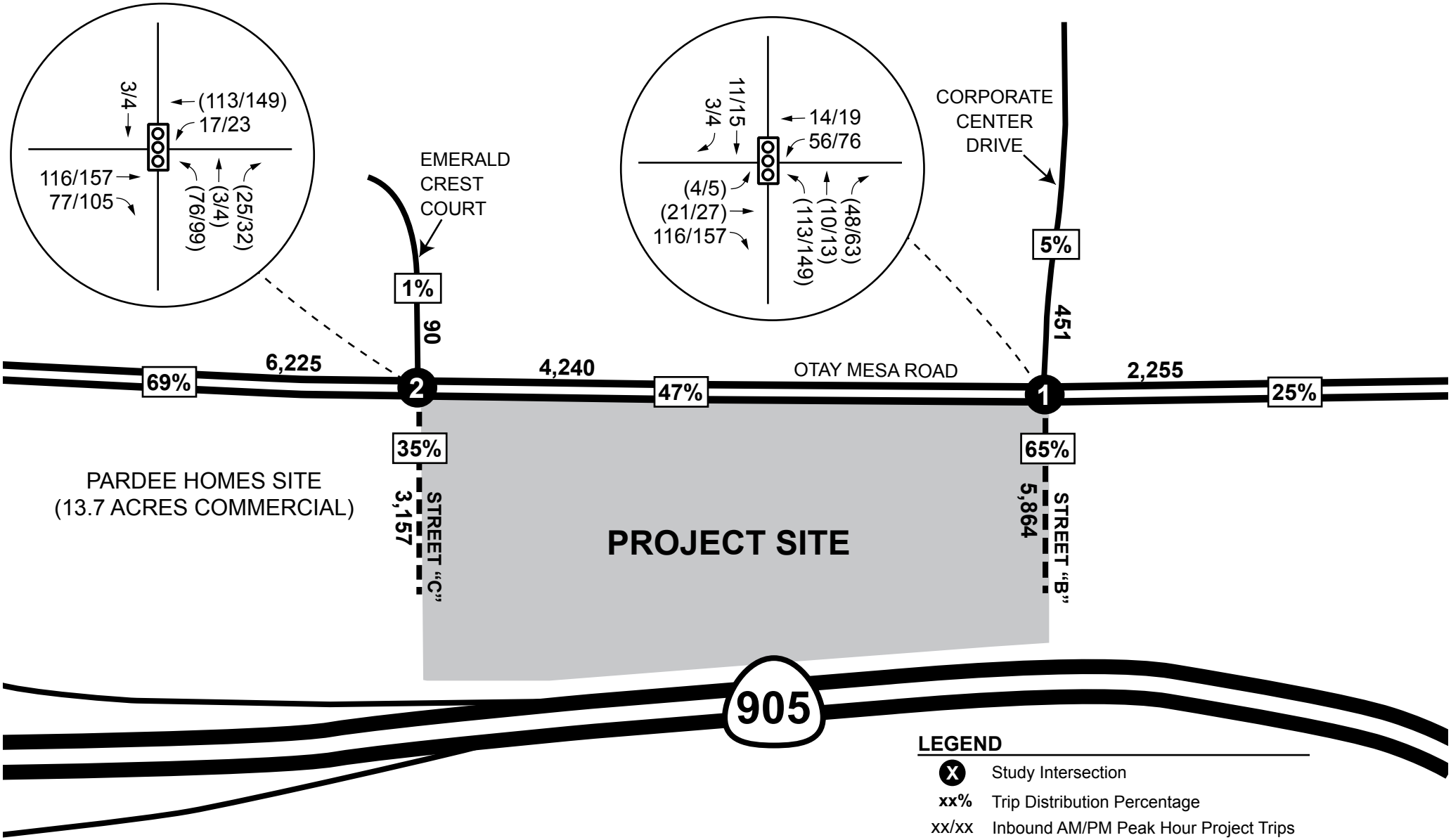
Not to Scale

Michael Baker INTERNATIONAL

PROJECT TRIP DISTRIBUTION AND TRIP ASSIGNMENT WITHOUT TRAFFIC SIGNAL AT OTAY MESA RD/STREET "C"

JN 144138 DECEMBER 2015

EXHIBIT 4



LEGEND

X	Study Intersection
xx%	Trip Distribution Percentage
xx/xx	Inbound AM/PM Peak Hour Project Trips
(xx/xx)	Outbound AM/PM Peak Hour Project Trips
X,XXX	Daily Project Trips
	Signalized Intersection
	Stop Sign

Not to Scale

Michael Baker INTERNATIONAL

PROJECT TRIP DISTRIBUTION AND TRIP ASSIGNMENT WITH TRAFFIC SIGNAL AT OTAY MESA RD/STREET "C"

JN 144138 DECEMBER 2015

EXHIBIT 5

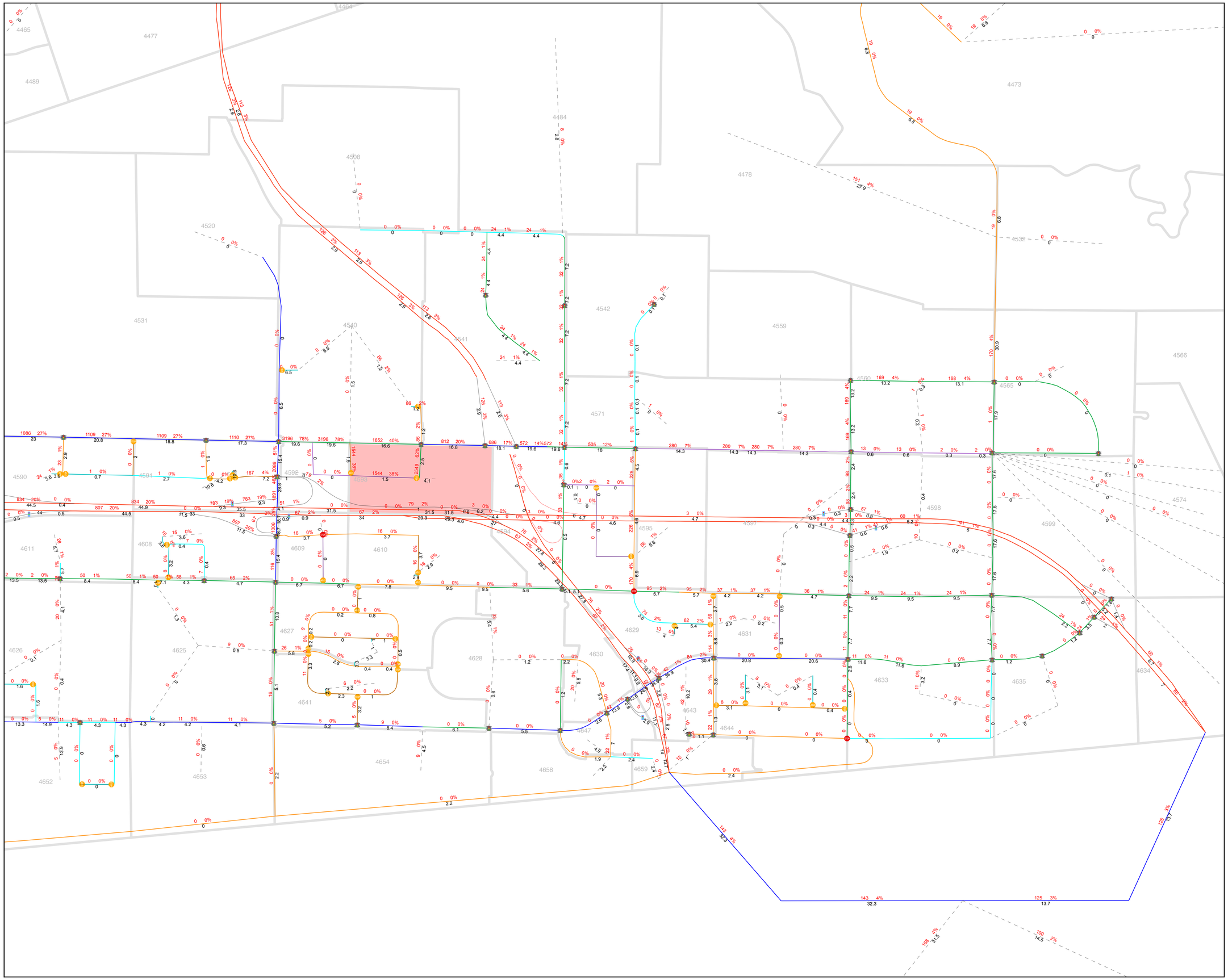
APPENDIX D

SANDAG SELECT ZONE MODEL

SANDAG
Series 12
2020rc11

Otay Mesa

TAZ 4593
Select Zone Plot



Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

Traffic Analysis Zones

Selz Volumes & Percentage

Unadjusted ADT(x1000)

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(619) 699-1900
E-mail: sandag@sandag.org
Web site: www.sandag.org

N

0 0.1 0.2 0.3
Miles

SANDAG

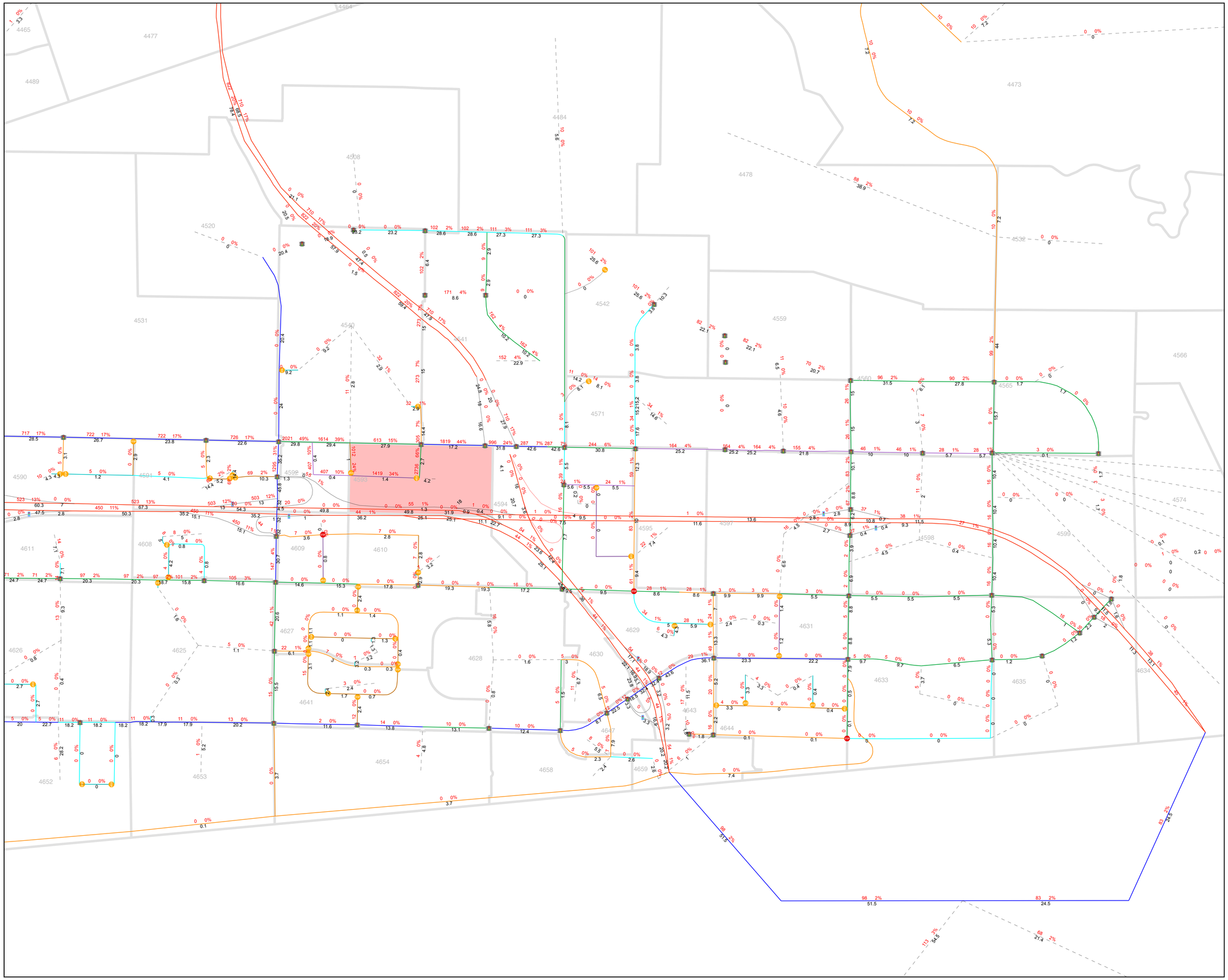
servicebureau

Date: December 5, 2016

SANDAG
Series 12
2050rc11

Otay Mesa

TAZ 4593
Select Zone Plot



Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

Traffic Analysis Zones

\# Selz Volumes & Percentage

\# Unadjusted ADT(x1000)

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SAN DIEGO ASSOCIATION OF GOVERNMENTS
401 B STREET, SUITE 800
SAN DIEGO, CALIFORNIA 92101 USA
(619) 699-1900
E-mail: sandag@sandag.org
Web site: www.sandag.org

N

0 0.1 0.2 0.3
Miles

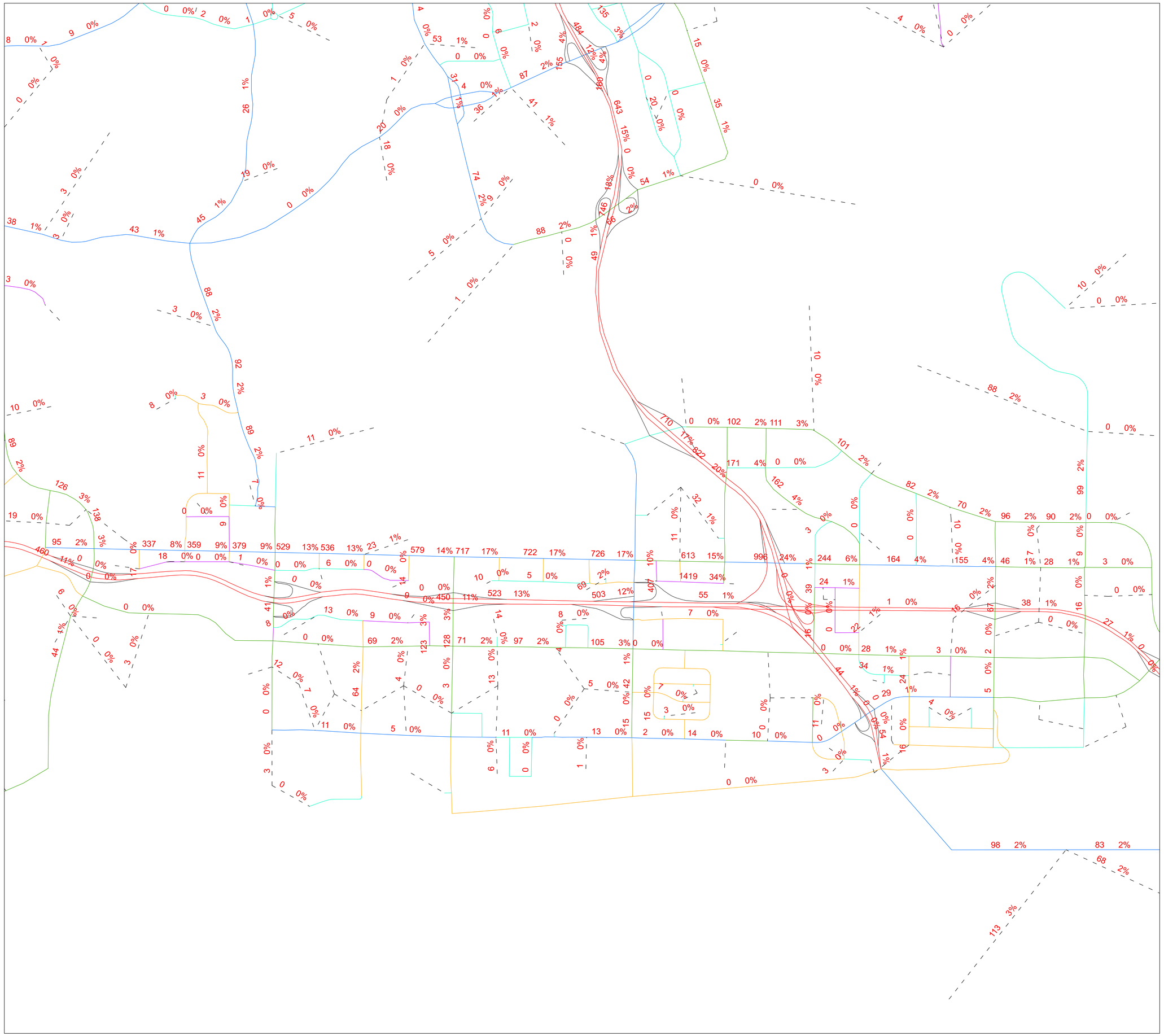
SANDAG

servicebureau

Date: December 5, 2016

Functional Classification

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local Road
- Freeway Ramp
- Local Ramp
- Zone Connector



Functional Classification

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local Road
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- Local Ramp
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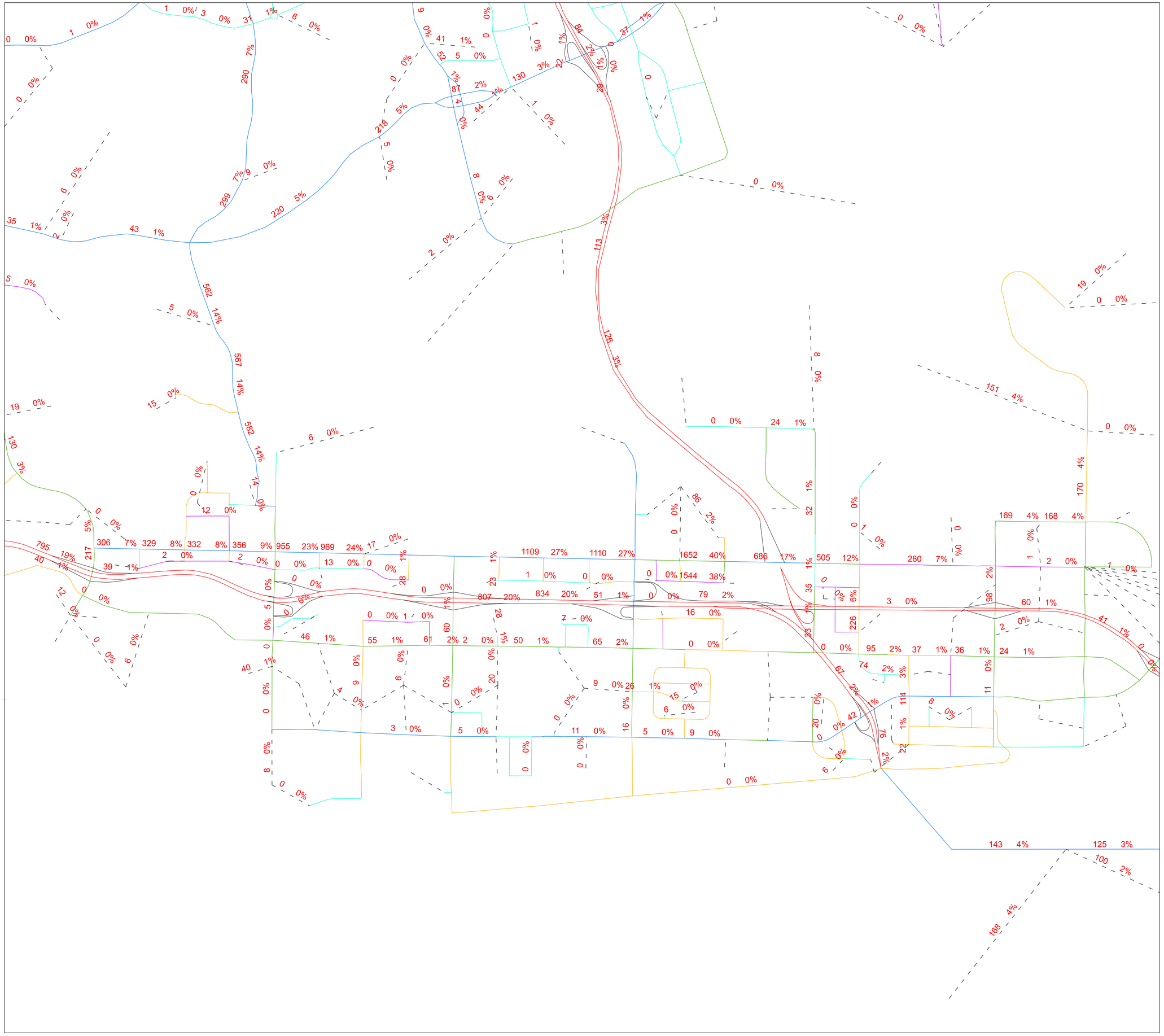
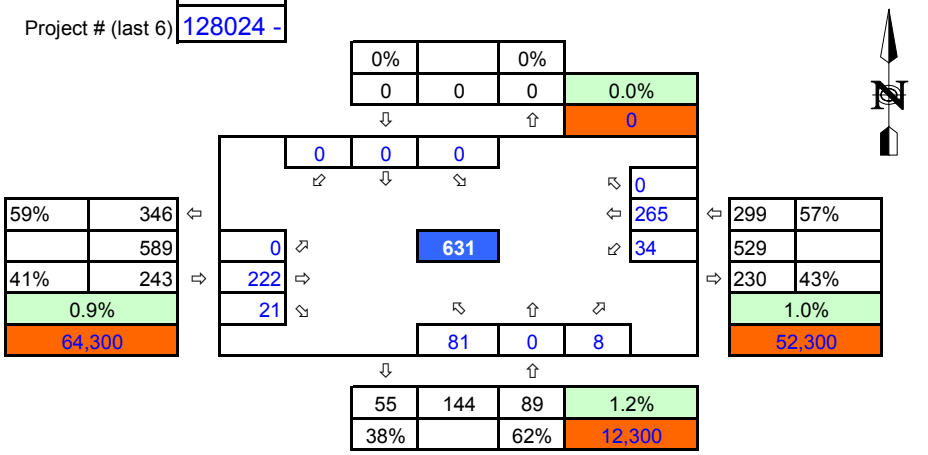
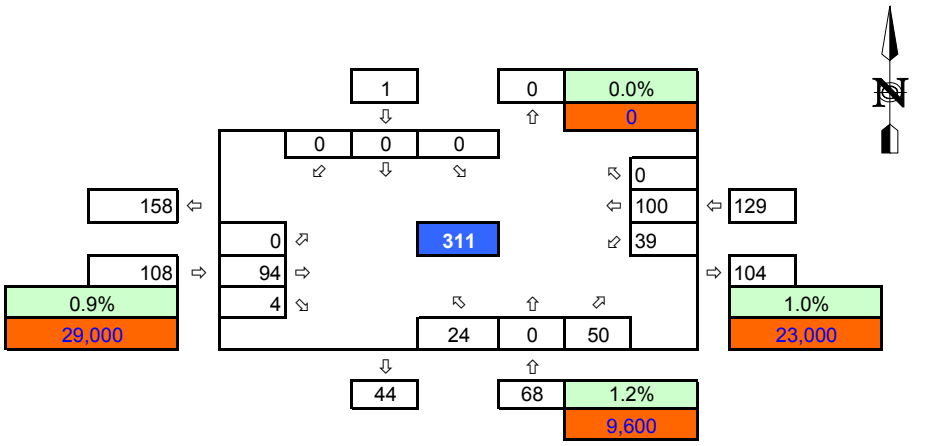


Int 7 AM Peak Volumes

Scenario:	**Existing Conditions**
N/S Street:	**Otay Mesa Center Road**
E/W Street:	**Otay Mesa Road**
Intersection #:	7
Project # (last 6)	128024 -



Scenario:	**Horizon Year Conditions**
N/S Street:	**Otay Mesa Center Road**
E/W Street:	**Otay Mesa Road**

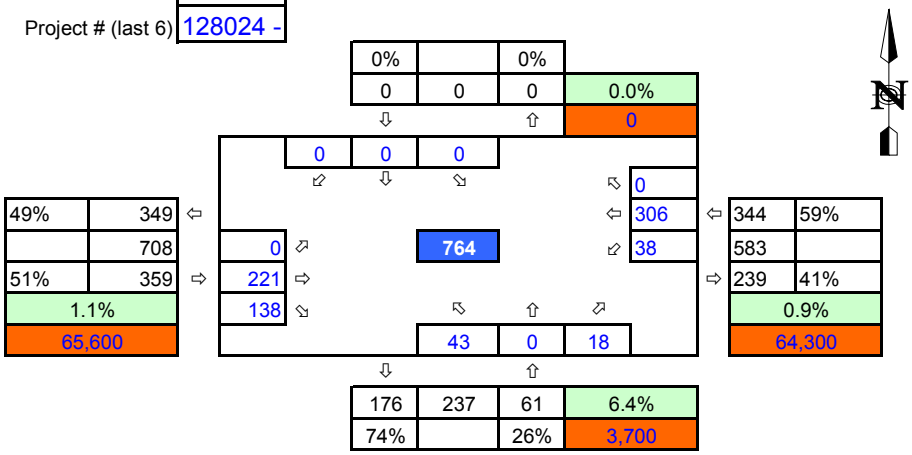


LEGEND

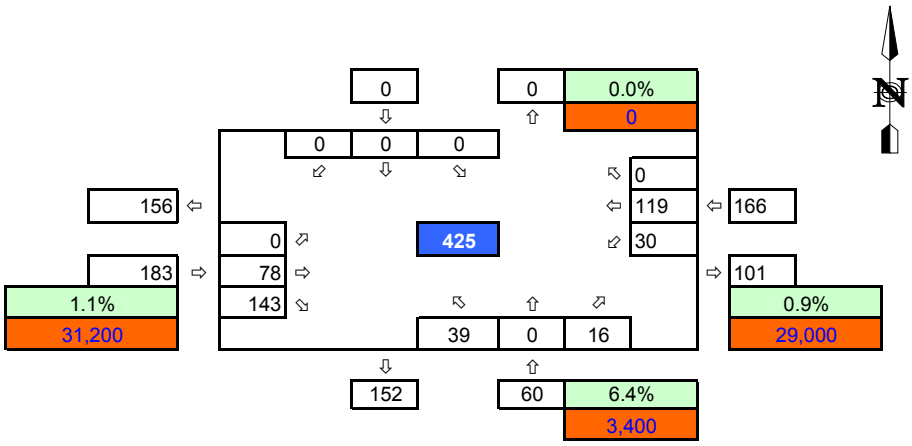
Existing K-Factor	xx%
ADT Volume	xx

Int 8 AM Peak Volumes

Scenario:	**Existing Conditions**
N/S Street:	**Gailes Boulevard**
E/W Street:	**Otay Mesa Road**
Intersection #:	8
Project # (last 6)	128024 -



Scenario:	**Horizon Year Conditions**
N/S Street:	**Gailes Boulevard**
E/W Street:	**Otay Mesa Road**

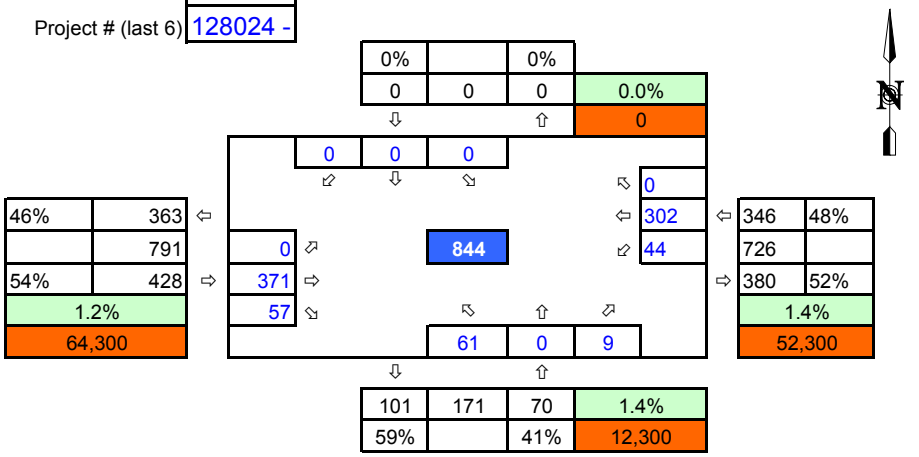


LEGEND

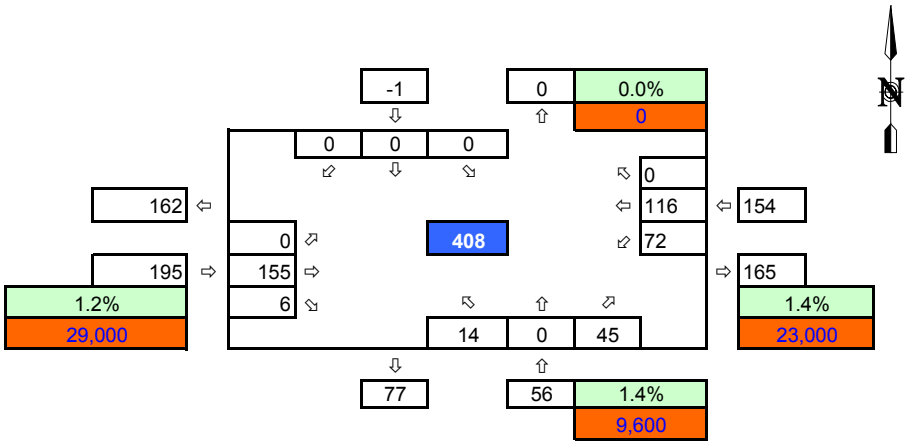
Existing K-Factor	xx%
ADT Volume	xx

Int 7 PM Peak Volumes

Scenario:	**Existing Conditions**
N/S Street:	**Otay Mesa Center Road**
E/W Street:	**Otay Mesa Road**
Intersection #:	7
Project # (last 6)	128024 -



Scenario:	**Horizon Year Conditions**
N/S Street:	**Otay Mesa Center Road**
E/W Street:	**Otay Mesa Road**

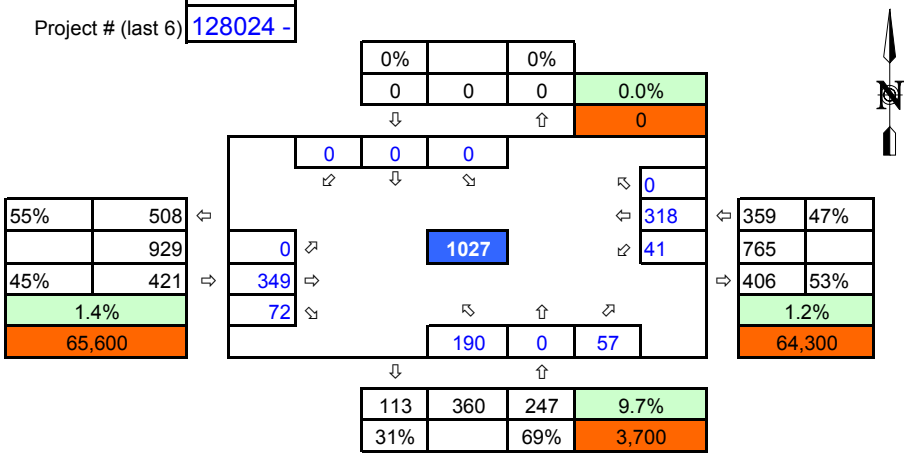


LEGEND

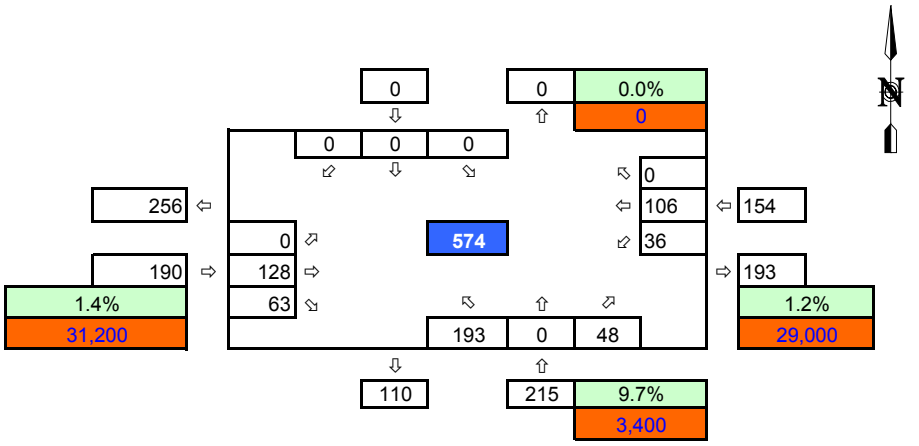
Existing K-Factor	xx%
ADT Volume	xx

Int 8 PM Peak Volumes

Scenario:	**Existing Conditions**
N/S Street:	**Gailes Boulevard**
E/W Street:	**Otay Mesa Road**
Intersection #:	8
Project # (last 6)	128024 -

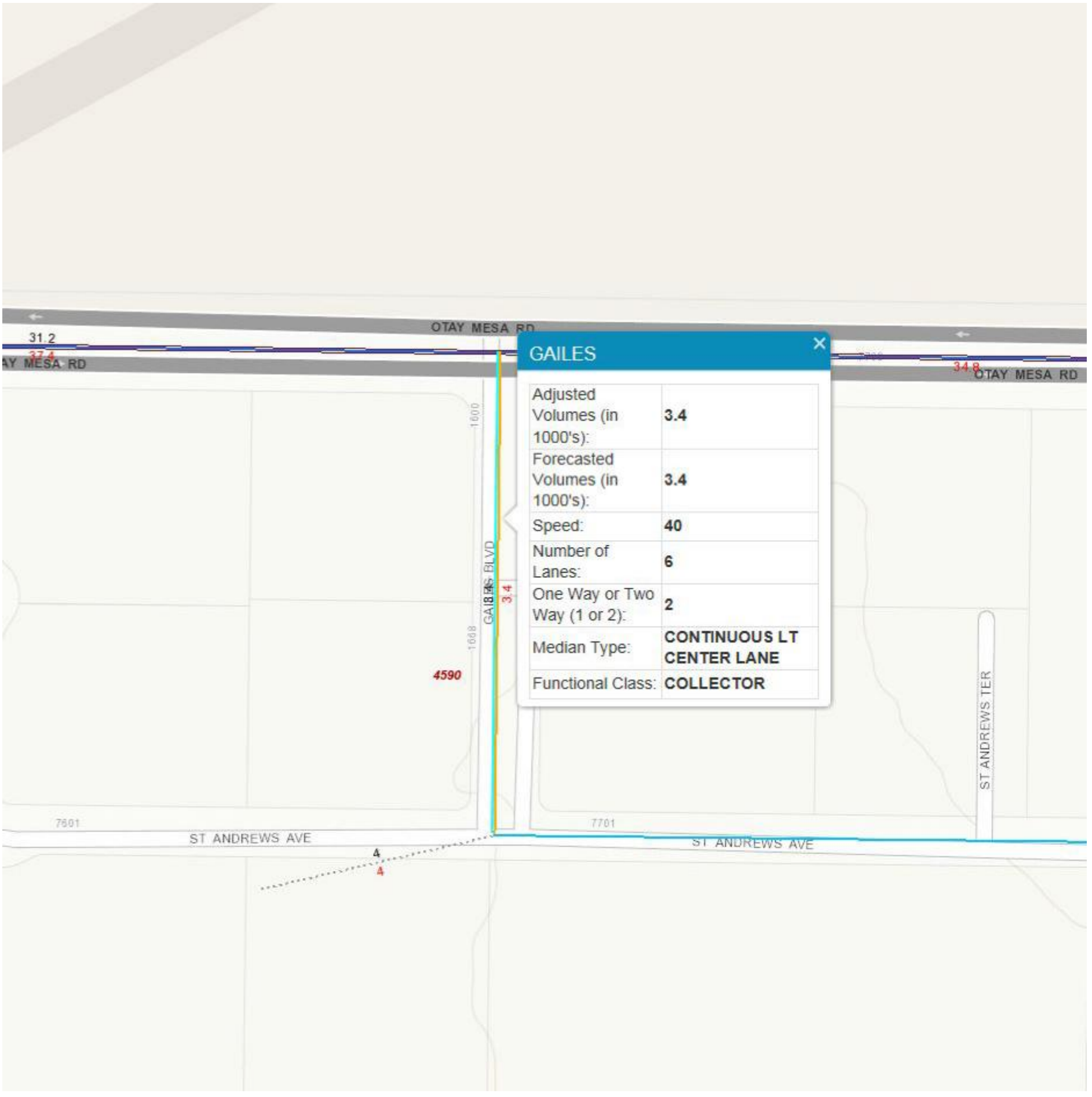


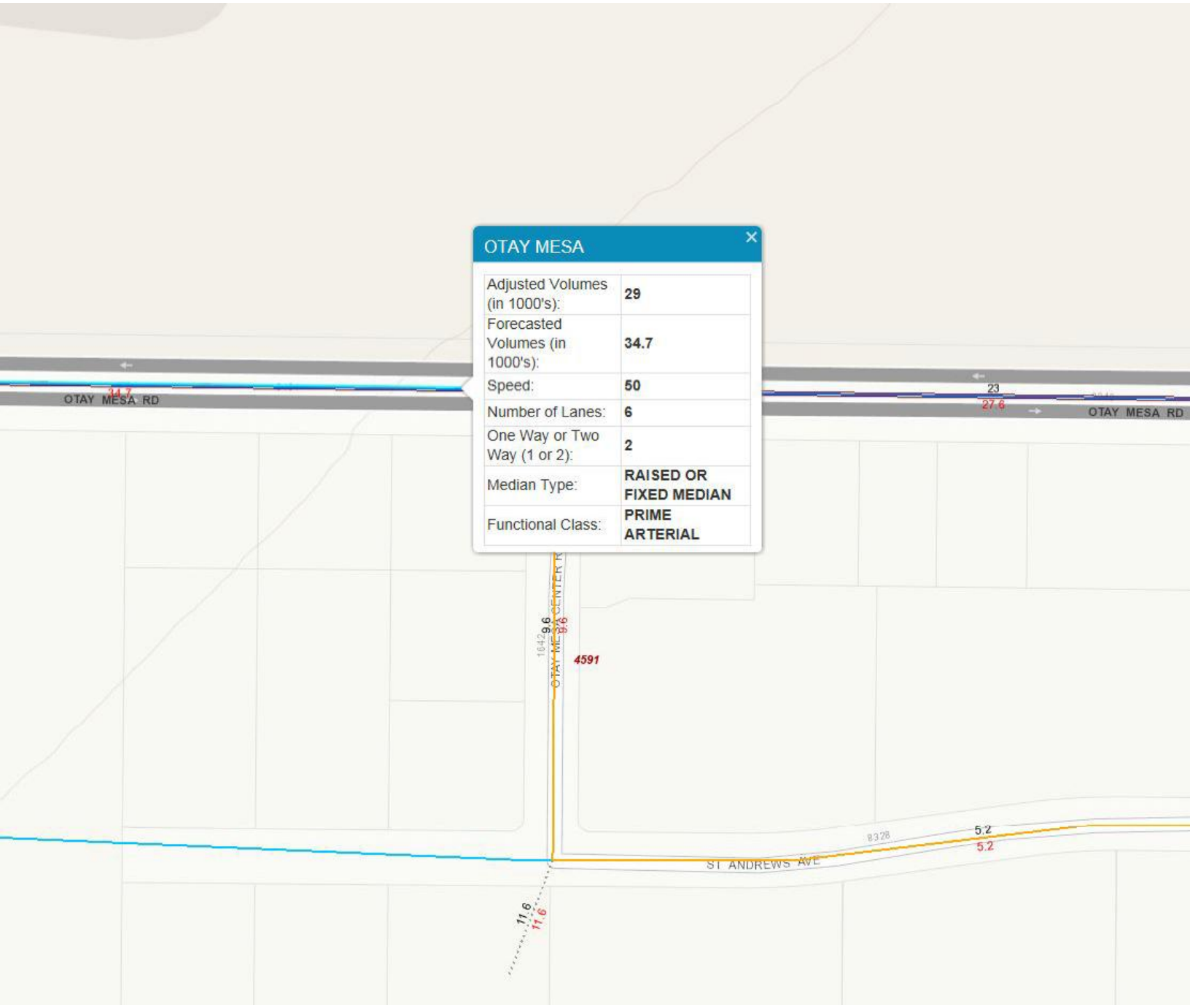
Scenario:	**Horizon Year Conditions**
N/S Street:	**Gailes Boulevard**
E/W Street:	**Otay Mesa Road**

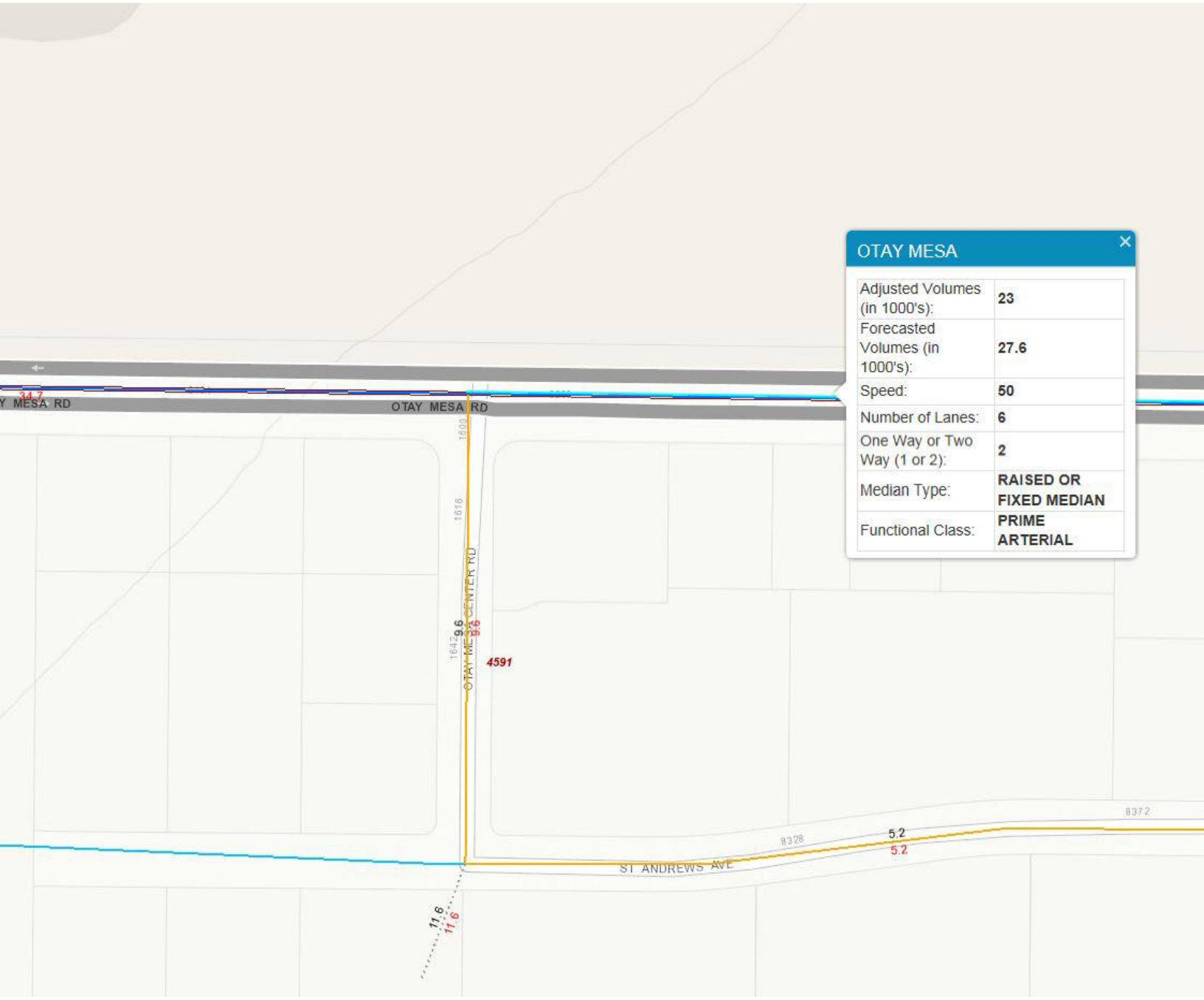


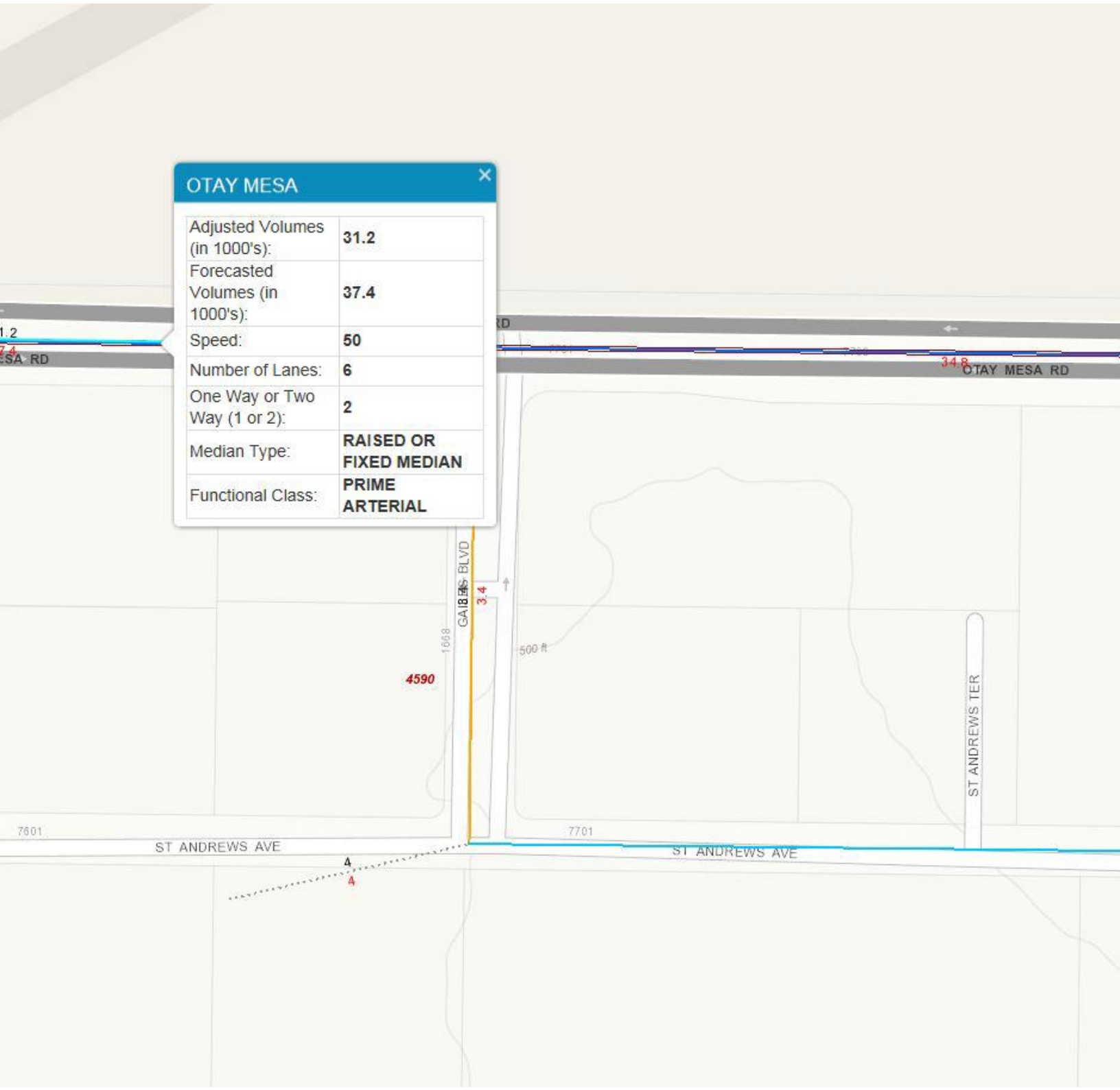
LEGEND

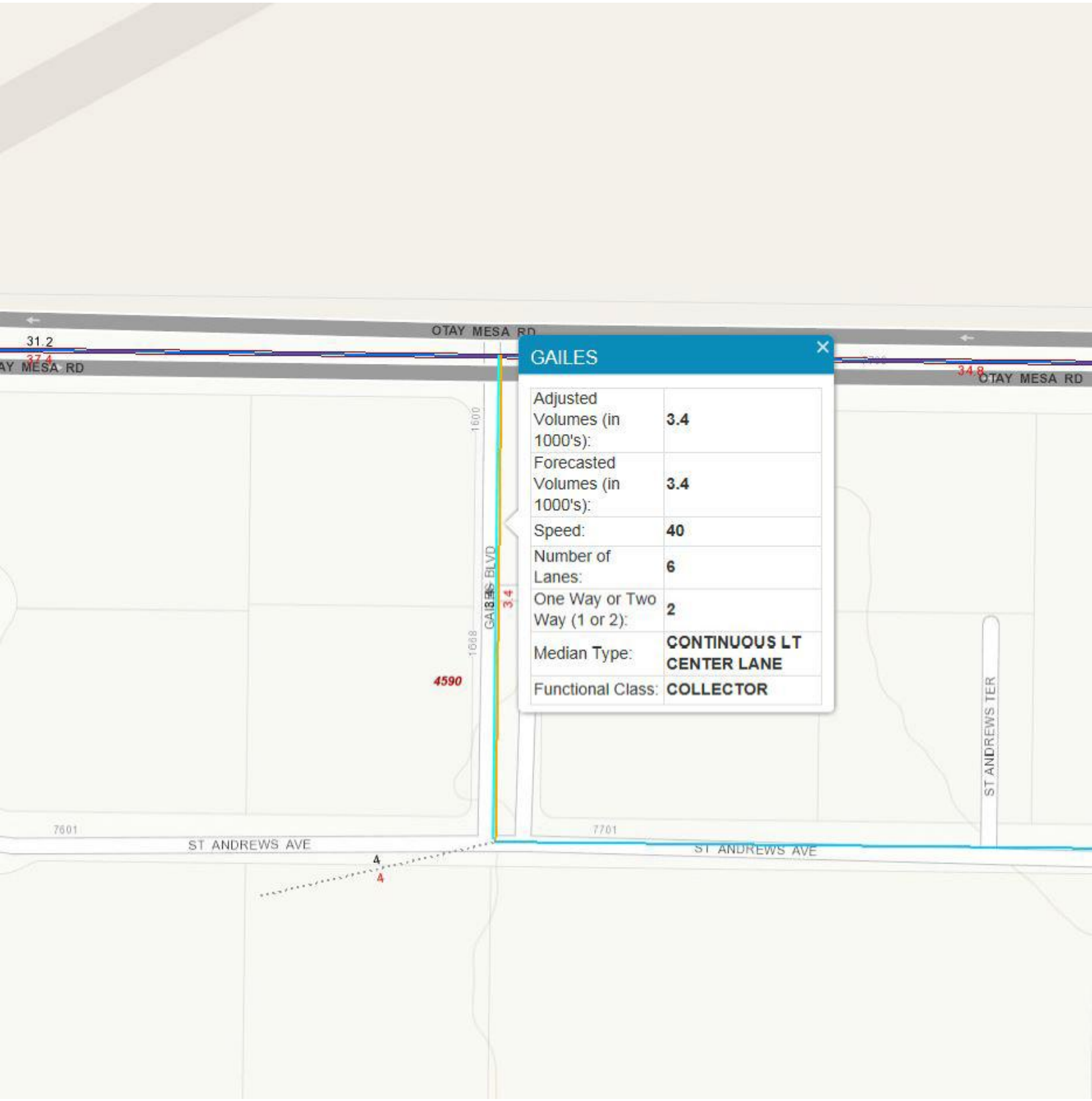
Existing K-Factor	xx%
ADT Volume	xx


OTAY MESA RD
31.2
37.4
34.8
OTAY MESA RD
GAILES
Adjusted Volumes (in 1000's): 3.4
Forecasted Volumes (in 1000's): 3.4
Speed: 40
Number of Lanes: 6
One Way or Two Way (1 or 2): 2
Median Type: CONTINUOUS LT CENTER LANE
Functional Class: COLLECTOR
1600
1668
3.4
4590
ST ANDREWS TER
7601
7701
ST ANDREWS AVE
ST ANDREWS AVE
4
4


OTAY MESA
Adjusted Volumes (in 1000's): 29
Forecasted Volumes (in 1000's): 34.7
Speed: 50
Number of Lanes: 6
One Way or Two Way (1 or 2): 2
Median Type: RAISED OR FIXED MEDIAN
Functional Class: PRIME ARTERIAL
OTAY MESA RD
OTAY MESA RD
23
27.6
9.6
9.6
4591
5.2
5.2
ST ANDREWS AVE
11.6
11.6


OTAY MESA
Adjusted Volumes (in 1000's): 23
Forecasted Volumes (in 1000's): 27.6
Speed: 50
Number of Lanes: 6
One Way or Two Way (1 or 2): 2
Median Type: RAISED OR FIXED MEDIAN
Functional Class: PRIME ARTERIAL
OTAY MESA RD
OTAY MESA RD
OTAY MESA CENTER RD
9.6
9.6
4591
ST ANDREWS AVE
5.2
5.2
11.6
11.6


OTAY MESA
Adjusted Volumes (in 1000's): 31.2
Forecasted Volumes (in 1000's): 37.4
Speed: 50
Number of Lanes: 6
One Way or Two Way (1 or 2): 2
Median Type: RAISED OR FIXED MEDIAN
Functional Class: PRIME ARTERIAL
OTAY MESA RD
34.8
3.4
4590
1668
500 ft
ST ANDREWS TER
7601
7701
ST ANDREWS AVE
ST ANDREWS AVE
4
4


OTAY MESA RD
31.2
37.4
34.8
OTAY MESA RD
1600
1688
GAILES BLVD
3.4
4590
ST ANDREWS TER
7601
7701
ST ANDREWS AVE
ST ANDREWS AVE
4
4
GAILES
Adjusted Volumes (in 1000's): 3.4
Forecasted Volumes (in 1000's): 3.4
Speed: 40
Number of Lanes: 6
One Way or Two Way (1 or 2): 2
Median Type: CONTINUOUS LT CENTER LANE
Functional Class: COLLECTOR

Loomis, Mychal

From: Jose Gomez <JGomez@chulavistaca.gov>
Sent: Wednesday, June 21, 2017 2:56 PM
To: Loomis, Mychal; Frank Rivera; Eddie Flores
Subject: RE: Heritage Road

Mychal, our current schedule is as follows:

- **Completed 30% Design & Environmental Clearance**
- **PS&E Oct 2018**
- **Construction Complete Oct 2020**

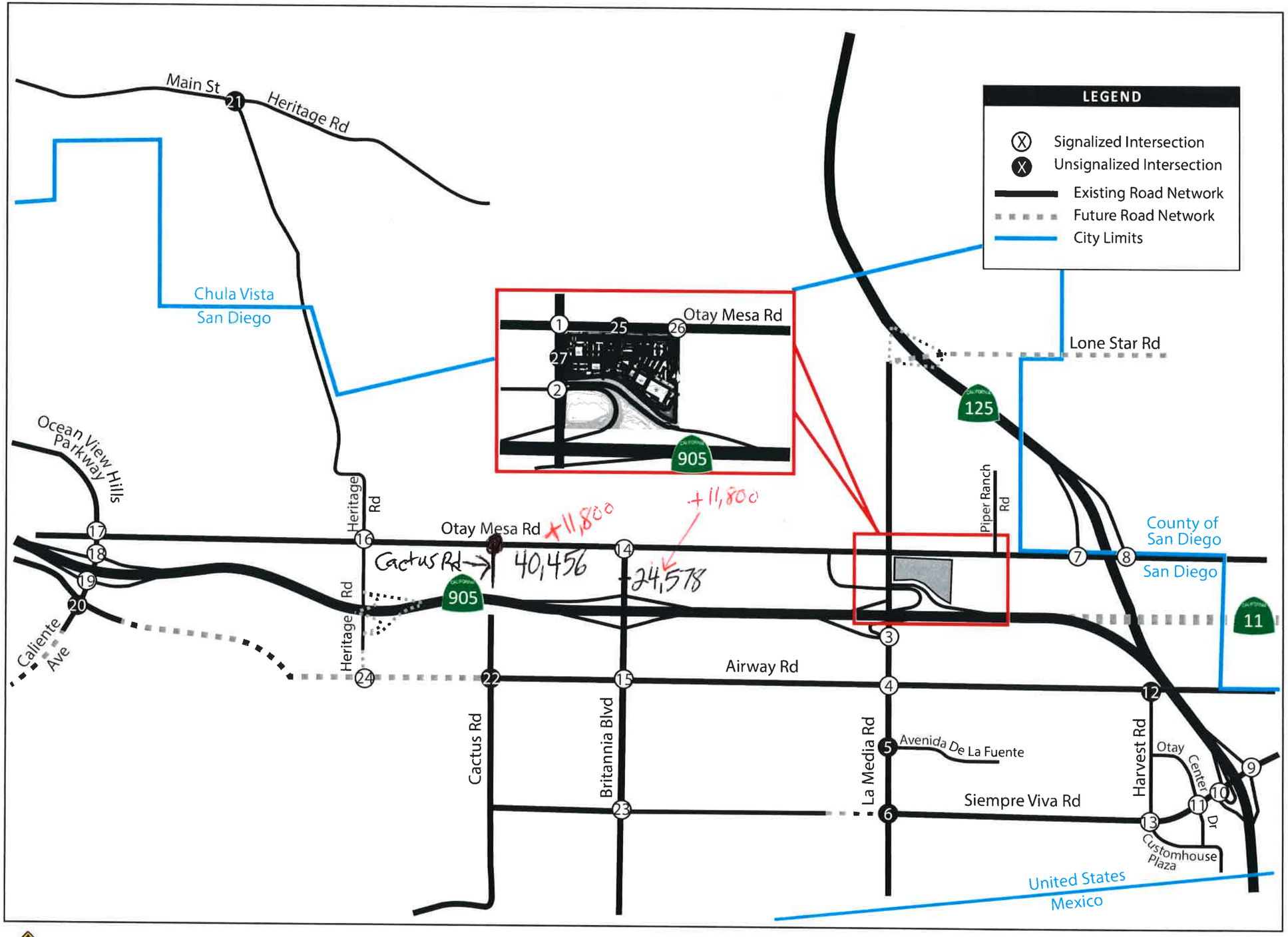
Jose Luis Gomez PE, PLS
Principal Civil Engineer
Public Works-Engineering
City of Chula Vista
619-476-2301

From: mychal.loomis@kimley-horn.com [mailto:mychal.loomis@kimley-horn.com]
Sent: Wednesday, June 21, 2017 12:50 PM
To: Jose Gomez
Subject: Heritage Road

Hello Jose,
I was talking with Frank Rivera last week on a few different things, and one question I had for him he wanted to me ask you about. We are working on a traffic study for a development in the Otay Mesa area of the City of San Diego, and the model run we received for distribution showed quite a bit of traffic using Heritage Road between Otay Mesa Road and the Otay Ranch area. I think the model assumed that the planned Heritage Road improvements you are working on would be in place. I wanted to see what the timing of that is as far as being completed with construction to understand if that is reasonable to assume in the next 3 years.

Is that something you can provide some quick information on?

Mychal Loomis, P.E.
Kimley-Horn | 401 B Street, Suite 600, San Diego, CA 92101
Direct: 619 744 0161 | www.kimley-horn.com



T:\Projects\Western Alliance Bank\0388_Plaza La Media - Otay Valley TIA\Graphics\0388 Project Figures.ai

Figure 1-1
Project Study Area

Table 13: Corridor Performance[121]

Segment #	1		2		3		4		5	
Direction	North	South	North	South	North	South	North	South	North	South
Location Description	SR-905 to SR-54 (Toll Road)		SR-54 (Toll Road) to Jamacha Road		Jamacha Road to SR-94 (Westbound Junction)		SR-94 (Eastbound Junction) to I-8		I-8 to SR-52/Mission Gorge Road	
Post Miles	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End
	L000.000	009.251	009.251	010.622	010.622	012.999	012.967	R015.409	R015.409	022.301
Basic System Operations[122]										
AADT[123] (BY)[124] 2012 5-Day[125]	16,800	14,800	45,654	44,346	55,292	53,708	80,656	78,344	45,555	42,354
AADT (HY) [126] 2040	26,400	25,000	64,036	64,636	94,540	92,953	117,939 + 3,506 (HOV[127])	125,396 + 3,441 (HOV)	60,559	67,541
AADT: Growth Rate Per Year	2.24%	2.24%	1.53%	1.53%	2.57%	2.57%	2.00%	2.00%	1.64%	1.64%
Peak Hour Volumes (BY) AM/PM[128]	2,280/ 990	820/ 1,760	2,944/ 3,277	2,434/ 3,283	3,565/ 3,969	2,948/ 3,976	5,215/ 5,805	4,331/ 5,827	3,678/ 3,526	2,722/ 3,455
Peak Hour Volumes (HY) AM/PM	3,583	1,385	4,164/ 4,443	4,188/ 4,292	6,132/ 8,234	5,340/ 6,395	8,048/ 8,896 + 110/176 (HOV)	7,621/ 8,851 + 149/148 (HOV)	5,114/ 3,912	3,853/ 5,562
LOS[129] Method	HCM[130]	HCM	HCM	HCM	HCM	HCM	HCM	HCM	HCM	HCM
Segment LOS (BY)	LOS C / AM	LOS B / PM	LOS B / PM	LOS C / PM	LOS C / PM	LOS C / PM	LOS E / PM	LOS E / PM	LOS B / AM	LOS C / PM

[121] Segment 6 is not included in the Corridor Performance table since it is unconstructed.
[122] Source: and Caltrans Travel Forecasting Branch
[123] AADT = Annual Average Daily Traffic
[124] BY = Base Year 2012
[125] 5-Day = Compiled traffic data does not include Saturday, Sunday, or Holidays is used throughout Table 12.
[126] HY = Horizon (future) Year 2040
[127] HOV = High Occupancy Vehicle with 2 or more occupants per vehicle
[128] AM/PM = Peak Hour for the morning (AM) and evening (PM)
[129] LOS = Level of Service on the freeway
[130] HCM = Highway Capacity Manual

Segment #	1		2		3		4		5	
Direction	**North**	**South**	**North**	**South**	**North**	**South**	**North**	**South**	**North**	**South**
Segment LOS (HY)	LOS E / AM	LOS C / PM	LOS C / PM	LOS D / PM	LOS F / PM	LOS F / PM	LOS E / PM	LOS D / PM	LOS C / AM	LOS D / PM
VMT[131] (BY)	155,417	136,915	62,592	60,798	131,429	127,664	196,962	191,316	313,965	291,904
VMT (HY)	244,226	231,275	88,793	88,616	224,722	220,949	288,007	306,217	417,373	465,493
Vehicle Occupancy Rate[132] (BY)	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Vehicle Occupancy Rate (HY)	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Daily Vehicle Hours of Delay (35 MPH)[133] (BY)			NB AM = 123 Daily Vehicle Hours of Delay[134] SB PM = 71 Daily Vehicle Hours of Delay							
Daily VHD[135] (35 MPH) Method			PeMS[136]	PeMS	PeMS	PeMS	PeMS	PeMS	PeMS	PeMS
Daily Vehicle Hours of Delay (60 MPH)(BY)			NB AM = 294 Daily Vehicle Hours of Delay SB PM = 170 Daily Vehicle Hours of Delay							
Daily VHD (60 MPH) Method			PeMS	PeMS	PeMS	PeMS	PeMS	PeMS	PeMS	PeMS
Truck Traffic										
Total Average Annual Daily Truck Traffic (AADTT) (BY)	1,264		3,960		4,796		6,996		3,868	

[131] VMT = Vehicle Miles Traveled
[132] Source: SANDAG 2006 Vehicle Occupancy and Classification Survey Technical Report, November 2006
[133] MPH = Miles Per Hour
[134] Analyzed data for years 2011, 2012, and 2013 from PeMS data and decided data from 2011 is best to use for 35 and 60 MPH.
[135] VHD = Vehicle Hours of Delay
[136] PeMS = Caltrans Performance Measurement System http://pems/

APPENDIX E

BUS ROUTE INFORMATION

CASH FARES / *Tarifas en efectivo*

Exact fare, please / *Favor de pagar la cantidad exacta*

	905	950
Day Pass (Regional) / *Pase diario (Regional)* Compass Card required ($2) / *Se requiere un Compass Card ($2)*	$5.00	
One-Way Fare / *Tarifa de una direccíon*	$2.25	$2.50
Senior (60+)/Disabled/Medicare *Mayores de 60 años/Discapacitados/Medicare*	$1.10*	$1.25*
Children 5 & under / *Niños de 5 años o menos* Up to two children ride free per paying adult / *Máximo dos niños viajan gratis por cada adulto*	FREE / *GRATIS*	

MONTHLY PASSES / *Pases mensual*

Adult / *Adulto*	$72.00
Senior (60+)/Disabled/Medicare *Mayores de 60 años/Discapacitados/Medicare*	$18.00*
Youths (18 and under) *Jóvenes (18 años o menos)*	$36.00*

*I.D. required for discount fare or pass.
**Se requiere identificación para tarifas o pases de descuento.*

DAY PASS (REGIONAL) / *Pase diario (Regional)*

All passes are sold on Compass Card, which can be reloaded and reused for up to five years. Compass Cards are available for $2 at select outlets. A $5 Day Pass requires a Compass Card. A paper Day Pass can be purchased on board buses for an additional $2 fee.

Todos los pases se venden en el Compass Card, el cual puede ser recargado y reutilizado por hasta cinco años. Compass Cards están disponibles por $2 en selectas sucursales. Un pase de un día por $5 requiere un Compass Card. Un pase de un día de papel se puede obtener a bordo los autobuses por un costo adicional de $2.

DIRECTORY / *Directorio*

Regional Transit Information *Información de transporte público regional*	**511** or/ó **(619) 233-3004**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**(619) 234-5005** or/ó **(888) 722-4889**
InfoExpress (24-hour info via Touch-Tone phone) *Información las 24 horas (via teléfono de teclas)*	**(619) 685-4900**
Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**(619) 557-4555**
SafeWatch	**(619) 557-4500**
Lost & Found *Objetos extraviados*	**(619) 409-4601**
The Transit Store	**(619) 234-1060** 12th & Imperial Transit Center M–F 9am–5pm
For MTS online trip planning *Planificación de viajes por Internet*	**sdmts.com**

For more information on riding MTS services, pick up a Rider's Guide on a bus or at The Transit Store, or visit **sdmts.com**.

*Para obtener más información sobre el uso de los servicios de MTS, recoja un 'Rider's Guide' en un autobús o en The Transit Store, o visita a **sdmts.com**.*

Thank you for riding MTS! ***¡Gracias por viajar con MTS!***

Effective JUNE 12, 2016

905 Otay Mesa – Iris Transit Center
via SR-905 / Otay Mesa Rd.

950 Otay Mesa – Iris Transit Center Express
via SR-905

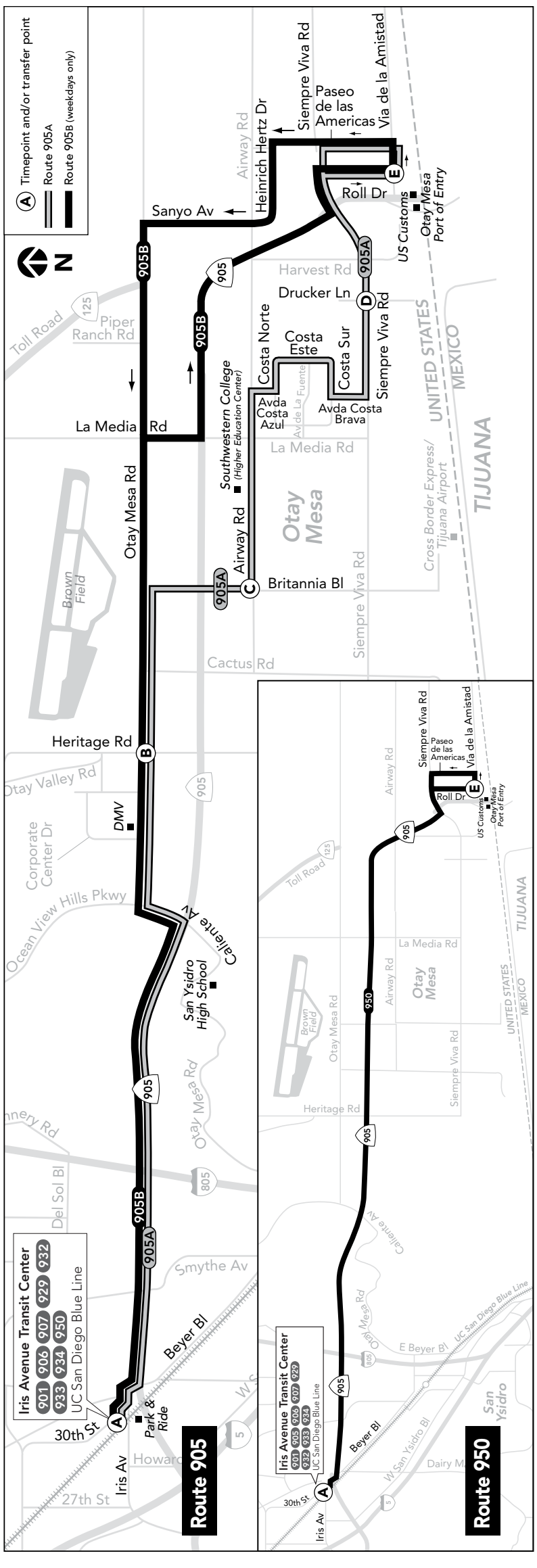
DESTINATIONS
- Brown Field
- Otay Mesa Industrial Parks
- Otay Mesa Port of Entry
- San Ysidro High School
- Southwestern College (Higher Education Center)

TROLLEY CONNECTIONS
Iris Av.

MTS Metropolitan Transit System

06/16

Alternative formats available upon request. Please call: (619) 557-4555 / *Formato alternativo disponible al preguntar. Favor de llamar: (619) 557-4555*



The schedules and other information shown in this timetable are subject to change. MTS does not assume responsibility for errors in timetables nor for any inconvenience caused by delayed buses.

Los horarios e información que se indican en este itinerario están sujetos a cambios. MTS no asume responsabilidad por errores en los itinerarios, ni por ningún perjuicio que se origine por los autobuses demorados.

Route 905 & 950 Westbound – Saturday & Sunday / *sábado y domingo*

Otay Mesa Port of Entry ➡ Iris Avenue Transit Center

	E Otay Mesa Port of Entry **DEPART**	D Siempre Viva Rd. & Drucker Lane	C Airway Rd. & Britannia Bl.	B Otay Mesa Rd. & Heritage Rd.	A Iris Avenue Transit Center **ARRIVE**
950	5:15a	EXPRESS →			5:29a
A	5:35	5:39a	5:45a	5:50a	5:58
950	5:55	EXPRESS →			6:09
950	6:16	EXPRESS →			6:30
A	6:31	6:35	6:41	6:47	6:56
950	6:46	EXPRESS →			7:00
A	7:26	7:30	7:36	7:42	7:51
950	7:46	EXPRESS →			8:00
A	8:26	8:30	8:36	8:42	8:51
950	8:46	EXPRESS →			9:00
A	9:26	9:30	9:36	9:42	9:51
950	9:46	EXPRESS →			10:00
A	10:26	10:30	10:36	10:42	10:51
950	10:46	EXPRESS →			11:00
A	11:26	11:30	11:36	11:42	11:51
950	11:46	EXPRESS →			**12:00p**
A	**12:26p**	**12:31p**	**12:38p**	**12:44p**	**12:52**
950	**12:46**	EXPRESS →			**1:00**
A	**1:26**	**1:31**	**1:38**	**1:44**	**1:52**
950	**1:46**	EXPRESS →			**2:00**
A	**2:55**	**3:00**	**3:07**	**3:13**	**3:21**
A	**3:55**	**4:00**	**4:07**	**4:13**	**4:21**
A	**4:55**	**5:00**	**5:07**	**5:13**	**5:21**
A	**5:55**	**5:58**	**6:05**	**6:11**	**6:18**
A	**6:55**	**6:58**	**7:05**	**7:11**	**7:18**

Route 905 & 950 Eastbound – Saturday & Sunday / *sábado y domingo*

Iris Avenue Transit Center ➡ Otay Mesa Port of Entry

	A Iris Avenue Transit Center **DEPART**	B Otay Mesa Rd. & Heritage Rd.	C Airway Rd. & Britannia Bl.	D Siempre Viva Rd. & Drucker Lane	E Otay Mesa Port of Entry **ARRIVE**
A	6:12a	6:19a	6:23a	6:28a	6:33a
A	7:12	7:19	7:23	7:29	7:35
A	8:12	8:19	8:23	8:29	8:35
A	9:12	9:19	9:23	9:29	9:35
A	10:12	10:19	10:23	10:30	10:36
A	11:12	11:19	11:23	11:30	11:36
A	**12:12p**	**12:19p**	**12:23p**	**12:30p**	**12:36p**
A	**1:12**	**1:19**	**1:23**	**1:30**	**1:36**
A	**2:15**	**2:22**	**2:26**	**2:33**	**2:39**
950	**2:35**	EXPRESS →			**2:49**
A	**3:15**	**3:22**	**3:26**	**3:33**	**3:39**
950	**3:35**	EXPRESS →			**3:49**
A	**4:15**	**4:22**	**4:26**	**4:33**	**4:39**
950	**4:35**	EXPRESS →			**4:49**
A	**5:15**	**5:22**	**5:26**	**5:32**	**5:37**
950	**5:35**	EXPRESS →			**5:49**
A	**6:15**	**6:22**	**6:26**	**6:32**	**6:37**
A	**7:15**	**7:22**	**7:26**	**7:32**	**7:37**

Note: Added service on Route 950 is implemented as a trial for up to 12 months.
Nota: El servicio añadido a la ruta 950 se implementa como prueba para un máximo de 12 meses.

Route 950 - Adult cash fare is $2.50 ($5.00 Day Pass with Compass Card, or $72 Monthly Pass).
***Ruta 950 -** Pasaje en efectivo para adultos es $2.50 ($5.00 pase de un día con Compass Card o pase mensual de $72).*

A = Route 905A. Trip serves Otay Mesa Industrial Park. / *Ruta 905A. Viaje que ofrece servicio a Otay Mesa Industrial Park.*

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays
Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados
>>> New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

Route 905 – Monday through Friday / *lunes a viernes*

Iris Avenue Transit Center ➡ Otay Mesa Port of Entry

	Ⓐ Iris Avenue Transit Center **DEPART**	Ⓑ Otay Mesa Rd. & Heritage Rd.	Ⓒ Airway Rd. & Britannia Bl.	Ⓓ Siempre Viva Rd. & Drucker Lane	Ⓔ Otay Mesa Port of Entry **ARRIVE**
A	5:00a	5:07a	5:12a	5:17a	5:22a
A	5:29	5:36	5:41	5:44	5:49
A	5:55	6:02	6:07	6:14	6:20
A	6:15	6:22	6:27	6:34	6:40
A	6:35	6:43	6:48	6:56	7:02
A	6:55	7:03	7:08	7:16	7:22
A	7:15	7:23	7:28	7:36	7:42
A	7:35	7:43	7:48	7:56	8:02
B	7:55	8:03	—	—	8:16
A	8:20	8:28	8:33	8:41	8:47
B	8:44	8:52	—	—	9:05
A	9:05	9:13	9:18	9:26	9:32
B	9:44	9:52	—	—	10:05
A	10:05	10:13	10:18	10:26	10:32
B	10:44	10:52	—	—	11:05
A	11:05	11:13	11:18	11:26	11:32
B	11:44	11:52	—	—	**12:05p**
A	**12:05p**	**12:13p**	**12:18p**	**12:26p**	**12:32**
B	**12:44**	**12:52**	**—**	**—**	**1:05**
A	**1:05**	**1:13**	**1:18**	**1:26**	**1:32**
B	**1:44**	**1:52**	**—**	**—**	**2:05**
A	**2:05**	**2:13**	**2:18**	**2:26**	**2:32**
B	**2:44**	**2:52**	**—**	**—**	**3:05**
A	**3:07**	**3:15**	**3:20**	**3:28**	**3:34**
B	**3:34**	**3:42**	**—**	**—**	**3:55**
A	**3:55**	**4:03**	**4:08**	**4:16**	**4:22**
B	**4:15**	**4:23**	**—**	**—**	**4:36**
A	**4:35**	**4:43**	**4:48**	**4:56**	**5:02**
B	**5:00**	**5:08**	**—**	**—**	**5:21**
A	**5:25**	**5:33**	**5:38**	**5:45**	**5:50**
B	**5:50**	**5:58**	**—**	**—**	**6:10**
A	**6:20**	**6:28**	**6:33**	**6:40**	**6:45**
A	**6:50**	**6:58**	**7:03**	**7:10**	**7:15**
A	**7:40**	**7:48**	**7:52**	**7:58**	**8:03**
A	**8:05**	**8:13**	**8:17**	**8:23**	**8:28**
A	**8:30**	**8:38**	**8:42**	**8:48**	**8:53**
A	**9:00**	**9:08**	**9:12**	**9:18**	**9:23**

A = Route 905A. Trip serves Otay Mesa Industrial Park. / *Ruta 905A. Viaje que ofrece servicio a Otay Mesa Industrial Park.*
B = Route 905B. Westbound trip via Sanyo Ave. Eastbound trip via La Media Rd & SR-905. / *Ruta 905B. Viaje hacia el oeste via Sanyo Ave. Viaje hacia el este via La Media Rd & SR-905.*

Otay Mesa Port of Entry ➡ Iris Avenue Transit Center

	Ⓔ Otay Mesa Port of Entry **DEPART**	Ⓓ Siempre Viva Rd. & Drucker Lane	Ⓒ Airway Rd. & Britannia Bl.	Ⓑ Otay Mesa Rd. & Heritage Rd.	Ⓐ Iris Avenue Transit Center **ARRIVE**
A	4:15a	4:18a	4:23a	4:28a	4:35a
B	4:35	—	—	4:46	4:53
A	4:55	4:59	5:05	5:11	5:19
B	5:20	—	—	5:31	5:39
A	5:40	5:44	5:50	5:56	6:04
B	6:00	—	—	6:12	6:21
A	6:20	6:24	6:31	6:38	6:47
B	6:40	—	—	6:52	7:01
A	7:00	7:04	7:11	7:18	7:27
B	7:20	—	—	7:32	7:41
A	7:40	7:44	7:51	7:58	8:07
B	8:00	—	—	8:12	8:22
A	8:20	8:24	8:31	8:38	8:48
B	8:40	—	—	8:52	9:02
A	9:00	9:04	9:11	9:18	9:28
B	9:30	—	—	9:42	9:52
A	10:00	10:04	10:11	10:18	10:28
B	10:30	—	—	10:42	10:52
A	11:00	11:04	11:11	11:18	11:28
B	11:30	—	—	11:42	11:52
A	**12:00p**	**12:04p**	**12:11p**	**12:18p**	**12:28p**
B	**12:30**	**—**	**—**	**12:42**	**12:52**
A	**1:00**	**1:04**	**1:11**	**1:18**	**1:28**
B	**1:30**	**—**	**—**	**1:42**	**1:52**
A	**2:00**	**2:04**	**2:12**	**2:20**	**2:30**
B	**2:30**	**—**	**—**	**2:42**	**2:52**
A	**3:00**	**3:04**	**3:12**	**3:20**	**3:30**
B	**3:22**	**—**	**—**	**3:35**	**3:45**
A	**3:44**	**3:48**	**3:56**	**4:04**	**4:14**
B	**4:04**	**—**	**—**	**4:17**	**4:27**
A	**4:25**	**4:29**	**4:37**	**4:45**	**4:55**
B	**4:50**	**—**	**—**	**5:03**	**5:13**
A	**5:12**	**5:16**	**5:24**	**5:32**	**5:42**
B	**5:35**	**—**	**—**	**5:47**	**5:57**
A	**6:05**	**6:08**	**6:15**	**6:22**	**6:32**
A	**6:50**	**6:53**	**7:00**	**7:07**	**7:17**
A	**7:28**	**7:31**	**7:38**	**7:45**	**7:55**
A	**8:13**	**8:16**	**8:23**	**8:30**	**8:40**

Route 950 – Monday through Friday / *lunes a viernes*

Iris Avenue Transit Center ➡ Otay Mesa Port of Entry

Ⓐ Iris Avenue Transit Center **DEPART**		Ⓔ Otay Mesa Port of Entry **ARRIVE**
3:00p	**EXPRESS** →	**3:14p**
3:20	**EXPRESS** →	**3:34**
3:40	**EXPRESS** →	**3:54**
3:59	**EXPRESS** →	**4:13**
4:11	**EXPRESS** →	**4:25**
4:30	**EXPRESS** →	**4:44**
4:50	**EXPRESS** →	**5:04**
5:15	**EXPRESS** →	**5:29**
5:40	**EXPRESS** →	**5:54**
6:05	**EXPRESS** →	**6:19**
6:35	**EXPRESS** →	**6:49**
7:20	**EXPRESS** →	**7:34**

Otay Mesa Port of Entry ➡ Iris Avenue Transit Center

Ⓔ Otay Mesa Port of Entry **DEPART**		Ⓐ Iris Avenue Transit Center **ARRIVE**
4:45a	EXPRESS →	4:59a
5:00	EXPRESS →	5:14
5:12	EXPRESS →	5:26
5:24	EXPRESS →	5:38
5:36	EXPRESS →	5:50
5:48	EXPRESS →	6:02
6:00	EXPRESS →	6:14
6:12	EXPRESS →	6:26
6:24	EXPRESS →	6:38
6:36	EXPRESS →	6:50
6:48	EXPRESS →	7:02
7:00	EXPRESS →	7:14
7:15	EXPRESS →	7:29
7:30	EXPRESS →	7:44
7:45	EXPRESS →	7:59
8:05	EXPRESS →	8:19
8:25	EXPRESS →	8:39
8:50	EXPRESS →	9:04
9:15	EXPRESS →	9:29
9:45	EXPRESS →	9:59
10:15	EXPRESS →	10:29
10:45	EXPRESS →	10:59
11:15	EXPRESS →	11:29
11:45	EXPRESS →	11:59
12:15p	**EXPRESS** →	**12:29p**
12:45	**EXPRESS** →	**12:59**
1:15	**EXPRESS** →	**1:29**
1:45	**EXPRESS** →	**1:59**
2:15	**EXPRESS** →	**2:29**
2:45	**EXPRESS** →	**2:59**

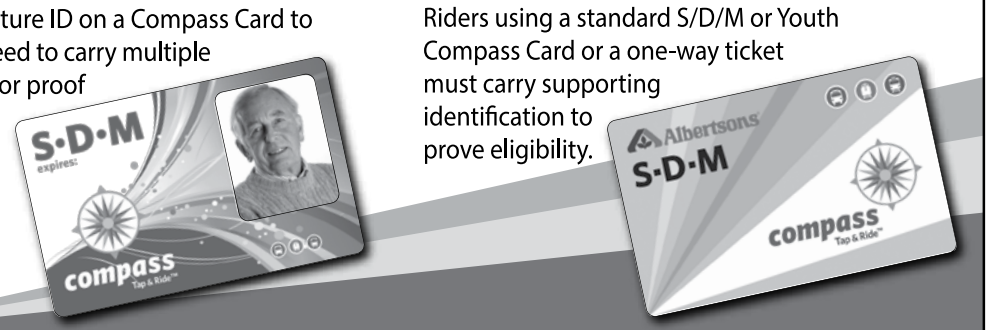
compass card

S/D/M and Youth Compass Card

All riders using reduced fares must comply with one of the following options:

Option 1 *(Recommended by MTS)*
MTS offers a picture ID on a Compass Card to eliminate the need to carry multiple identifications for proof of eligibility.

Option 2
Riders using a standard S/D/M or Youth Compass Card or a one-way ticket must carry supporting identification to prove eligibility.



*For additional benefits of **Option 1** and or list of valid forms of ID for **Option 2** go to:*
www.sdmts.com/fares_discounted.asp.

Plan your trip!

On the web
Visit ***sdmts.com*** and click on ***Travel Planner***

On the phone
Dial 511 and say "***public transportation***"

On the go
Use the Google Maps app on your smartphone

APPENDIX F

FAIR SHARE CALCULATIONS

FAIR SHARE CALCULATION WORKSHEET

Project: Sunroad Project # : 095128024
Date: 20-Feb-18

HORIZON YEAR (2035) PLUS PROJECT PHASE 1 AND 2

EQUITABLE SHARE RESPONSIBILITY

$$FS\% = \frac{PT}{T_F - T_E}$$

Where:

FS% = The equitable share for the proposed project's traffic impact.
PT = The vehicle trips generated by the project during the peak-hour of the facility in vehicles per hour, vph
T_F = The forecasted traffic volumes on an impacted facility at the time of future scenario, vph.
T_E = The traffic volumes existing on the impacted facility, vph.

Int #2	Harvest Road & Otay Mesa Road							
AM Peak	FS% =	PT	T_F - T_E	=	38	2,222 - 833	=	2.74%
PM Peak	FS% =	PT	T_F - T_E	=	40	2,261 - 823	=	**2.78%**
Int #6	La Media Road & Otay Mesa Road							
AM Peak	FS% =	PT	T_F - T_E	=	322	5,040 - 1,500	=	9.10%
PM Peak	FS% =	PT	T_F - T_E	=	345	4,826 - 1,660	=	**10.90%**
Int #10	Cactus Road & Otay Mesa Road							
AM Peak	FS% =	PT	T_F - T_E	=	109	3,830 - 794	=	3.59%
PM Peak	FS% =	PT	T_F - T_E	=	115	3,990 - 1,210	=	**4.14%**
Int #11	Heritage Road & Otay Mesa Road							
AM Peak	FS% =	PT	T_F - T_E	=	83	4,771 - 971	=	2.18%
PM Peak	FS% =	PT	T_F - T_E	=	88	4,948 - 1,611	=	**2.64%**
Int #13	Ocean View Hills Parkway/Caliente Avenue & Otay Mesa Road							
AM Peak	FS% =	PT	T_F - T_E	=	45	3,984 - 1,801	=	2.06%
PM Peak (no impact)	FS% =	PT	T_F - T_E	=	47	4,117 - 2,198	=	**2.45%**

APPENDIX G

OTAY MESA PUBLIC FACILITIES FINANCING PLAN

THE CITY OF SAN DIEGO

Otay Mesa

Public Facilities Financing Plan and Facilities Benefit Assessment Fiscal Year 2014

March 11, 2014 – Planning, Neighborhoods & Economic Development Department, Facilities Financing Program. This information will be made available in alternative formats upon request. To request a financing plan in an alternative format, call the Facilities Financing Section, at (619) 533-3670. To view this document online, visit the City of San Diego website at http://www.sandiego.gov/facilitiesfinancing/plans/otaymesa.shtml

RESOLUTION NUMBER R- 308811

DATE OF FINAL PASSAGE MAR 25 2014

A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN DIEGO APPROVING THE OTAY MESA PUBLIC FACILITIES FINANCING PLAN AND FACILITIES BENEFIT ASSESSMENT, FISCAL YEAR 2014, AUTHORIZING THE CHIEF FINANCIAL OFFICER TO ESTABLISH AND MODIFY INDIVIDUAL CAPITAL IMPROVEMENT PROGRAM PROJECT BUDGETS TO REFLECT THE FINANCING PLAN, AND DIRECT THE CHIEF FINANCIAL OFFICER TO ESTABLISH INTEREST BEARING FUNDS FOR THE FACILITIES BENEFIT ASSESSMENT AND DEVELOPMENT IMPACT FEE.

BE IT RESOLVED, by the Council of the City of San Diego, that it approves the document titled, "Otay Mesa Public Facilities Financing Plan and Facilities Benefit Assessment, Fiscal Year 2014" (Financing Plan), a copy of which is on file in the Office of the City Clerk as Document No. RR- 308811.

BE IT FURTHER RESOLVED, that the Chief Financial Officer is authorized to establish and modify individual Capital Improvement Program project budgets to reflect the Financing Plan provided funding is available for such action.

BE IT FURTHER RESOLVED, that the Chief Financial Officer is directed to establish an interest bearing fund for the Otay Mesa Facilities Benefit Assessment.

BE IT FURTHER RESOLVED, that the Chief Financial Officer is directed to establish an interest bearing fund for the Otay Mesa Development Impact Fee.

APPROVED: JAN I. GOLDSMITH, City Attorney

By _____ for
Heidi K. Vonblum
Deputy City Attorney

HKV:HRM:nja:mm
01/14/14
03/10/14 Cor. Copy
Or.Dept: Facilities Financing
Doc. No. 705130_2

I hereby certify that the foregoing Resolution was passed by the Council of the City of San Diego, at this meeting of MAR 11 2014

ELIZABETH S. MALAND
City Clerk

By _____
Deputy City Clerk

Approved: 3/20/2014
(date)

_____
KEVIN L. FAULCONER, Mayor

Vetoed: _____
(date)

_____
KEVIN L. FAULCONER, Mayor

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Mayor
Kevin Faulconer, Mayor

City Council
Sherri Lightner, Council President Pro Tem, Council District 1
Vacant, Council District 2
Todd Gloria, Council President, Council District 3
Myrtle Cole, Council District 4
Mark Kersey, Council District 5
Lorie Zapf, Council District 6
Scott Sherman, Council District 7
David Alvarez, Council District 8
Marti Emerald, Council District 9

City Attorney
Jan Goldsmith, City Attorney
Heidi Von Blum, Deputy City Attorney
Hilda R. Mendoza, Deputy City Attorney

Planning, Neighborhoods, and Economic Development Department
Bill Fulton, Director
Tom Tomlinson, Interim Assistant Director
Scott Mercer, Supervising Project Manager
Frank January, Project Manager
Gloria Hensley, Principal Engineering Aide
M. Elena Molina, Administrative Aide

Otay Mesa Community Planning Group
Rob Hixson, Chair, Property Owner
Mel Ingalls, Vice Chair, Property Owner
Felipe Nuno, Resident
Lisa Golden, Resident
Janet Vadakkumcherry, Resident
Hector Espionoza, Operators or Business Owner
Tom Ricotta, Operators or Business Owner
Steve Gross, Operators or Business Owner
Jimmy Ayala, Property Owner
Shane Harmon, Property Owner
Chris Holden, Property Owner
Kaitlin Murphy, Property Owner
Erin Gnat, Property Owner
Sarah Street, Property Owner
Rita Mahoney, Property Owner
Alejandra Mier y Teran, Otay Mesa Chamber of Commerce
Wayne Dickey, Otay Mesa/Nestor
Manuel Paul, San Ysidro
Nici Boon, Brown Field

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Introduction

Previous, Current and Future Updates

Resolution No. R-302040 (adopted by City Council on November 11, 2006) adopted the Fiscal Year 2007 Otay Mesa Public Facilities Financing Plan. The Fiscal Year 2014 Otay Mesa Public Facilities Financing Plan (Financing Plan) comprises the comprehensive update of the Financing Plan for Otay Mesa. To ensure that this Financing Plan remains up-to-date and accurate, it is to be periodically revised to include, but not necessarily be limited to, amendments to the Otay Mesa Community Plan.

Purpose and Scope of Financing Plan

The Financing Plan is intended to implement the General Plan and Otay Mesa Community Plan (Community Plan) by identifying the public facilities that will be needed to serve the Otay Mesa Community over the next approximately 48 years, during which full development of the community is anticipated, and to establish fees pursuant to the Ordinance No. O-15318 (the FBA Ordinance) and California Government Code sections 66000 et seq. (Mitigation Fee Act) to help mitigate the costs of the needed public facilities. The Financing Plan applies to all property owners seeking to develop property, even if the subject property has an approved tentative or final map detailing its development.

This Financing Plan includes a development forecast and analysis, a capital improvement program, and an updated fee schedule. Ordinance No. O-15318 was adopted by the City Council on August 25, 1980 to establish the procedure for implementing a Facilities Benefit Assessment (FBA). The FBA provides funding for public facilities projects that serve a designated area, also known as the area of benefit. The dollar amount of the FBA is based upon the collective cost of each public facility needed to serve development in the community, and is equitably distributed over the area of benefit in the Otay Mesa community planning area. The same methodology is used to calculate a Development Impact Fee (DIF) that is applicable to new development within the community that is not otherwise required to pay the FBA. The City has determined that there is a reasonable relationship between the amount of the FBA and DIF and the public facilities burdens posed by new development.

Methodology

Area of Benefit

Pursuant to the FBA Ordinance, the City Council initiates proceedings for the designation of an area of benefit by adopting a Resolution of Intention. The undeveloped or underdeveloped lands that are within the Otay Mesa community boundary are known as the Area of Benefit. See Figure 1.

In Financing Plan updates through FY 2007, the community had been divided into two regions (East and West FBA Subareas) for the Otay Mesa community planning area, one showing generally the area west of Heritage Road and the other showing the area east of Heritage Road. Beginning with the FY 2014 Financing Plan update, the entire Otay Mesa community planning area is shown together in one map.

Fee Procedure

FBAs and DIFs provide a funding source for public facilities projects in Otay Mesa. The amount of the fee is based upon the collective cost of anticipated public facilities needed to serve new development distributed over anticipated remaining development in the community.

Timing and Cost of Facilities

The public facilities anticipated to be financed by Otay Mesa FBA and DIF funds are shown on the Project Summary Table beginning on page 21. The FBA/DIF fund also covers the administrative costs associated with the development, implementation and operation of the FBA and DIF. Project categories include transportation, park and recreation, police, fire-rescue, and library facilities. Descriptions of current and future projects can be found on individual project sheets beginning on page 31.

This Financing Plan includes an estimate, by each of the City's appropriate asset-owning departments, of project costs for each needed public facility project anticipated. Since needed public facilities are directly related to the growth rate of the community, construction schedules are contingent upon actual development within the community. Therefore, any slowdown in community development will require a modification to the schedule for providing anticipated public facilities.

For ease of reference, completed projects have been summarized and placed together in one section following the project sheets for current and future projects. This Financing Plan relies on an updated traffic analysis for determining the required transportation facilities.

New Project Sheets

This Financing Plan is being prepared simultaneously with an update to the Community Plan which proposes land use changes, and includes a traffic study. The project list presented in this plan, beginning on page 21, reflects the facility requirements needed to serve the Otay Mesa community with the additional population and traffic volumes anticipated under the Community Plan.

Development Forecast

Average Daily Trips

Development in Otay Mesa will be tracked by the number of average daily traffic trips (ADTs) generated by each type of land use. For non-residential development, the amount of the fee is based on the anticipated number of ADTs generated, and the fee is charged

Figure 1 Otay Mesa Community Map/Area of Benefit

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on a per ADT basis. Residential development is assessed on a per-unit basis, and includes population-based facilities costs as well as ADTs associated with transportation costs.

Development Schedule

Development projections are based upon best estimates of the timing of future development, including projections from property owners, developers, land use consultants and City staff. Economic factors can adversely affect these development projections. Changing interest and inflation rates, variable land and housing costs, economic recession, and issues involving transportation thresholds could slow or halt the development rate. Conversely, a period of robust business expansion could significantly increase the rate of development. To ensure that this Financing Plan remains up-to-date and accurate, it is to be periodically revised to include, but not necessarily be limited to, amendments to the Otay Mesa Community Plan.

The Financing Plan assumes the remaining anticipated development of Otay Mesa will take place over the next forty-eight years, through FY 2062. Residential development is categorized as either single family detached (SFDU) or multiple family units (MFDU), and non-residential development is categorized as Brown Field, Cross Border Facility, and Otay Mesa Non-residential. Chart 1 Residential Absorption Rate and Chart 2 Non-Residential Absorption Rate on page 6 illustrate the anticipated rate of future development in Otay Mesa.

Through FY 2013, there were 4,700 residences (2,700 SFDU and 2,000 MFDU); 124.1 developed Commercial Acres; and 1,247 developed Industrial Acres. The existing development is assumed to be generating approximately 203,000 average daily trips (ADTs). Through FY 2062, the Financing Plan assumes future residential development will bring an additional 14,084 dwelling units and 587,474 non-residential ADTs. The future non-residential development in Otay Mesa is projected to be Brown Field (42,399 ADTs), Cross Border Facility (40,378 ADTs) and other non-residential development (504,697 ADTs). For purposes of the Financing Plan Cash Flow, the community is considered built out when 99% of all residential parcels and 90% of non-residential parcels are developed. The Otay Mesa Development Schedule showing anticipated development through build out is shown in Table 1 on page 7.

Population Estimates

The Otay Mesa Community Plan assumes population estimates based on factors of 3.98 persons per household for single family dwelling units and 3.45 persons for multi-family dwelling units. These factors are consistent with the Community Planning Survey prepared by True North Research for Sourcepoint and the Otay Mesa Community Plan update. The population of Otay Mesa, at full community development in FY 2062, is projected to be 67,035.

On page 8, Chart 3 illustrates the projected population growth rate assumed for the Financing Plan.

Chart 1 Residential Absorption Rate in Dwelling Units

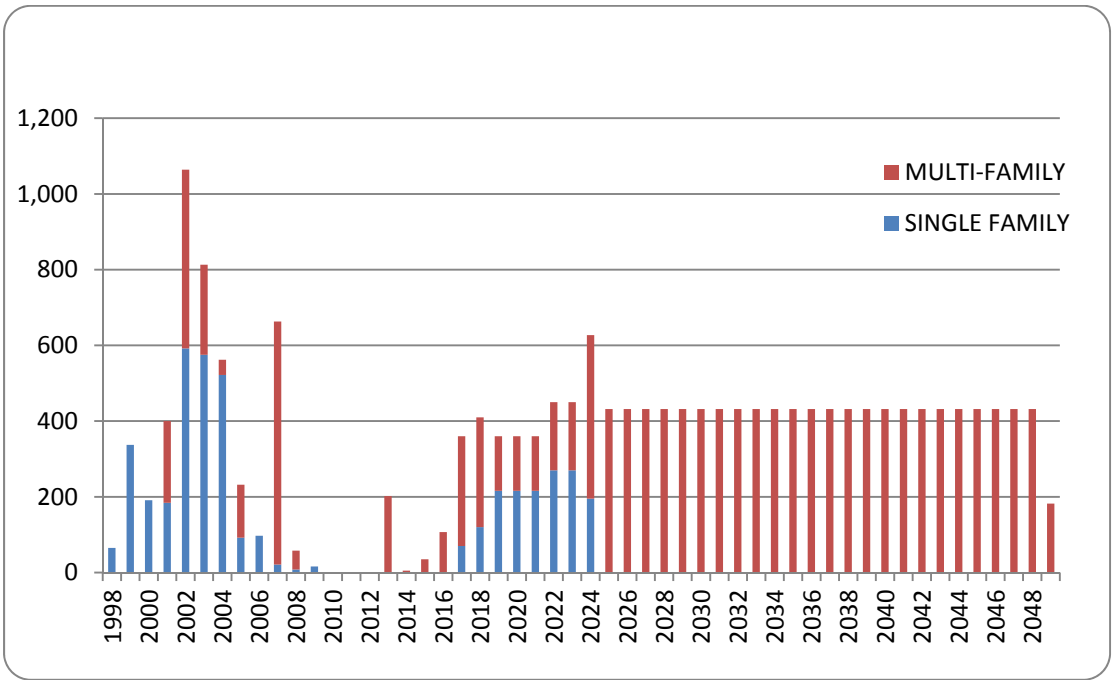


Chart 2 Non-residential Absorption Rate in Average Daily Trips

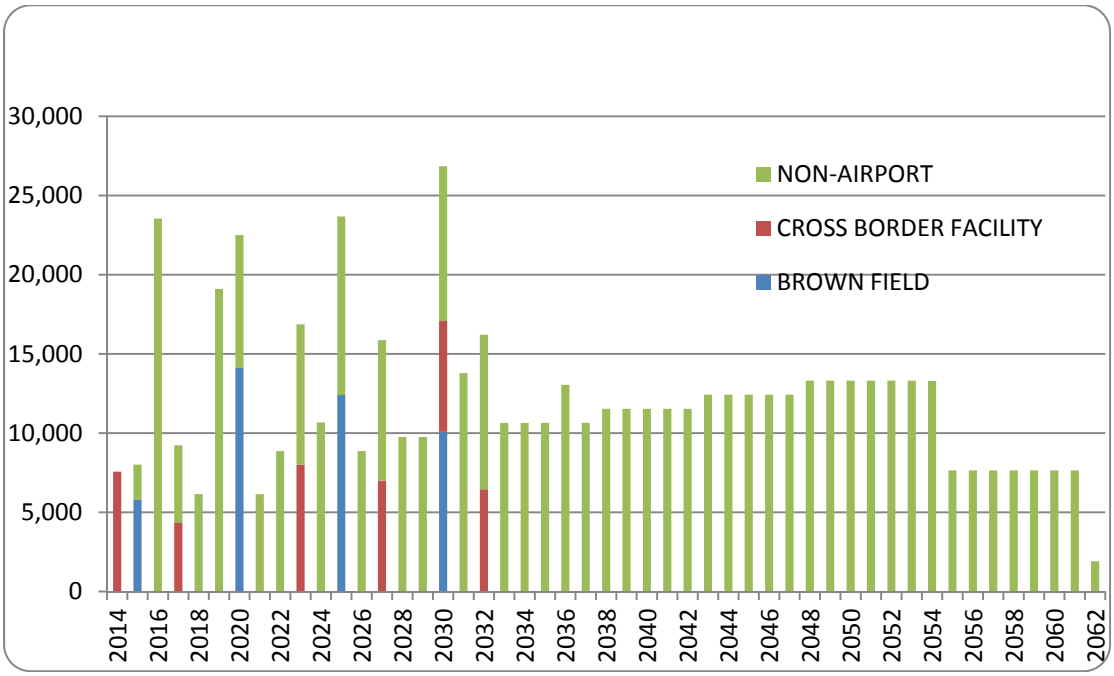
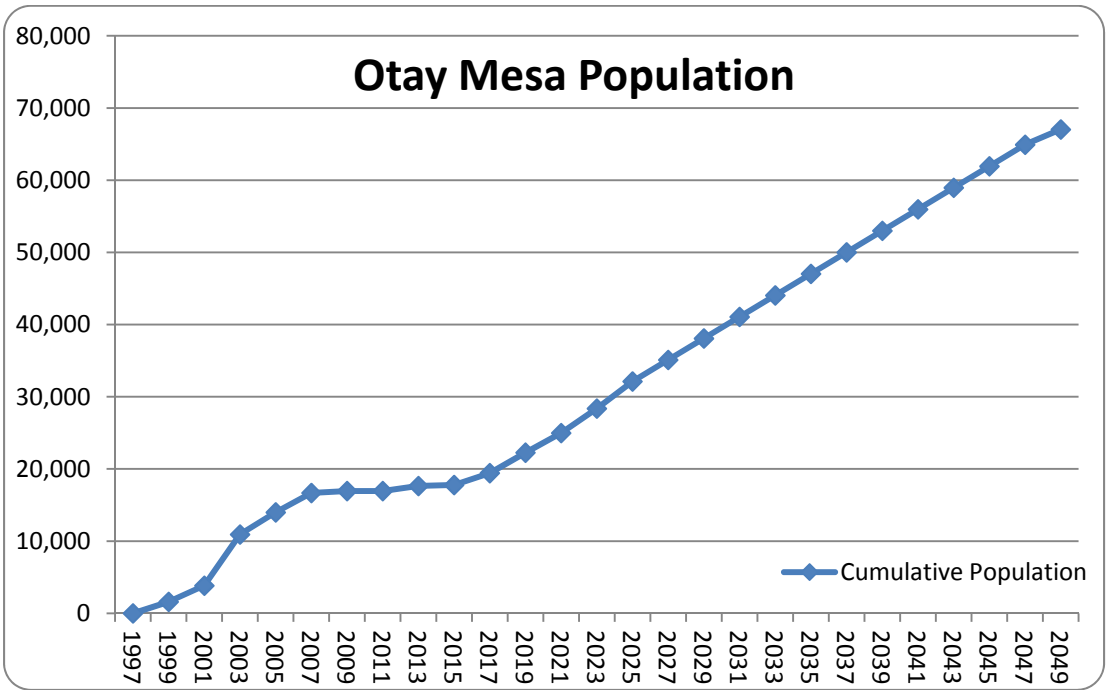


Table 1 Otay Mesa Development Schedule

FISCAL YEAR	SINGLE FAMILY DUs	MULTI-FAMILY DUs	RESIDENTAIL ADTs	BROWN FIELD ADTs	CROSS BORDER ADTs	NON-AIRPORT ADTs	TOTAL ANNUAL ADTs
PRIOR	2,700	2,000	40,300	-	6,120	156,993	203,413
2014	-	5	40	-	7,563	-	7,603
2015	-	35	280	5,788	-	2,218	8,286
2016	-	107	856	-	-	23,550	24,406
2017	70	290	2,950	-	4,360	4,875	12,185
2018	120	290	3,400	-	-	6,149	9,549
2019	216	144	3,096	-	-	19,099	22,195
2020	216	144	3,096	14,125	-	8,375	25,596
2021	216	144	3,096	-	-	6,149	9,245
2022	270	180	3,870	-	-	8,873	12,743
2023	270	180	3,870	-	8,000	8,873	20,743
2024	195	432	5,211	-	-	10,673	15,884
2025	-	432	3,456	12,401	-	11,273	27,130
2026	-	432	3,456	-	-	8,873	12,329
2027	-	432	3,456	-	7,000	8,873	19,329
2028	-	432	3,456	-	-	9,760	13,216
2029	-	432	3,456	-	-	9,760	13,216
2030	-	432	3,456	10,085	7,000	9,760	30,301
2031	-	432	3,456	-	-	13,792	17,248
2032	-	432	3,456	-	6,455	9,760	19,671
2033	-	432	3,456	-	-	10,647	14,103
2034	-	432	3,456	-	-	10,647	14,103
2035	-	432	3,456	-	-	10,647	14,103
2036	-	432	3,456	-	-	13,047	16,503
2037	-	432	3,456	-	-	10,647	14,103
2038	-	432	3,456	-	-	11,534	14,990
2039	-	432	3,456	-	-	11,534	14,990
2040	-	432	3,456	-	-	11,534	14,990
2041	-	432	3,456	-	-	11,534	14,990
2042	-	432	3,456	-	-	11,534	14,990
2043	-	432	3,456	-	-	12,422	15,878
2044	-	432	3,456	-	-	12,422	15,878
2045	-	432	3,456	-	-	12,422	15,878
2046	-	432	3,456	-	-	12,422	15,878
2047	-	432	3,456	-	-	12,422	15,878
2048	-	432	3,456	-	-	13,309	16,765
2049	-	182	1,456	-	-	13,309	14,765
2050	-	-	-	-	-	13,309	13,309
2051	-	-	-	-	-	13,309	13,309
2052	-	-	-	-	-	13,309	13,309
2053	-	-	-	-	-	13,309	13,309
2054	-	-	-	-	-	13,293	13,293
2055	-	-	-	-	-	7,649	7,649
2056	-	-	-	-	-	7,649	7,649
2057	-	-	-	-	-	7,649	7,649
2058	-	-	-	-	-	7,649	7,649
2059	-	-	-	-	-	7,649	7,649
2060	-	-	-	-	-	7,649	7,649
2061	-	-	-	-	-	7,649	7,649
2062	-	-	-	-	-	1,908	1,908
TOTAL	**4,273**	**14,501**	**154,465**	**42,399**	**46,498**	**661,690**	**905,052**

Chart 3 Projected Population Growth



Determination of Fees

Distribution of Project Costs

An Equivalent Dwelling Unit (EDU) ratio factor has been established for the purpose of appropriately allocating the cost of anticipated public facilities between the different land use classifications. EDU ratios have been calculated for each category of facility to be funded with FBA/DIF funds because the relationship between land use and the demand for different public facilities can vary substantially. The Single-Family Dwelling Unit (SFDU), equal to 9 daily trips, is the foundation for all other EDU ratios. Other land use classifications are assigned an EDU ratio proportionate to the respective impacts.

Cost Distribution – Transportation Facilities

Otay Mesa is currently generating approximately 203,000 ADTs, or 22% of its projected ADT count at community build-out. This Financing Plan includes several transportation projects that are needed to serve both existing and new development. Because these *newly included* transportation projects are in part needed to serve already-existing development in the community, only 78% of their cost is included in the basis for determining the amount of the FBA/DIF fee. In these instances, the balance of funding is unidentified and this circumstance is noted in the Funding Issues section of the applicable project sheets. Transportation facilities that are *continued* from the FY 2007 Financing Plan are included at 100% of cost, reflecting the circumstance that all (future and previous) development has and will contribute toward those *continuing* projects.

Cost Distribution - Park, Fire, and Police Facilities

With the exception of Project No. P-21, Hiking and Biking Trails Network,* all *newly included* Park, Fire, and Police Facilities in this Financing Plan are 100% attributable to new development. Accordingly, the full cost of those facilities is included in the FBA/DIF fee. Thus, because the need for these newly included facilities is solely attributable to new development, new development will be required to pay the entire cost of those facilities. The full cost of Park, Fire, and Police Facilities *continued* from the FY 2007 Financing Plan are also included in the FBA/DIF fee, reflecting the circumstance that all development (previous and future) has and will contribute toward those *continuing* projects.

* See Project Sheet OM P-21 for distribution of costs for the Hiking and Biking Trails Network

FBA/DIF Fee Schedule

The FBA/DIF Fee Schedule is determined using the development schedule, schedule of anticipated facility expenditures (in FY 2014 dollars), and projected annual interest and inflation rates. Fees are calculated to provide sufficient money to meet the scheduled direct payments for anticipated facilities provided from FBA/DIF funds.

The fees also consider the timing of credits and reimbursements to be paid to developers for FBA/DIF funded facilities. Due to inflation and changes in project scope, the cost for providing facilities is anticipated to increase over time. The fee schedule reflects the fee for each land use category during each fiscal year of anticipated future community development. The fee schedule through FY 2062 is shown in Table 2 (on page 10, and repeated on the inside back cover of this document).

Automatic Annual Increases

The Municipal Code provides for an annual adjustment of the FBA/DIF. The fee schedule reflects an inflation factor of 3.0% per year for FY 2015 through FY 2020 and 2.0% each year thereafter. This factor is used to provide automatic annual increases in the assessment rate, and is effective at the beginning of each fiscal year (July 1). The automatic increase provision is effective only until such time as the next financing plan update is approved by the City Council. The City of San Diego considers historic data when predicting the effect of inflation on construction project costs. The Los Angeles/San Diego Construction Cost Index (CCI) and the Consumer Price Index (CPI) for San Diego are the two indices used by the City while conducting a cash flow analysis. The indices are shown on page 14 as Table 3 and Table 4.

Cash Flow Analysis

The Otay Mesa cash flow shown on page 15, Table 5, presents an analysis of the FBA/DIF. For each fiscal year of development, the cash flow shows the difference between anticipated revenues and capital improvement expenditures inclusive of administrative costs.

Table 2 Otay Mesa FBA Rate Schedule

FISCAL YEAR	SINGLE FAMILY DUs	MULTI-FAMILY DUs	NON-RESIDENTIAL ADTs
2014	$30,827	$27,402	$556
2015	$31,752	$28,224	$572
2016	$32,705	$29,071	$589
2017	$33,686	$29,943	$607
2018	$34,697	$30,841	$625
2019	$35,738	$31,766	$644
2020	$36,810	$32,719	$663
2021	$37,546	$33,373	$676
2022	$38,297	$34,040	$690
2023	$39,063	$34,721	$704
2024	$39,844	$35,415	$718
2025	$40,641	$36,123	$732
2026	$41,454	$36,845	$747
2027	$42,283	$37,582	$762
2028	$43,129	$38,334	$777
2029	$43,992	$39,101	$793
2030	$44,872	$39,883	$809
2031	$45,769	$40,681	$825
2032	$46,684	$41,495	$842
2033	$47,618	$42,325	$859
2034	$48,570	$43,172	$876
2035	$49,541	$44,035	$894
2036	$50,532	$44,916	$912
2037	$51,543	$45,814	$930
2038	$52,574	$46,730	$949
2039	$53,625	$47,665	$968
2040	$54,698	$48,618	$987
2041	$55,792	$49,590	$1,007
2042	$56,908	$50,582	$1,027
2043	$58,046	$51,594	$1,048
2044	$59,207	$52,626	$1,069
2045	$60,391	$53,679	$1,090
2046	$61,599	$54,753	$1,112
2047	$62,831	$55,848	$1,134
2048	$64,088	$56,965	$1,157
2049	$65,370	$58,104	$1,180
2050	$66,677	$59,266	$1,204
2051	$68,011	$60,451	$1,228
2052	$69,371	$61,660	$1,253
2053	$70,758	$62,893	$1,278
2054	$72,173	$64,151	$1,304
2055	$73,616	$65,434	$1,330
2056	$75,088	$66,743	$1,357
2057	$76,590	$68,078	$1,384
2058	$78,122	$69,440	$1,412
2059	$79,684	$70,829	$1,440
2060	$81,278	$72,246	$1,469
2061	$82,904	$73,691	$1,498
2062	$84,562	$75,165	$1,528

FBA Assessments and DIF Property Listing

All development projects (construction permits) seeking to develop property in the Otay Mesa Area of Benefit are subject to either FBA or DIF. Development on parcels which have not previously paid FBA is generally subject to FBA. Development at the City's Brown Field Airport and development on parcels which have previously paid FBA is not subject to FBA, but is subject to DIF. The DIF is determined in the same manner as the FBA and the DIF is equal to the FBA.

FBA: An FBA Assessment Roll is prepared for Otay Mesa, and identifies the size, location, and anticipated land use of remaining, undeveloped assessed parcels. FBA liens are placed on undeveloped or under-developed parcels within the Area of Benefit that have not previously fully paid FBA, and the owner or developer is responsible to pay the fee that applies to the type and amount of development as it occurs.

DIF: A DIF Properties Listing is prepared for Otay Mesa, and identifies all of the parcels with a non-residential land use designation and which have already developed or paid an FBA. The property owners or developers who intensify development on these parcels will pay a DIF fee based upon the additional ADTs that will be generated by that development when applying Table 7 of the Trip Generation Manual of the Land Development Code, and as augmented in this PFFP on page 13.

FBA/DIF on residential development is based on the number and type of dwelling units anticipated. FBA/DIF on non-residential development is calculated based on the amount and type of development in accordance with land uses in the Community Plan (best and highest use), and on the anticipated number of ADTs that would be generated by that development. FBA and DIF assessments are calculated in the same manner and are equivalent assessments.

The FBA Assessment Roll and DIF Properties Listing include the Assessor Parcel Number (APN) and the anticipated type of Land Use. They do not include ADTs or specific dollar amounts because these vary depending upon the type and amount of development that actually occurs, and upon the ADT and FBA/DIF rates in effect when the assessments are paid. For the purpose of listing these properties in the FBA Assessment Roll, identification numbers have been assigned to each parcel, and the remaining list may appear non-sequential as a result of the omission of parcels after FBA is paid, ownership changes, or as parcels are subdivided. Information on ownership is based on County records, as shown on the last Recorded Assessment Roll, as otherwise known to the City Clerk, or by other means which the City Council finds reasonably available to apprise affected landowners of Council hearings. Regardless, both DIF and FBA are due for all new development as applicable, and in accordance with the Municipal Code.

A Resolution of Designation, when adopted by City Council, imposes the FBA in the form of a lien that is placed upon the undeveloped or underdeveloped portions of the

County Assessor parcels and final map properties within the Area of Benefit. Liens are not placed on DIF Assessments.

After City Council approves the Financing Plan and adopts the fee schedule, the maps, plats, and summary of the FBA Assessment Roll is delivered to the County Recorder for recordation. The current FBA assessment numerical list and map can be found starting on page 337. The current DIF assessment numerical list can be found starting on page 363.

Development Impact Fees

As the Otay Mesa community develops, an increasing amount of future development will occur on non-assessed properties. DIF are collected to mitigate the public facilities impacts of additional development of properties that do not otherwise have an FBA lien on their property. The same methodology is used to calculate a DIF that is applicable to new development within the community that is not otherwise required to pay the FBA. The City has determined that there is a reasonable relationship between the amount of the FBA and DIF and the public facilities burdens posed by new development.

Note: Development at the City-owned Brown Field Airport is not required to pay an FBA and therefore, will not have an FBA lien placed on the Brown Field Airport property. However, it is expected that currently anticipated development at the Brown Field Airport will be required to pay DIF, which is equal to the amount that it would otherwise be required to pay as FBA.

Collection of FBA/DIF Fees

FBA and DIF revenues will be placed into separate interest bearing special funds. These funds are used within the Otay Mesa community solely for those public facilities and administrative costs identified in the Financing Plan. Because of the more uncertain timing associated with future DIF revenues, DIF funds will be budgeted into CIP projects as revenues are received.

While assessments on parcels are based on best and highest anticipated land use, an individual owner or developer will pay a fee based upon the specific development being constructed. At the time the fee is due, FBA/DIF is calculated according to the FBA/DIF Fee Schedule in effect at the time the payment is made. ADT calculations are based on the amount and type of development, and current trip generation rates. The trip generation rates utilized to calculate fees are those as listed in the Land Development Code Trip Generation Manual, specifically Table 7 "Trip Generation Rates for Facilities Financing Purposes." Table 7 of the Trip Generation Manual is augmented with the following trip generation rates unique to Otay Mesa, as follows:

OTAY MESA – SPECIFIC TRIP GENERATION RATES	
LAND USE *	**VEHICLE TRIP RATE**
Brown Field	14 ADTs per 1,000 sq. ft.
Cross Border Facility	72 ADTs per 1,000 sq. ft.
Truck / Trailer Parking	30 ADTs per acre
Truck Terminal	10 ADTs per 1,000 sq. ft.
Automobile Parking (unpaved)	400 ADTs per acre
Automobile Parking (paved)	600 ADTs per acre
Auto Auction Operations	13 ADTs per acre
Auto Salvage Operations	50 ADTs per acre
Institutional Uses	18 ADTs per 1,000 sq. ft.

* Rates for Brown Field and Cross Border Facility are based on respective traffic studies for those projects. The other rates in the table are as provided by the City's Traffic Forecasting and Mobility Section.

Consolidation of Funds

Originally, when the Otay Mesa FBA was established, two separate FBA funds were established (rather than the usual one fund per community) because it was anticipated that the residential development in the community would take place entirely in the western area of the community while the non-residential development was primarily located in the eastern area. The Community Plan now anticipates some residential development located in the eastern area, rendering the original purpose for separate (eastern/western) funds obsolete.

With this Financing Plan, the two community FBA funds are replaced with a single fund and, accordingly, only one cash flow is developed for the community. The existing FBA and DIF fund balances will be expended from the original funds they were deposited into, and toward the facilities for which they were collected as fully described in the prior financing plans.

Expenditures

Expenditures which may be applied against FBA/DIF funds include: direct payments for facility costs including administrative costs, and credits and cash reimbursement to developers for facilities provided pursuant to a Council-approved reimbursement agreement. Whether a developer or the FBA/DIF originally funds a facility, direct payments, credits, and cash reimbursements are all treated as expenses to the FBA/DIF funds. Pursuant to the terms of a reimbursement agreement with the City, a developer may be issued credits against its fees for expenditures related to providing facilities. Alternatively, an approved reimbursement agreement with the City may allow developer(s) cash reimbursement from FBA/DIF funds.

Table 3 Los Angeles/San Diego Construction Cost Index

As reported March 2013 by *Engineering News Record*

YEAR	CCI	% ANNUAL CHANGE
2000	7056	3.28%
2001	7073	0.24%
2002	7440	5.19%
2003	7572	1.77%
2004	7735	2.15%
2005	8234	6.45%
2006	8552	3.86%
2007	8873	3.75%
2008	9200	3.69%
2009	9799	6.51%
2010	9770	(0.3%)
2011	10035	2.72%
2012	10284	2.48%
2013	10284	0.0%

Table 4 San Diego Consumer Price Index

Reported August 2013

YEAR	CPI	% ANNUAL CHANGE
2000	179.8	4.72%
2001	190.1	5.73%
2002	195.7	2.95%
2003	203.8	4.14%
2004	211.4	3.73%
2005	218.3	3.26%
2006	226.7	3.85%
2007	231.9	2.29%
2008	242.4	4.55%
2009	240.9	-0.60%
2010	244.2	1.39%
2011	252.5	3.40%
2012	256.6	1.66%
2013	259.0	0.90%

Table 5 Otay Mesa Cash Flow

FY	SFDU	MFDU	BROWN FIELD ADTs	CROSS BORDER ADTs	NON-AIRPORT ADTs	COST/ SFDU	COST/ MFDU	COST/ NON-RESIDENTIAL ADT	DEPOSIT $ PLUS INTEREST	PLANNED CIP $ EXPENSES	NET BALANCE	FY
PRIOR	2,700	2,000	-	6,120	-	$27,707	$19,396	n/a	$0	$0	$0	PRIOR
2014	0	5	0	7,563	0	$30,827	$27,402	$556	$4,394,173	$0	$4,394,173	2014
2015	0	35	5,788	0	2,218	$31,752	$28,224	$572	$5,647,199	$8,023,700	$2,017,672	2015
2016	0	107	0	0	23,550	$32,705	$29,071	$589	$17,031,272	$17,048,276	$2,000,668	2016
2017	70	290	0	4,360	4,875	$33,686	$29,943	$607	$16,696,569	$16,694,250	$2,002,988	2017
2018	120	290	0	0	6,149	$34,697	$30,841	$625	$17,000,974	$16,973,124	$2,030,838	2018
2019	216	144	0	0	19,099	$35,738	$31,766	$644	$24,644,476	$24,617,389	$2,057,925	2019
2020	216	144	14,125	0	8,375	$36,810	$32,719	$663	$27,631,117	$27,649,965	$2,039,077	2020
2021	216	144	0	0	6,149	$37,546	$33,373	$676	$17,112,903	$17,140,715	$2,011,266	2021
2022	270	180	0	0	8,873	$38,297	$34,040	$690	$22,629,558	$22,627,107	$2,013,717	2022
2023	270	180	0	8,000	8,873	$39,063	$34,721	$704	$28,715,083	$28,726,784	$2,002,016	2023
2024	195	432	0	0	10,673	$39,844	$35,415	$718	$30,772,953	$30,641,622	$2,133,347	2024
2025	0	432	12,401	0	11,273	$40,641	$36,123	$732	$32,975,734	$33,072,432	$2,036,649	2025
2026	0	432	0	0	8,873	$41,454	$36,845	$747	$22,586,140	$22,514,259	$2,108,530	2026
2027	0	432	0	7,000	8,873	$42,283	$37,582	$762	$28,484,824	$17,123,233	$13,470,121	2027
2028	0	432	0	0	9,760	$43,129	$38,334	$777	$24,319,655	$33,625,979	$4,163,797	2028
2029	0	432	0	0	9,760	$43,992	$39,101	$793	$24,702,519	$25,871,565	$2,994,752	2029
2030	0	432	10,085	7,000	9,760	$44,872	$39,883	$809	$39,007,914	$38,872,841	$3,129,824	2030
2031	0	432	0	0	13,792	$45,769	$40,681	$825	$29,017,379	$28,756,262	$3,390,940	2031
2032	0	432	0	6,455	9,760	$46,684	$41,495	$842	$31,779,723	$18,300,592	$16,870,072	2032
2033	0	432	0	0	10,647	$47,618	$42,325	$859	$27,820,812	$22,289,068	$22,401,815	2033
2034	0	432	0	0	10,647	$48,570	$43,172	$876	$28,242,012	$46,525,302	$4,118,526	2034
2035	0	432	0	0	10,647	$49,541	$44,035	$894	$28,624,631	$28,524,910	$4,218,247	2035
2036	0	432	0	0	13,047	$50,532	$44,916	$912	$31,388,896	$31,164,051	$4,443,092	2036
2037	0	432	0	0	10,647	$51,543	$45,814	$930	$29,783,800	$29,594,867	$4,632,025	2037
2038	0	432	0	0	11,534	$52,574	$46,730	$949	$31,227,016	$31,095,117	$4,763,924	2038
2039	0	432	0	0	11,534	$53,625	$47,665	$968	$31,851,548	$31,837,545	$4,777,927	2039
2040	0	432	0	0	11,534	$54,698	$48,618	$987	$32,484,689	$32,267,400	$4,995,216	2040
2041	0	432	0	0	11,534	$55,792	$49,590	$1,007	$33,138,905	$32,992,378	$5,141,743	2041
2042	0	432	0	0	11,534	$56,908	$50,582	$1,027	$33,802,923	$33,467,628	$5,477,038	2042
2043	0	432	0	0	12,422	$58,046	$51,594	$1,048	$35,415,140	$35,455,011	$5,437,167	2043
2044	0	432	0	0	12,422	$59,207	$52,626	$1,069	$36,124,189	$35,844,543	$5,716,813	2044
2045	0	432	0	0	12,422	$60,391	$53,679	$1,090	$36,843,591	$36,757,331	$5,803,073	2045
2046	0	432	0	0	12,422	$61,599	$54,753	$1,112	$37,585,261	$37,225,511	$6,162,823	2046
2047	0	432	0	0	12,422	$62,831	$55,848	$1,134	$38,336,104	$38,242,327	$6,256,599	2047
2048	0	432	0	0	13,309	$64,088	$56,965	$1,157	$40,134,388	$39,877,850	$6,513,138	2048
2049	0	182	0	0	13,309	$65,370	$58,104	$1,180	$26,409,626	$26,357,211	$6,565,553	2049

FY	SFDU	MFDU	BROWN FIELD ADTs	CROSS BORDER ADTs	NON-AIRPORT ADTs	COST/ SFDU	COST/ MFDU	COST/ NON-RESIDENTIAL ADT	DEPOSIT $ PLUS INTEREST	PLANNED CIP $ EXPENSES	NET BALANCE	FY
2050	0	0	0	0	13,309	$66,677	$59,266	$1,204	$16,155,483	$16,070,053	$6,650,983	2050
2051	0	0	0	0	13,309	$68,011	$60,451	$1,228	$16,474,389	$16,612,066	$6,513,306	2051
2052	0	0	0	0	13,309	$69,371	$61,660	$1,253	$16,808,851	$16,494,259	$6,827,897	2052
2053	0	0	0	0	13,309	$70,758	$62,893	$1,278	$17,143,336	$17,283,194	$6,688,040	2053
2054	0	0	0	0	13,293	$72,173	$64,151	$1,304	$17,517,064	$12,478,328	$11,726,776	2054
2055	0	0	0	0	7,649	$73,616	$65,434	$1,330	$10,502,735	$788,031	$21,441,480	2055
2056	0	0	0	0	7,649	$75,088	$66,743	$1,357	$10,906,431	$803,792	$31,544,120	2056
2057	0	0	0	0	7,649	$76,590	$68,078	$1,384	$11,317,922	$819,867	$42,042,175	2057
2058	0	0	0	0	7,649	$78,122	$69,440	$1,412	$11,745,083	$836,265	$52,950,993	2058
2059	0	0	0	0	7,649	$79,684	$70,829	$1,440	$12,180,497	$852,990	$64,278,499	2059
2060	0	0	0	0	7,649	$81,278	$72,246	$1,469	$12,632,048	$870,050	$76,040,498	2060
2061	0	0	0	0	7,649	$82,904	$73,691	$1,498	$13,092,330	$887,451	$88,245,377	2061
2062	0	0	0	0	1,908	$84,562	$75,165	$1,528	$4,709,258	$905,200	$92,049,435	2062
TOTAL	**4,273**	**14,501**	**42,399**	**46,498**	**504,697**						**$92,049,435**	**TOTAL**

INFLATION RATE: 3.00% for FY 2014 - FY 2020, then 2.0%
INTEREST RATE: 2.50% for FY 2014 - FY 2020, then 2.0%

NOTE : VALUES ARE ROUNDED TO THE NEAREST DOLLAR.

Financing Strategies

Policy PF-A-3 (Public Facilities, Services and Safety Element) of the City of San Diego General Plan calls for the City to maintain an effective facilities financing program to ensure that impact of new development is mitigated through appropriate fees identified in financing plans; to ensure new development pays its proportional fair-share of public facilities costs; to evaluate and update financing plans when community plans are updated; and to include in the Financing Plans a variety of facilities to effectively and efficiently meet the needs of diverse communities.

Development impacts public facilities and services, including the water supply and distributions system, sanitary sewer system, streets, parks and open space. Anticipated public facility projects that benefit a population larger than the local/adjacent development can be financed by using the following methods:

Facilities Benefit Assessment (FBA)

Facilities Benefit Assessments are a method whereby the impact of new development upon the infrastructure needs of the community is determined, and a fee is developed and imposed on development to mitigate the impact of new development while following the procedures specified in San Diego Municipal Code Chapter 6, Article 1, Division 22 and the Mitigation Fee Act. FBAs cannot be used for demand resulting from existing development. A Facilities Benefit Assessment results in a lien being levied on each parcel of property located within the designated Area of Benefit. The liens ensure that assessments will be collected on each parcel as development occurs and will be renewed periodically with each update to the Financing Plan. The liens will be released following payment of the FBA.

Development Impact Fee (DIF)

Development Impact Fees are a method whereby the impact of new development upon the infrastructure needs of the community is determined, and a fee is developed and imposed on development to mitigate the impact of new development. Development Impact Fees cannot be used for demand resulting from existing development. Development Impact Fees are collected at the time of construction permit issuance. Funds collected are deposited in a special interest bearing account and can only be used for identified facilities serving the community in which they were collected. In FBA communities, DIF are applicable to all properties that have never been assessed or otherwise agreed to pay FBAs.

Assessment Districts

Special assessment district financing, such as the Municipal Improvement Acts of 1913/1915, may be used as a supplementary or alternative method of financing facilities such as streets, sidewalks, sewers, water lines, storm drains, and lighting facilities. Assessment districts may be beneficial in that they provide all of the funding needed for a particular public facility project in advance of the projected development activity. However, assessment districts also create a long-term encumbrance of the benefiting

property and require that the funds be repaid over an extended period of time. Assessment districts also require the approval of at least 50% of the property owners, based on a ballot process with votes weighted in proportion to the assessment obligation in order to establish the district.

Community Facilities Districts (CFD)

State legislation, such as the Mello-Roos Act of 1982, has been enacted to provide a method of financing public facilities in new and developing areas. A Mello-Roos is also known as a Community Facilities District (CFD). The formation of such CFDs may be initiated by owner/developer petition. Mello-Roos districts also require approval by a two-thirds majority of the property owners in order to establish the district.

Further guidance on Assessment Districts and Community Facilities Districts within the City can be found in the City of San Diego Debt Policy, Appendix A, Special District Formation and Financing Policy.

Cost Reimbursement District (CRD)

Occasionally, a developer/subdivider is required to construct public improvements that are more than that which is required to support their individual property/development. A Cost Reimbursement District provides a mechanism by which the developer/subdivider may be reimbursed by the property owners who ultimately benefit from the improvement. Reimbursement is secured by a lien on the benefiting properties for a period of 20 years, with the lien due and payable upon recordation of a final map or issuance of a building permit, whichever occurs first.

Developer Construction

New development either constructs required facilities as a condition of subdivision or development approval or provides funds for its fair share of the costs of such facilities, with construction being performed by the City. Typically, these funds are collected as FBAs or DIFs. As an alternative to the payment of FBAs or DIFs, it may be feasible for developers to construct one or more of the needed public facilities in a turnkey basis. Under this arrangement, developers typically are compensated, either by cash or credit against fees otherwise due, for the work performed pursuant to the terms of a Council approved reimbursement agreement (Council Policy 800-12).

Development Agreement

A developer may enter into an agreement with the City, in which certain development rights are extended to the developer in exchange for certain extraordinary benefits given to the City.

Regional Transportation Congestion Improvement Program

Where appropriate, the City requires payment of a Regional Transportation Congestion Improvement Program (RTCIP) fee as originally adopted by City Council Resolution R-303554 on April 14, 2008. Development within Otay Mesa is currently not subject to payment of the RTCIP fee since new development pays FBA or DIF in an amount greater than the average RTCIP rate per residential unit.

Reimbursement Financing for Water and Sewer Facilities

This method of financing is outlined in Council Policy 400-07, and is commonly used when the first developer/subdivider in an area is required to construct the necessary water and sewer facilities for an entire developing area. These agreements are approved by City Council. Reimbursement to the first developer/subdivider can occur over a period of time as long as 20 years or until all of the subsequently developed lands have participated in the reimbursement, whichever occurs first.

State/Federal Funding

Certain public facilities may be determined to benefit a regional area that is larger than the community planning area. Such projects may be eligible to be funded by either the state and/or the federal government.

General Assumptions and Conditions

For the FBA and DIF methodologies, the following assumptions and conditions will be applied:

1. Except for those projects that are identified as FBA/DIF funded, developers will be required to provide facilities that are normally provided within the subdivision process as a condition of tentative subdivision map approval.

2. Non-residential land will be charged FBA/DIF for infrastructure, including transportation, fire, and utility facilities. However, developers of non-residential land will not be charged for park and recreation or library facilities because those facilities primarily serve the residential component of the Otay Mesa community. In the future, if a basis is developed for charging non-residential development for the cost of park and recreation and library facilities, an appropriate fair share may be evaluated.

3. Reviews may be performed to evaluate performance of the program and consider the continuing commitments related to the completion of needed facilities. Project costs and charges would be evaluated for all portions of the program.

4. The owner or developer shall pay the FBA and/or DIF as a condition of obtaining construction or building permits in accordance with the San Diego Municipal Code.

5. A developer, or group of developers, may propose to build or improve an FBA/DIF funded facility that is identified in the Capital Improvements Program. Upon City Council approval, the developer(s) may enter into an agreement to provide the facility in lieu of, or as credit against the payment of FBA/DIF, provided that adequate funds are available in the FBA/DIF fund. The amount and timing of the credit being sought by the developer(s) must coincide with the expenditure of funds depicted on the Financing Plan CIP sheet for the respective project.

   Should the approved, final cost of the facility exceed the amount of credit being sought by the developer(s), the developer(s) may be reimbursed from the FBA/DIF fund for the difference, subject to the terms of an approved reimbursement agreement and the availability of funds. If two developers are eligible for cash reimbursement

during the same fiscal year, then the first reimbursement agreement to be approved by the City Council shall take precedence over subsequent reimbursement agreements.

6. As FBA and DIF are collected, they will be placed in separate City funds that provide interest earnings for the benefit of Otay Mesa.

7. The Development Schedule, shown on page 7 as Table 1, is an estimated schedule based on the latest information available at the time this Financing Plan was adopted. Future approvals and/or modifications of precise plans and/or discretionary permit applications may either increase or decrease the extent of development proposed within Otay Mesa.

8. Most public facilities anticipated in the Financing Plan are either "population based" or "transportation based." The estimated year in which funds are budgeted for a given project is not a binding commitment that the project will actually be constructed in that year. With each Financing Plan update, permit activity and population projections, coupled with additional traffic study information obtained since the last update, will be evaluated to determine the most appropriate year in which to budget the need for each remaining project. In addition, the City Council may amend this Financing Plan to add, delete, substitute, or modify a particular anticipated project to take into consideration unforeseen circumstance

9. Only those roadways that have been designed as circulation element roadways per the Otay Mesa Community Plan have been considered in this Financing Plan for funding with FBA/DIF funds. All other roadways located within Otay Mesa will be the direct responsibility of the developer/subdivider and are therefore not reflected in the FBA/DIF calculations.

10. Any project-specific community plan amendment may result in additional fees being charged on an ad hoc basis. Ad hoc fees may also be charged where it is determined necessary to ensure that development pays its fair share toward needed public improvements.

Table 6 Otay Mesa Project Summary

PAGE	PROJECT NO.	DESCRIPTION	FUNDING YEAR(S)	ESTIMATED COST (2014)	FUNDING SOURCE						
					FBA-OM	DIF-0M	FBA-(W)	FBA-(E)	PDIF-(W)	PDIF-(E)	OTHER
		TRANSPORTATION PROJECTS:									
32	OM T-1	PALM AVENUE/I-805 INTERCHANGE	2014, 2028, 2029	$41,374,000	$33,005,337	$0	$2,800,092	$4,568,571	$0	$0	$1,000,000
34	OM T-2	OCEAN VIEW HILLS PARKWAY	2014	$18,098,734	$0	$0	$5,067,535	$7,067,664	$1,604,993	$3,818,542	$540,000
36	OM T-3.1	DENNERY ROAD - (Black Coral Way to Topsail Drive)	2017	$825,000	$825,000	$0	$0	$0	$0	$0	$0
38	OM T-3.2	DENNERY ROAD - (Topsail Drive to Avenida De Las Vistas)	2034, 2035	$5,700,000	$5,700,000	$0	$0	$0	$0	$0	$0
40	OM T-3.3	DENNERY ROAD - (Triple Pipe Crossing)	2018	$750,000	$750,000	$0	$0	$0	$0	$0	$0
42	OM T-4.1	DEL SOL BOULEVARD (west boundary of elementary school to Surf Crest Drive)	2014, 2018	$5,357,000	$483,598	$0	$4,873,402	$0	$0	$0	$0
44	OM T-4.2	DEL SOL BOULEVARD (Riviera Point Street to west boundary of elementary school)	2020	$3,700,000	$3,700,000	$0	$0	$0	$0	$0	$0
46	OM T-6.1	STREET 'A' (Ocean View Hills Parkway to Otay Mesa Road)	2023, 2024	$4,000,000	$3,120,000	$0	$0	$0	$0	$0	$880,000
48	OM T-6.2	STREET 'A' (Overpass from Otay Mesa Road to Airway Road)	2023, 2024, 2025	$22,300,000	$17,394,000	$0	$0	$0	$0	$0	$4,906,000
50	OM T-7	OLD OTAY MESA ROAD (Hawken Drive to California Terrace Subdivision)	2014	$8,500,000	$0	$0	$4,954,000	$0	$546,000	$0	$3,000,000
52	OM T-8	BEYER BOULEVARD (Enright Drive to Caliente Avenue)	2022, 2023	$20,500,000	$15,990,000	$0	$0	$0	$0	$0	$4,510,000
54	OM T-9.1	OTAY MESA ROAD (Street "A" to Caliente Avenue)	2035	$2,200,000	$1,716,000	$0	$0	$0	$0	$0	$484,000
56	OM T-9.2	OTAY MESA ROAD (Caliente Avenue to Heritage Road)	2036	$4,400,000	$3,432,000	$0	$0	$0	$0	$0	$968,000
58	OM T-9.3	OTAY MESA ROAD (Heritage Road to Cactus Road)	2036, 2038	$2,400,000	$1,872,000	$0	$0	$0	$0	$0	$528,000
60	OM T-9.4	OTAY MESA ROAD (Cactus Road to Britannia Boulevard)	2036, 2038	$2,400,000	$1,872,000	$0	$0	$0	$0	$0	$528,000
62	OM T-9.5	OTAY MESA ROAD (Britannia Boulevard to Gailes Boulevard)	2038	$920,000	$717,600	$0	$0	$0	$0	$0	$202,400
64	OM T-9.6	OTAY MESA ROAD (Gailes Boulevard to St. Andrews)	2038	$960,000	$748,800	$0	$0	$0	$0	$0	$211,200
66	OM T-9.7	OTAY MESA ROAD (St. Andrews to Otay Center Road)	2038	$1,400,000	$1,092,000	$0	$0	$0	$0	$0	$308,000
68	OM T-9.8	OTAY MESA ROAD (Otay Center Road to La Media Road)	2038	$1,100,000	$858,000	$0	$0	$0	$0	$0	$242,000
70	OM T-9.9	OTAY MESA ROAD (La Media Road to Piper Ranch Road)	2039	$3,100,000	$2,418,000	$0	$0	$0	$0	$0	$682,000
72	OM T-9.10	OTAY MESA ROAD (Piper Ranch Road to Harvest Road)	2039	$3,900,000	$1,521,000	$0	$0	$0	$0	$0	$2,379,000
74	OM T-9.11	OTAY MESA ROAD (Harvest Road to Sanyo Road)	2039	$3,500,000	$0	$0	$0	$0	$0	$0	$3,500,000
76	OM T-9.12	OTAY MESA ROAD (Sanyo Road to city limits)	2039	$3,700,000	$0	$0	$0	$0	$0	$0	$3,700,000
78	OM T-10.1	AIRWAY ROAD (Old Otay Mesa Road to Caliente Avenue)	2047	$300,000	$0	$0	$0	$0	$0	$0	$300,000
80	OM T-10.2	AIRWAY ROAD (Caliente Avenue to Heritage Road)	2043-2054	$76,200,000	$76,200,000	$0	$0	$0	$0	$0	$0
82	OM T-10.3	AIRWAY ROAD (Heritage Road to Cactus Road)	2035, 2036	$20,800,000	$16,224,000	$0	$0	$0	$0	$0	$4,576,000
84	OM T-10.4	AIRWAY ROAD (Cactus Road to Britannia Boulevard)	2023, 2024	$17,400,000	$13,572,000	$0	$0	$0	$0	$0	$3,828,000
86	OM T-10.5	AIRWAY ROAD (Britannia Boulevard to west of La Media Road)	2018, 2020	$6,900,000	$5,382,000	$0	$0	$0	$0	$0	$1,518,000
88	OM T-10.6	AIRWAY ROAD (La Media Road to Avenida Costa Azul)	2019	$6,900,000	$5,382,000	$0	$0	$0	$0	$0	$1,518,000
90	OM T-10.7	AIRWAY ROAD (Avenida Costa Azul to Avenida De la Fuente N.)	2021	$4,200,000	$3,276,000	$0	$0	$0	$0	$0	$924,000
92	OM T-10.8	AIRWAY ROAD (Avenida De la Fuente N. to Harvest Road)	2021, 2022	$5,400,000	$4,212,000	$0	$0	$0	$0	$0	$1,188,000
94	OM T-10.9	AIRWAY ROAD (Harvest Road to Sanyo Road)	2035	$3,500,000	$2,730,000	$0	$0	$0	$0	$0	$770,000
96	OM T-10.10	AIRWAY ROAD (Sanyo Road to Paseo de las Americas)	2035	$870,000	$0	$0	$0	$0	$0	$0	$870,000
98	OM T-10.11	AIRWAY ROAD (Paseo de las Americas to Enrico Fermi)	2035	$3,800,000	$0	$0	$0	$0	$0	$0	$3,800,000
100	OM T-11.1	CALIENTE AVENUE (Otay Mesa Road to Proposed SR 905 Overpass)	2026	$500,000	$390,000	$0	$0	$0	$0	$0	$110,000
102	OM T-11.2	CALIENTE AVENUE (SR 905 Overpass)	2026	$50,000	$39,000	$0	$0	$0	$0	$0	$11,000
104	OM T-11.3	CALIENTE AVENUE (SR 905 Overpass to Airway Road)	2026	$500,000	$390,000	$0	$0	$0	$0	$0	$110,000
106	OM T-11.4	CALIENTE AVENUE (Airway Road to current dead end)	2025, 2026	$1,700,000	$1,326,000	$0	$0	$0	$0	$0	$374,000
108	OM T-11.5	CALIENTE AVENUE (current dead end to Beyer Boulevard)	2026, 2027	$4,800,000	$3,744,000	$0	$0	$0	$0	$0	$1,056,000
110	OM T-11.6	CALIENTE AVENUE (Beyer Boulevard to Siempre Viva Road)	2026	$2,100,000	$0	$0	$0	$0	$0	$0	$2,100,000
112	OM T-12	EXPOSITION WAY/VISTA SANTO DOMINGO	2026	$1,350,000	$0	$0	$0	$0	$0	$0	$1,350,000
114	OM T-13.1	CORPORATE CENTER DRIVE (Progressive Avenue to Otay Mesa Road)	2027	$3,925,000	$0	$0	$0	$0	$0	$0	$3,925,000
116	OM T-13.2	CORPORATE CENTER DRIVE (Otay Mesa Road to SR 905)	2027	$2,050,000	$0	$0	$0	$0	$0	$0	$2,050,000
118	OM T-14	INNOVATIVE DRIVE (Corporate Center Drive to Otay Mesa Road)	2027	$2,650,000	$0	$0	$0	$0	$0	$0	$2,650,000
120	OM T-15.1	DATSUN STREET (Innovative Drive to existing Otay Valley Road)	2033	$3,600,000	$0	$0	$0	$0	$0	$0	$3,600,000
122	OM T-15.2	DATSUN STREET (existing Otay Valley Road to existing Heritage Road)	2033	$2,800,000	$0	$0	$0	$0	$0	$0	$2,800,000
124	OM T-16.2	HERITAGE ROAD/OTAY VALLEY ROAD (Main Street to city limits)	2017, 2027	$53,700,000	$1,000,000	$0	$0	$0	$0	$0	$52,700,000
126	OM T-16.3	HERITAGE ROAD/OTAY VALLEY ROAD (city limits to Avenida de las Vistas)	2025	$6,900,000	$0	$6,900,000	$0	$0	$0	$0	$0
128	OM T-16.4	HERITAGE ROAD/OTAY VALLEY ROAD (Avenida de las Vistas to Datsun Street)	2025, 2027	$10,300,000	$5,854,000	$2,180,000	$0	$0	$0	$0	$2,266,000
130	OM T-16.5	HERITAGE ROAD/OTAY VALLEY ROAD (Datsun Street to Otay Mesa Road)	2030	$6,200,000	$4,836,000	$0	$0	$0	$0	$0	$1,364,000
132	OM T-16.6	HERITAGE ROAD/OTAY VALLEY ROAD (Otay Mesa Road to SR 905 Interchange)	2029, 2030, 2031	$5,800,000	$4,524,000	$0	$0	$0	$0	$0	$1,276,000
134	OM T-16.7	HERITAGE ROAD/OTAY VALLEY ROAD (SR 905 Interchange ramps)	2030, 2031	$21,700,000	$13,539,000	$8,161,000	$0	$0	$0	$0	$0
136	OM T-16.8	HERITAGE ROAD/OTAY VALLEY ROAD (SR 905 Interchange to current dead end)	2032	$540,000	$421,200	$0	$0	$0	$0	$0	$118,800
138	OM T-16.9	HERITAGE ROAD/OTAY VALLEY ROAD (current dead end to Airway Road)	2032, 2033, 2034	$19,800,000	$19,800,000	$0	$0	$0	$0	$0	$0
140	OM T-16.10	HERITAGE ROAD/OTAY VALLEY ROAD (bridge to Airway Road)	2032, 2033, 2034	$24,200,000	$24,200,000	$0	$0	$0	$0	$0	$0
142	OM T-17.1	AVIATOR ROAD (Heritage Road to La MediaRoad - widening portion only)	2022	$15,600,000	$0	$0	$0	$0	$0	$0	$15,600,000
144	OM T-17.2	AVIATOR ROAD (Heritage Road to La Media Road - new extension portion only)	2022	$19,300,000	$0	$0	$0	$0	$0	$0	$19,300,000

146	OM T-18.1	CACTUS ROAD (Otay Mesa Road to SR 905)	2040	$700,000	$0	$0	$0	$0	$0	$0	$700,000
148	OM T-18.2	CACTUS ROAD (SR 905 Overpass)	2039-2042	$35,200,000	$27,456,000	$0	$0	$0	$0	$0	$7,744,000
150	OM T-18.3	CACTUS ROAD (SR 905 to Airway Road)	2046	$4,200,000	$0	$0	$0	$0	$0	$0	$4,200,000
152	OM T-18.4	CACTUS ROAD (Airway Road to Siempre Viva)	2046	$10,500,000	$0	$0	$0	$0	$0	$0	$10,500,000
154	OM T-19.1	SIEMPRE VIVA ROAD (Cactus Road to Britannia Boulevard)	2037	$8,300,000	$6,474,000	$0	$0	$0	$0	$0	$1,826,000
156	OM T-19.2	SIEMPRE VIVA ROAD (Britannia Boulevard to La Media Road)	2018, 2019	$12,900,000	$10,062,000	$0	$0	$0	$0	$0	$2,838,000
158	OM T-19.3	SIEMPRE VIVA ROAD (La Media Road to Harvest Road)	2018	$4,100,000	$3,198,000	$0	$0	$0	$0	$0	$902,000
160	OM T-19.4	SIEMPRE VIVA ROAD (Harvest Road to Otay Center Road)	2037	$1,500,000	$1,170,000	$0	$0	$0	$0	$0	$330,000
162	OM T-19.5	SIEMPRE VIVA ROAD (Otay Center Road to Paseo de las Americas)	2038	$1,400,000	$1,092,000	$0	$0	$0	$0	$0	$308,000
164	OM T-19.6	SIEMPRE VIVA ROAD (Paseo de las Americas to Michael Faraday Drive)	2038	$110,000	$0	$0	$0	$0	$0	$0	$110,000
166	OM T-20.1	CONTINENTAL STREET (Otay Mesa Road to Camino Maquiladora)	2024	$1,425,000	$0	$0	$0	$0	$0	$0	$1,425,000
168	OM T-20.2	CONTINENTAL STREET (Airway Road to SR-905)	2024	$3,050,000	$0	$0	$0	$0	$0	$0	$3,050,000
170	OM T-21.1	BRITANNIA BOULEVARD (Otay Mesa Road to SR 905)	2022	$400,000	$0	$312,000	$0	$0	$0	$0	$88,000
172	OM T-21.2	BRITANNIA BOULEVARD (SR 905 to Airway Road)	2022	$600,000	$0	$468,000	$0	$0	$0	$0	$132,000
174	OM T-21.3	BRITANNIA BOULEVARD (Airway Road to Siempre Viva Road)	2020	$8,600,000	$0	$6,708,000	$0	$0	$0	$0	$1,892,000
176	OM T-21.4	BRITANNIA BOULEVARD (Siempre Viva Road to Britannia Court)	2021	$6,400,000	$0	$0	$0	$0	$0	$0	$6,400,000
178	OM T-22	SOUTHBOUND TRUCK ROUTE	2014, 2015	$21,842,856	$0	$0	$0	$1,205,000	$0	$200,000	$20,437,856
180	OM T-23	OTAY MESA CENTER ROAD (Otay Mesa Road to St. Andrews Avenue)	2022	$1,125,000	$0	$0	$0	$0	$0	$0	$1,125,000
182	OM T-24	SAINT ANDREWS AVENUE (Otay Mesa Center Road to La Media Road)	2022	$500,000	$0	$0	$0	$0	$0	$0	$500,000
184	OM T-25.1	LA MEDIA ROAD (Lonestar Road to Otay Mesa Road)	2034	$10,300,000	$0	$0	$0	$0	$0	$0	$10,300,000
186	OM T-25.2	LA MEDIA ROAD (Otay Mesa Road to SR 905 Interchange)	2022	$2,400,000	$0	$1,872,000	$0	$0	$0	$0	$528,000
188	OM T-25.3	LA MEDIA ROAD (SR 905 Interchange to Airway Road)	2015, 2016, 2017	$17,600,000	$13,728,000	$0	$0	$0	$0	$0	$3,872,000
190	OM T-25.4	LA MEDIA ROAD (Airway Road to Siempre Viva Road)	2014-2017	$15,600,000	$3,459,310	$3,310,000	$0	$5,193,690	$0	$1,063,000	$2,574,000
192	OM T-26.1	LONE STAR ROAD (Ramps for Southbound SR 125 and Northbound SR 125 at La Media)	2037	$12,600,000	$3,538,080	$0	$0	$0	$0	$0	$9,061,920
194	OM T-26.2	LONE STAR ROAD (Overpass)	2037, 2038	$42,400,000	$11,905,920	$0	$0	$0	$0	$0	$30,494,080
196	OM T-26.3	LONE STAR ROAD (Overpass to Harvest Road)	2038	$14,200,000	$0	$0	$0	$0	$0	$0	$14,200,000
198	OM T-27.1	PIPER RANCH ROAD (Lone Star to SR 125 Overpass)	2040	$9,800,000	$0	$0	$0	$0	$0	$0	$9,800,000
200	OM T-27.2	PIPER RANCH ROAD (SR 125 Overpass)	2040	$29,500,000	$0	$0	$0	$0	$0	$0	$29,500,000
202	OM T-27.3	PIPER RANCH ROAD (SR 125 Overpass to Otay Mesa Road)	2040	$10,600,000	$0	$0	$0	$0	$0	$0	$10,600,000
204	OM T-28	AVENIDA COSTA AZUL (Otay Mesa Road to SR 905)	2039	$5,350,000	$0	$0	$0	$0	$0	$0	$5,350,000
206	OM T-29.1	HARVEST ROAD (Airway Road to Otay Center Drive)	2025	$1,300,000	$0	$0	$0	$0	$0	$0	$1,300,000
208	OM T-29.2	HARVEST ROAD (Otay Center Drive to Siempre Viva)	2025	$4,800,000	$0	$0	$0	$0	$0	$0	$4,800,000
210	OM T-30	OTAY CENTER DRIVE (Harvest Road to Siempre Viva Road)	2025	$650,000	$0	$0	$0	$0	$0	$0	$650,000
212	OM T-31.1	SANYO/HEINRICH HERTZ DRIVE (Otay Mesa Road to Airway Road)	2030	$8,500,000	$0	$0	$0	$0	$0	$0	$8,500,000
214	OM T-31.2	SANYO/HEINRICH HERTZ DRIVE (Airway Road to Paseo de las Americas)	2030	$83,000	$0	$0	$0	$0	$0	$0	$83,000
216	OM T-32	PASEO DE LAS AMERICAS (Airway Road to Heinrich Hertz Drive)	2030	$1,775,000	$0	$0	$0	$0	$0	$0	$1,775,000
218	OM T-33	MICHAEL FARADAY (Siempre Viva Road to Marconi Drive)	2030	$350,000	$0	$0	$0	$0	$0	$0	$350,000
220	OM T-34	MARCONI DRIVE (Peseo de las Americas to Enrico Fermi Drive)	2030	$975,000	$0	$0	$0	$0	$0	$0	$975,000
222	OM T-35	TRAFFIC SIGNALS (53 locations)	2016-2048	$18,004,773	$9,427,080	$0	$0	$0	$0	$88,773	$8,488,920
226	OM T-36	SR-125/SR-905 CONNECTORS	2025	$83,300,000	$0	$0	$0	$0	$0	$0	$83,300,000
228	OM T-37	EMERALD CREST COURT; and INNOVATIVE DRIVE	2028, 2030	$3,925,000	$0	$0	$0	$0	$0	$0	$3,925,000
230	OM T-38	ALISA COURT; and HARVEST ROAD (South of Otay Mesa Road)	2028, 2030	$2,750,000	$0	$0	$0	$0	$0	$0	$2,750,000
		TOTAL TRANSPORTATION PROJECTS		**$937,035,363**	**$395,766,925**	**$29,911,000**	**$17,695,029**	**$18,034,925**	**$2,150,993**	**$5,170,315**	**$468,306,176**
		PARK PROJECTS:									
234	OM P-2	DENNERY RANCH NEIGHBORHOOD PARK	2016, 2017, 2018	$8,100,000	$8,098,097	$0	$1,904	$0	$0	$0	$0
236	OM P-4.1	PACIFIC BREEZES COMMUNITY PARK	2014, 2016	$16,450,000	$5,516,028	$0	$10,933,972	$0	$0	$0	$0
238	OM P-4.2	PACIFIC BREEZES COMMUNITY PARK - RECREATION CENTER & SWIMMING POOL	2019, 2021	$11,900,000	$8,850,000	$0	$0	$0	$0	$0	$3,050,000
240	OM P-5	RIVIERA DEL SOL NEIGHBORHOOD PARK	2014, 2015, 2016	$6,400,000	$2,850,000	$0	$3,550,000	$0	$0	$0	$0
242	OM P-6	HIDDEN TRAILS NEIGHBORHOOD PARK	2014, 2016	$5,340,000	$2,920,000	$0	$2,420,000	$0	$0	$0	$0
244	OM P-7.1	BEYER COMMUNITY PARK	2020, 2021	$11,888,000	$8,704,000	$0	$212,000	$0	$0	$0	$2,972,000
246	OM P-7.2	BEYER COMMUNITY PARK RECREATION CENTER	2023, 2024	$6,900,000	$5,175,000	$0	$0	$0	$0	$0	$1,725,000
248	OM P-8	SOUTHWEST VILLAGE NEIGHBORHOOD PARK (A)	2022, 2023	$6,200,000	$6,200,000	$0	$0	$0	$0	$0	$0
250	OM P-9	SOUTHWEST VILLAGE NEIGHBORHOOD PARK (B)	2024, 2025	$6,200,000	$6,200,000	$0	$0	$0	$0	$0	$0
252	OM P-10	SOUTHWEST VILLAGE NEIGHBORHOOD PARK C	2026, 2027	$6,200,000	$6,200,000	$0	$0	$0	$0	$0	$0
254	OM P-11.1	GRAND PARK	2040-2043	$49,800,000	$49,800,000	$0	$0	$0	$0	$0	$0
256	OM P-11.2	GRAND PARK RECREATION CENTER	2044	$6,900,000	$6,900,000	$0	$0	$0	$0	$0	$0
258	OM P-11.3	GRAND PARK SWIMMING POOL	2044, 2045	$5,000,000	$5,000,000	$0	$0	$0	$0	$0	$0
260	OM P-12	SOUTHWEST VILLAGE NEIGHBORHOOD PARK (D)	2028, 2029	$6,200,000	$6,200,000	$0	$0	$0	$0	$0	$0
262	OM P-13	SOUTHWEST VILLAGE NEIGHBORHOOD PARK (E)	2030, 2031	$6,200,000	$6,200,000	$0	$0	$0	$0	$0	$0
264	OM P-14	SOUTHWEST VILLAGE NEIGHBORHOOD PARK (F)	2032, 2033	$6,200,000	$6,200,000	$0	$0	$0	$0	$0	$0

266	OM P-15	SOUTHWEST VILLAGE NEIGHBORHOOD PARK (G)	2034, 2035	$6,200,000	$6,200,000	$0	$0	$0	$0	$0	$0
268	OM P-16	SOUTHWEST VILLAGE NEIGHBORHOOD PARK (H)	2036, 2037	$6,200,000	$6,200,000	$0	$0	$0	$0	$0	$0
270	OM P-17	CENTRAL VILLAGE NEIGHBORHOOD PARK (I)	2039, 2040	$6,400,000	$6,400,000	$0	$0	$0	$0	$0	$0
272	OM P-18	CENTRAL VILLAGE NEIGHBORHOOD PARK (J)	2045, 2046	$6,000,000	$6,000,000	$0	$0	$0	$0	$0	$0
274	OM P-19	CENTRAL VILLAGE NEIGHBORHOOD PARK (K)	2047, 2048	$6,000,000	$6,000,000	$0	$0	$0	$0	$0	$0
276	OM P-20	CENTRAL VILLAGE NEIGHBORHOOD PARK (L)	2049, 2050	$6,000,000	$6,000,000	$0	$0	$0	$0	$0	$0
278	OM P-21	OTAY MESA HIKING AND BIKING TRAILS	2017-2048	$10,700,000	$7,918,000	$0	$0	$0	$0	$0	$2,782,000
		TOTAL PARK PROJECTS		**$213,378,000**	**$185,731,125**	**$0**	**$17,117,876**	**$0**	**$0**	**$0**	**$10,529,000**
		POLICE PROJECTS:									
282	OM PO-2	POLICE SUBSTATION	2044, 2045	$19,400,000	$19,400,000	$0	$0	$0	$0	$0	$0
		TOTAL POLICE PROJECTS		**$19,400,000**	**$19,400,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
		FIRE PROJECTS:									
286	OM F-2	FIRE STATION NO. 6	2019, 2020	$8,400,000	$8,323,586	$0	$76,414	$0	$0	$0	$0
288	OM F-3	FIRE STATION	2029, 2030	$8,500,000	$8,500,000	$0	$0	$0	$0	$0	$0
		TOTAL FIRE PROJECTS		**$16,900,000**	**$16,823,586**	**$0**	**$76,414**	**$0**	**$0**	**$0**	**$0**
		LIBRARY PROJECTS:									
292	OM L-2.1	BRANCH LIBRARY	2025, 2026, 2027	$12,500,000	$12,500,000	$0	$0	$0	$0	$0	$0
294	OM L-2.2	LIBRARY EXPANSION	2048	$8,500,000	$8,500,000	$0	$0	$0	$0	$0	$0
		TOTAL LIBRARY PROJECTS		**$21,000,000**	**$21,000,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
		WATER & SEWER PROJECTS:									
298	OM U-6	WATER SUPPLY LINE IN OTAY VALLEY ROAD		$775,000	$0	$0	$0	$0	$0	$0	$775,000
300	OM U-7	OTAY MESA TRUNK SEWER - PHASE II		$30,140,460	$0	$0	$0	$0	$0	$0	$30,140,460
		TOTAL WATER & SEWER PROJECTS		**$30,915,460**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$30,915,460**
		DRAINAGE PROJECTS:									
		TOTAL DRAINAGE PROJECTS		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
		AIRPORT PROJECTS:									
		TOTAL AIRPORT PROJECTS		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
		TOTAL REMAINING PROJECTS		**$1,238,628,823**	**$638,721,636**	**$29,911,000**	**$34,889,318**	**$18,034,925**	**$2,150,993**	**$5,170,315**	**$509,750,636**
		COMPLETED/DELETED PROJECTS:									
304	OM T-5	STATE ROUTE 905	COMPLETED	$429,187,500	$0	$0	$1,667,250	$2,720,250	$0	$800,000	$424,000,000
306	OM T-16.1	HERITAGE ROAD (Central)	COMPLETED	$3,967,958	$0	$0	$1,360,006	$1,507,952	$275,000	$825,000	$0
308	OM T-19.7	SIEMPRE VIVA ROAD (Michael Faraday Drive to Enrico Fermi)	COMPLETED	$0	$0	$0	$0	$0	$0	$0	$0
310	OM P-1	OCEAN VIEW HILLS NEIGHBORHOOD PARK	COMPLETED	$1,944,742	$0	$0	$0	$0	$1,944,742	$0	$0
312	OM P-3	ROBINHOOD RIDGE NEIGHBORHOOD PARK	COMPLETED	$3,767,236	$0	$0	$3,767,236	$0	$0	$0	$0
314	OM PO-1	SOUTHERN AREA POLICE STATION	COMPLETED	$1,207,000	$0	$0	$0	$0	$0	$1,207,000	$0
316	OM F-1	FIRE STATION NO. 43	COMPLETED	$2,650,000	$0	$0	$0	$0	$0	$2,650,000	$0
318	OM L-1	OTAY MESA/NESTOR BRANCH LIBRARY (Exp'n)	COMPLETED	$3,530,185	$0	$0	$1,600,000	$0	$0	$0	$1,930,185
320	OM U-1	OTAY MESA RESERVOIR	DELETED	$0	$0	$0	$0	$0	$0	$0	$0
322	OM U-2	SOUTH SAN DIEGO PIPELINE NO. 2	COMPLETED	$29,006,391	$0	$0	$0	$0	$0	$0	$29,006,391
324	OM U-3	OCEAN VIEW HILLS PARKWAY PUMP STATION	COMPLETED	$600,000	$0	$0	$0	$0	$0	$0	$600,000
326	OM U-4	MODIFY EXISTING WATER PUMP STATION	COMPLETED	$400,000	$0	$0	$0	$0	$0	$0	$400,000

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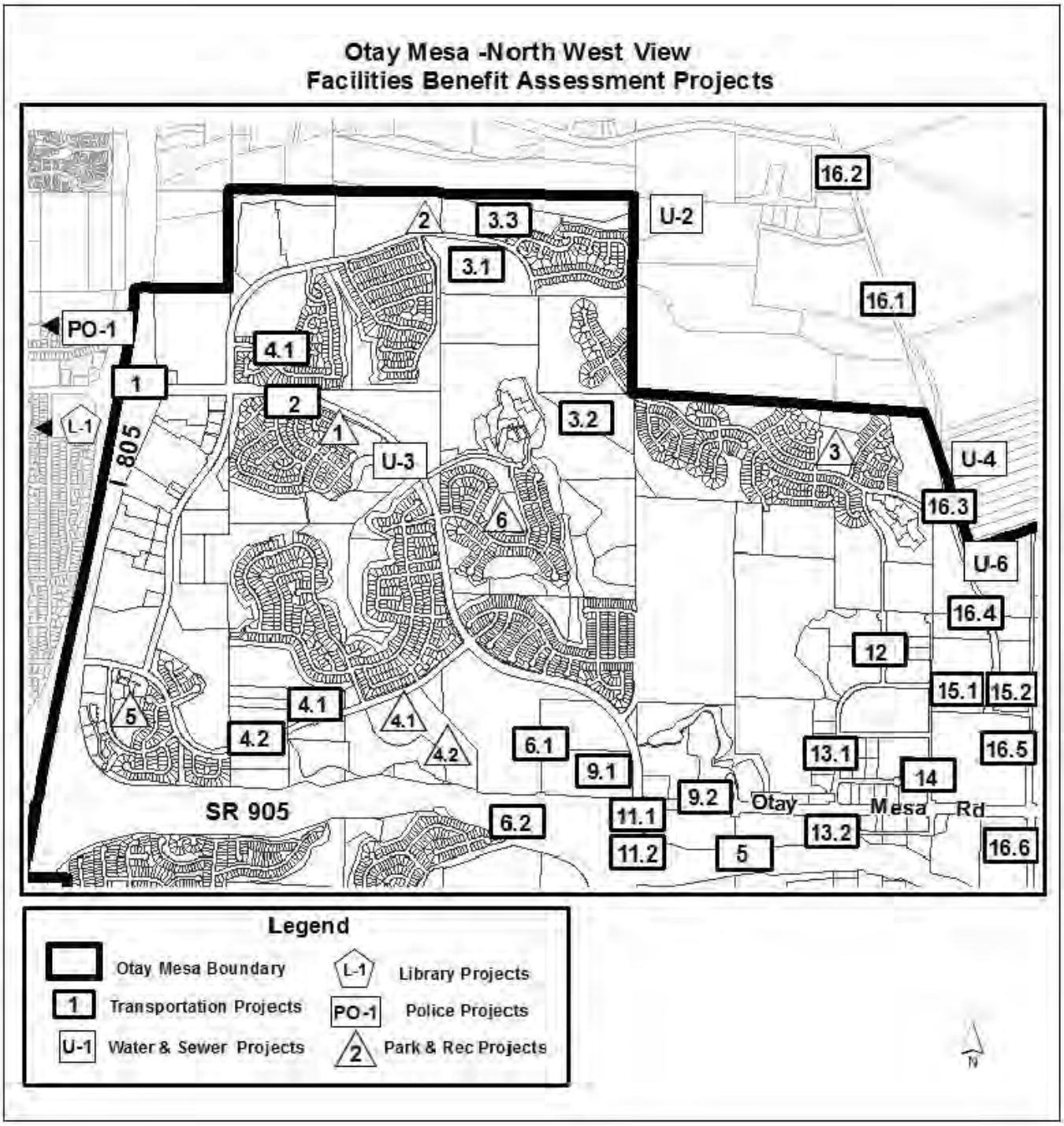
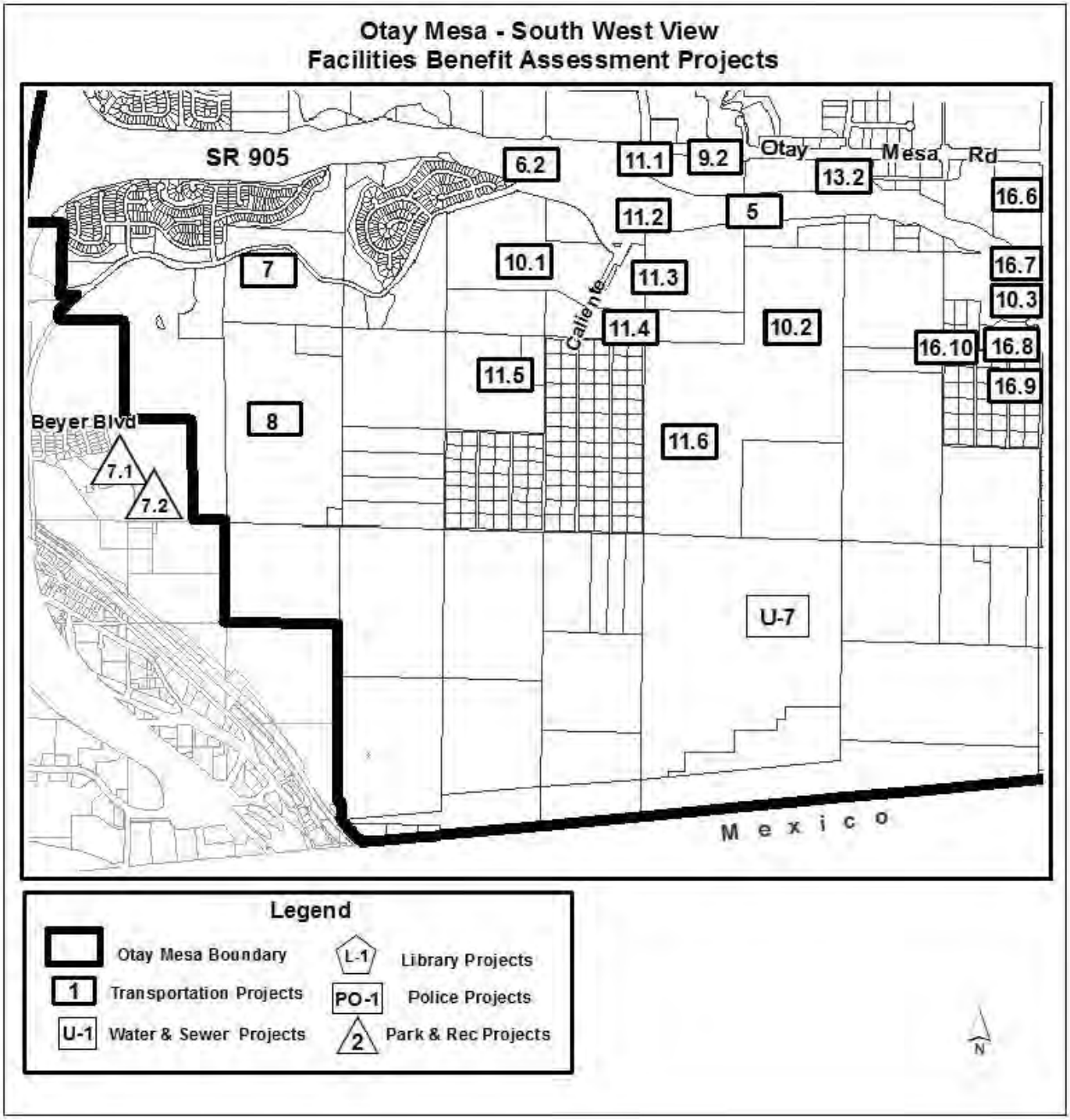
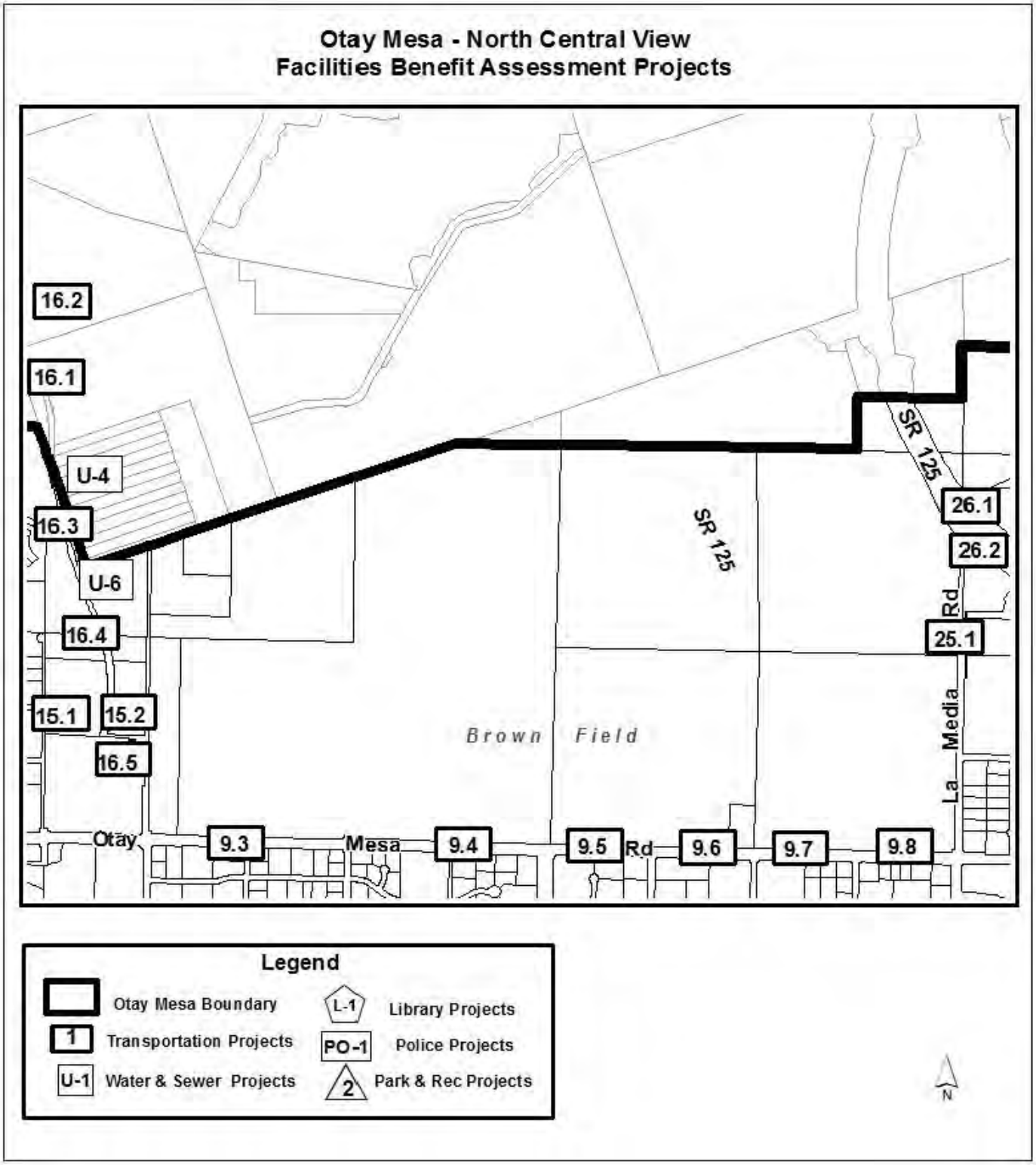
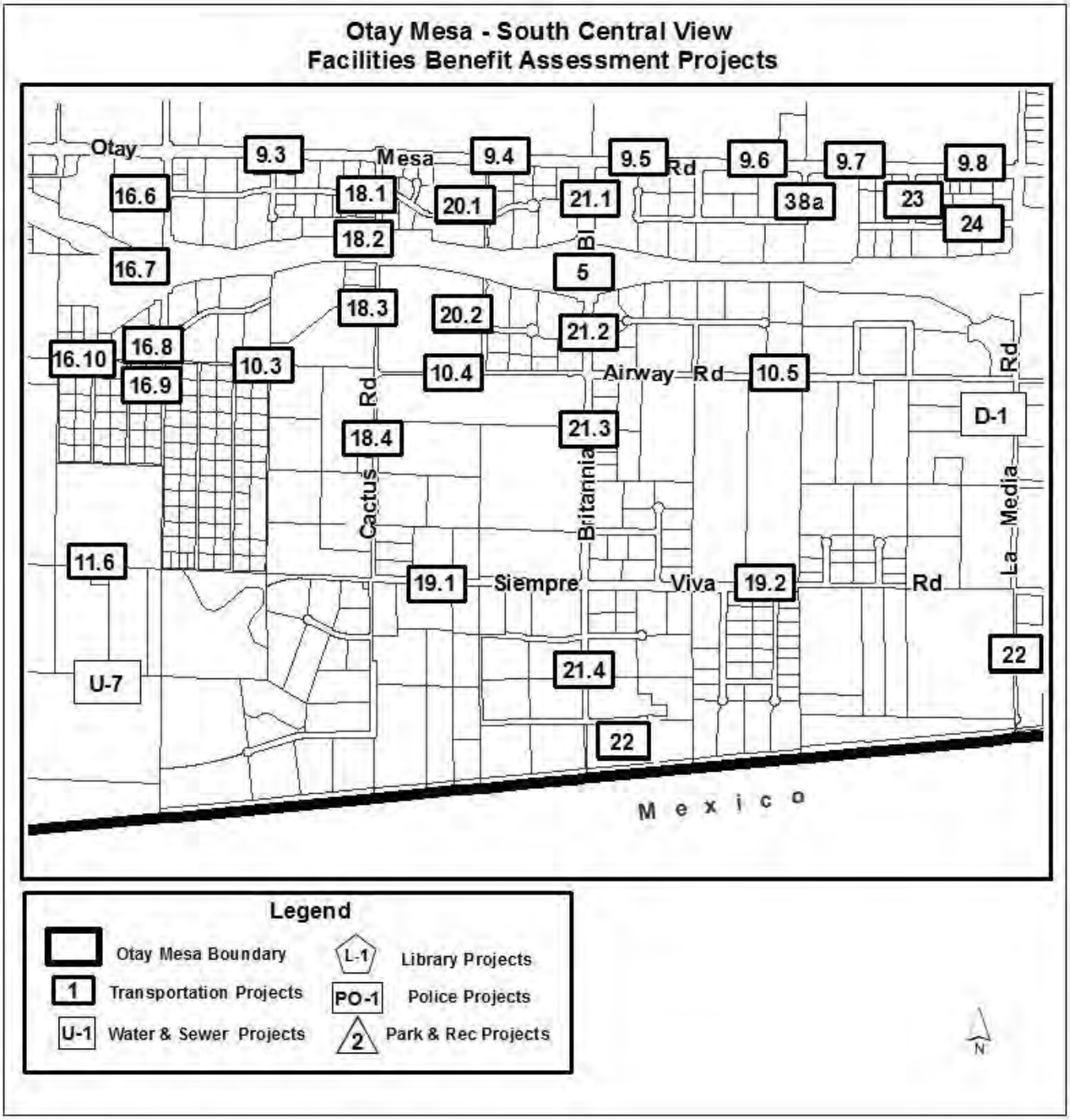
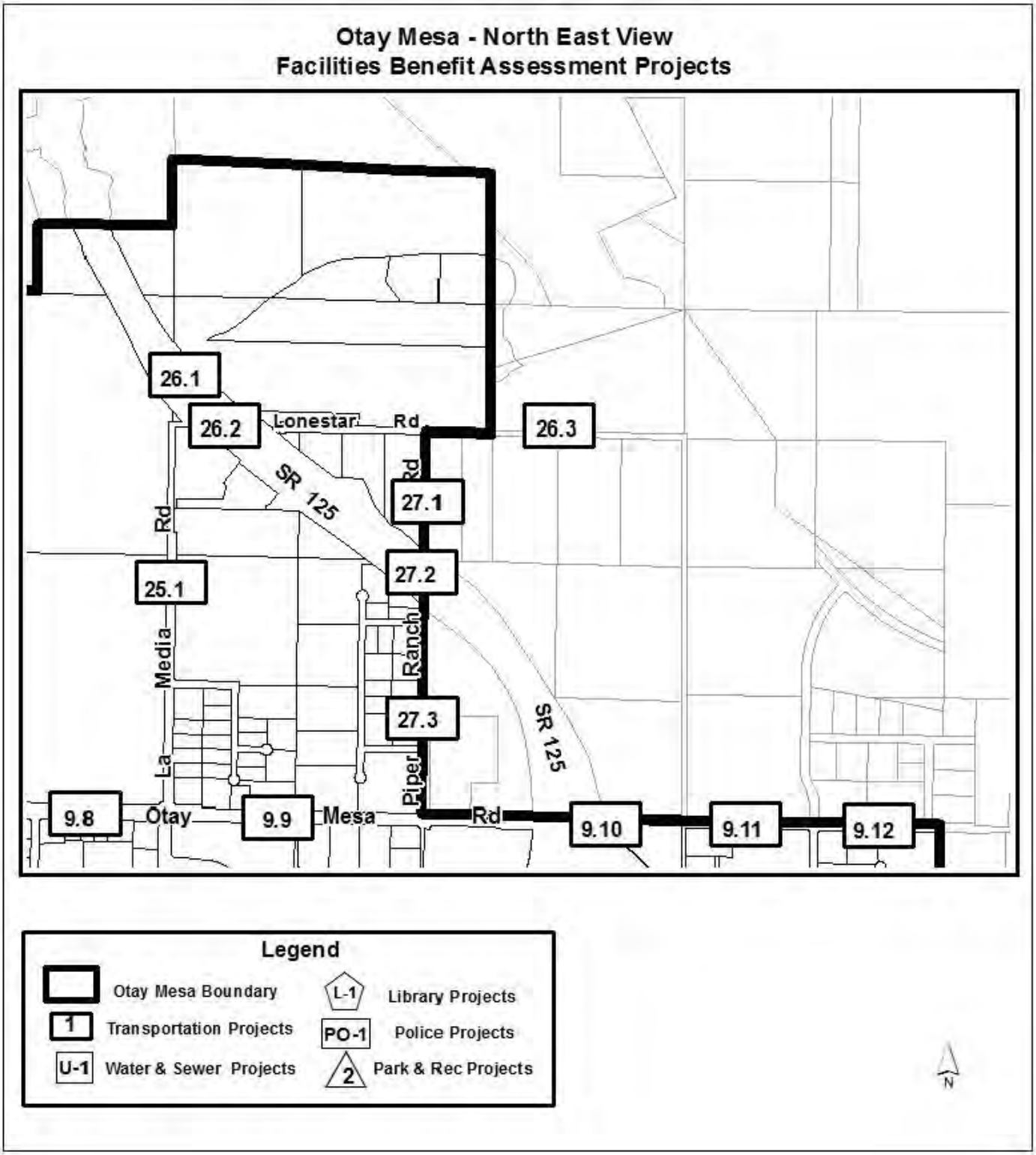
Figure 2 Otay Mesa Project Summary Map

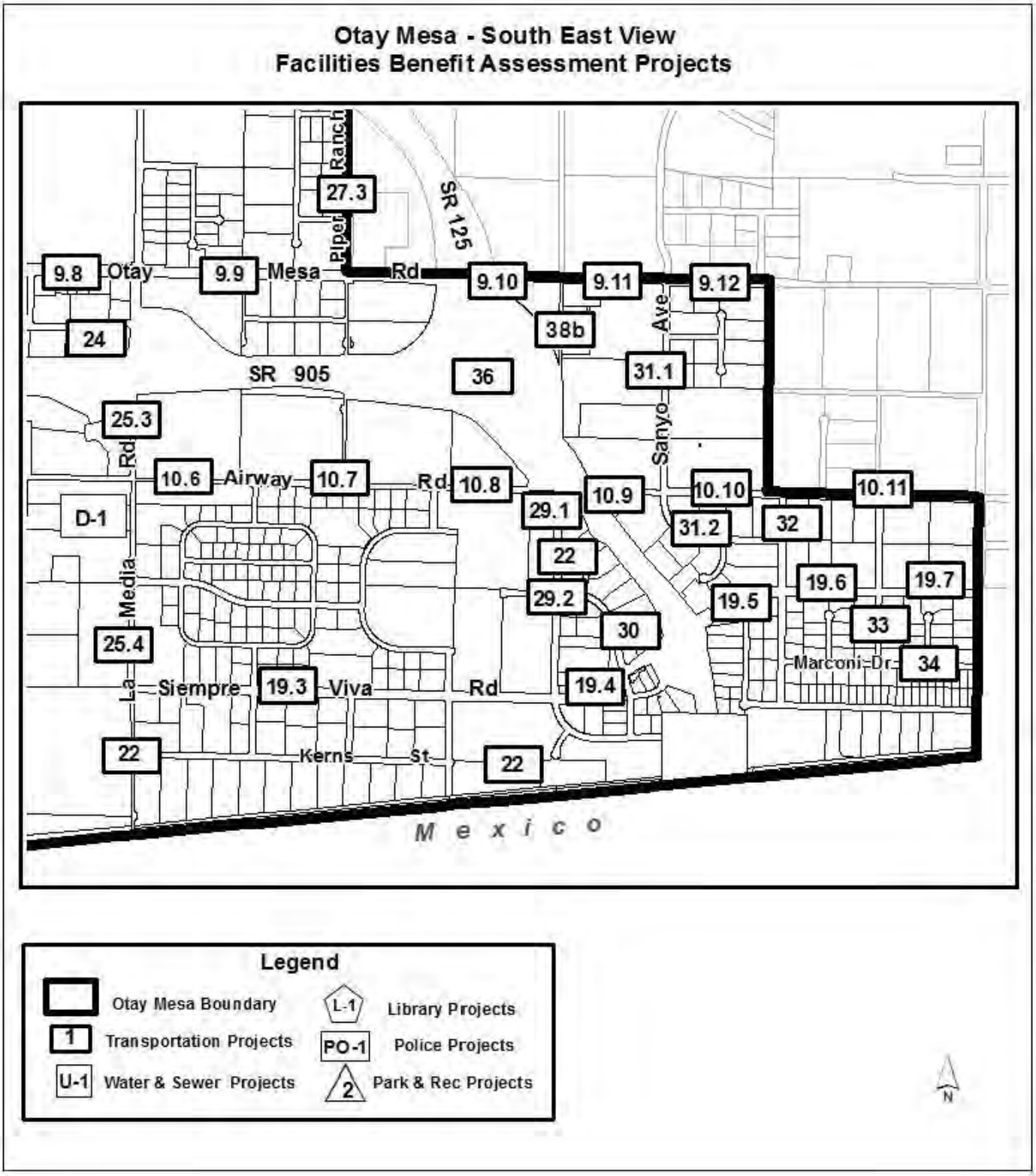



Otay Mesa - South West View
Facilities Benefit Assessment Projects
SR 905
Otay
Mesa
Rd
Caliente
Beyer Blvd
Mexico
6.2
11.1
9.2
13.2
16.6
11.2
5
7
10.1
11.3
16.7
10.3
11.4
10.2
16.10
16.8
11.5
16.9
8
11.6
7.1
7.2
U-7
Legend
Otay Mesa Boundary
Transportation Projects
Water & Sewer Projects
Library Projects
Police Projects
Park & Rec Projects
L-1
PO-1
N


Otay Mesa - North Central View
Facilities Benefit Assessment Projects
16.2
16.1
U-4
16.3
U-6
16.4
15.1
15.2
16.5
Otay
9.3
Mesa
9.4
9.5
Rd
9.6
9.7
9.8
Brown Field
SR 125
SR 125
26.1
26.2
25.1
La Media Rd
Legend
Otay Mesa Boundary
1
Transportation Projects
U-1
Water & Sewer Projects
L-1
Library Projects
PO-1
Police Projects
2
Park & Rec Projects
N


Otay Mesa - South Central View
Facilities Benefit Assessment Projects
Otay
Mesa
Rd
Airway
Rd
Siempre
Viva
Rd
Cactus
Rd
Britannia
Blvd
La
Media
Rd
Mexico
9.3
9.4
9.5
9.6
9.7
9.8
16.6
18.1
20.1
21.1
38a
23
24
18.2
16.7
5
18.3
20.2
21.2
16.8
16.10
16.9
10.3
10.4
10.5
D-1
18.4
21.3
11.6
19.1
19.2
22
U-7
21.4
22
Legend
Otay Mesa Boundary
Transportation Projects
Water & Sewer Projects
Library Projects
Police Projects
Park & Rec Projects
L-1
PO-1
N


Otay Mesa - North East View
Facilities Benefit Assessment Projects
26.1
26.2
Lonestar
Rd
26.3
SR 125
Rd
27.1
Rd
25.1
27.2
Media
Ranch
27.3
SR 125
La
Piper
9.8
Otay
9.9
Mesa
Rd
9.10
9.11
9.12
Legend
Otay Mesa Boundary
Transportation Projects
Water & Sewer Projects
Library Projects
Police Projects
Park & Rec Projects
N


Otay Mesa - South East View
Facilities Benefit Assessment Projects
Piper Ranch Rd
SR 125
Otay Mesa Rd
SR 905
Airway Rd
Siempre Viva Rd
Kerns St
La Media Rd
Sanyo Ave
Marconi Dr
Mexico
27.3
9.8
9.9
9.10
9.11
9.12
24
38b
36
31.1
25.3
10.6
10.7
10.8
10.9
10.10
10.11
D-1
29.1
31.2
32
22
29.2
19.5
19.6
19.7
30
33
25.4
19.3
19.4
34
22
22
Legend
Otay Mesa Boundary
Transportation Projects
Water & Sewer Projects
Library Projects
Police Projects
Park & Rec Projects
L-1
PO-1
N

Transportation Projects

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PALM AVENUE/I-805 INTERCHANGE**

PROJECT: **OM T-1**
DEPARTMENT: PUBLIC WORKS
COUNCIL DISTRICT: 8
WBS, CIP, or JO #: 52-640.0/S-00869
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$33,005,337**							
DIF-OM								
FBA-OM(w)	**$2,800,092**	$561,610	$2,080,491	$157,992				
FBA-OM(e)	**$4,568,571**	$1,307,053	$3,022,147	$239,371				
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$1,000,000**	$1,000,000						
OTHER								
TOTAL	**$41,374,000**	$2,868,663	$5,102,637	$397,363	$0	$0	$0	$0

SOURCE	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
FBA-OM				$22,005,337	$11,000,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$22,005,337	$11,000,000	$0	$0	$0

CONTACT: EDRIC DORINGO TELEPHONE: 619-533-3714 EMAIL: edoringo@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PALM AVENUE/I-805 INTERCHANGE**

		PROJECT:	**OM T-1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	52-640.0/S-00869	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDES FOR THE DESIGN AND WOULD PROVIDE FOR THE CONSTRUCTION OF IMPROVEMENTS TO THE PALM AVENUE/I-805 INTERCHANGE. THE ENTIRE PROJECT INCLUDES: WIDENING OF THE EXISTING PALM AVENUE BRIDGE; WIDENING OF THE EXISTING ON AND OFF RAMPS; AND, THE CONSTRUCTION OF TRAFFIC SIGNALS FOR EACH RAMP. THE REMAINING INTERCHANGE IMPROVEMENTS ARE DIVIDED INTO THREE STAGES: ENVIRONMENTAL, DESIGN, AND CONSTRUCTION.

JUSTIFICATION:

THIS PROJECT IS REQUIRED TO ACCOMMODATE THE ADDITIONAL TRAFFIC BEING GENERATED AS A RESULT OF DEVELOPMENT IN THE OTAY MESA COMMUNITY. IMPROVEMENTS TO THIS INTERCHANGE WILL ALSO HELP TO REDUCE TRAFFIC VOLUMES ON SR-905. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

THE PROJECT WILL BE EVALUATING AN INNOVATIVE DESIGN FOR THE INTERCHANGE SYSTEM IN PARTNERSHIP WITH CALTRANS. IF THE DESIGN PROVES TO WARRANT IMPLEMENTATION, PROJECT CONSTRUCTION COST COULD BE SIGNIFICANTLY REDUCED.

NOTES:

SCHEDULE:

STAGE I & II	COMPLETED
ENVIRONMENTAL STUDIES - STAGE III	FY 2014
DESIGN-STAGE III	FY 2015
CONSTRUCTION - STAGE III	FY 2017
CONSTRUCTION - STAGE IV	FY 2028-2029

CONTACT: EDRIC DORINGO TELEPHONE: 619-533-3714 EMAIL: edoringo@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OCEAN VIEW HILLS PARKWAY**

PROJECT: **OM T-2**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: 52-681.0/S-00882

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)	**$5,067,535**	$4,092,535		$975,000				
FBA-OM(e)	**$7,067,664**	$5,542,664		$1,525,000				
PDIF (w)	**$1,604,993**	$1,604,993						
PDIF (e)	**$3,818,542**	$3,818,542						
DEV/SUBD	**$540,000**	$540,000						
OTHER								
TOTAL	**$18,098,734**	$15,598,734	$0	$2,500,000	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OCEAN VIEW HILLS PARKWAY**

		PROJECT:	**OM T-2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	52-681.0/S-00882	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDES FOR THE DESIGN AND CONSTRUCTION OF OCEAN VIEW HILLS PARKWAY FROM I-805 SOUTHERLY TO OTAY MESA ROAD. THIS INCLUDES APPROXIMATELY 4,900 LINEAR FEET OF A 6-LANE PRIMARY ARTERIAL STREET AND 5,200 LINEAR FEET OF A 4-LANE MAJOR STREET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY FOR THE RESIDENTS AND BUSINESSES TRAVELING TO, FROM, AND THROUGH THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

THIS PROJECT WAS COMPLETED IN THREE PHASES. CONSTRUCTION IS COMPLETED AND THE DEVELOPER (PARDEE HOMES) IS BEING REIMBURSED AS INVOICES ARE APPROVED.

SCHEDULE:

CONSTRUCTION COMPLETED.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DENNERY ROAD - (Black Coral Way to Topsail Drive)**

PROJECT: OM T-3.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: 52-657.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$825,000**						$825,000	
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD		$825,000					-$825,000	
OTHER								
TOTAL	**$825,000**	$825,000	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DENNERY ROAD - (Black Coral Way to Topsail Drive)**

PROJECT: OM T-3.1

DEPARTMENT: PUBLIC WORKS
CIP or JO #: 52-657.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE REIMBURSEMENT OF DESIGN AND CONSTRUCTION OF DENNERY ROAD SOUTH FROM PALM AVENUE SOUTHERLY TO DEL SOL BOULEVARD AS A 3-LANE MAJOR STREET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

CONSTRUCTION IS COMPLETE AND THE DEVELOPER (PARDEE HOMES), SUBJECT TO THE TERMS AND CONDITIONS OF A REIMBURSEMENT AGREEMENT, WILL BE REIMBURSED FOR THIS PROJECT.

SCHEDULE:

PROJECT COMPLETED.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DENNERY ROAD - (Topsail Drive to Avenida De Las Vistas)**

PROJECT: **OM T-3.2**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$5,700,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$5,700,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039
FBA-OM			$1,700,000	$4,000,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$1,700,000	$4,000,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DENNERY ROAD - (Topsail Drive to Avenida De Las Vistas)**

		PROJECT:	**OM T-3.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF A NEW 2 - LANE COLLECTOR ROAD WHICH INCLUDES PAVEMENT, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES AND STREET LIGHTING. THE CONSTRUCTION OF THE NEW ROAD WILL FOLLOW THE EXISTING GRADES AND SLOPES; ALL SPOILS TO BE LEFT ON SITE. BRIDGES AND/OR OVERPASSES ARE NOT INCLUDED. THIS ROADWAY SEGMENT IS 2,800 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2034 AND FY 2035.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DENNERY ROAD - (Triple Pipe Crossing)**

PROJECT: OM T-3.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: 52-657.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$750,000**							$750,000
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD		$750,000						-$750,000
OTHER								
TOTAL	**$750,000**	$750,000	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DENNERY ROAD - (Triple Pipe Crossing)**

		PROJECT:	**OM T-3.3**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	52-657.0	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR REIMBURSEMENT OF DESIGN AND CONSTRUCTION OF A TRIPLE PIPE ARCH CULVERT BENEATH DENNERY ROAD WHERE THE ROAD SPANS DENNERY CANYON SO AS TO MAINTAIN THE CONTINUITY OF THE DENNERY CANYON OPEN SPACE LINK WITH THE OTAY RIVER VALLEY AND TO ACCOMMODATE WILDLIFE MOVEMENT.

JUSTIFICATION:

THE ALIGNMENT OF DENNERY ROAD WILL BISECT A KEY WILDLIFE CORRIDOR WITHIN THE OTAY MESA COMMUNITY. IN ORDER TO MINIMIZE THE DISTURBANCE, A WILDLIFE UNDER CROSSING PROVIDES AN UNOBSTRUCTED CORRIDOR FOR WILDLIFE MOVEMENT BETWEEN DENNERY CANYON AND THE OTAY RIVER VALLEY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

THE DESIGN AND CONSTRUCTION OF THE TRIPLE PIPE CROSSING WAS PERFORMED BY THE SUBDIVIDER RESPONSIBLE FOR THE CONSTRUCTION OF DENNERY ROAD, WITH REIMBURSEMENT FROM THE FBA.

NOTES:

SCHEDULE:

PROJECT COMPLETED. REIMBURSEMENT FOR OPEN SPACE PORTION IS PENDING.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DEL SOL BOULEVARD (west boundary of elementary school to Surf Crest Drive)**

PROJECT: OM T-4.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: 52-492.0/S-00858

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$483,598**							$483,598
DIF-OM								
FBA-OM(w)	**$4,873,402**	$3,073,402	$1,775,598	$24,402				
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$5,357,000**	$3,073,402	$1,775,598	$24,402	$0	$0	$0	$483,598

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DEL SOL BOULEVARD (west boundary of elementary school to Surf Crest Drive)**

		PROJECT:	**OM T-4.1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	52-492.0/S-00858	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDES FOR THE DESIGN AND CONSTRUCTION OF DEL SOL BOULEVARD FROM SURFPOINT WAY TO APPROXIMATELY 50 FEET EASTERLY OF THE WESTERLY PROPERTY LINE OF THE VISTA DEL MAR SCHOOL (APPROXIMATELY 2,000 LF). THE IMPROVEMENTS CONSIST OF AN IMPROVED FOUR-LANE COLLECTOR ROAD TRANSITIONING TO A TWO-LANE RESIDENTIAL ROAD AND INCLUDES A NEW TRAFFIC SIGNAL AT SURFCREST DRIVE, RAISED MEDIAN, WATER, SEWER, STORM DRAIN, STREET LIGHTS, RETAINING WALLS, GUARDRAIL, SLOPE GRADING, LANDSCAPE AND IRRIGATION.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

FRONTAGE THROUGH MSCP OPEN SPACE SUBJECT TO CONFIRMATION. IF DEVELOPMENT IS PERMITTED CONTIGUOUS TO THE ROADWAY, THEN THAT PORTION OF THE ROADWAY FRONTING DEVELOPMENT WILL BE FUNDED AS A SUBDIVISION EXACTION. IF CONSTRUCTED BY SUBDIVIDER, REIMBURSEMENT FROM FBA FUNDS WILL ONLY BE PROVIDED FOR THE OPEN SPACE PORTIONS SUBJECT TO THE TERMS OF A REIMBURSEMENT AGREEMENT.
SEE COMPANION PROJECTS: T-3.2 AND T-3.3.

SCHEDULE:

THIS PROJECT IS IN PROGRESS. SUBJECT TO THE TERMS AND CONDITIONS OF REIMBURSEMENT AGREEMENTS, THE DEVELOPERS (SAN YSIDRO SCHOOL DISTRICT AND PARDEE HOMES) WILL BE REIMBURSED FOR CONSTRUCTION OF A SEGMENT OF THE PROJECT.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DEL SOL BOULEVARD (Riviera Point Street to west boundary of elementary school)**

PROJECT: OM T-4.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$3,700,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$3,700,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM		$3,700,000						
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$3,700,000	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DEL SOL BOULEVARD (Riviera Point Street to west boundary of elementary school)**

		PROJECT:	**OM T-4.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF DEL SOL BOULEVARD FROM APPROXIMATELY 50 FEET EASTERLY OF THE WESTERLY PROPERTY LINE OF THE VISTA DEL MAR SCHOOL TO RIVIERA POINT STREET (APPROXIMATELY 900 LF). THE IMPROVEMENTS CONSIST OF A TWO-LANE RESIDENTIAL ROAD THROUGH THE OPEN SPACE.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2020.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **STREET 'A' (Ocean View Hills Parkway to Otay Mesa Road)**

PROJECT: OM T-6.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$3,120,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$880,000**							
TOTAL	**$4,000,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
FBA-OM	$720,000	$2,400,000						
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER		$880,000						
TOTAL	$720,000	$3,280,000	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **STREET 'A' (Ocean View Hills Parkway to Otay Mesa Road)**

		PROJECT:	**OM T-6.1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF STREET "A" FROM OCEAN VIEW HILLS PARKWAY TO OTAY MESA ROAD TO MEET THE CRITERIA OF A FOUR-LANE MAJOR ROAD AND INTERSECTION TURN LANES. IMPROVEMENTS INCLUDE PAVEMENT, RAISED MEDIAN , SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 1,600 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $880,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2023 AND FY2024.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **STREET 'A' (Overpass from Otay Mesa Road to Airway Road)**

PROJECT: OM T-6.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$17,394,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$4,906,000**							
TOTAL	**$22,300,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM					$3,200,000	$7,294,000	$6,900,000	
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER						$4,906,000		
TOTAL	$0	$0	$0	$0	$3,200,000	$12,200,000	$6,900,000	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **STREET 'A' (Overpass from Otay Mesa Road to Airway Road)**

		PROJECT:	**OM T-6.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF A FOUR-LANE OVERPASS, APPROACH ROADS AND INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE SIDEWALK AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 600 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $4,906,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2023, FY 2024, AND FY 2025.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OLD OTAY MESA ROAD (Hawken Drive to California Terrace Subdivision)**

PROJECT: **OM T-7**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)	**$4,954,000**	$755,273	$2,494,727	$1,704,000				
FBA-OM(e)								
PDIF (w)	**$546,000**			$546,000				
PDIF (e)								
DEV/SUBD								
OTHER	**$3,000,000**			$3,000,000				
TOTAL	**$8,500,000**	$755,273	$2,494,727	$5,250,000	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OLD OTAY MESA ROAD (Hawken Drive to California Terrace Subdivision)**

		PROJECT:	**OM T-7**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDES FOR DESIGN AND WOULD PROVIDE FOR CONSTRUCTION OF OLD OTAY MESA ROAD FROM REMINGTON HILLS SUBDIVISION (HAWKEN DRIVE) TO THE PRINCESS PARK SUBDIVISION (CRESCENT BAY DRIVE). THIS PROJECT INCLUDES APPROXIMATELY 2,400 LINEAR FEET OF A 2-LANE COLLECTOR STREET, SIDEWALKS, CURB, GUTTER, STREET LIGHTING, NEW ROADWAY SECTIONS, GUARDRAIL, AND TRAFFIC CALMING FACILITIES.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

A PORTION OF THIS PROJECT IS BEING FUNDED WITH FBA FUNDS BECAUSE THERE IS EITHER NO PROJECT FRONTING THIS ROADWAY OR THE PROJECTS FRONTING THE ROADWAY ARE ALSO PUBLIC FACILITY PROJECTS, FOR EXAMPLE SCHOOLS, PARK, ETC. TRANSNET FUNDING OF $3 MILLION HAS BEEN ALLOCATED TO THIS PROJECT IN FY 2014. PROJECT TOTAL COST HAS BEEN INCREASED TO $8.5 MILLION. THIS IS $1.5 MILLION MORE THAN PREVIOUSLY PUBLISHED BASED ON REVISED COST ESTIMATE DETERMINED AT 60% DESIGN.

NOTES:

PORTIONS OF THIS PROJECT WILL BE FUNDED WITH FBA FUNDS. SHOULD THE ADJACENT PROPERTIES EVER DEVELOP, THESE PROPERTIES SHALL REIMBURSE THE FBA FUND FOR THE ACTUAL COST OF THE PROJECT AS A CONDITION OF THEIR DEVELOPMENT.

SCHEDULE:

CONSTRUCTION FY 2014

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BEYER BOULEVARD (Enright Drive to Caliente Avenue)**

PROJECT: **OM T-8**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$15,990,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$4,510,000**							
TOTAL	**$20,500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM				$9,300,000	$6,690,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$4,510,000				
TOTAL	$0	$0	$0	$13,810,000	$6,690,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BEYER BOULEVARD (Enright Drive to Caliente Avenue)**

		PROJECT:	**OM T-8**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF BEYER BLVD. FROM ENRIGHT DRIVE TO CALIENTE AVENUE AS A FOUR-LANE MAJOR ROAD. IMPROVEMENTS INCLUDE PAVEMENT, RAISED MEDIAN, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 8,000 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $4,510,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2022 AND FY 2023.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Street "A" to Caliente Avenue)**

PROJECT: OM T-9.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$1,716,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$484,000**							
TOTAL	**$2,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039
FBA-OM				$1,716,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$484,000				
TOTAL	$0	$0	$0	$2,200,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Street "A" to Caliente Avenue)**

		PROJECT:	**OM T-9.1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO INCLUDE PAVEMENT, CURB AND GUTTER, SIDEWALK, LANDSCAPING, STREET LIGHTING, AND RESTRIPING TO PROVIDE A SIX-LANE MAJOR STREET; PROVISION OF A “T” INTERSECTION WITH STREET “A” AND OLD OTAY MESA ROAD; AND MODIFICATIONS TO PARK AND RIDE FACILITIES. THIS ROAD SEGMENT IS APPROXIMATELY 2,300 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $484,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2035.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Caliente Avenue to Heritage Road)**

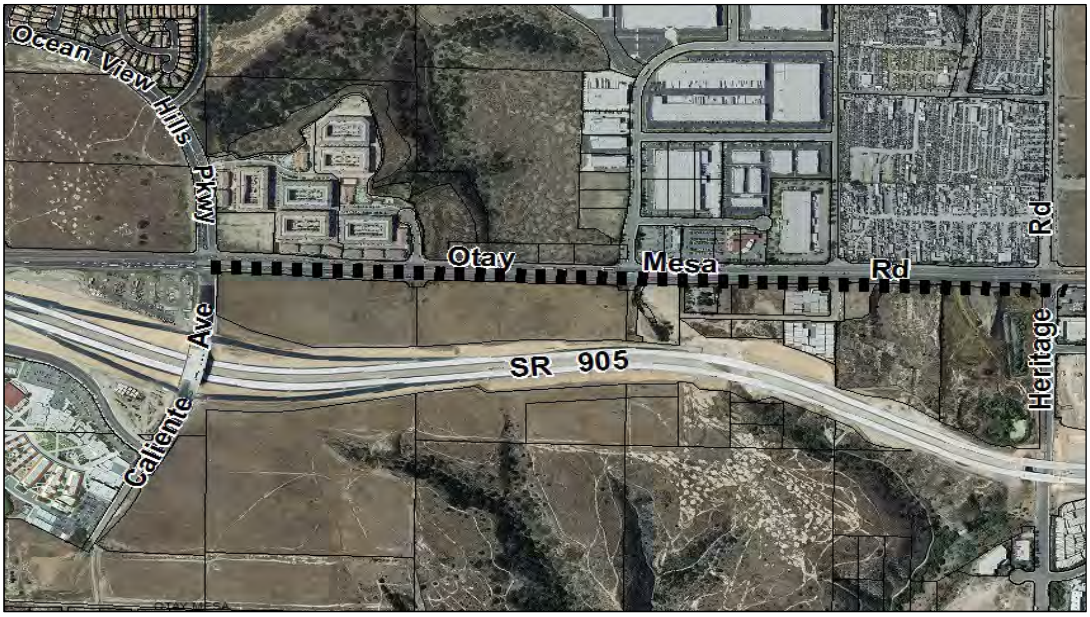
PROJECT: **OM T-9.2**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$3,432,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$968,000**							
TOTAL	**$4,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039
FBA-OM					$3,432,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$968,000			
TOTAL	$0	$0	$0	$0	$4,400,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Caliente Avenue to Heritage Road)**

		PROJECT:	**OM T-9.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO INCLUDE THE INSTALLATION OF INTERSECTION TURN LANES, SIDEWALK AND CURB AND GUTTER IMPROVEMENTS ON A PORTION OF THE NORTH SIDE AND ALL OF THE SOUTH SIDE OF THE ROAD, AND LANDSCAPING AND STREET LIGHTING ON BOTH SIDES. THIS ROAD SEGMENT IS APPROXIMATELY 5,680 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $968,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2036.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Heritage Road to Cactus Road)**

PROJECT: OM T-9.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$1,872,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$528,000**							
TOTAL	**$2,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039
FBA-OM					$600,000		$1,272,000	
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER							$528,000	
TOTAL	$0	$0	$0	$0	$600,000	$0	$1,800,000	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Heritage Road to Cactus Road)**

PROJECT: OM T-9.3

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO INCLUDE INTERSECTION TURN LANES, COMPLETE LANDSCAPING AND STREET LIGHTING IMPROVEMENTS ON THE NORTH SIDE OF THE ROAD AND WILL ENSURE SIDEWALK CONTINUITY ON THE NORTH SIDE. THIS ROAD SEGMENT IS APPROXIMATELY 2,800 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $528,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN IS ANTICIPATED IN FY 2036 AND CONSTRUCTION IS ANTICIPATED IN FY 2038.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Cactus Road to Britannia Boulevard)**

PROJECT: **OM T-9.4**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$1,872,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$528,000**							
TOTAL	**$2,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM			$1,000,000		$872,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$528,000			
TOTAL	$0	$0	$1,000,000	$0	$1,400,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Cactus Road to Britannia Boulevard)**

		PROJECT:	**OM T-9.4**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO COMPLETE CURB AND GUTTER, SIDEWALK, LANDSCAPING, AND STREET LIGHTING FOR THIS ROAD SEGMENT WHICH IS APPROXIMATELY 3,000 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $528,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2036 AND FY 2038.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

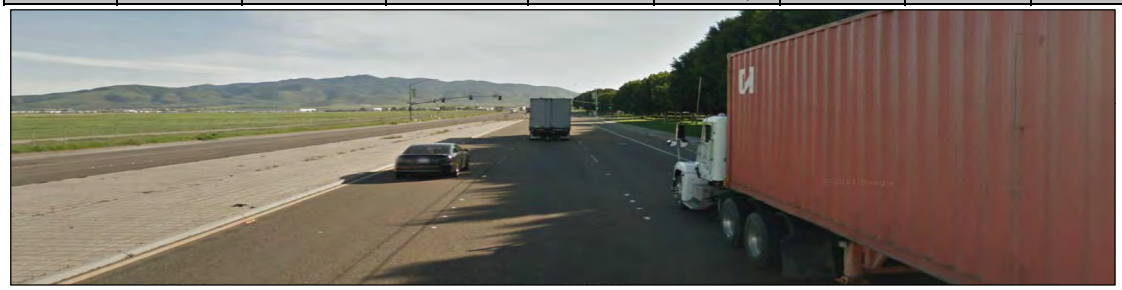
CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Britannia Boulevard to Gailes Boulevard)**

PROJECT: **OM T-9.5**
DEPARTMENT: PUBLIC WORKS
COUNCIL DISTRICT: 8
WBS, CIP, or JO #: N/A
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$717,600**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$202,400**							
TOTAL	**$920,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM					$717,600			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$202,400			
TOTAL	$0	$0	$0	$0	$920,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Britannia Boulevard to Gailes Boulevard)**

		PROJECT:	**OM T-9.5**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO COMPLETE INTERSECTION TURN LANES, CURB AND GUTTER, SIDEWALK, LANDSCAPING AND STREET LIGHTING ON THE NORTH SIDE OF THE ROAD. THIS ROADWAY SEGMENT IS APPROXIMATELY 1,425 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $202,400

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2038.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Gailes Boulevard to St. Andrews)**

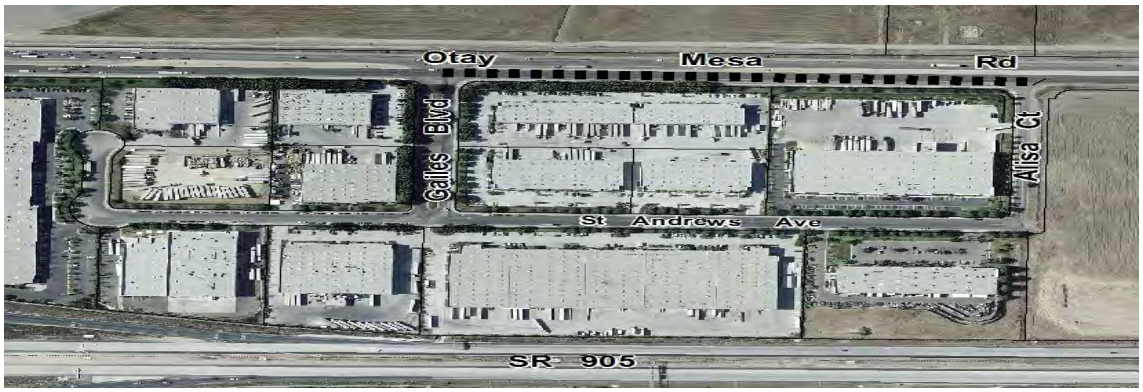
PROJECT: **OM T-9.6**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$748,800**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$211,200**							
TOTAL	**$960,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM					$748,800			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$211,200			
TOTAL	$0	$0	$0	$0	$960,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Gailes Boulevard to St. Andrews)**

		PROJECT:	**OM T-9.6**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO COMPLETE CURB AND GUTTER, SIDEWALK, LANDSCAPING AND STREET LIGHTING FOR THIS ROAD SEGMENT WHICH IS APPROXIMATELY 1,400 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $211,200

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2038.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (St. Andrews to Otay Center Road)**

PROJECT: **OM T-9.7**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$1,092,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$308,000**							
TOTAL	**$1,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM					$1,092,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$308,000			
TOTAL	$0	$0	$0	$0	$1,400,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (St. Andrews to Otay Center Road)**

		PROJECT:	**OM T-9.7**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO INCLUDE INTERSECTION TURN LANES, CURB AND GUTTER, SIDEWALK, LANDSCAPING AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 1,425 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $308,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2038.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Otay Center Road to La Media Road)**

PROJECT: OM T-9.8

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$858,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$242,000**							
TOTAL	**$1,100,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM					$858,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$242,000			
TOTAL	$0	$0	$0	$0	$1,100,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Otay Center Road to La Media Road)**

		PROJECT:	**OM T-9.8**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO INCLUDE INTERSECTION TURN LANES, CURB AND GUTTER, SIDEWALK, LANDSCAPING, AND STREET LIGHTING ON THE NORTH SIDE OF THE ROAD. THIS ROAD SEGMENT IS APPROXIMATELY 1,425 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $242,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2038.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (La Media Road to Piper Ranch Road)**

PROJECT: OM T-9.9

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$2,418,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$682,000**							
TOTAL	**$3,100,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM						$2,418,000		
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER						$682,000		
TOTAL	$0	$0	$0	$0	$0	$3,100,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (La Media Road to Piper Ranch Road)**

		PROJECT:	**OM T-9.9**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO INCLUDE INTERSECTION TURN LANES, COMPLETION OF ROADWAY TO PROVIDE THREE EASTBOUND TRAVEL LANES, CURB AND GUTTER, SIDEWALK, LANDSCAPING, AND STREET LIGHTING ON THE SOUTH SIDE OF THE ROAD. THIS ROAD SEGMENT IS APPROXIMATELY 3, 200 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $682,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2039.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Piper Ranch Road to Harvest Road)**

PROJECT: OM T-9.10

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$1,521,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$2,379,000**							
TOTAL	**$3,900,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043
FBA-OM				$1,521,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$2,379,000				
TOTAL	$0	$0	$0	$3,900,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Piper Ranch Road to Harvest Road)**

PROJECT: OM T-9.10

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO INCLUDE CURB AND GUTTER, SIDEWALK, LANDSCAPING, STREET LIGHTING, STORM DRAIN IMPROVEMENTS, AND WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF AN ADDITIONAL EASTBOUND TRAVEL LANE, INTERSECTION TURN LANES, AND A CENTER MEDIAN. THIS ROAD SEGMENT IS APPROXIMATELY 2,900 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED:	$858,000
OTHERS:	$1,521,000
	$2,379,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2039.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Harvest Road to Sanyo Road)**

PROJECT: OM T-9.11

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$3,500,000**							
OTHER								
TOTAL	**$3,500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD						$3,500,000		
OTHER								
TOTAL	$0	$0	$0	$0	$0	$3,500,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Harvest Road to Sanyo Road)**

PROJECT: OM T-9.11

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO INCLUDE INTERSECTION TURN LANES AND CURB AND GUTTER, SIDEWALK, LANDSCAPING, AND STREET LIGHTING ON THE NORTH SIDE. THIS ROAD SEGMENT IS APPROXIMATELY 1,400 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2039.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Sanyo Road to city limits)**

PROJECT: OM T-9.12

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$3,700,000**							
OTHER								
TOTAL	**$3,700,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD						$3,700,000		
OTHER								
TOTAL	$0	$0	$0	$0	$0	$3,700,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA ROAD (Sanyo Road to city limits)**

PROJECT: OM T-9.12

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO INCLUDE THE EXPANSION OF THE EXISTING 2-LANE ROAD TO A 6-LANE PRIMARY ARTERIAL WITH INTERSECTION TURN LANES, PAVEMENT, CURB AND GUTTER, SIDEWALK, LANDSCAPING AND STREET LIGHTING ON THE NORTH SIDE. THIS ROADWAY SEGMENT IS APPROXIMATELY 1,400 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2039.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Old Otay Mesa Road to Caliente Avenue)**

PROJECT: OM T-10.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$300,000**							
OTHER								
TOTAL	**$300,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2043	FY 2044	FY 2045	FY 2046	FY 2047	FY 2048	FY 2049	FY 2050
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD					$300,000			
OTHER								
TOTAL	$0	$0	$0	$0	$300,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Old Otay Mesa Road to Caliente Avenue)**

PROJECT: OM T-10.1

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WILL COMPLETE THIS FOUR-LANE COLLECTOR (WITH CENTER TURN LANE) BY ADDING INTERSECTION TURN LANES AND AN ADDITIONAL WESTBOUND TRAVEL LANE ON THE EAST END OF THE SEGMENT. THIS ROAD SEGMENT IS APPROXIMATELY 2,200 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Caliente Avenue to Heritage Road)**

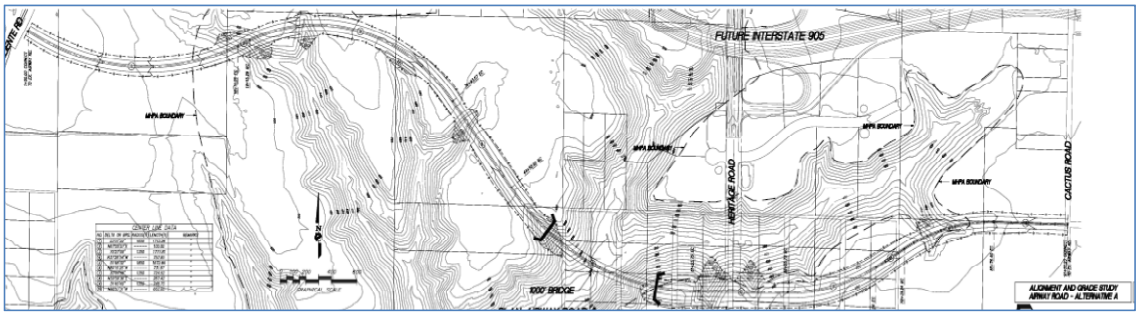
PROJECT: OM T-10.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2043	FY 2044	FY 2045	FY 2046
FBA-OM	**$76,200,000**				$1,700,000	$1,500,000	$100,000	$13,800,000
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$76,200,000**	$0	$0	$0	$1,700,000	$1,500,000	$100,000	$13,800,000

SOURCE	FY 2047	FY 2048	FY 2049	FY 2050	FY 2051	FY 2052	FY 2053	FY 2054
FBA-OM	$16,400,000	$3,100,000	$10,600,000	$2,600,000	$7,200,000	$7,000,000	$7,200,000	$5,000,000
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$16,400,000	$3,100,000	$10,600,000	$2,600,000	$7,200,000	$7,000,000	$7,200,000	$5,000,000



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Caliente Avenue to Heritage Road)**

		PROJECT:	**OM T-10.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF A FOUR-LANE MAJOR ROAD, WITH A 600 FOOT BRIDGE AND A SHARED BIKE PATH, WHICH WILL EXTEND AIRWAY ROAD TO INTERSECT WITH THE FUTURE EXTENSION OF HERITAGE ROAD, AND INTERSECTION TURN LANES. THIS ROAD SEGMENT IS APPROXIMATELY 6,024 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2043 - FY 2054.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Heritage Road to Cactus Road)**

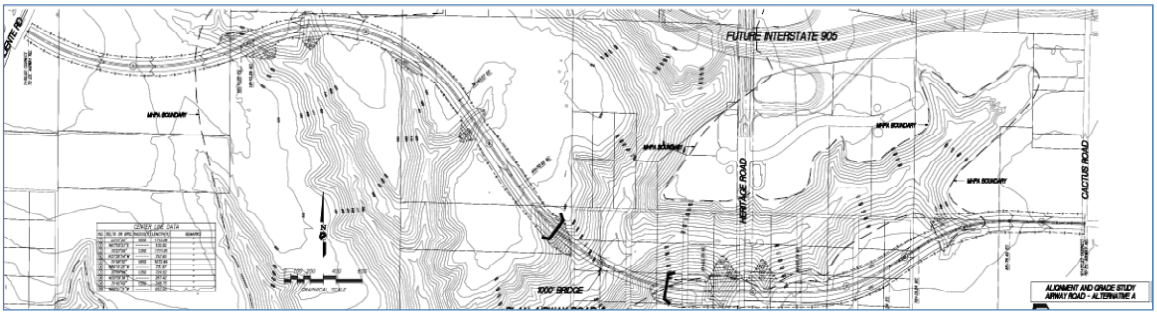
PROJECT: OM T-10.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$16,224,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$4,576,000**							
TOTAL	**$20,800,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040
FBA-OM			$4,474,000	$11,750,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$4,576,000				
TOTAL	$0	$0	$4,474,000	$16,326,000	$0	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Heritage Road to Cactus Road)**

		PROJECT:	**OM T-10.3**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF GRADING AND CONSTRUCTION OF A SIX-LANE PRIMARY ARTERIAL AND INTERSECTION TURN LANES. THIS ROAD SEGMENT IS APPROXIMATELY 3,135 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $4,576,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2035 AND FY 2036.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Cactus Road to Britannia Boulevard)**

PROJECT: OM T-10.4

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$13,572,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$3,828,000**							
TOTAL	**$17,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM					$4,800,000	$8,772,000		
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER						$3,828,000		
TOTAL	$0	$0	$0	$0	$4,800,000	$12,600,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Cactus Road to Britannia Boulevard)**

		PROJECT:	**OM T-10.4**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF A SIX-LANE MAJOR ROAD AND INTERSECTION TURN LANES WHILE UTILIZING AS MUCH OF THE EXISTING ROAD AS IS POSSIBLE. THE PROJECT INCLUDES RELOCATION OF THE EXISTING POWER LINES, POLES, AND CABINETS. THIS ROAD SEGMENT IS APPROXIMATELY 2,700 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $3,828,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2023 AND FY 2024.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Britannia Boulevard to west of La Media Road)**

PROJECT: OM T-10.5

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$5,382,000**							$1,926,000
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$1,518,000**							
TOTAL	**$6,900,000**	$0	$0	$0	$0	$0	$0	$1,926,000

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM		$3,456,000						
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER		$1,518,000						
TOTAL	$0	$4,974,000	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Britannia Boulevard to west of La Media Road)**

		PROJECT:	**OM T-10.5**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF THE WIDENING OF AIRWAY ROAD TO A FOUR-LANE MAJOR ROAD AND INTERSECTION TURN LANES FROM BRITANNIA BOULEVARD TO APPROXIMATELY 800 FEET WEST OF LA MEDIA ROAD. IMPROVEMENTS WILL INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING AND STREET LIGHTING. THE EXISTING ROAD WILL BE RESTRIPED BROM BRITANNIA BOULEVARD EAST TO LAHINCH DRIVE AND RECONSTRUCTION WILL CONTINUE EAST TO LA MEDIA ROAD. THIS ROAD SEGMENT IS APPROXIMATELY 4,400 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $1,518,000

NOTES:

SCHEDULE:

FUNDING FOR FBA FUNDED DESIGN IS ANTICIPATED IN FY 2016 AND CONSTRUCTION IS ANTICIPATED IN FY 2018 AND FY 2020.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (La Media Road to Avenida Costa Azul)**

PROJECT: OM T-10.6

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$5,382,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$1,518,000**							
TOTAL	**$6,900,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM	$5,382,000							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	$1,518,000							
TOTAL	$6,900,000	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (La Media Road to Avenida Costa Azul)**

		PROJECT:	**OM T-10.6**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF MODIFYING THE EXISTING ROAD TO A FOUR-LANE MAJOR AND INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE RELOCATION OF POWER LINES, POLES AND CABINETS, PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 1,400 FEET. ESTIMATE DOES NOT INCLUDE THE INTERSECTION IMPROVEMENTS AT AIRWAY ROAD AND LA MEDIA ROAD.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $1,518,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2019.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Avenida Costa Azul to Avenida De la Fuente N.)**

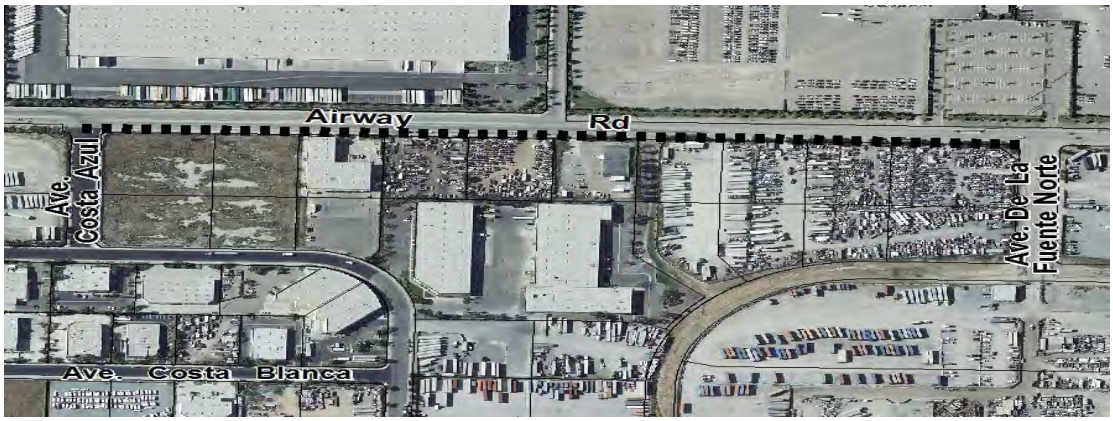
PROJECT: OM T-10.7

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$3,276,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$924,000**							
TOTAL	**$4,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM			$3,276,000					
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER			$924,000					
TOTAL	$0	$0	$4,200,000	$0	$0	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Avenida Costa Azul to Avenida De la Fuente N.)**

		PROJECT:	**OM T-10.7**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO MODIFY THE EXISTING AIRWAY ROAD TO A FOUR-LANE MAJOR AND INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE THE ADDITION OF ONE TRAVEL LANE, STORM DRAIN FACILITIES, NEW CURB AND GUTTER, SIDEWALK, LANDSCAPING, STREET LIGHTING, AND THE RELOCATION OF EXISTING POWER LINES, POLES AND CABINETS. THIS ROAD SEGMENT IS APPROXIMATELY 2,200 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $924,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2021.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Avenida De la Fuente N. to Harvest Road)**

PROJECT: OM T-10.8

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$4,212,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$1,188,000**							
TOTAL	**$5,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM			$1,380,000	$2,832,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$1,188,000				
TOTAL	$0	$0	$1,380,000	$4,020,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Avenida De la Fuente N. to Harvest Road)**

		PROJECT:	**OM T-10.8**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO THE EXISTING ROAD TO A FOUR-LANE MAJOR AND INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE PAVEMENT, MEDIAN, SIDEWALK, CURB, STORM DRAIN FACILITIES, LANDSCAPING, AND STREET LIGHTING. ADDITIONALLY, RELOCATION OF OVERHEAD POWER LINES, POLES, AND CABINETS IS INCLUDED. THIS ROAD SEGMENT IS APPROXIMATELY 1,500 FEET. COST ESTIMATE INCLUDES THE INTERSECTION IMPROVEMENTS AT AIRWAY ROAD AND HARVEST ROAD.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $1,188,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2021 AND FY 2022.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Harvest Road to Sanyo Road)**

PROJECT: OM T-10.9

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$2,730,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$770,000**							
TOTAL	**$3,500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037
FBA-OM						$2,730,000		
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER						$770,000		
TOTAL	$0	$0	$0	$0	$0	$3,500,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Harvest Road to Sanyo Road)**

		PROJECT:	**OM T-10.9**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF MODIFYING THE EXISTING ROAD TO A FOUR-LANE MAJOR WITH INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE PAVEMENT, MEDIAN, SIDEWALK, CURB AND GUTTER, STORM DRAIN FACILITIES, LANDSCAPING, AND STREET LIGHTING. ADDITIONALLY, RELOCATION OF OVERHEAD POWER LINES, POLES, AND CABINETS IS INCLUDED. THIS ROAD SEGMENT IS APPROXIMATELY 1,500 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $770,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2035.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Sanyo Road to Paseo de las Americas)**

PROJECT: OM T-10.10

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$870,000**							
OTHER								
TOTAL	**$870,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$870,000				
OTHER								
TOTAL	$0	$0	$0	$870,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Sanyo Road to Paseo de las Americas)**

PROJECT: OM T-10.10

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WILL INCLUDE INTERSECTION TURN LANES AND LANDSCAPING AND STREET LIGHTING ON THE SOUTH SIDE OF THE ROAD. THIS ROADWAY SEGMENT IS APPROXIMATELY 800 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Paseo de las Americas to Enrico Fermi)**

PROJECT: OM T-10.11

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$3,800,000**							
OTHER								
TOTAL	**$3,800,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$3,800,000				
OTHER								
TOTAL	$0	$0	$0	$3,800,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AIRWAY ROAD (Paseo de las Americas to Enrico Fermi)**

PROJECT: OM T-10.11

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WILL IMPROVE THE EXISTING ROAD TO A FOUR- LANE MAJOR ROAD. IMPROVEMENTS WILL INCLUDE PAVEMENT, MEDIAN, SIDEWALK, CURB AND GUTTER, STORM DRAIN FACILITIES, LANDSCAPING, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 2,700 FEET WITH IMPROVEMENTS REQUIRED FOR APPROXIMATELY 1,400 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (Otay Mesa Road to Proposed SR 905 Overpass)**

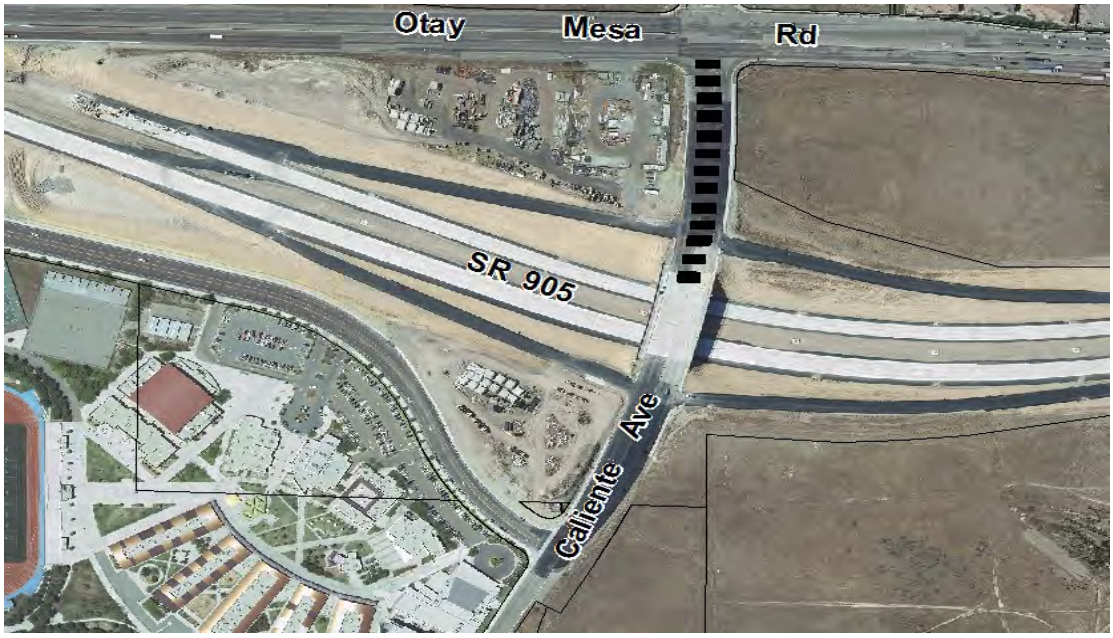
PROJECT: OM T-11.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$390,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$110,000**							
TOTAL	**$500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
FBA-OM					$390,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$110,000			
TOTAL	$0	$0	$0	$0	$500,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (Otay Mesa Road to Proposed SR 905 Overpass)**

PROJECT: OM T-11.1

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

WIDEN TO PROVIDE A SOUTHBOUND RIGHT TURN LANE FROM CALIENTE AVENUE ONTO WESTBOUND SR-905 AND WIDEN TO ADD NORTHBOUND THROUGH LANE AT CALIENTE AVENUE AND OTAY MESA ROAD. THE LENGTH OF TURN LANES IN THIS CASE WOULD BE 400 LINEAL FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $110,000

NOTES:

SHOULD TRAFFIC CONDITIONS AT THE INTERCHANGE OF CALIENTE AVENUE AND SR-905 BECOME DETRIMENTAL TO THE IMPLEMENTATION OF REGIONAL ECONOMIC GOALS, ADDITIONAL IMPROVEMENTS MAY BE NECESSARY AT THE SR 905 FREEWAY AND/OR AT THE FREEWAY INTERCHANGE. THESE IMPROVEMENTS MAY INCLUDE, BUT ARE NOT LIMITED TO, ADDITIONAL FREEWAY LANES, AUXILIARY LANES, ADDITIONAL ON-RAMP LANES, ADDITIONAL INTERSECTION TURN LANES, AND FREEWAY OVERCROSSING WIDENING.. SUCH IMPROVEMENTS WOULD HAVE TO BE DETERMINED WITH CLOSE COORDINATION WITH CALTRANS AND VETTED THROUGH THEIR PSR PROCESS.

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2026.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (SR 905 Overpass)**

PROJECT: OM T-11.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$39,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$11,000**							
TOTAL	**$50,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
FBA-OM					$39,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$11,000			
TOTAL	$0	$0	$0	$0	$50,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (SR 905 Overpass)**

PROJECT: OM T-11.2

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

WIDEN CALIENTE AVENUE OVERPASS TO PROVIDE TWO NORTHBOUND AND TWO SOUTHBOUND LEFT TURN LANES. THE LENGTH OF TURN LANES IN THIS CASE WOULD BE 300 LINEAL FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $11,000

NOTES:

SHOULD TRAFFIC CONDITIONS AT THE INTERCHANGE OF CALIENTE AVENUE AND SR-905 BECOME DETRIMENTAL TO THE IMPLEMENTATION OF REGIONAL ECONOMIC GOALS, ADDITIONAL IMPROVEMENTS MAY BE NECESSARY AT THE SR 905 FREEWAY AND/OR AT THE FREEWAY INTERCHANGE. THESE IMPROVEMENTS MAY INCLUDE, BUT ARE NOT LIMITED TO, ADDITIONAL FREEWAY LANES, AUXILIARY LANES, ADDITIONAL ON-RAMP LANES, ADDITIONAL INTERSECTION TURN LANES, AND FREEWAY OVERCROSSING WIDENING.. SUCH IMPROVEMENTS WOULD HAVE TO BE DETERMINED WITH CLOSE COORDINATION WITH CALTRANS AND VETTED THROUGH THEIR PSR PROCESS.

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2026.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (SR 905 Overpass to Airway Road)**

PROJECT: OM T-11.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$390,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$110,000**							
TOTAL	**$500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
FBA-OM					$390,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$110,000			
TOTAL	$0	$0	$0	$0	$500,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (SR 905 Overpass to Airway Road)**

PROJECT: OM T-11.3

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

WIDEN TO PROVIDE A NORTHBOUND RIGHT TURN LANE FROM CALIENTE AVENUE ONTO EASTBOUND STATE ROUTE 905. THE LENGTH OF TURN LANES IN THIS CASE WOULD BE 400 LINEAL FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $110,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2026.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (Airway Road to current dead end)**

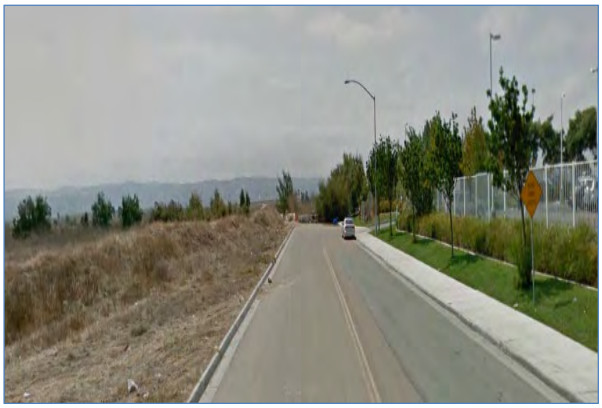
PROJECT: OM T-11.4

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$1,326,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$374,000**							
TOTAL	**$1,700,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
FBA-OM			$826,000	$500,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$374,000				
TOTAL	$0	$0	$826,000	$874,000	$0	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (Airway Road to current dead end)**

PROJECT: OM T-11.4

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO CALIENTE AVENUE FROM AIRWAY ROAD TO THE CURRENT DEAD-END AS A SIX-LANE MAJOR ROAD AND INTERSECTION TURN LANES . IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 800 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $374,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2025 AND 2026.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (current dead end to Beyer Boulevard)**

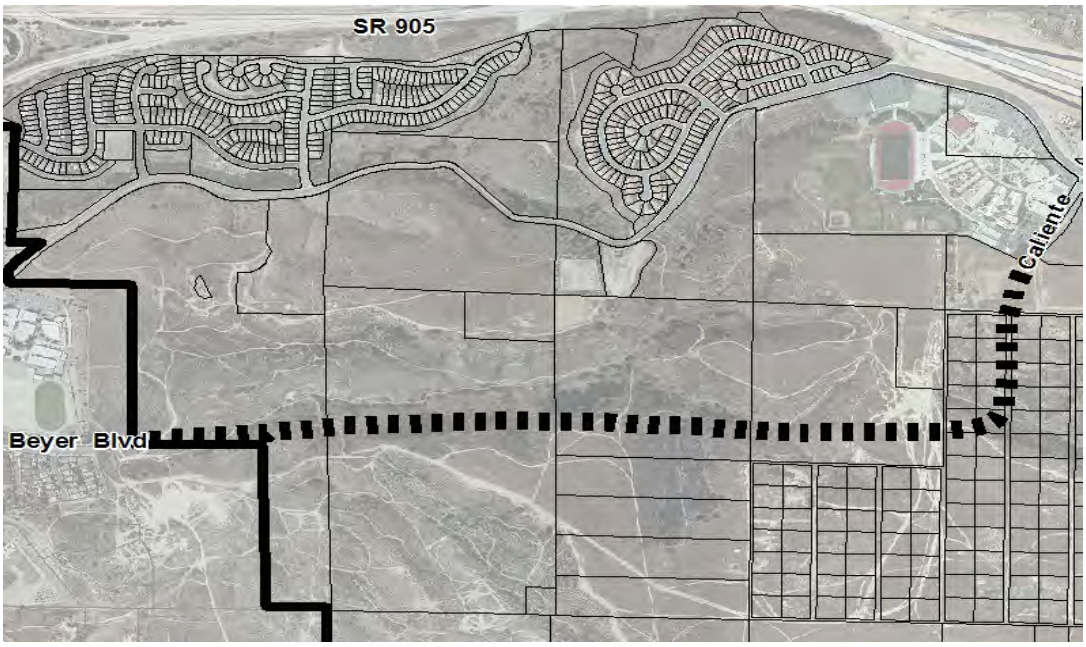
PROJECT: OM T-11.5

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$3,744,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$1,056,000**							
TOTAL	**$4,800,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
FBA-OM			$2,444,000	$1,300,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER			$1,056,000					
TOTAL	$0	$0	$3,500,000	$1,300,000	$0	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (current dead end to Beyer Boulevard)**

		PROJECT:	**OM T-11.5**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF CALIENTE AVENUE FROM THE CURRENT DEAD-END TO THE INTERSECTION OF BEYER BLVD TO MEET THE CRITERIA FOR A SIX-LANE MAJOR ROAD WITH INTERSECTION TURN LANES . IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 2,000 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $1,056,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2026 AND 2027.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (Beyer Boulevard to Siempre Viva Road)**

PROJECT: OM T-11.6

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$2,100,000**							
OTHER								
TOTAL	**$2,100,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$2,100,000				
OTHER								
TOTAL	$0	$0	$0	$2,100,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CALIENTE AVENUE (Beyer Boulevard to Siempre Viva Road)**

		PROJECT:	**OM T-11.6**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESGIN A AND CONSTRUCTION OF CALIENTE ROAD FROM BEYER BLVD. TO SIEMPRE VIVA ROAD TO MEET THE CRITERIA FOR A FOUR-LANE MAJOR ROAD WITH INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 1,000 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **EXPOSITION WAY/VISTA SANTO DOMINGO**

PROJECT: **OM T-12**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$1,350,000**							
OTHER								
TOTAL	**$1,350,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD					$1,350,000			
OTHER								
TOTAL	$0	$0	$0	$0	$1,350,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **EXPOSITION WAY/VISTA SANTO DOMINGO**

		PROJECT:	**OM T-12**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT TWO LANE COLLECTOR STREET BETWEEN TERMINUS OF VISTA SANTA DOMINGO AND EXPOSITION WAY. THE LENGTH OF THIS SEGMENT IS 660 LINEAL FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CORPORATE CENTER DRIVE (Progressive Avenue to Otay Mesa Road)**

PROJECT: OM T-13.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$3,925,000**							
OTHER								
TOTAL	**$3,925,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD		$3,925,000						
OTHER								
TOTAL	$0	$3,925,000	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CORPORATE CENTER DRIVE (Progressive Avenue to Otay Mesa Road)**

		PROJECT:	**OM T-13.1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

WIDEN TO FOUR LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. THE LENGTH OF THIS SEGMENT IS 1,100 LINEAL FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CORPORATE CENTER DRIVE (Otay Mesa Road to SR 905)**

PROJECT: OM T-13.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$2,050,000**							
OTHER								
TOTAL	**$2,050,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD		$2,050,000						
OTHER								
TOTAL	$0	$2,050,000	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CORPORATE CENTER DRIVE (Otay Mesa Road to SR 905)**

PROJECT: OM T-13.2

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

CONSTRUCT AS FOUR LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. THE LENGTH OF THIS IS 700 LINEAL FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **INNOVATIVE DRIVE (Corporate Center Drive to Otay Mesa Road)**

PROJECT: **OM T-14**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$2,650,000**							
OTHER								
TOTAL	**$2,650,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD		$2,650,000						
OTHER								
TOTAL	$0	$2,650,000	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **INNOVATIVE DRIVE (Corporate Center Drive to Otay Mesa Road)**

		PROJECT:	**OM T-14**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT EAST SIDE OF ROADWAY TO FOUR LANE COLLECTOR WITH TWO WAY LEFT TURN LANE. PARTIAL IMPROVEMENTS (WEST SIDE) COMPLETED INCLUDING CURB, GUTTER, AND SIDEWALK. THE LENGTH OF THIS SEGMENT IS 1,800 LINEAL FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DATSUN STREET (Innovative Drive to existing Otay Valley Road)**

PROJECT: OM T-15.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$3,600,000**							
OTHER								
TOTAL	**$3,600,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD						$3,600,000		
OTHER								
TOTAL	$0	$0	$0	$0	$0	$3,600,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DATSUN STREET (Innovative Drive to existing Otay Valley Road)**

		PROJECT:	**OM T-15.1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESGN AND CONSTRUCTION OF IMPROVEMENTS TO DATSUN STREET FROM INNOVATIVE DRIVE TO THE EXISTING OTAY VALLEY ROAD INTERSECTION TO A FOUR-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. IMPROVEMENTS WILL INCLUDE PAVEMENT, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, REMOVAL OF THE EXISTING ROAD, RELOCATION OF EXISTING UNDERGROUND UTILITIES, AND STREET LIGHTING. THE EXISTING OFFSET INTERSECTIONS OF DATSUN STREET WITH OTAY VALLEY ROAD/HERITAGE ROAD WILL BE MODIFIED TO INCORPORATE THE REALIGNMENT OF OTAY VALLEY ROAD/HERITAGE ROAD. THIS ROAD SEGMENT IS APPROXIMATELY 800 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DATSUN STREET (existing Otay Valley Road to existing Heritage Road)**

PROJECT: OM T-15.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$2,800,000**							
OTHER								
TOTAL	**$2,800,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD						$2,800,000		
OTHER								
TOTAL	$0	$0	$0	$0	$0	$2,800,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DATSUN STREET (existing Otay Valley Road to existing Heritage Road)**

		PROJECT:	**OM T-15.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WILL IMPROVE DATSUN STREET FROM THE EXISTING INTERSECTION OF OTAY VALLEY ROAD TO THE FUTURE REALIGNED INTERSECTION OF DATSUN WITH OTAY VALLEY ROAD/HERITAGE ROAD TO A FOUR-LANE COLLECTOR ROAD WITH INTERSECTION TURN LANES. IMPROVEMENTS INCLUDE PAVEMENT, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, REMOVAL OF THE EXISTING ROAD, RELOCATION OF EXISTING UNDERGROUND UTILITIES, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 700 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (Main Street to city limits)**

PROJECT: OM T-16.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$1,000,000**						$1,000,000	
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$52,700,000**						$30,000,000	
TOTAL	**$53,700,000**	$0	$0	$0	$0	$0	$31,000,000	$0

SOURCE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER						$22,700,000		
TOTAL	$0	$0	$0	$0	$0	$22,700,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (Main Street to city limits)**

PROJECT: OM T-16.2

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR A CONTRIBUTION TO DESIGN AND CONSTRUCT IMPROVEMENTS TO HERITAGE ROAD/OTAY VALLEY ROAD FROM MAIN STREET IN CHULA VISTA TO THE CITY OF CHULA VISTA/SAN DIEGO LIMITS TO A SIX-LANE PRIMARY ARTERIAL WITH INTERSECTION TURN LANES. IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, RELOCATION OF THE EXISTING WATER MAIN, AND STREET LIGHTING. THE PROJECT ALSO INCLUDES RELOCATION OF THE BRIDGE OVER THE OTAY RIVER. THE NEW BRIDGE WILL BE APPROXIMATELY 500 FEET WITH APPROACH ROADS FOR AN OVERALL LENGTH OF 900 FEET. THIS ROAD SEGMENT IS APPROXIMATELY 3,600 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

THE OTAY MESA FBA IS ALLOCATING $1,000,000 TOWARD THE COST OF CONSTRUCTING THE NEW BRIDGE OVER THE OTAY RIVER.

OTHER FUNDING SOURCES:
CITY OF CHULA VISTA - $52,700,000

NOTES:

THE CITY OF CHULA VISTA HAS OBTAINED FEDERAL FUNDING FOR A SUBSTANTIAL PORTION OF THE BRIDGE COSTS, SUBJECT TO THE PROVISION OF A LOCAL CONTRIBUTION ESTIMATED BY THE CITY OF CHULA VISTA TO BE $2,000,000. THE CITY OF CHULA VISTA IS SEEKING AGREEMENT WITH THE CITY OF SAN DIEGO TO PAY 50% OF THE LOCAL FUNDING OBLIGATION FOR THIS PROJECT. THE OTAY MESA FBA CONTRIBUTION IS ESTIMATED AT $1,000,000.

SCHEDULE:

SCHEDULING OF THIS PROJECT IS CONTINGENT UPON TIMING OF THE FUNDING FROM THE CITY OF CHULA VISTA.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (city limits to Avenida de las Vistas)**

PROJECT: OM T-16.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM	**$6,900,000**							
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,900,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
FBA-OM								
DIF-OM	$6,900,000							
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$6,900,000	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (city limits to Avenida de las Vistas)**

		PROJECT:	**OM T-16.3**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO HERITAGE ROAD/OTAY VALLEY ROAD FROM THE CITY OF CHULA VISTA/SAN DIEGO LIMITS TO AVENIDA DE LAS VISTAS TO A SIX-LANE PRIMARY ARTERIAL ROAD. IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, STREET LIGHTING, SOME RETAINING WALLS, AND UTILITY RELOCATION. THIS ROAD SEGMENT IS APPROXIMATELY 800 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2025

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (Avenida de las Vistas to Datsun Street)**

PROJECT: OM T-16.4

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: S-00724

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$5,854,000**							
DIF-OM	**$2,180,000**							
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$2,266,000**							
TOTAL	**$10,300,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
FBA-OM					$5,854,000			
DIF-OM			$2,180,000					
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$2,266,000			
TOTAL	$0	$0	$2,180,000	$0	$8,120,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (Avenida de las Vistas to Datsun Street)**

		PROJECT:	**OM T-16.4**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	S-00724	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO HERITAGE ROAD/OTAY VALLEY ROAD FROM AVENIDA DE LAS VISTAS TO DATSUN ROAD TO A SIX-LANE PRIMARY ARTERIAL WITH INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE PAVEMENT, A CONCRETE MEDIAN, SIDEWALK, CURB AND GUTTER, STORM DRAIN FACILITIES, STREET LIGHTING, AND RETAINING WALLS. THIS ROAD SEGMENT IS APPROXIMATELY 2,400 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $2,266,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2025 AND FY 2027

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (Datsun Street to Otay Mesa Road)**

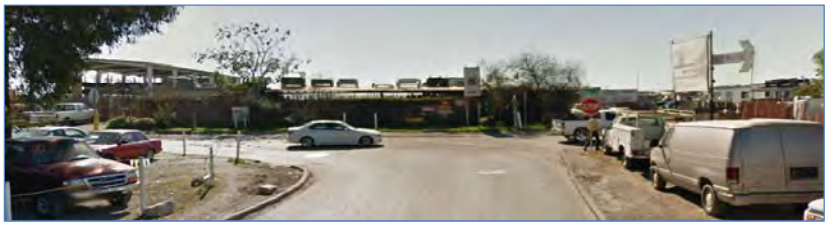
PROJECT: OM T-16.5

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$4,836,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$1,364,000**							
TOTAL	**$6,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM					$4,836,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$1,364,000			
TOTAL	$0	$0	$0	$0	$6,200,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (Datsun Street to Otay Mesa Road)**

PROJECT: OM T-16.5

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF HERITAGE ROAD/OTAY VALLEY ROAD FROM DATSUN ROAD TO OTAY MESA ROAD AS A SIX-LANE PRIMARY ARTERIAL ROAD WITH INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE PAVEMENT, A CONCRETE MEDIAN, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 2,000 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $1,364,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2030

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (Otay Mesa Road to SR 905 Interchange)**

PROJECT: OM T-16.6

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$4,524,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$1,276,000**							
TOTAL	**$5,800,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM				$800,000	$2,724,000	$1,000,000		
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER						$1,276,000		
TOTAL	$0	$0	$0	$800,000	$2,724,000	$2,276,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (Otay Mesa Road to SR 905 Interchange)**

		PROJECT:	**OM T-16.6**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO HERITAGE ROAD FROM OTAY MESA ROAD TO THE FUTURE INTERCHANGE AT SR 905 AS A SIX-LANE PRIMARY ARTERIAL WITH INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE PAVEMENT, A CONCRETE MEDIAN, SIDEWALK, CURB AND GUTTER, STORM DRAIN FACILITIES, THE RELOCATION OF UTILITIES, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 1,400 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $1,276,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2029-2031.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (SR 905 Interchange ramps)**

PROJECT: OM T-16.7

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$13,539,000**							
DIF-OM	**$8,161,000**							
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$21,700,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
FBA-OM				$13,539,000				
DIF-OM			$8,161,000					
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$8,161,000	$13,539,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (SR 905 Interchange ramps)**

PROJECT: OM T-16.7

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF FOUR RAMPS CONNECTING SR 905 AND HERITAGE ROAD, INCLUDING TWO TWO-LANE OFF RAMPS WITH ADDITIONAL INTERSECTION TURN LANES AND TWO ON RAMPS EACH WITH TWO LANES AND A CARPOOL LANE REDUCING TO ONE LANE . STREET LIGHTING WILL BE PROVIDED. THE TOTAL LENGTH OF RAMPS IS APPROXIMATELY 9,600 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SHOULD TRAFFIC CONDITIONS AT THE INTERCHANGE OF HERITAGE ROAD AND SR-905 BECOME DETRIMENTAL TO THE IMPLEMENTATION OF REGIONAL ECONOMIC GOALS, ADDITIONAL IMPROVEMENTS MAY BE NECESSARY AT THE SR 905 FREEWAY AND/OR AT THE FREEWAY INTERCHANGE. THESE IMPROVEMENTS MAY INCLUDE, BUT ARE NOT LIMITED TO, ADDITIONAL FREEWAY LANES, AUXILIARY LANES, ADDITIONAL WESTBOUND ON-RAMP, ADDITIONAL ON-RAMP LANES, AND ADDITIONAL INTERSECTION TURN LANES. SUCH IMPROVEMENTS WOULD HAVE TO BE DETERMINED WITH CLOSE COORDINATION WITH CALTRANS AND VETTED THROUGH THEIR PSR PROCESS.

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2030 AND FY 2031

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (SR 905 Interchange to current dead end)**

PROJECT: OM T-16.8

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$421,200**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$118,800**							
TOTAL	**$540,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
FBA-OM					$421,200			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$118,800			
TOTAL	$0	$0	$0	$0	$540,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (SR 905 Interchange to current dead end)**

		PROJECT:	**OM T-16.8**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO HERITAGE ROAD/OTAY VALLEY ROAD FROM THE SR 905 INTERCHANGE TO THE CURRENT DEAD END AS A SIX-LANE PRIMARY ARTERIAL WITH INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE A CONCRETE MEDIAN, SIDEWALK, AND CURB AND GUTTER. THE ROAD SEGMENT IS APPROXIMATELY 1,100 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $118,800

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2032

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (current dead end to Airway Road)**

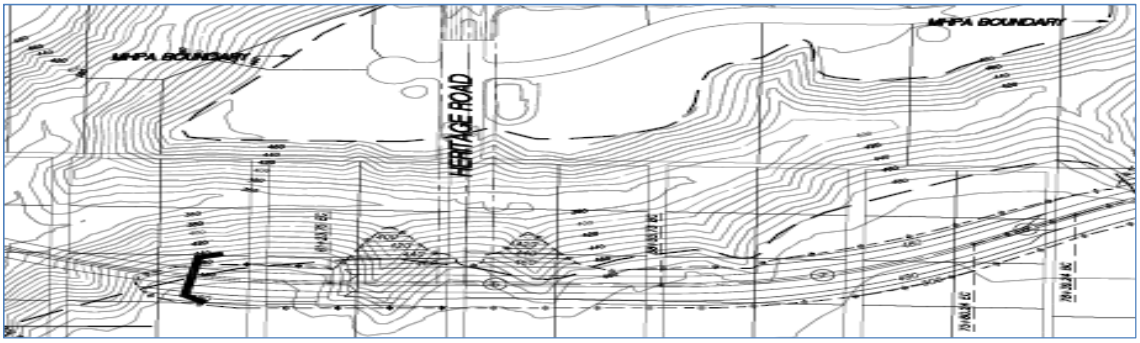
PROJECT: OM T-16.9

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$19,800,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$19,800,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037
FBA-OM			$4,000,000	$5,000,000	$10,800,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$4,000,000	$5,000,000	$10,800,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (current dead end to Airway Road)**

PROJECT: OM T-16.9

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF THE APPROACH ROADS AND RAMPS FOR THE PROPOSED BRIDGE/OVERPASS TO CONNECT WITH AIRWAY ROAD. THE APPROACHES WILL BE SIX LANES WITH A CENTER MEDIAN, PEDESTRIAN AND BIKE ACCESS, AND STREET LIGHTING. THE LENGTH OF THE APPROACH IS APPROXIMATELY 600 FEET. THIS ROAD SEGMENT IS APPROXIMATELY 1,200 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2032-2034

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (bridge to Airway Road)**

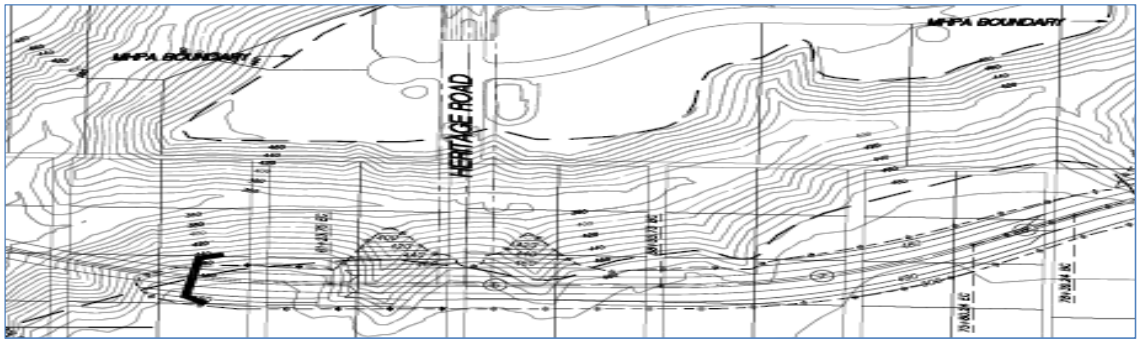
PROJECT: OM T-16.10

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$24,200,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$24,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037
FBA-OM			$5,000,000	$4,200,000	$15,000,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$5,000,000	$4,200,000	$15,000,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD/OTAY VALLEY ROAD (bridge to Airway Road)**

PROJECT: OM T-16.10

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF THE BRIDGE PORTION ON HERITAGE ROAD. IMPROVEMENTS INCLUDE SIDEWALK AND STREET LIGHTING. THIS SEGMENT IS APPROXIMATELY 500 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2032 THROUGH FY 2034

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AVIATOR ROAD (Heritage Road to La MediaRoad - widening portion only)**

PROJECT: OM T-17.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$15,600,000**							
OTHER								
TOTAL	**$15,600,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$15,600,000				
OTHER								
TOTAL	$0	$0	$0	$15,600,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AVIATOR ROAD (Heritage Road to La MediaRoad - widening portion only)**

		PROJECT:	**OM T-17.1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WILL WIDEN EXISTING PORTION OF AVIATOR ROAD FROM HERITAGE ROAD TO LA MEDIA ROAD TO A FOUR-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE AND INTERSECTION TURN LANES. IMPROVEMENTS INCLUDE PAVEMENT, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, RELOCATION OF UTILITIES, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 4,200 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

THIS IMPROVEMENT WILL BE CONSTRUCTED AS REQUIRED BY DEVELOPMENT OF BROWN FIELD

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AVIATOR ROAD (Heritage Road to La Media Road - new extension portion only)**

PROJECT: OM T-17.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$19,300,000**							
OTHER								
TOTAL	**$19,300,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$19,300,000				
OTHER								
TOTAL	$0	$0	$0	$19,300,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AVIATOR ROAD (Heritage Road to La Media Road - new extension portion only)**

		PROJECT:	**OM T-17.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WILL CONSTRUCT NEW PORTIONS OF AVIATOR ROAD FROM HERITAGE ROAD TO LA MEDIA ROAD TO MEET THE CRITERIA OF A FOUR-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. IMPROVEMENTS INCLUDE PAVEMENT, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 7,200 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

THIS IMPROVEMENT WILL BE CONSTRUCTED AS REQUIRED BY DEVELOPMENT OF BROWN FIELD

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CACTUS ROAD (Otay Mesa Road to SR 905)**

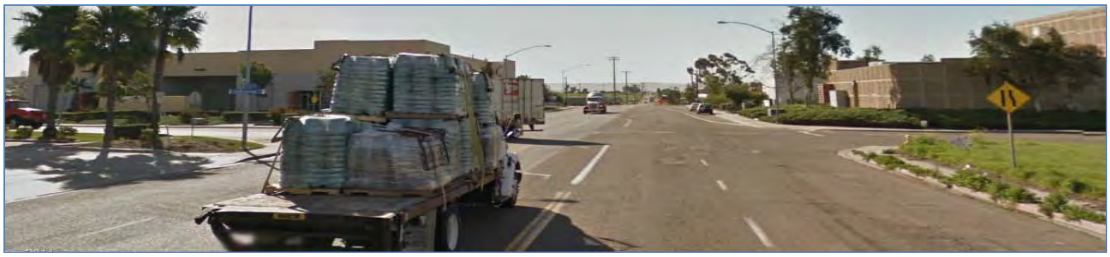
PROJECT: OM T-18.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$700,000**							
OTHER								
TOTAL	**$700,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043	FY 2044
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$700,000				
OTHER								
TOTAL	$0	$0	$0	$700,000	$0	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CACTUS ROAD (Otay Mesa Road to SR 905)**

PROJECT: OM T-18.1

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO CACTUS ROAD FROM OTAY MESA ROAD TO SR 905 TO A FOUR-LANE MAJOR ROAD WITH INTERSECTION TURN LANES. IMPROVEMENTS INCLUDE RESTRIPING AND THE ADDITION OF A CONCRETE MEDIAN. ALSO TO BE CONSTRUCTED IS AN APPROACH ROAD FOR THE OVERPASS OVER SR905. THIS ROAD SEGMENT IS APPROXIMATELY 1,400 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CACTUS ROAD (SR 905 Overpass)**

PROJECT: OM T-18.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$27,456,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$7,744,000**							
TOTAL	**$35,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043
FBA-OM				$11,500,000	$3,556,000	$7,000,000	$5,400,000	
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$7,744,000			
TOTAL	$0	$0	$0	$11,500,000	$11,300,000	$7,000,000	$5,400,000	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CACTUS ROAD (SR 905 Overpass)**

		PROJECT:	**OM T-18.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OFA FOUR-LANE OVERPASS. IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 400 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $7,744,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2039-42

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CACTUS ROAD (SR 905 to Airway Road)**

PROJECT: OM T-18.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$4,200,000**							
OTHER								
TOTAL	**$4,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2044	FY 2045	FY 2046	FY 2047	FY 2048	FY 2049	FY 2050	FY 2051
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD			$4,200,000					
OTHER								
TOTAL	$0	$0	$4,200,000	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CACTUS ROAD (SR 905 to Airway Road)**

PROJECT: OM T-18.3

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WILL IMPROVE CACTUS ROAD FROM THE SR 905 TO AIRWAY ROAD AS A FOUR-LANE MAJOR. IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIAN, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STREET LIGHTING, OVERHEAD ELECTRICAL LINE AND FENCE RELOCATION. THIS PROJECT ALSO INCLUDES CONSTRUCTION OF A 400 FEET APPROACH ROAD TO THE FUTURE SR 905 OVERPASS. THIS ROAD SEGMENT IS APPROXIMATELY 1,400 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CACTUS ROAD (Airway Road to Siempre Viva)**

PROJECT: OM T-18.4

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$10,500,000**							
OTHER								
TOTAL	**$10,500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2042	FY 2043	FY 2044	FY 2045	FY 2046	FY 2047	FY 2048	FY 2049
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD					$10,500,000			
OTHER								
TOTAL	$0	$0	$0	$0	$10,500,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CACTUS ROAD (Airway Road to Siempre Viva)**

PROJECT: OM T-18.4

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WILL IMPROVE CACTUS ROAD FROM AIRWAY ROAD TO SIEMPRE VIVA ROAD AS A FOUR-LANE MAJOR ROAD. IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIAN, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STREET LIGHTING AND UTILITY RELOCATION . THIS ROAD SEGMENT IS APPROXIMATELY 2,800 FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Cactus Road to Britannia Boulevard)**

PROJECT: OM T-19.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,474,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$1,826,000**							
TOTAL	**$8,300,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039
FBA-OM						$6,474,000		
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER						$1,826,000		
TOTAL	$0	$0	$0	$0	$0	$8,300,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Cactus Road to Britannia Boulevard)**

PROJECT: OM T-19.1

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO WIDEN SIEMPRE VIVA ROAD FROM CACTUS ROAD TO BRITANNIA BLVD. AS A SIX-LANE PRIMARY ARTERIAL ROAD WITH INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE PAVEMENT, CURB AND GUTTER, SIDEWALK, STREET LIGHTING, LANDSCAPING, RAISED MEDIAN, STORM DRAIN FACILITIES AND INLETS, AND RELOCATION OF OVERHEAD POWER LINES, POLES, AND CABINETS. THIS ROAD SEGMENT IS APPROXIMATELY 2,800 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $1,826,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2037

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Britannia Boulevard to La Media Road)**

PROJECT: OM T-19.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$10,062,000**							$3,300,000
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$2,838,000**							
TOTAL	**$12,900,000**	$0	$0	$0	$0	$0	$0	$3,300,000

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM	$6,762,000							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	$2,838,000							
TOTAL	$9,600,000	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Britannia Boulevard to La Media Road)**

		PROJECT:	**OM T-19.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO WIDEN AND COMPLETE SIEMPRE VIVA ROAD FROM BRITANNIA BLVD. TO LA MEDIA ROAD AS A SIX--LANE PRIMARY ARTERIAL WITH INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE PAVEMENT, CURB AND GUTTER, SIDEWALK, STREET LIGHTING, LANDSCAPING, RAISED MEDIAN, STORM DRAIN FACILITIES, AND INLETS. RESTRIPING OF THE INITIAL 1,400 FEET WILL BE REQUIRED. THIS ROAD SEGMENT IS APPROXIMATELY 6,000 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $2,838,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2018 AND FY 2019.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (La Media Road to Harvest Road)**

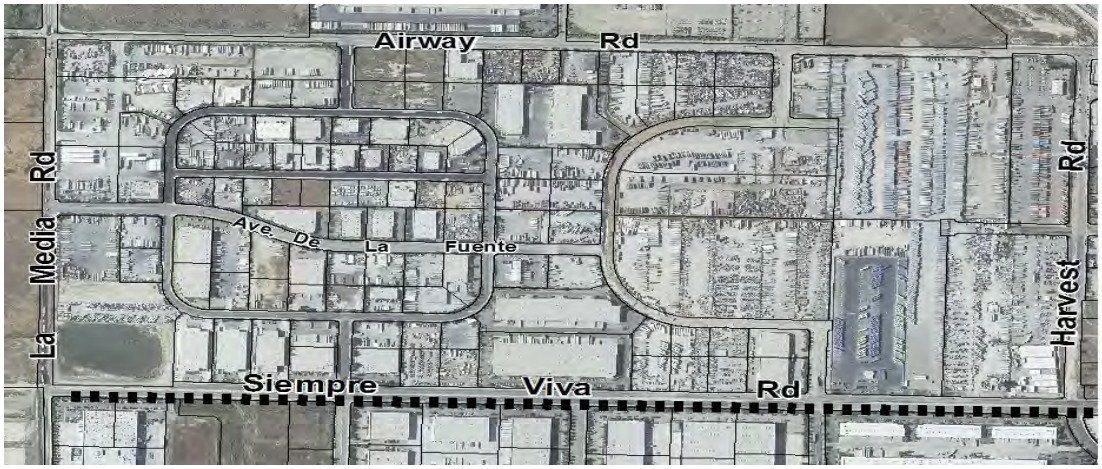
PROJECT: OM T-19.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$3,198,000**							$3,198,000
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$902,000**							$902,000
TOTAL	**$4,100,000**	$0	$0	$0	$0	$0	$0	$4,100,000

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (La Media Road to Harvest Road)**

PROJECT: OM T-19.3

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO SIEMPRE VIVA ROAD FROM LA MEDIA ROAD TO HARVEST ROAD TO A SIX-LANE PRIMARY ARTERIAL ROAD. IMPROVEMENTS WILL INCLUDE CONSTRUCTING INTERSECTION TURN LANES, RESTRIPING, CURB AND GUTTER, SIDEWALK, LANDSCAPING, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 5,300 FEET. COST ESTIMATE DOES NOT INCLUDE THE INTERSECTION IMPROVEMENTS OF SIEMPRE VIVA ROAD AND LA MEDIA ROAD.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $902,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2018

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Harvest Road to Otay Center Road)**

PROJECT: OM T-19.4

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$1,170,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$330,000**							
TOTAL	**$1,500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM				$1,170,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$330,000				
TOTAL	$0	$0	$0	$1,500,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Harvest Road to Otay Center Road)**

PROJECT: OM T-19.4

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO A SECTION OF SIEMPRE VIVA ROAD AS A SIX-LANE PRIMARY ARTERIAL. IMPROVEMENTS WILL INCLUDE INTERSECTION TURN LANES, LANDSCAPING AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 900 FEET. COST ESTIMATE DOES NOT INCLUDE THE INTERSECTION OF SIEMPRE VIVA ROAD AND HARVEST ROAD.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $330,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2037

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Otay Center Road to Paseo de las Americas)**

PROJECT: OM T-19.5

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$1,092,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$308,000**							
TOTAL	**$1,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM					$1,092,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$308,000			
TOTAL	$0	$0	$0	$0	$1,400,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Otay Center Road to Paseo de las Americas)**

PROJECT: OM T-19.5

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO THIS SECTION OF SIEMPRE VIVA AS A SIX-LANE PRIMARY ARTERIAL. IMPROVEMENTS WILL INCLUDE CONSTRUCTION OF INTERSECTION TURN LANES, LANDSCAPING AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 2,480 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $308,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2038

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Paseo de las Americas to Michael Faraday Drive)**

PROJECT: OM T-19.6

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$110,000**							
OTHER								
TOTAL	**$110,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD			$110,000					
OTHER								
TOTAL	$0	$0	$110,000	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Paseo de las Americas to Michael Faraday Drive)**

PROJECT: OM T-19.6

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WILL PROVIDE RESTRIPING FOR APPROXIMATELY 1600 FEET OF ROAD SEGMENT.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CONTINENTAL STREET (Otay Mesa Road to Camino Maquiladora)**

PROJECT: OM T-20.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$1,425,000**							
OTHER								
TOTAL	**$1,425,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD						$1,425,000		
OTHER								
TOTAL	$0	$0	$0	$0	$0	$1,425,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CONTINENTAL STREET (Otay Mesa Road to Camino Maquiladora)**

PROJECT: OM T-20.1

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

CONSTRUCT AS TWO LANE COLLECTOR STREET (WITHOUT TWO WAY LEFT TURN LANE). THE LENGTH OF THIS SEGMENT IS 700 LINEAL FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CONTINENTAL STREET (Airway Road to SR-905)**

PROJECT: OM T-20.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$3,050,000**							
OTHER								
TOTAL	**$3,050,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD						$3,050,000		
OTHER								
TOTAL	$0	$0	$0	$0	$0	$3,050,000	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CONTINENTAL STREET (Airway Road to SR-905)**

PROJECT: OM T-20.2

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

CONSTRUCT AS A TWO-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. THE LENGTH OF THIS SEGMENT IS 1,500 LINEAL FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BRITANNIA BOULEVARD (Otay Mesa Road to SR 905)**

PROJECT: OM T-21.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM	**$312,000**							
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$88,000**							
TOTAL	**$400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM				$312,000				
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$88,000				
TOTAL	$0	$0	$0	$400,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BRITANNIA BOULEVARD (Otay Mesa Road to SR 905)**

PROJECT: OM T-21.1

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT IS THE RECONFIGURATION OF THE ROADWAY TO INCORPORATE A SINGLE SOUTHBOUND RIGHT TURN LANE TO WESTBOUND SR 905. THE PROJECT INVOLVES THE REMOVAL OF ROAD SURFACE SIDEWALK, CURB, AND GUTTER, THE REMOVAL OF POWER LINES, AND REPLACEMENT WITH NEW PAVEMENT, CURB, GUTTER, AND SIDEWALK.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $88,000

NOTES:

SHOULD TRAFFIC CONDITIONS AT THE INTERCHANGE OF BRITANNIA BOULEVARD AND SR-905 HINDER REGIONAL GOODS MOVEMENT, ADDITIONAL IMPROVEMENTS MAY BE NECESSARY ON THE SR 905 FREEWAY AND/OR AT THE FREEWAY INTERCHANGE. THESE IMPROVEMENTS MAY INCLUDE, BUT ARE NOT LIMITED TO, ADDITIONAL FREEWAY LANES, AUXILIARY LANES, ADDITIONAL INTERSECTION TURN LANES, AND FREEWAY OVERCROSSING WIDENING. SUCH IMPROVEMENTS WOULD HAVE TO BE DETERMINED WITH CLOSE COORDINATION WITH CALTRANS AND VETTED THROUGH THEIR PSR PROCESS.

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2022

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BRITANNIA BOULEVARD (SR 905 to Airway Road)**

PROJECT: OM T-21.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM	**$468,000**							
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$132,000**							
TOTAL	**$600,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM				$468,000				
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$132,000				
TOTAL	$0	$0	$0	$600,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BRITANNIA BOULEVARD (SR 905 to Airway Road)**

PROJECT: OM T-21.2

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF RESTRIPING ON BRITANNIA TO ACCOMMODATE A SIX-LANE MAJOR STREET AND INTERSECTION TURN LANES. ADDITIONAL IMPROVEMENTS INCLUDE LANDSCAPING AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 1,200 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $132,000

NOTES:

SHOULD TRAFFIC CONDITIONS AT THE INTERCHANGE OF BRITANNIA BOULEVARD AND SR-905 HINDER REGIONAL GOODS MOVEMENT, ADDITIONAL IMPROVEMENTS MAY BE NECESSARY ON THE SR 905 FREEWAY AND/OR AT THE FREEWAY INTERCHANGE. THESE IMPROVEMENTS MAY INCLUDE, BUT ARE NOT LIMITED TO, ADDITIONAL FREEWAY LANES, AUXILIARY LANES, ADDITIONAL INTERSECTION TURN LANES, AND FREEWAY OVERCROSSING WIDENING. SUCH IMPROVEMENTS WOULD HAVE TO BE DETERMINED WITH CLOSE COORDINATION WITH CALTRANS AND VETTED THROUGH THEIR PSR PROCESS.

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2022

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BRITANNIA BOULEVARD (Airway Road to Siempre Viva Road)**

PROJECT: OM T-21.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM	**$6,708,000**							
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$1,892,000**							
TOTAL	**$8,600,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM		$6,708,000						
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER		$1,892,000						
TOTAL	$0	$8,600,000	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BRITANNIA BOULEVARD (Airway Road to Siempre Viva Road)**

PROJECT: OM T-21.3

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO BRITANNIA BLVD. TO A SIX-LANE MAJOR ROAD WITH INTERSECTION TURN LANES FROM AIRWAY ROAD TO SIEMPRE VIVA ROAD. IMPROVEMENTS WILL INCLUDE PAVEMENT, SIDEWALK, CURB AND GUTTER, STREET LIGHTING AND UTILITY RELOCATION. THIS ROAD SEGMENT IS APPROXIMATELY 2,800 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $1,892,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2020

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BRITANNIA BOULEVARD (Siempre Viva Road to Britannia Court)**

PROJECT: OM T-21.4

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$6,400,000**							
OTHER								
TOTAL	**$6,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD			$6,400,000					
OTHER								
TOTAL	$0	$0	$6,400,000	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BRITANNIA BOULEVARD (Siempre Viva Road to Britannia Court)**

		PROJECT:	**OM T-21.4**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WILL IMPROVE THE EXISTING ROAD TO A FOUR- LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. IMPROVEMENTS INCLUDE PAVEMENT, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STREET LIGHTING AND RELOCATION OF UTILITIES. THIS ROAD SEGMENT IS APPROXIMATELY 2,000 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHBOUND TRUCK ROUTE**

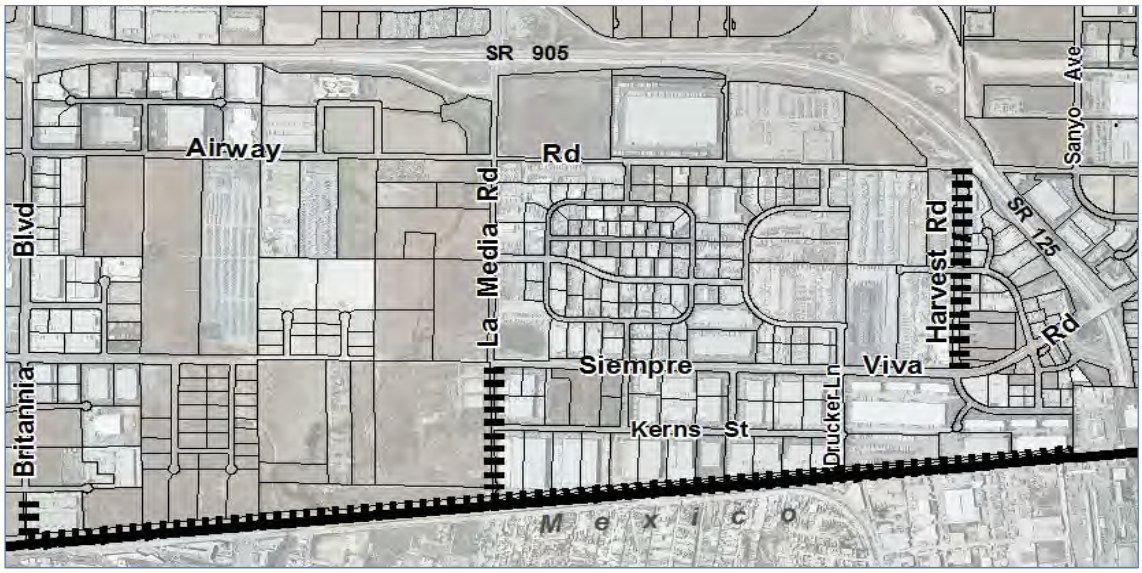
PROJECT: **OM T-22**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: 526821/526822

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)	**$1,205,000**	$1,205,000						
PDIF (w)								
PDIF (e)	**$200,000**	$200,000						
DEV/SUBD								
OTHER	**$20,437,856**		$6,187,856	$2,400,000	$11,850,000			
TOTAL	**$21,842,856**	$1,405,000	$6,187,856	$2,400,000	$11,850,000	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHBOUND TRUCK ROUTE**

		PROJECT:	**OM T-22**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	526821/526822	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF THE FOLLOWING IMPROVEMENTS: THE SOUTHBOUND TRUCK ROUTE IS DIVIDED INTO FOUR DISTINCT PHASES: PHASE I: 5,200 FEET OF 24' WIDE ASPHALT AND CONCRETE EXTENDING LA MEDIA SOUTH THEN EAST ALONG THE BORDER FENCE TO DRUCKER LANE. PHASE II: IMPROVE HARVEST ROAD FROM AIRWAY TO SIEMPRE VIVA FOR UNLADEN TRUCKS. PHASE III: WIDEN THE EXISTING TRUCK ROUTE ALONG THE BORDER FENCE DRUCKER LANE TO THE PORT OF ENTRY. PHASE IV: ADD ONE ADDITIONAL LANE TO THE EXISTING TRUCK ROUTE FROM LA MEDIA ROAD TO DRUCKER LANE AND CONSTRUCT NEW TWO LANE EXTENTION FROM BRITTANNIA BOULEVARD TO LA MEDIA ROAD.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

FEDERAL GRANT:	$3,767,856
FEDERAL GRANT:	$2,400,000 (SCHEDULED IN FY 2014)
TRANSNET:	$1,620,000
TRANSNET:	$2,500,000 (SCHEDULED IN FY 2015)
UNIDENTIFIED:	$10,150,000
	$20,437,856

NOTES:

SCHEDULE:

DESIGN FOR PHASE IV BEGAN IN FISCAL YEAR 2013 AND IS SCHEDULED TO BE COMPLETED IN FISCAL YEAR 2014. RIGHT-OF-WAY ACQUISITION IS SCHEDULED FOR FISCAL YEAR 2014. CONSTRUCTION IS ANTICIPATED TO BEGIN IN FISCAL YEAR 2015.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA CENTER ROAD (Otay Mesa Road to St. Andrews Avenue)**

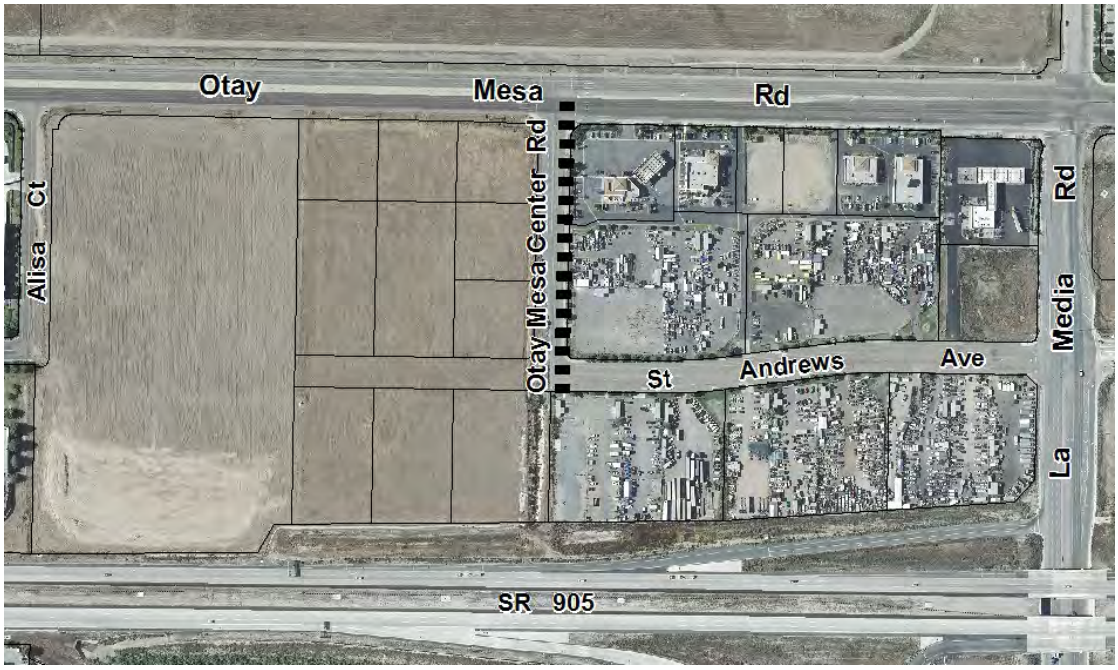
PROJECT: **OM T-23**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$1,125,000**							
OTHER								
TOTAL	**$1,125,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$1,125,000				
OTHER								
TOTAL	$0	$0	$0	$1,125,000	$0	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA CENTER ROAD (Otay Mesa Road to St. Andrews Avenue)**

		PROJECT:	**OM T-23**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT WEST SIDE OF ROADWAY TO FOUR LANE COLLECTOR WITH TWO WAY LEFT TURN LANE. PARTIAL IMPROVEMENTS (EAST SIDE) COMPLETED INCLUDING CURB, GUTTER, AND SIDEWALK. THIS ROAD SEGMENT IS APPROXIMATELY 760 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SAINT ANDREWS AVENUE (Otay Mesa Center Road to La Media Road)**

PROJECT: **OM T-24**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$500,000**							
OTHER								
TOTAL	**$500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$500,000				
OTHER								
TOTAL	$0	$0	$0	$500,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SAINT ANDREWS AVENUE (Otay Mesa Center Road to La Media Road)**

		PROJECT:	**OM T-24**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

RESTRIPE ROADWAY AND REMOVE PARKING TO PROVIDE FOUR-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. THIS ROAD SEGMENT IS APPROXIMATELY 1,400 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LA MEDIA ROAD (Lonestar Road to Otay Mesa Road)**

PROJECT: OM T-25.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$10,300,000**							
OTHER								
TOTAL	**$10,300,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD					$10,300,000			
OTHER								
TOTAL	$0	$0	$0	$0	$10,300,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LA MEDIA ROAD (Lonestar Road to Otay Mesa Road)**

		PROJECT:	**OM T-25.1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WILL CONSTRUCT AND IMPROVE EXISTING SEGMENTS OF LA MEDIA ROAD TO A FOUR-LANE MAJOR ROAD AND INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, STREET LIGHTING AND RELOCATION OF UTILITIES. LA MEDIA ROAD WILL BE REALIGNED TO INTERSECT LONE STAR AT THE FUTURE SOUTHBOUND OFF RAMP FROM SR 125. THIS ROAD SEGMENT IS APPROXIMATELY 3,400 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LA MEDIA ROAD (Otay Mesa Road to SR 905 Interchange)**

PROJECT: OM T-25.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM	**$1,872,000**							
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$528,000**							
TOTAL	**$2,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM				$1,872,000				
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$528,000				
TOTAL	$0	$0	$0	$2,400,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LA MEDIA ROAD (Otay Mesa Road to SR 905 Interchange)**

		PROJECT:	**OM T-25.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF WIDENING THE EXISTING ROAD TO A SIX-LANE PRIMARY ARTERIAL WITH INTERSECTION TURN LANES. IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 1,400 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:
UNIDENTIFIED: $528,000

NOTES:

SHOULD TRAFFIC CONDITIONS AT THE INTERCHANGE OF LA MEDIA ROAD AND SR-905 HINDER GOODS MOVEMENT TO THE DETRIMENT OF REGIONAL ECONOMIC GOALS, ADDITIONAL IMPROVEMENTS MAY BE NECESSARY ON THE SR 905 FREEWAY AND/OR AT THE FREEWAY INTERCHANGE. THESE IMPROVEMENTS MAY INCLUDE, BUT ARE NOT LIMITED TO, ADDITIONAL FREEWAY LANES, AUXILIARY LANES, ADDITIONAL EASTBOUND ON-RAMP, ADDITIONAL ON-RAMP LANES, AND ADDITIONAL INTERSECTION TURN LANES. SUCH IMPROVEMENTS WOULD HAVE TO BE DETERMINED WITH CLOSE COORDINATION WITH CALTRANS AND VETTED THROUGH THEIR PSR PROCESS.

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2022

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LA MEDIA ROAD (SR 905 Interchange to Airway Road)**

PROJECT: OM T-25.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$13,728,000**				$2,500,000	$3,050,000	$8,178,000	
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$3,872,000**						$3,872,000	
TOTAL	**$17,600,000**	$0	$0	$0	$2,500,000	$3,050,000	$12,050,000	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LA MEDIA ROAD (SR 905 Interchange to Airway Road)**

		PROJECT:	**OM T-25.3**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF WIDENING ROAD SEGMENTS, NOT YET FULLY IMPROVED, TO THE SIX-LANE PRIMARY ARTERIAL STANDARD WITH INTERSECTION TURN LANES. IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 800 LINEAL FEET. ESTIMATE INCLUDES THE INTERSECTION IMPROVEMENTS OF LA MEDIA ROAD AT AIRWAY ROAD; APPROXIMATELY 1,200 LINEAL FEET OF IMPROVEMENTS ON THE NORTH SIDE OF AIRWAY ROAD EAST OF LA MEDIA ROAD; AND APPROXIMATELY 800LF OF IMPROVEMENTS ON AIRWAY ROAD WEST OF LA MEDIA ROAD INCLUDING THE COST TO ADDRESS THE DRAINAGE ISSUE ON AIRWAY ROAD WEST OF LA MEDIA ROAD.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $3,872,000

NOTES:

SHOULD TRAFFIC CONDITIONS AT THE INTERCHANGE OF LA MEDIA ROAD AND SR-905 HINDER GOODS MOVEMENT TO THE DETRIMENT OF REGIONAL ECONOMIC GOALS, ADDITIONAL IMPROVEMENTS MAY BE NECESSARY ON THE SR 905 FREEWAY AND/OR AT THE FREEWAY INTERCHANGE. THESE IMPROVEMENTS MAY INCLUDE, BUT ARE NOT LIMITED TO, ADDITIONAL FREEWAY LANES, AUXILIARY LANES, ADDITIONAL EASTBOUND ON-RAMP, ADDITIONAL ON-RAMP LANES, AND ADDITIONAL INTERSECTION TURN LANES. SUCH IMPROVEMENTS WOULD HAVE TO BE DETERMINED WITH CLOSE COORDINATION WITH CALTRANS AND VETTED THROUGH THEIR PSR PROCESS.

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2015-17

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LA MEDIA ROAD (Airway Road to Siempre Viva Road)**

PROJECT: OM T-25.4

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$3,459,310**					$540,000	$2,919,310	
DIF-OM	**$3,310,000**				$3,310,000			
FBA-OM(w)								
FBA-OM(e)	**$5,193,690**			$5,193,690				
PDIF (w)								
PDIF (e)	**$1,063,000**			$1,063,000				
DEV/SUBD								
OTHER	**$2,574,000**			$2,574,000				
TOTAL	**$15,600,000**	$0	$0	$8,830,690	$3,310,000	$540,000	$2,919,310	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LA MEDIA ROAD (Airway Road to Siempre Viva Road)**

		PROJECT:	**OM T-25.4**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF WIDENING THE EXISTING ROAD TO A FIVE-LANE MAJOR ROAD WITH INTERSECTION TURN LANES. IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 2,700 FEET. ESTIMATE INCLUDES THE INTERSECTION IMPROVEMENTS OF LA MEDIA ROAD AT SIEMPRE VIVA ROAD.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $2,574,000

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2014-17

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LONE STAR ROAD (Ramps for Southbound SR 125 and Northbound SR 125 at La Media)**

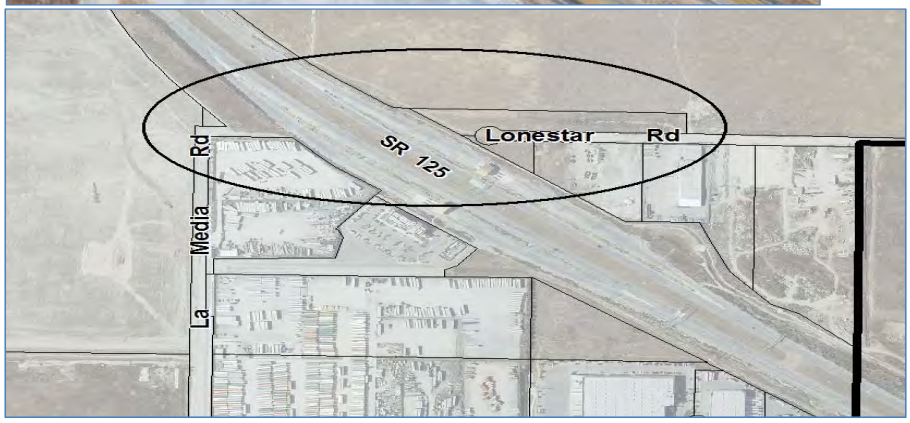
PROJECT: OM T-26.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$3,538,080**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$9,061,920**							
TOTAL	**$12,600,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM				$3,538,080				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER				$9,061,920				
TOTAL	$0	$0	$0	$12,600,000	$0	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LONE STAR ROAD (Ramps for Southbound SR 125 and Northbound SR 125 at La Media)**

		PROJECT:	**OM T-26.1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF A SOUTHBOUND RAMP FROM SR 125 SOUTH TO LONE STAR ROAD. THIS IMPROVEMENT WILL CONSIST OF A TWO-LANE ROAD WITH CURB FOR APPROXIMATELY 2,200 FEET AND THEN EXPAND TO A 4 – LAND ROAD WITH CURB FOR 400 FEET. A NORTHBOUND RAMP FROM LONE STAR ROAD TO THE SR 125 NORTH WILL BE A TWO-LANE ROAD APPROXIMATELY 3,400 LINEAR FEET. IMPROVEMENTS WILL INCLUDE LANDSCAPING AND STREET LIGHTING.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED:	$2,772,000
OTHERS:	$6,289,920

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2037

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LONE STAR ROAD (Overpass)**

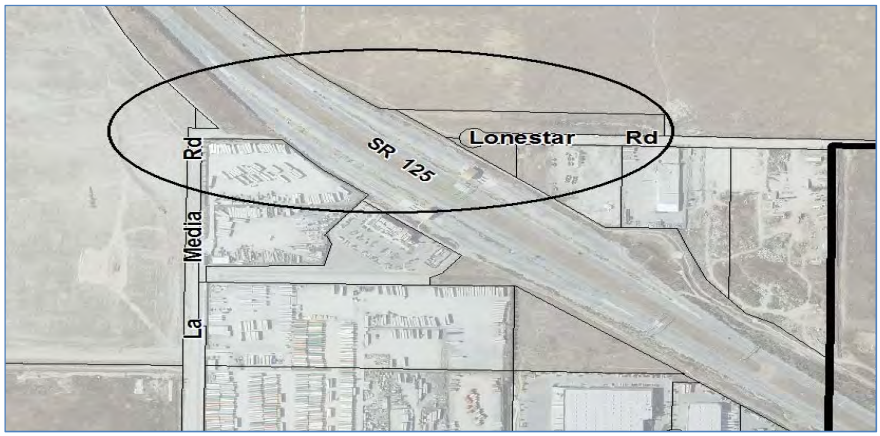
PROJECT: OM T-26.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$11,905,920**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$30,494,080**							
TOTAL	**$42,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM				$1,455,000	$10,450,920			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$30,494,080			
TOTAL	$0	$0	$0	$1,455,000	$40,945,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LONE STAR ROAD (Overpass)**

PROJECT: OM T-26.2

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF A SIX-LANE OVERPASS BETWEEN LA MEDIA ROAD/SR 125 SOUTHBOUND OFFRAMP AND THE FUTURE SR 125 NORTHBOUND ONRAMP AND INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE AN APPROXIMATE 400 FEET APPROACH ROAD, AN APPROXIMATE 800 FOOT OVERPASS WITH A CENTER MEDIAN, PEDESTRIAN AND BIKE ACCESS ACROSS THE OVERPASS, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 1,200 FEET.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED:	$9,328,000
OTHERS:	$21,166,080
	$30,494,080

NOTES:

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION IS ANTICIPATED IN FY 2037 AND FY 2038.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LONE STAR ROAD (Overpass to Harvest Road)**

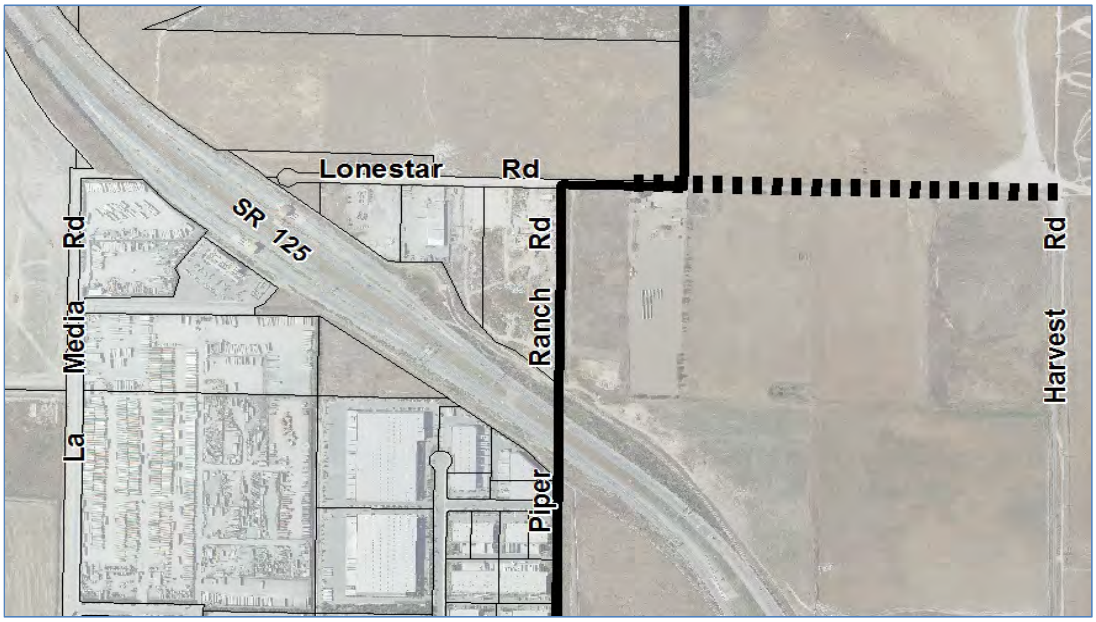
PROJECT: OM T-26.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$14,200,000**							
TOTAL	**$14,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$14,200,000			
TOTAL	$0	$0	$0	$0	$14,200,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LONE STAR ROAD (Overpass to Harvest Road)**

		PROJECT:	**OM T-26.3**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF A SIX-LANE PRIMARY ARTERIAL ROAD AND INTERSECTION TURN LANES. IMPROVEMENTS INCLUDE PAVEMENT, CONCRETE MEDIANS, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES AND STREET LIGHTING. AN APPROXIMATE 400 FOOT APPROACH ROAD TO THE OVERPASS AND APPROXIMATELY 400 FEET EAST OF PIPER RANCH ROAD ARE INCLUDED IN THIS PROJECT. THIS ROAD SEGMENT IS APPROXIMATELY 2,400 FEET.

JUSTIFICATION:

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED FUNDING SOURCES: $14,200,000

NOTES:

SCHEDULE:

SCHEDULING OF THIS PROJECT IS CONTINGENT UPON TIMING OF THE FUNDING FROM OTHER JURISDICTIONS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PIPER RANCH ROAD (Lone Star to SR 125 Overpass)**

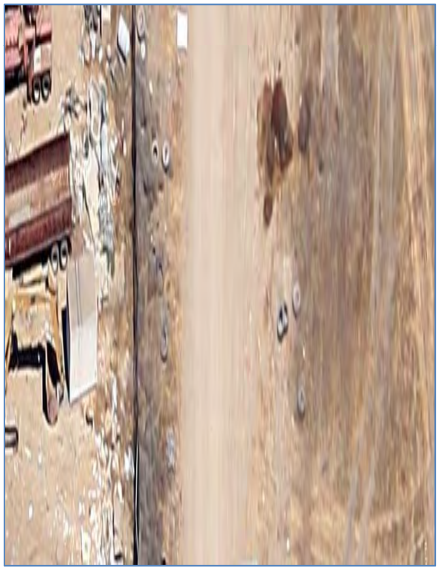
PROJECT: OM T-27.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$9,800,000**							
TOTAL	**$9,800,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$9,800,000			
TOTAL	$0	$0	$0	$0	$9,800,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PIPER RANCH ROAD (Lone Star to SR 125 Overpass)**

		PROJECT:	**OM T-27.1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WILL CONSTRUCT A FOUR-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. IMPROVEMENTS INCLUDE PAVEMENT, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES AND STREET LIGHTING. APPROXIMATELY 1,000 WILL BE A SURFACE ROAD AND REMAINING 400 FEET WILL BE THE APPROACH ROAD TO THE OVERPASS . THE ROAD SEGMENT IS APPROXIMATELY 1,400 FEET.

JUSTIFICATION:

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED FUNDING SOURCES: $9,800,000

NOTES:

SCHEDULE:

SCHEDULING OF THIS PROJECT IS CONTINGENT UPON TIMING OF THE FUNDING FROM OTHER JURISDICTIONS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PIPER RANCH ROAD (SR 125 Overpass)**

PROJECT: OM T-27.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$29,500,000**							
TOTAL	**$29,500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$29,500,000			
TOTAL	$0	$0	$0	$0	$29,500,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PIPER RANCH ROAD (SR 125 Overpass)**

PROJECT: OM T-27.2

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WILL CONSTRUCT A NEW 4 – LANE OVERPASS. IMPROVEMENTS WILL INCLUDE SIDEWALK, CURB AND GUTTER, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 600 FEET.

JUSTIFICATION:

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED FUNDING SOURCES: $29,500,000

NOTES:

SCHEDULE:

SCHEDULING OF THIS PROJECT IS CONTINGENT UPON TIMING OF THE FUNDING FROM OTHER JURISDICTIONS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PIPER RANCH ROAD (SR 125 Overpass to Otay Mesa Road)**

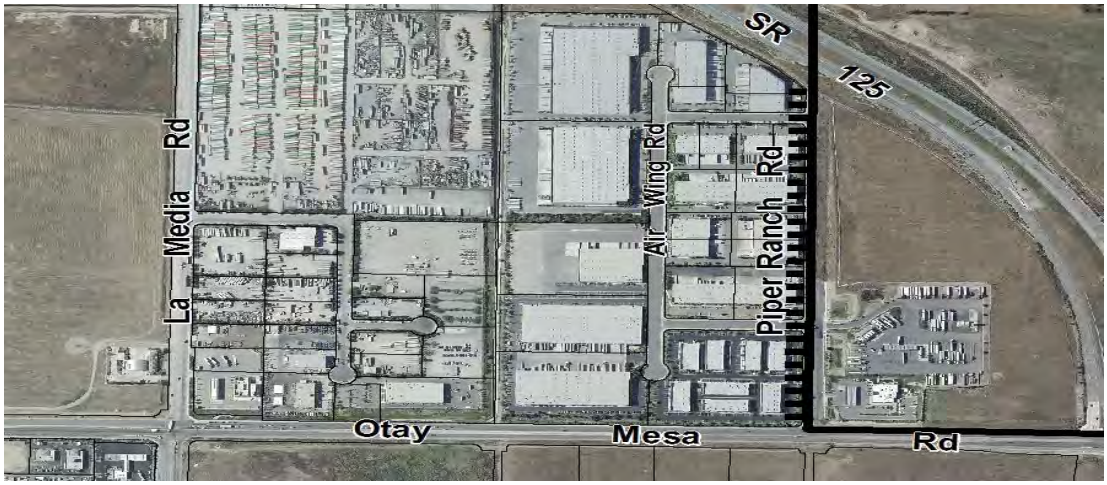
PROJECT: OM T-27.3

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$10,600,000**							
TOTAL	**$10,600,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER					$10,600,000			
TOTAL	$0	$0	$0	$0	$10,600,000	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PIPER RANCH ROAD (SR 125 Overpass to Otay Mesa Road)**

		PROJECT:	**OM T-27.3**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WILL IMPROVE PIPER RANCH ROAD TO A FOUR-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE, INCLUDING THE APPROACH ROAD TO THE OVERPASS. IMPROVEMENTS WILL INCLUDE PAVEMENT, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES, AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 2,200 FEET.

JUSTIFICATION:

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED FUNDING SOURCES: $10,600,000

NOTES:

SCHEDULE:

SCHEDULING OF THIS PROJECT IS CONTINGENT UPON TIMING OF THE FUNDING FROM OTHER JURISDICTIONS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AVENIDA COSTA AZUL (Otay Mesa Road to SR 905)**

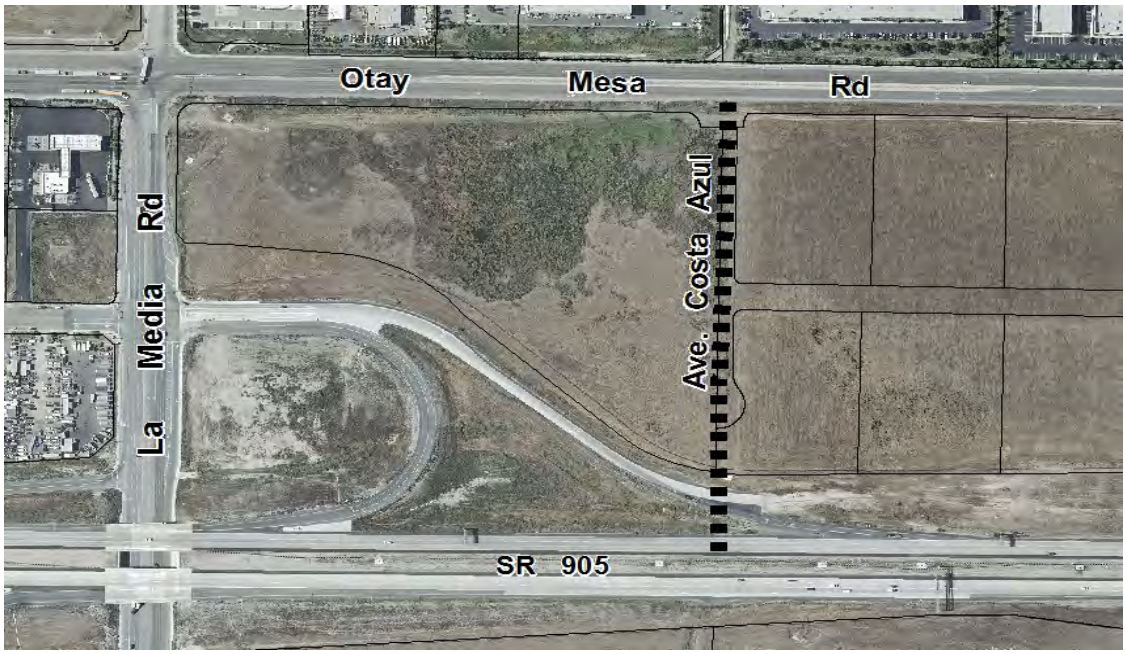
PROJECT: **OM T-28**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$5,350,000**							
OTHER								
TOTAL	**$5,350,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD						$5,350,000		
OTHER								
TOTAL	$0	$0	$0	$0	$0	$5,350,000	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **AVENIDA COSTA AZUL (Otay Mesa Road to SR 905)**

		PROJECT:	**OM T-28**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT AS FOUR LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. THE LENGTH OF THIS SEGMENT IS 1,500 LINEAL FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HARVEST ROAD (Airway Road to Otay Center Drive)**

PROJECT: OM T-29.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$1,300,000**							
OTHER								
TOTAL	**$1,300,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$1,300,000				
OTHER								
TOTAL	$0	$0	$0	$1,300,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HARVEST ROAD (Airway Road to Otay Center Drive)**

		PROJECT:	**OM T-29.1**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WILL WIDEN THE EXISTING ROAD TO A FOUR-LANE COLLECTOR WITH TWO WAY LEFT TURN LANE. IMPROVEMENTS WILL INCLUDE PAVEMENT, SIDEWALK, CURB AND GUTTER, LANDSCAPING, STORM DRAIN FACILITIES AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 1,200 FEET. ESTIMATE DOES NOT INCLUDE THE INTERSECTION IMPROVEMENTS OF HARVEST ROAD AT AIRWAY ROAD.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HARVEST ROAD (Otay Center Drive to Siempre Viva)**

PROJECT: OM T-29.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$4,800,000**							
OTHER								
TOTAL	**$4,800,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$4,800,000				
OTHER								
TOTAL	$0	$0	$0	$4,800,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HARVEST ROAD (Otay Center Drive to Siempre Viva)**

		PROJECT:	**OM T-29.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WILL PROVIDE A FOUR-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE AND INTERSECTION TURN LANES. APPROXIMATELY 500 FEET OF HARVEST ROAD WILL BE IMPROVED ON THE WEST SIDE AND THE REMAINING 700 FEET WILL REQUIRE FULL CONSTRUCTION. IMPROVEMENTS INCLUDE REMOVAL OF EXCAVATION SPOILS, EXISTING UTILITY RELOCATION, PAVEMENT, CURB AND GUTTER, SIDEWALK, LANDSCAPING AND STREET LIGHTING. THIS ROAD SEGMENT IS APPROXIMATELY 1,200 FEET. THE COST ESTIAMTE DOES NOT INCLUDE THE INTERSECTION IMPROVEMENTS OF HARVEST ROAD AT SIEMPRE VIVA ROAD.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY CENTER DRIVE (Harvest Road to Siempre Viva Road)**

PROJECT: **OM T-30**
DEPARTMENT: PUBLIC WORKS
COUNCIL DISTRICT: 8
WBS, CIP, or JO #: N/A
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$650,000**							
OTHER								
TOTAL	**$650,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD				$650,000				
OTHER								
TOTAL	$0	$0	$0	$650,000	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY CENTER DRIVE (Harvest Road to Siempre Viva Road)**

		PROJECT:	**OM T-30**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

RESTRIPE ROADWAY AND REMOVE PARKING TO PROVIDE FOUR-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. THE LENGTH OF THIS SEGMENT IS 1,800 LINEAL FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SANYO/HEINRICH HERTZ DRIVE (Otay Mesa Road to Airway Road)**

PROJECT: OM T-31.1

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$8,500,000**							
OTHER								
TOTAL	**$8,500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD			$8,500,000					
OTHER								
TOTAL	$0	$0	$8,500,000	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SANYO/HEINRICH HERTZ DRIVE (Otay Mesa Road to Airway Road)**

PROJECT: OM T-31.1

DEPARTMENT: PUBLIC WORKS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT WILL IMPROVE SANYO AVENUE FROM OTAY MESA ROAD TO AIRWAY ROAD TO A FOUR-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE AND INTERSECTION TURN LANES. IMPROVEMENTS WILL INCLUDE PAVEMENT, CURB AND GUTTER, SIDEWALK, UTILITY RELOCATION, STREET LIGHTING, LANDSCAPING, STORM DRAIN FACILITIES, AND INLETS. THIS ROAD SEGMENT IS APPROXIMATELY 2,900 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SANYO/HEINRICH HERTZ DRIVE (Airway Road to Paseo de las Americas)**

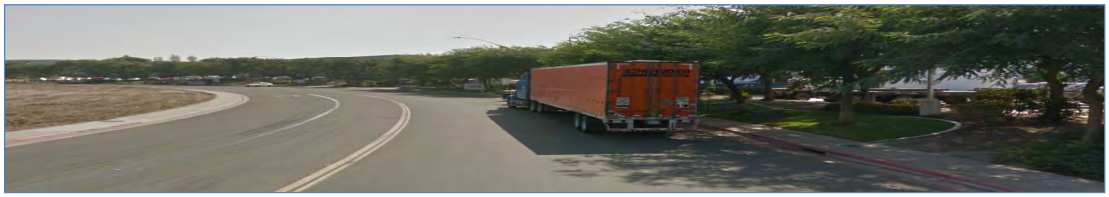
PROJECT: OM T-31.2

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$83,000**							
OTHER								
TOTAL	**$83,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD			$83,000					
OTHER								
TOTAL	$0	$0	$83,000	$0	$0	$0	$0	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SANYO/HEINRICH HERTZ DRIVE (Airway Road to Paseo de las Americas)**

		PROJECT:	**OM T-31.2**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WILL IMPROVE HEINRICH HERTZ DRIVE FROM AIRWAY ROAD TO PASEO DE LA AMERICAS TO A TWO-LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE AND INTERSECTION TURN LANES. RESTRIPING IMPROVEMENTS WILL BE PROVIDED. THIS ROAD SEGMENT IS APPROXIMATELY 1,900 FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PASEO DE LAS AMERICAS (Airway Road to Heinrich Hertz Drive)**

PROJECT: **OM T-32**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$1,775,000**							
OTHER								
TOTAL	**$1,775,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD					$1,775,000			
OTHER								
TOTAL	$0	$0	$0	$0	$1,775,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PASEO DE LAS AMERICAS (Airway Road to Heinrich Hertz Drive)**

		PROJECT:	**OM T-32**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

RESTRIPE AND WIDEN WHERE NEEDED TO PROVIDE FOUR LANE COLLECTOR WITH TWO WAY LEFT TURN LANE. THE LENGTH OF THIS SEGMENT IS 600 LINEAL FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **MICHAEL FARADAY (Siempre Viva Road to Marconi Drive)**

PROJECT: **OM T-33**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$350,000**							
OTHER								
TOTAL	**$350,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD					$350,000			
OTHER								
TOTAL	$0	$0	$0	$0	$350,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **MICHAEL FARADAY (Siempre Viva Road to Marconi Drive)**

		PROJECT:	**OM T-33**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

RESTRIPE AND REMOVE PARKING TO PROVIDE TWO LANE COLLECTOR WITH TWO WAY LEFT TURN LANE. THE LENGTH OF THIS SEGMENT IS 960 LINEAL FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **MARCONI DRIVE (Peseo de las Americas to Enrico Fermi Drive)**

PROJECT: **OM T-34**
DEPARTMENT: PUBLIC WORKS
COUNCIL DISTRICT: 8
WBS, CIP, or JO #: N/A
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$975,000**							
OTHER								
TOTAL	**$975,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD					$975,000			
OTHER								
TOTAL	$0	$0	$0	$0	$975,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **MARCONI DRIVE (Peseo de las Americas to Enrico Fermi Drive)**

		PROJECT:	**OM T-34**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

RESTRIPE AND REMOVE PARKING TO PROVIDE TWO LANE COLLECTOR WITH TWO-WAY LEFT TURN LANE. THE LENGTH OF THIS SEGMENT IS 2,700 LINEAL FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **TRAFFIC SIGNALS (53 locations)**

PROJECT: **OM T-35**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$9,427,080**					$533,607		
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)	**$88,773**	$88,773						
DEV/SUBD	**$5,830,000**							
OTHER	**$2,658,920**					$147,393		
TOTAL	**$18,004,773**	$88,773	$0	$0	$0	$681,000	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026-63
FBA-OM		$300,000	$433,607		$430,607	$336,607	$800,607	$6,592,045
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD		$200,000	$380,000	$400,000	$120,000	$200,000	$420,000	$4,110,000
OTHER		$147,393	$147,393		$147,393		$147,393	$1,921,955
TOTAL	$0	$647,393	$961,000	$400,000	$698,000	$536,607	$1,368,000	$12,624,000

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **TRAFFIC SIGNALS (53 locations)**

		PROJECT:	**OM T-35**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF NEW TRAFFIC SIGNALS OR REVISIONS TO THE EXISTING INTERSECTION SIGNALING AT LOCATIONS COMMUNITY-WIDE. THE INTERSECTIONS INVOLVED WILL EXTEND FROM CALIENTE TO THE CITY OF SAN DIEGO CITY LIMIT.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $2,658,920

NOTES:

SCHEDULE:

SCHEDULED TO BE COMPLETED AS THE COMMUNITY DEVELOPS

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **TRAFFIC SIGNALS (53 locations)**

		PROJECT:	**OM T-35**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

POTENTIAL LOCATIONS INCLUDE BUT ARE NOT LIMITED TO

1) OTAY MESA ROAD AND CALIENTE AVENUE
2) OTAY MESA ROAD AND INNOVATIVE DRIVE
3) OTAY MESA ROAD AND CORPORATE CENTER DRIVE
4) OTAY MESA ROAD AND HERITAGE ROAD (Prealignment)
5) OTAY MESA ROAD AND CACTUS ROAD
6) OTAY MESA ROAD AND BRITANNIA ROAD
7) OTAY MESA ROAD AND GAILES BOULEVARD
8) OTAY MESA ROAD AND ST. ANDREWS
9) OTAY MESA ROAD AND OTAY MESA CENTER ROAD
10) OTAY MESA ROAD AND LA MEDIA ROAD
11) OTAY MESA ROAD AND PIPER RANCH ROAD
12) OTAY MESA ROAD AND HARVEST ROAD
13) OTAY MESA ROAD AND SANYO ROAD
14) AIRWAY ROAD AND CALIENTE AVENUE
15) AIRWAY ROAD AND HERITAGE ROAD
16) AIRWAY ROAD AND CACTUS ROAD
17) AIRWAY ROAD AND BRITANNIA BOULEVARD
18) AIRWAY ROAD AND LA MEDIA ROAD
19) AIRWAY ROAD AND AVENIDA COSTA AZUL
20) AIRWAY ROAD AND AVENIDA DE LA FUENTES N
21) AIRWAY ROAD AND HARVEST ROAD
22) AIRWAY ROAD AND SANYO ROAD
23) AIRWAY ROAD AND PASEO DE LAS AMERICAS
24) AIRWAY ROAD AND MICHAEL FARADAY DRIVE
25) AIRWAY ROAD AND ENRICO FERMI DRIVE
26) SIEMPRE VIVA ROAD AND CACTUS ROAD
27) SIEMPRE VIVA ROAD AND BRITANNIA BOULEVARD
28) SIEMPRE VIVA ROAD AND OTAY PACIFIC

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **TRAFFIC SIGNALS (53 locations)**

		PROJECT:	**OM T-35**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

29) SIEMPRE VIVA ROAD AND LA MEDIA ROAD
30) SIEMPRE VIVA ROAD AND AVENDIA COSTA BLVD.
31) SIEMPRE VIVA ROAD AND AVENDIA DE LA FUENTES S
32) SIEMPRE VIVA ROAD AND HARVEST ROAD
33) SIEMPRE VIVA ROAD AND OTAY CENTER DRIVE
34) SIEMPRE VIVA ROAD AND PAESO DE LAS AMERICAS
35) HEINRICH HERTZ DRIVE & PASEO DEL LAS AMERICAS
36) LONE STAR ROAD AND HARVEST ROAD
37) PIPER RANCH ROAD AND LONE STAR ROAD
38) RAMPS FOR SR 125 AND LA MEDIA ROAD
39) OTAY VALLEY ROAD/HERITAGE ROAD AND MAIN ST.
40) OTAY VALLEY ROAD/HERITAGE & ENTERTAINMENT CIRCLE S (CHULA VISTA)
41) OTAY VALLEY ROAD/HERITAGE & ENTERTAINMENT CIRCLE N (CHULA VISTA)
42) OTAY VALLEY ROAD/HERITAGE & AVENIDA DE LAS VISTAS (CHULA VISTA)
43) OTAY VALLEY ROAD/HERITAGE AND DATSUN ST.
44) OTAY VALLEY ROAD/HERITAGE AND OTAY MESA ROAD (POST ALIGNMENT)
45) CALIENTE AVENUE AND BEYER BOULEVARD
46) CALIENTE AVENUE AND SIEMPRE VIVA ROAD
47) OCEAN VIEW BOULEVARD AND STREET "A"
48) OTAY MESA ROAD AND STREET "A"
49) AIRWAY, OLD OTAY MESA ROAD AND STREET "A"
50) DATSUN STREET AND INNOVATIVE DRIVE
51) AVIATOR ROAD AND HERITAGE ROAD
52) AVIATOR ROAD AND LA MEDIA ROAD
53) RAMP SIGNALS AT SR 905

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: 0

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SR-125/SR-905 CONNECTORS**

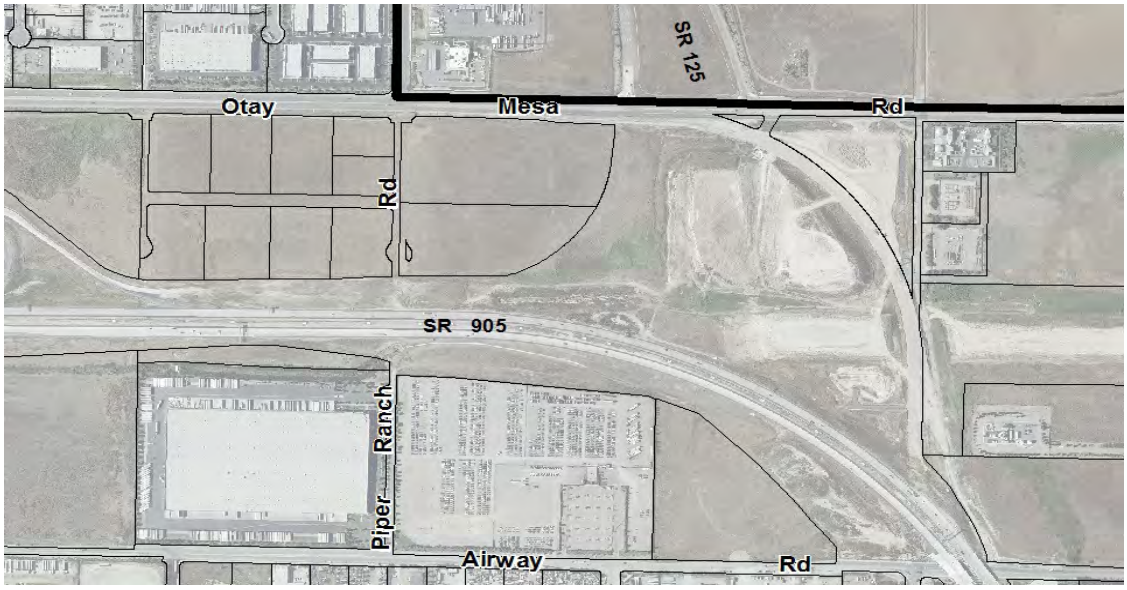
PROJECT: **OM T-36**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$83,300,000**							
TOTAL	**$83,300,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER							$83,300,000	
TOTAL	$0	$0	$0	$0	$0	$0	$83,300,000	$0



CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SR-125/SR-905 CONNECTORS**

		PROJECT:	**OM T-36**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDES FOR ACQUISITION OF RIGHT OF WAY NEEDED FOR THE CONSTRUCTION OF SR-125/SR-905 FREEWAY CONNECTORS. THE PROJECT ALSO PROVIDES FOR DESIGN AND CONSTRUCTION OF SR-125/SR-905 FREEWAY CONNECTORS. LANDSCAPING IS NOT INCLUDED IN THE ESTIMATE.

JUSTIFICATION:

FUNDING ISSUES:

OTHER FUNDING SOURCES:
CALTRANS: $83,300,000

NOTES:

SCHEDULE:

SCHEDULING OF THIS PROJECT IS CONTINGENT UPON TIMING OF THE FUNDING FROM CALTRANS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **EMERALD CREST COURT; and INNOVATIVE DRIVE**

PROJECT: **OM T-37**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$3,925,000**							
OTHER								
TOTAL	**$3,925,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD			$2,500,000		$1,425,000			
OTHER								
TOTAL	$0	$0	$2,500,000	$0	$1,425,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **EMERALD CREST COURT; and INNOVATIVE DRIVE**

		PROJECT:	**OM T-37**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT EMERALD CREST DRIVE FROM OTAY MESA ROAD TO SR-905 AS A FOUR-LANE COLLECTOR WITH A TWO-WAY LEFT TURN LANE. THE LENGTH OF THE ROADWAY IS APPROXIMATELY 700 LINEAL FEET;

AND

CONSTRUCT INNOVATIVE DRIVE FROM OTAY MESA ROAD TO SR-905 AS A TWO-LANE COLLECTOR WITH A TWO-WAY LEFT TURN LANE. THE LENGTH OF THIS ROADWAY IS APPOXIMATELY 700 LENEAL FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

EMERALD CREST DRIVE COST: $2,500,000
INNOVATIVE DRIVE COST: $1,425,000

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **ALISA COURT; and HARVEST ROAD (South of Otay Mesa Road)**

PROJECT: **OM T-38**

DEPARTMENT: PUBLIC WORKS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$2,750,000**							
OTHER								
TOTAL	**$2,750,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD			$700,000		$2,050,000			
OTHER								
TOTAL	$0	$0	$700,000	$0	$2,050,000	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **ALISA COURT; and HARVEST ROAD (South of Otay Mesa Road)**

		PROJECT:	**OM T-38**
DEPARTMENT:	PUBLIC WORKS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT THE EAST SIDE OF ALISA COURT FROM OTAY MESA ROAD TO SAINT ANDREWS AVENUE AS A TWO-LANE COLLECTOR. THE LENGTH OF THE ROADWAY IS APPROXIMATELY 700 LINEAL FEET;

AND

CONSTRUCT HARVEST ROAD SOUTH OF OTAY MESA ROAD AS A TWO-LANE COLLECTOR WITH A TWO-WAY LEFT TURN LANE. THE LENGTH OF THIS ROADWAY IS APPOXIMATELY 1,000 LENEAL FEET.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

ALISA COURT COST: $700,000
HARVEST ROAD COST: $2,050,000

SCHEDULE:

SCHEDULING OF THIS SUBDIVIDER FUNDED PROJECT IS CONTINGENT UPON TIMING OF THE DEVELOPMENT PROJECT WHICH IS CONDITIONED TO PROVIDE THE IDENTIFIED IMPROVEMENTS.

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

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Park and Recreation Projects

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DENNERY RANCH NEIGHBORHOOD PARK**

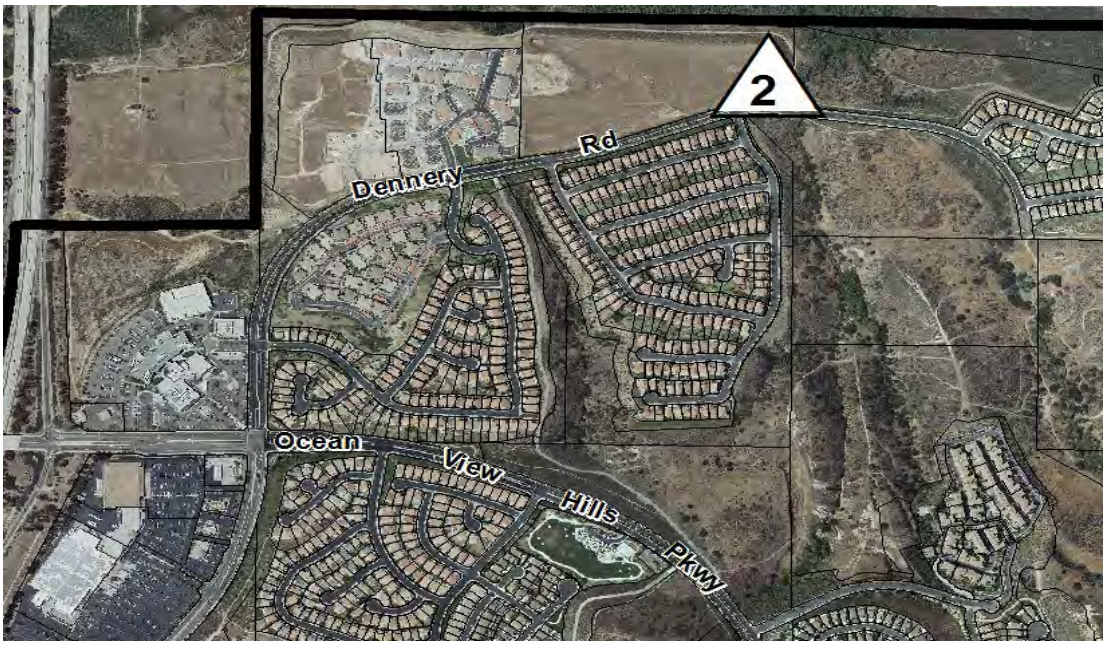
PROJECT: **OM P-2**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 29-408.0/S-00636

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$8,098,097**					$1,980,000	$1,025,294	$5,092,803
DIF-OM								
FBA-OM(w)	**$1,904**	$1,904						
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$8,100,000**	$1,904	$0	$0	$0	$1,980,000	$1,025,294	$5,092,803

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **DENNERY RANCH NEIGHBORHOOD PARK**

		PROJECT:	**OM P-2**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	29-408.0/S-00636	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 9 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK LOCATED WITHIN THE DENNERY RANCH PRECISE PLAN AREA.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

ACQUISITION, DESIGN AND CONSTRUCTION ANTICIPATED FY 2016 - FY 2018

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PACIFIC BREEZES COMMUNITY PARK**

PROJECT: **OM P-4.1**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 29-541.0/S-00649

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$5,516,028**					$5,516,028		
DIF-OM								
FBA-OM(w)	**$10,933,972**	$4,858,564	$6,075,408					
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$16,450,000**	$4,858,564	$6,075,408	$0	$0	$5,516,028	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PACIFIC BREEZES COMMUNITY PARK**

		PROJECT:	**OM P-4.1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	29-541.0/S-00649	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDED FOR ACQUISITION AND DESIGN AND WOULD PROVIDE FOR CONSTRUCTION OF A 15 ACRE (USEABLE ACRES) COMMUNITY PARK LOCATED NORTH OF SR-905 WITHIN THE CALIFORNIA TERRACES PRECISE PLAN ADJACENT TO A MIDDLE SCHOOL, INCLUDING PLAY AREAS, TENNIS COURTS, PICNIC FACILITIES, ATHLETIC FACILITIES, A 17,000 SQUARE FOOT RECREATION BUILDING (PROJECT OM P-4.2), COMFORT STATION, AND A COMMUNITY SWIMMING POOL (PROJECT OM P-4.2). A FIVE ACRE JOINT USE FACILITY WOULD BE PROVIDED ADJACENT TO THE PARK SITE FOR A TOTAL OF 20 ACRES FOR RECREATIONAL USE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SEE COMPANION PROJECT: OM P-4.2

SCHEDULE:

LAND ACQUISITION AND DESIGN ARE COMPLETED. CONSTRUCTION IS ANTICIPATED IN FY 2016

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PACIFIC BREEZES COMMUNITY PARK - RECREATION CENTER & SWIMMING POOL**

PROJECT: OM P-4.2

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 29-542.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$8,850,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$3,050,000**							
TOTAL	**$11,900,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM	$6,900,000		$1,950,000					
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER			$3,050,000					
TOTAL	$6,900,000	$0	$5,000,000	$0	$0	$0	$0	$0

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **PACIFIC BREEZES COMMUNITY PARK - RECREATION CENTER & SWIMMING POOL**

		PROJECT:	**OM P-4.2**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	29-542.0	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF A 17,000 SQUARE FOOT RECREATION BUILDING AT PACIFIC BREEZES COMMUNITY PARK;

AND

PROVIDE FOR THE DESIGN AND CONSTRUCTION OF A COMMUNITY SWIMMING POOL WITHIN THE PACIFIC BREEZES COMMUNITY PARK.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

SINCE 39% OF THE POPULATION SERVED WOULD BE FROM THE OTAY MESA COMMUNITY, FBA FROM THAT COMMUNITY WILL PROVIDE 39% OF THE TOTAL COST OF THE SWIMMING POOL. THE OTHER ADJACENT COMMUNITIES OF SAN YSIDRO AND OTAY MESA-NESTOR WILL CONTRIBUTE THEIR FAIR SHARE TO THE BALANCE OF THE POOL COSTS.

NOTES:

SEE COMPANION PROJECT: OM P-4.1

SCHEDULE:

DESIGN AND CONSTRUCTION ARE ANTICIPATED IN FY 2019 AND FY 2021

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **RIVIERA DEL SOL NEIGHBORHOOD PARK**

PROJECT: **OM P-5**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 29-651.0/S-00999

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$2,850,000**				$1,650,000	$1,200,000		
DIF-OM								
FBA-OM(w)	**$3,550,000**	$1,649,372	$1,900,628					
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,400,000**	$1,649,372	$1,900,628	$0	$1,650,000	$1,200,000	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **RIVIERA DEL SOL NEIGHBORHOOD PARK**

		PROJECT:	**OM P-5**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	29-651.0/S-00999	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDED FOR ACQUISITION AND WOULD PROVIDE FOR DEVELOPMENT OF A 4.9 ACRE (USABLE ACRES) NEIGHBORHOOD PARK AT A SITE LOCATED IN THE RIVERA DEL SOL SUBDIVISION.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SUBDIVIDER WILL ROUGH GRADE THE PARK SITE AND CONSTRUCT CONTIGUOUS STREET IMPROVEMENTS AND ASSOCIATED UTILITIES TO SERVE THE PARK PURSUANT TO A REIMBURSEMENT AGREEMENT DATED MAY 29, 2001. THIS SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE COMMUNITY.

SCHEDULE:

LAND ACQUISION IS COMPLETED. DESIGN AND CONSTRUCTION ARE ANTICIPATED IN FY 2014-2016

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HIDDEN TRAILS NEIGHBORHOOD PARK**

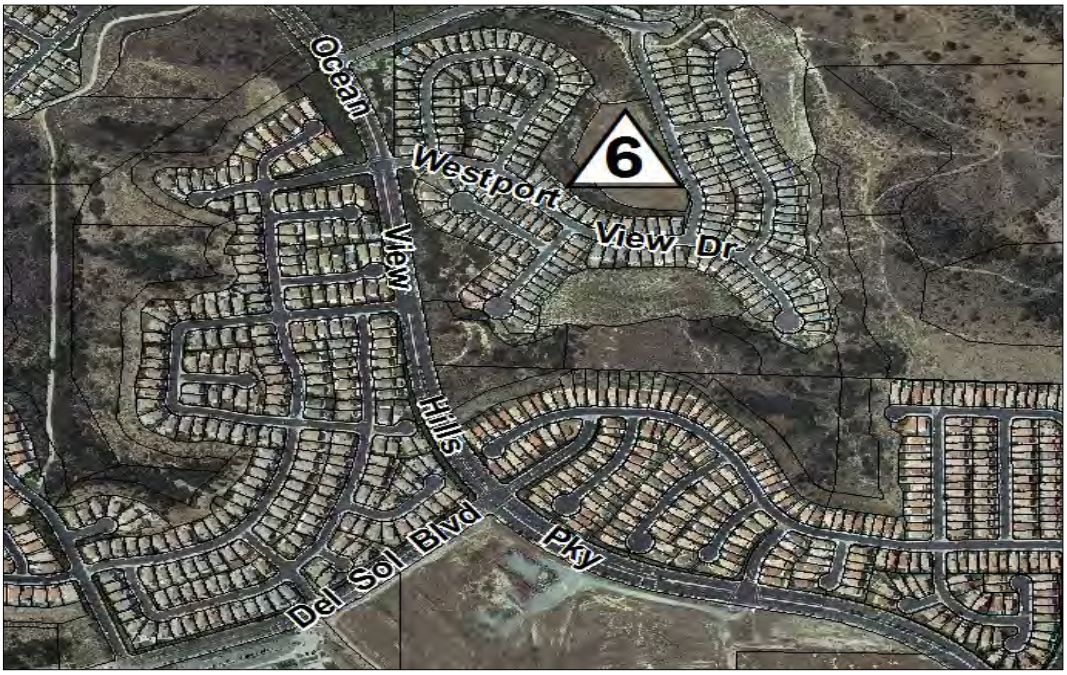
PROJECT: **OM P-6**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 29-535.0/S-00995

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$2,920,000**					$2,920,000		
DIF-OM								
FBA-OM(w)	**$2,420,000**	$1,097,177	$1,322,823					
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$5,340,000**	$1,097,177	$1,322,823	$0	$0	$2,920,000	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HIDDEN TRAILS NEIGHBORHOOD PARK**

		PROJECT:	**OM P-6**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	29-535.0/S-00995	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDED FOR ACQUISITION AND AND WOULD PROVIDE FOR DEVELOPMENT OF APPROXIMATELY A 3.7 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK LOCATED IN THE HIDDEN TRAILS SUBDIVISION.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

THIS SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF DEVELOPMENT WITHIN THE COMMUNITY.

SCHEDULE:

LAND ACQUISITION IS COMPLETED. DESGN AND CONSTRUCTION IS ANTICIPATED FY 2016

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BEYER COMMUNITY PARK**

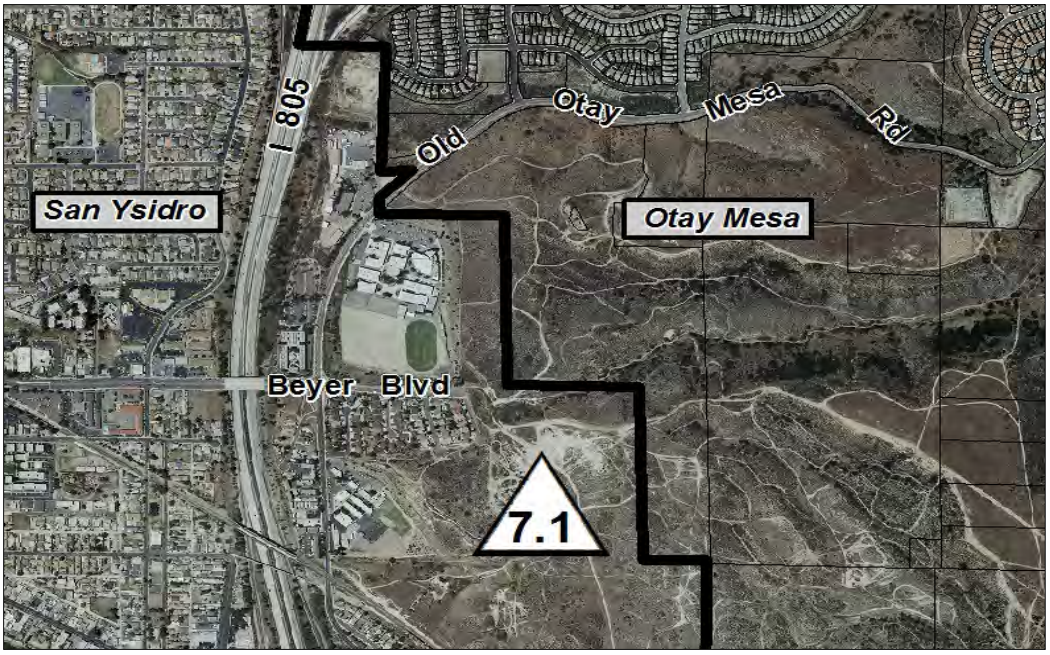
PROJECT: OM P-7.1

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 29-852.0/S-00752

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$8,704,000**							
DIF-OM								
FBA-OM(w)	**$212,000**	$183,741	$28,259					
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$2,972,000**							
TOTAL	**$11,888,000**	$183,741	$28,259	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM		$2,200,000	$6,504,000					
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER			$2,972,000					
TOTAL	$0	$2,200,000	$9,476,000	$0	$0	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BEYER COMMUNITY PARK**

		PROJECT:	**OM P-7.1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	29-852.0/S-00752	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION OF A 15 USABLE ACRE ADDITION TO THE 5 USEABLE ACRE BEYER NEIGHBORHOOD PARK SITE; AND WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF A 20 USABLE ACRE COMMUNITY PARK TO SERVE THE SOUTHWEST PORTION OF THE OTAY MESA COMMUNITY AND THE SOUTHEAST PORTION OF THE SAN YSIDRO COMMUNITY.

REFERENCE:
SAN YSIDRO PUBLIC FACILITIES FINANCING PLAN PROJECT SY-36

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN, THE SAN YSIDRO COMMUNITY PLAN, AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITIES AT BUILDOUT. THIS PROJECT IS SHARED WITH SAN YSIDRO AND SATISFIES 5 ACRES OF NEIGHBORHOOD PARK REQUIREMENTS IN THE SAN YSIDRO COMMUNITY AND SATISFIES 15 ACRES OF A COMMUNITY PARK IN THE OTAY MESA COMMUNITY.

FUNDING ISSUES:

ACQUISITION WAS FUNDED THROUGH A STATE GRANT. THE DESIGN AND CONSTRUCTION COSTS WILL BE SHARED BETWEEN OTAY MESA AND THE SAN YSIDRO COMMUNITIES ON A BASIS OF PARK SERVICE AREAS WHICH THE PARK AND RECREATION DEPARTMENT HAS DETERMINED TO BE 75% ($8,916,000) OTAY MESA AND 25% ($2,972,000) SAN YSIDRO.

NOTES:

THIS SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF DEVELOPMENT WITHIN THE SOUTHWEST QUADRANT OF THE COMMUNITY.

SCHEDULE:

DESIGN AND CONSTRUCTION ARE ANTICIPATED FY 2020 - 2021

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BEYER COMMUNITY PARK RECREATION CENTER**

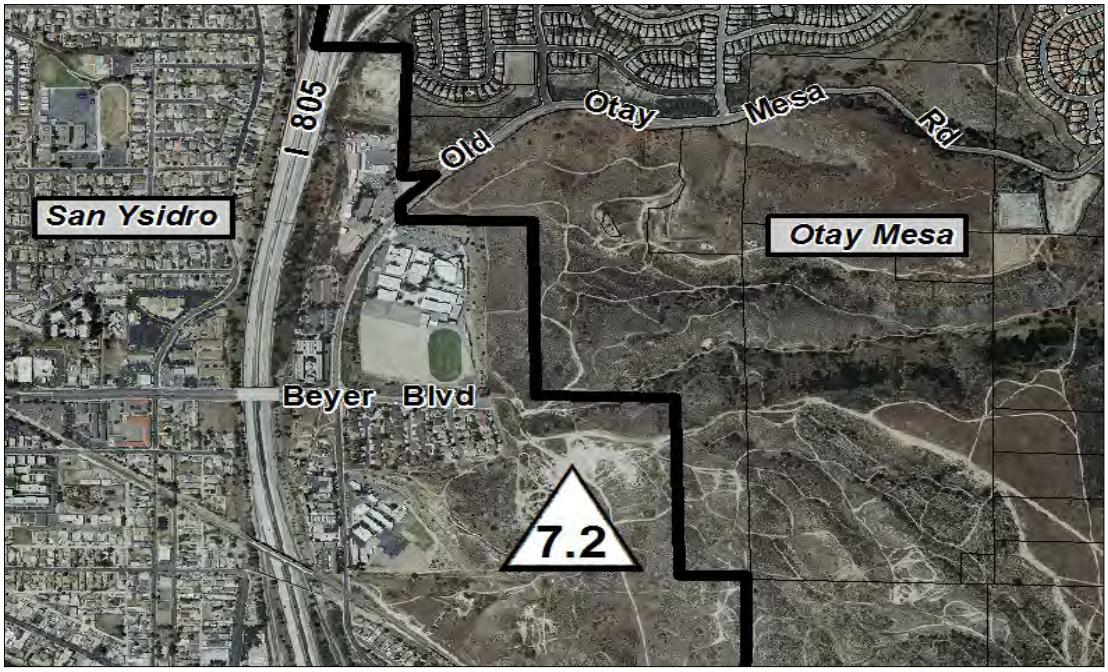
PROJECT: **OM P-7.2**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$5,175,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$1,725,000**							
TOTAL	**$6,900,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM					$2,600,000	$2,575,000		
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER						$1,725,000		
TOTAL	$0	$0	$0	$0	$2,600,000	$4,300,000	$0	$0



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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BEYER COMMUNITY PARK RECREATION CENTER**

		PROJECT:	**OM P-7.2**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION OF A 17,000 SQUARE FOOT RECREATION BUILDING AT BEYER COMMUNITY PARK.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN, THE SAN YSIDRO COMMUNITY PLAN, AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITIES AT BUILDOUT.

FUNDING ISSUES:

THE DESIGN AND CONSTRUCTION COSTS WILL BE SHARED BETWEEN OTAY MESA AND THE SAN YSIDRO COMMUNITIES ON A BASIS OF PARK SERVICE AREAS WHICH THE PARK AND RECREATION DEPARTMENT HAS DETERMINED TO BE 75% ($5,175,000) OTAY MESA AND 25% ($1,725,000) SAN YSIDRO.

NOTES:

THIS SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT.

SEE COMPANION PROJECT: P-7.1

SCHEDULE:

DESIGN AND CONSTRUCTION ARE ANTICIPATED IN FY 2023 - FY 2024

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (A)**

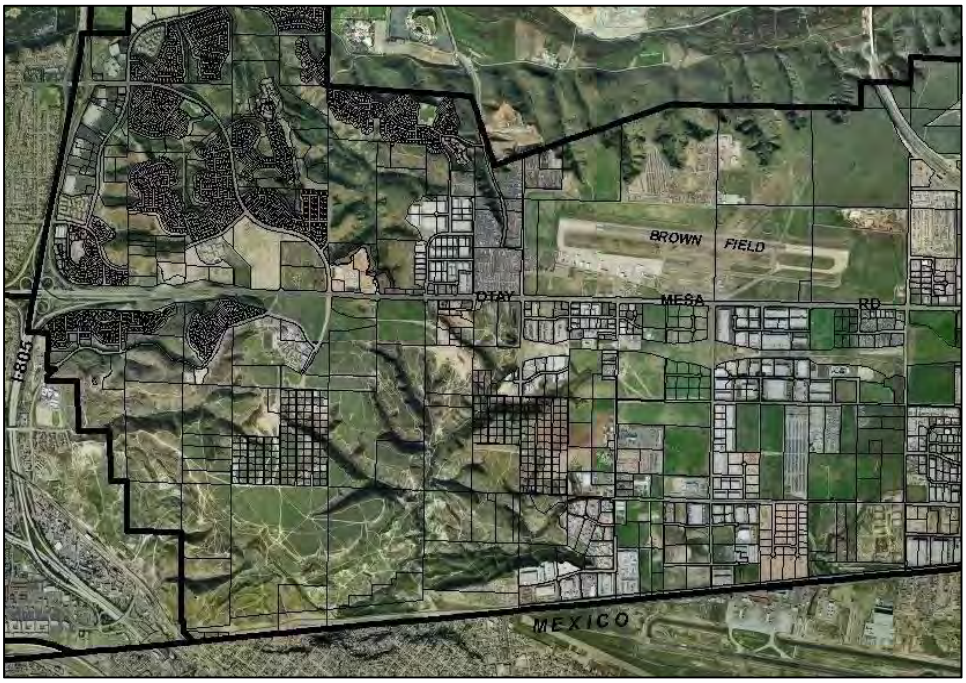
PROJECT: **OM P-8**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,200,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM				$2,300,000	$3,900,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$2,300,000	$3,900,000	$0	$0	$0



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CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (A)**

		PROJECT:	**OM P-8**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.75 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE SOUTHWEST VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (B)**

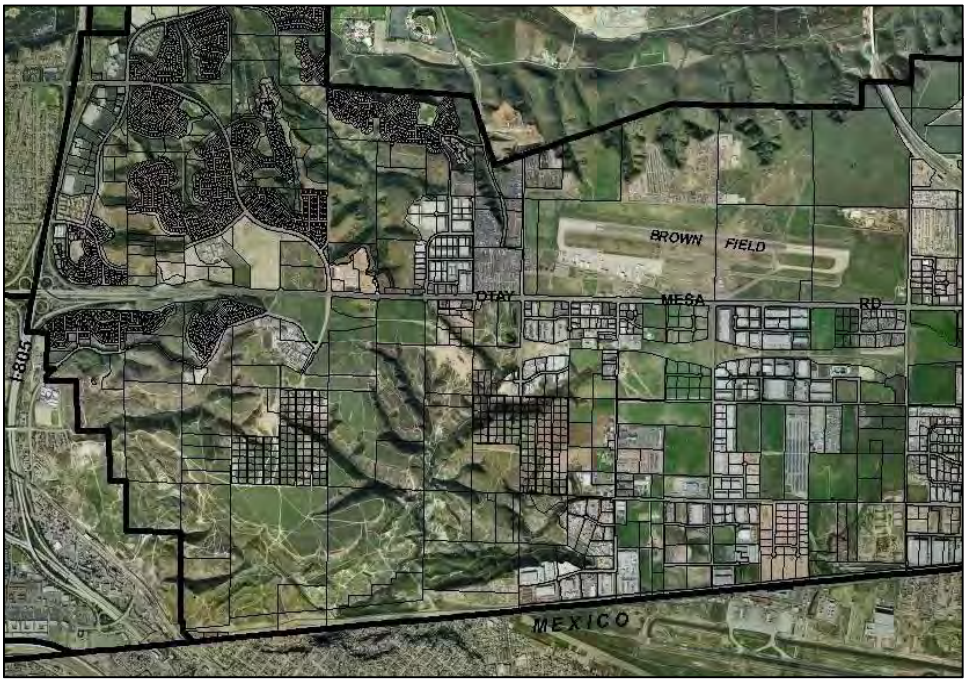
PROJECT: **OM P-9**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,200,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
FBA-OM			$2,000,000	$4,200,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$2,000,000	$4,200,000	$0	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (B)**

		PROJECT:	**OM P-9**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.75 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE SOUTHWEST VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK C**

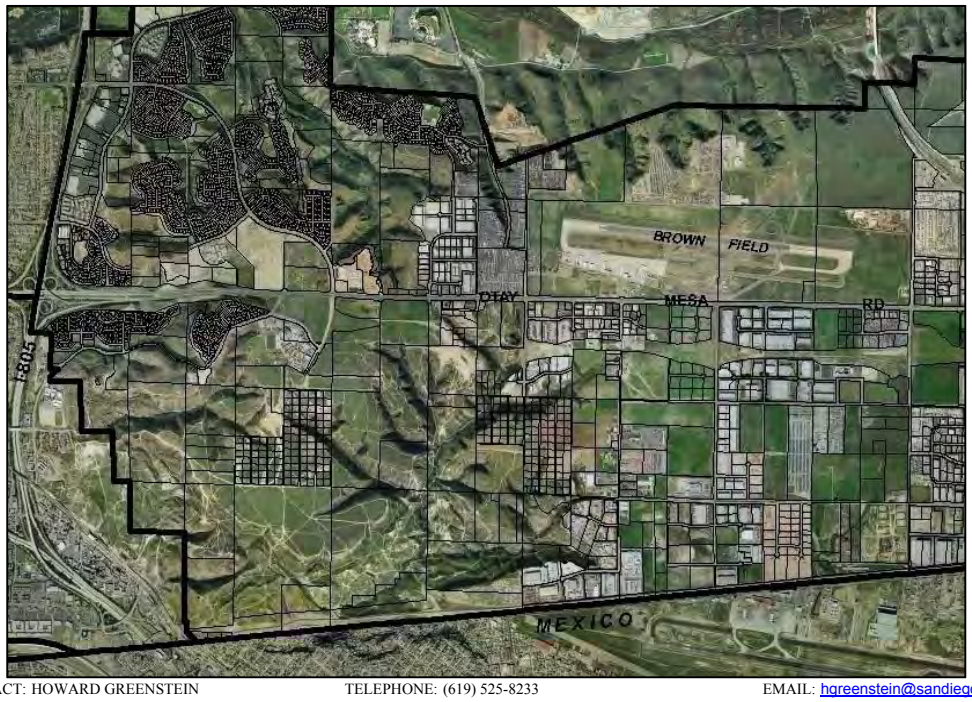
PROJECT: OM P-10

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,200,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
FBA-OM			$1,700,000	$4,500,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$1,700,000	$4,500,000	$0	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK C**

		PROJECT:	**OM P-10**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.75 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE SOUTHWEST VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **GRAND PARK**

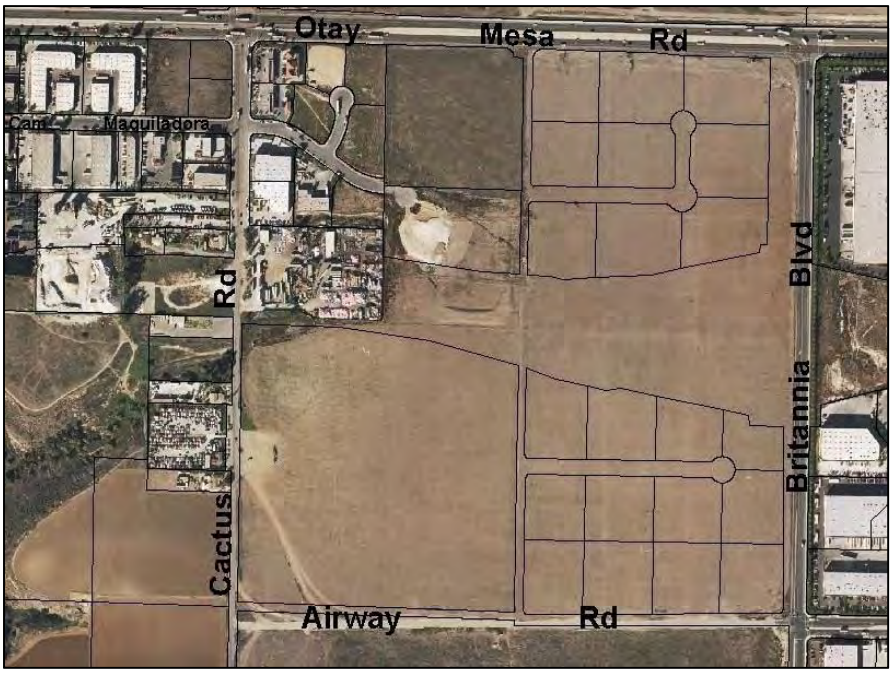
PROJECT: OM P-11.1

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$49,800,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$49,800,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043	FY 2044	FY 2045
FBA-OM			$9,700,000	$10,900,000	$12,400,000	$16,800,000		
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$9,700,000	$10,900,000	$12,400,000	$16,800,000	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **GRAND PARK**

		PROJECT:	**OM P-11.1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 35.6 ACRE (USEABLE ACRES) GRAND PARK AT A LOCATION TO BE DETERMINED NEAR THE CENTRAL VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **GRAND PARK RECREATION CENTER**

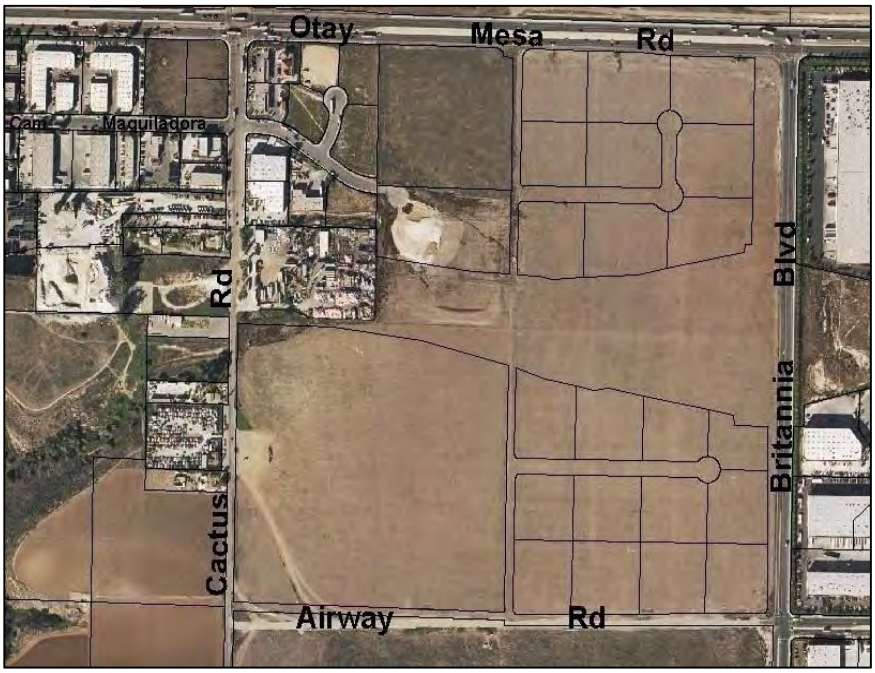
PROJECT: OM P-11.2

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,900,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,900,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2042	FY 2043	FY 2044	FY 2045	FY 2046	FY 2047	FY 2048	FY 2049
FBA-OM			$6,900,000					
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$6,900,000	$0	$0	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **GRAND PARK RECREATION CENTER**

		PROJECT:	**OM P-11.2**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF A 17,000 SQUARE FOOT RECREATION BUILDING AT THE GRAND PARK (PROJECT P-11.1).

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SEE COMPANION PROJECT: P-11.1

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **GRAND PARK SWIMMING POOL**

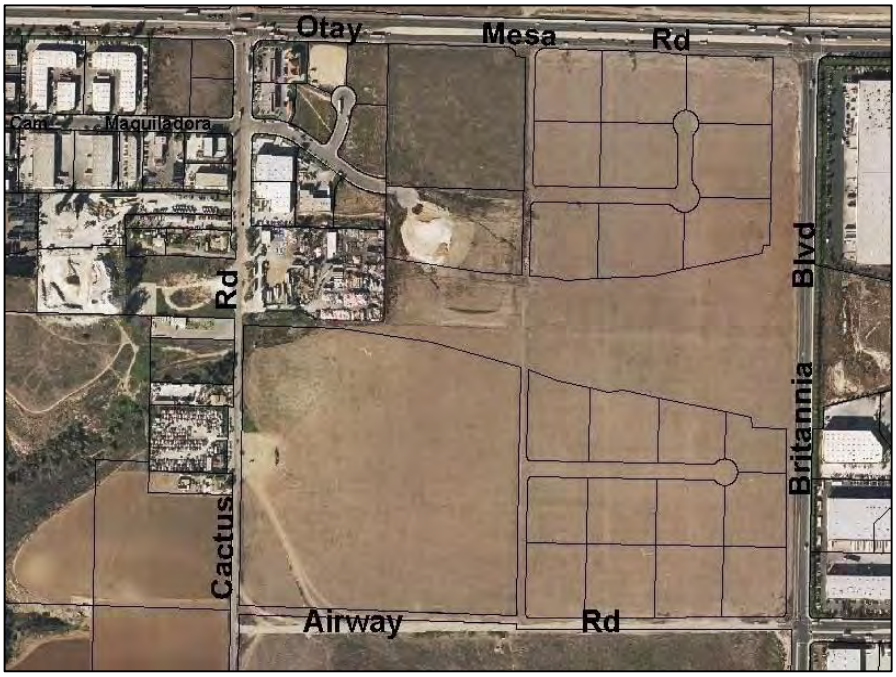
PROJECT: OM P-11.3

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$5,000,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$5,000,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2042	FY 2043	FY 2044	FY 2045	FY 2046	FY 2047	FY 2048	FY 2049
FBA-OM			$1,700,000	$3,300,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$1,700,000	$3,300,000	$0	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **GRAND PARK SWIMMING POOL**

		PROJECT:	**OM P-11.3**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR DESIGN AND CONSTRUCTION OF A SWIMMING POOL AND AQUATIC CENTER AT THE GRAND PARK.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SEE COMPANION PROJECT: OM P-11.1 AND OM P-11.2

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (D)**

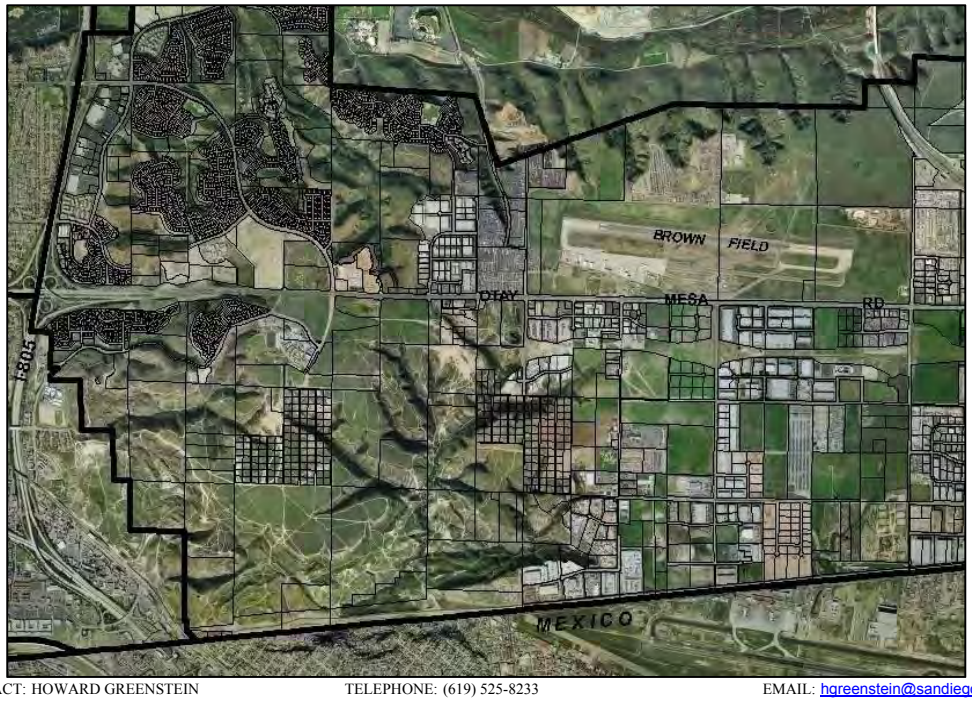
PROJECT: OM P-12

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,200,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM			$1,700,000	$4,500,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$1,700,000	$4,500,000	$0	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (D)**

		PROJECT:	**OM P-12**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.75 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE SOUTHWEST VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (E)**

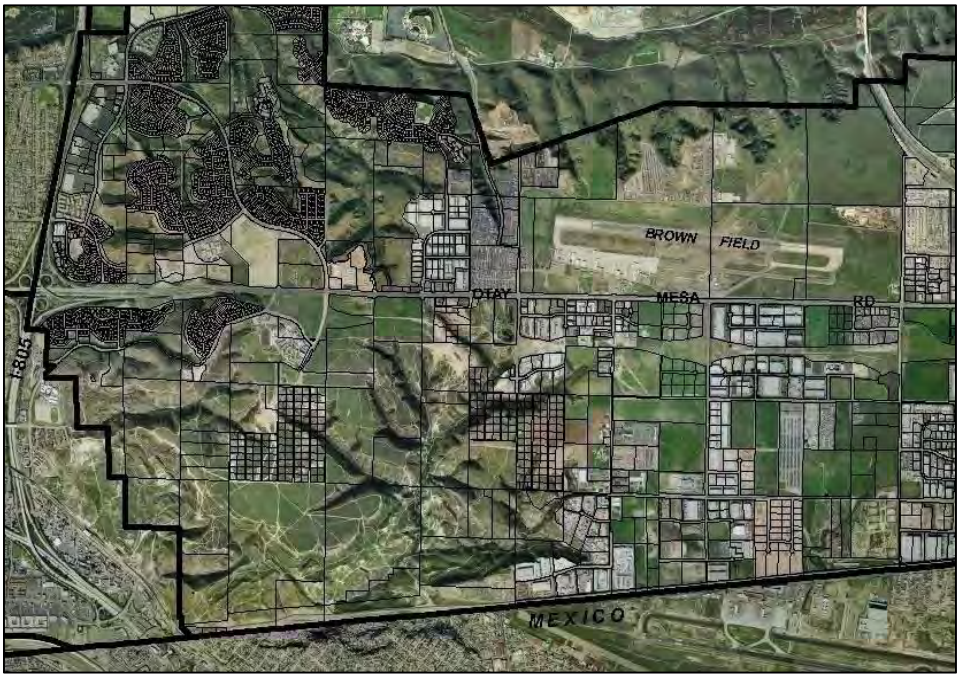
PROJECT: OM P-13

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,200,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
FBA-OM					$1,700,000	$4,500,000		
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$1,700,000	$4,500,000	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (E)**

		PROJECT:	**OM P-13**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.75 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE SOUTHWEST VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (F)**

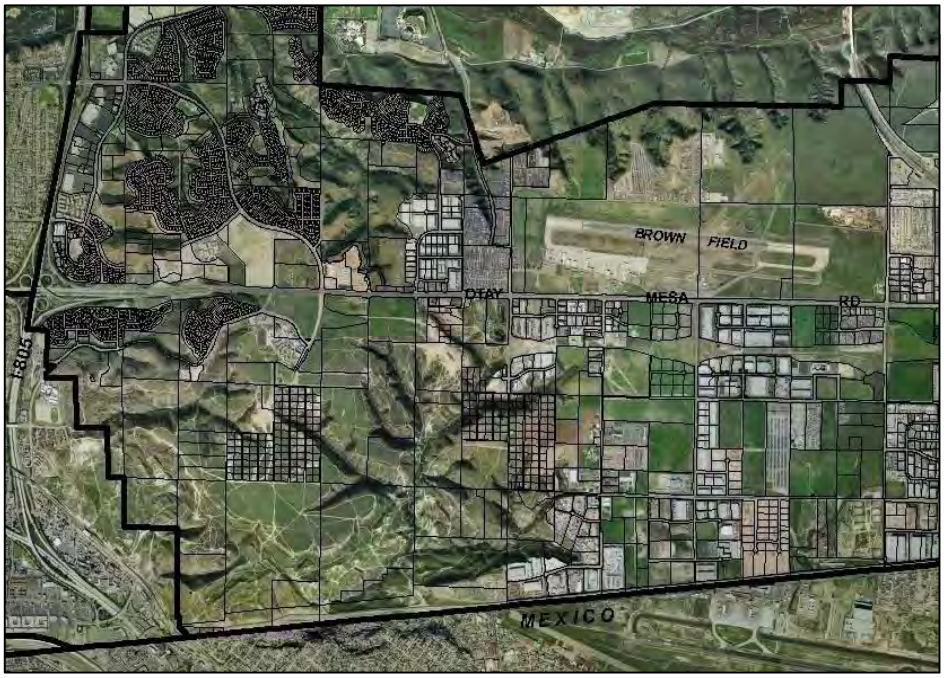
PROJECT: **OM P-14**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,200,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037
FBA-OM			$1,700,000	$4,500,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$1,700,000	$4,500,000	$0	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (F)**

		PROJECT:	**OM P-14**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.75 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE SOUTHWEST VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (G)**

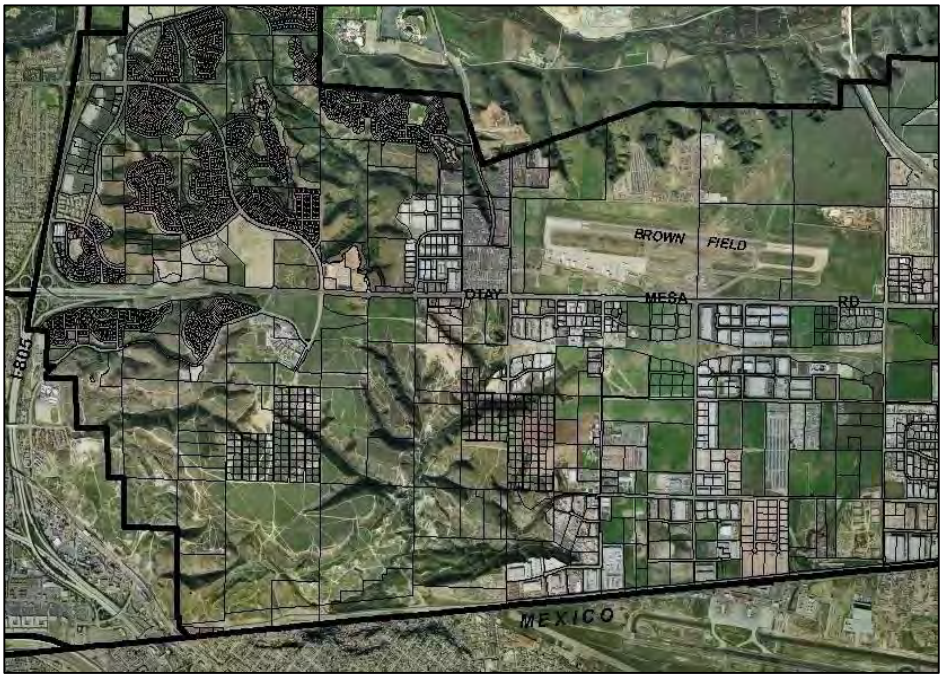
PROJECT: **OM P-15**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,200,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037
FBA-OM					$1,700,000	$4,500,000		
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$1,700,000	$4,500,000	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (G)**

		PROJECT:	**OM P-15**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.75 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE SOUTHWEST VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (H)**

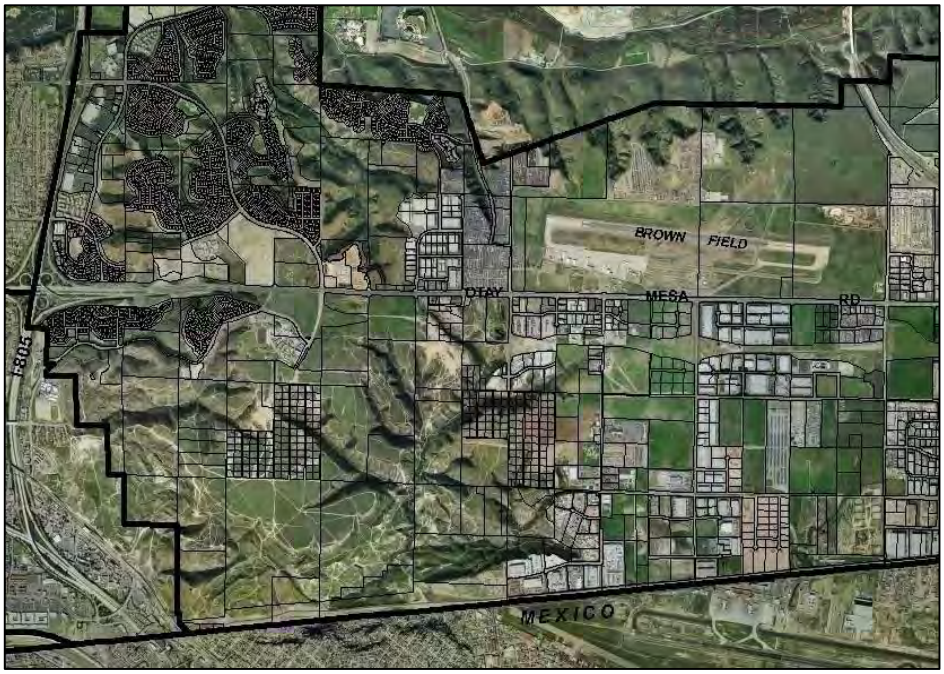
PROJECT: **OM P-16**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,200,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,200,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041
FBA-OM			$1,900,000	$4,300,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$1,900,000	$4,300,000	$0	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHWEST VILLAGE NEIGHBORHOOD PARK (H)**

		PROJECT:	**OM P-16**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.75 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE SOUTHWEST VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CENTRAL VILLAGE NEIGHBORHOOD PARK (I)**

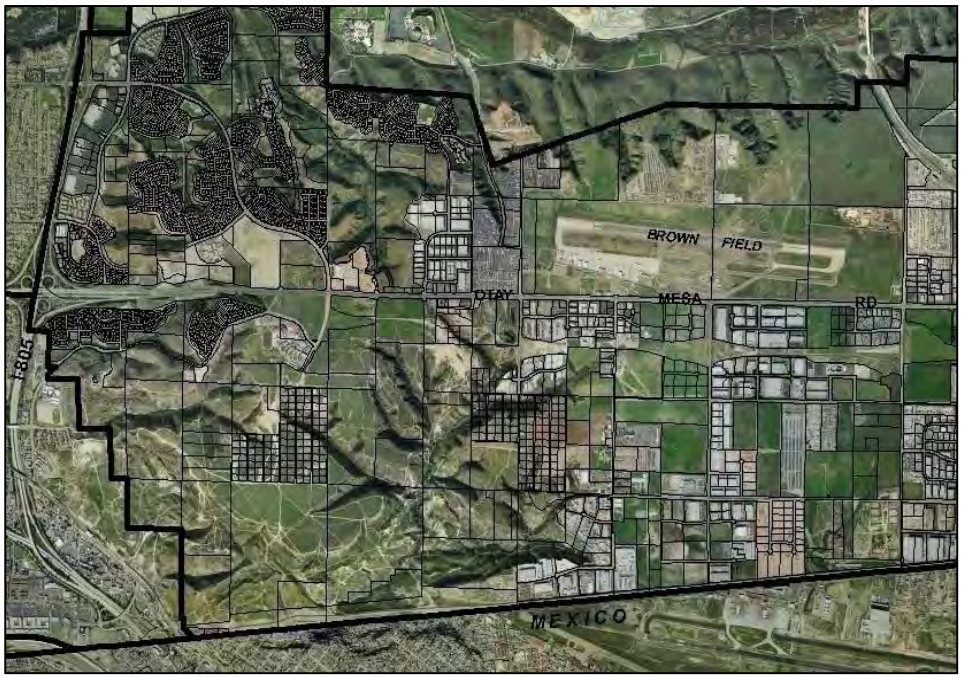
PROJECT: OM P-17

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,400,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043
FBA-OM				$1,800,000	$4,600,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$1,800,000	$4,600,000	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CENTRAL VILLAGE NEIGHBORHOOD PARK (I)**

		PROJECT:	**OM P-17**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 6.0 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE CENTRAL VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CENTRAL VILLAGE NEIGHBORHOOD PARK (J)**

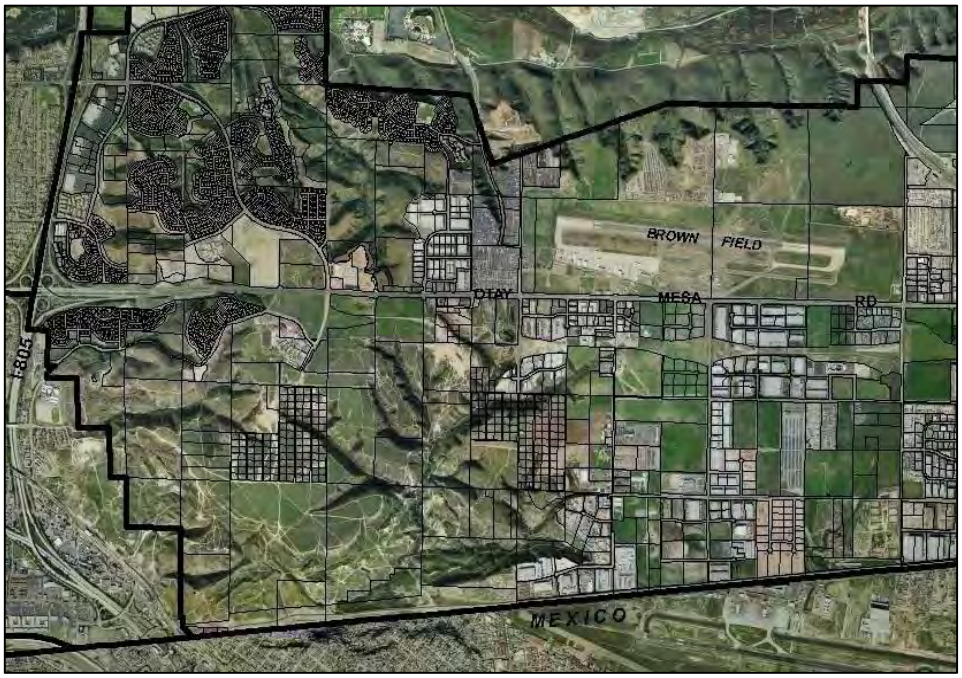
PROJECT: OM P-18

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,000,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,000,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2042	FY 2043	FY 2044	FY 2045	FY 2046	FY 2047	FY 2048	FY 2043
FBA-OM				$2,000,000	$4,000,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$2,000,000	$4,000,000	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CENTRAL VILLAGE NEIGHBORHOOD PARK (J)**

		PROJECT:	**OM P-18**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.0 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE CENTRAL VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CENTRAL VILLAGE NEIGHBORHOOD PARK (K)**

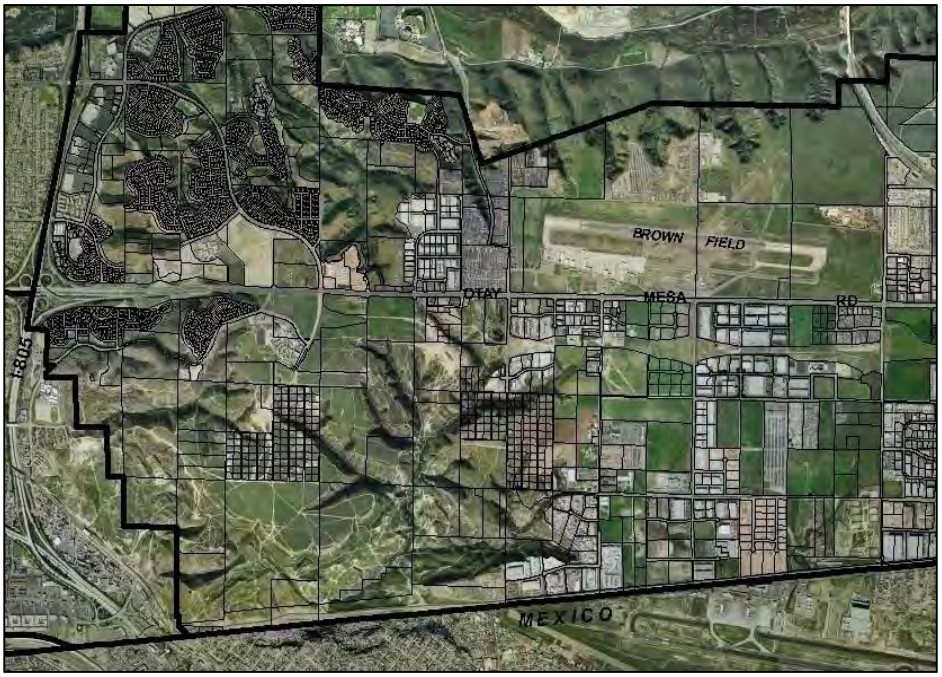
PROJECT: **OM P-19**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,000,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,000,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2044	FY 2045	FY 2046	FY 2047	FY 2048	FY 2049	FY 2050	FY 2051
FBA-OM				$1,500,000	$4,500,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$1,500,000	$4,500,000	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CENTRAL VILLAGE NEIGHBORHOOD PARK (K)**

		PROJECT:	**OM P-19**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.0 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE CENTRAL VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CENTRAL VILLAGE NEIGHBORHOOD PARK (L)**

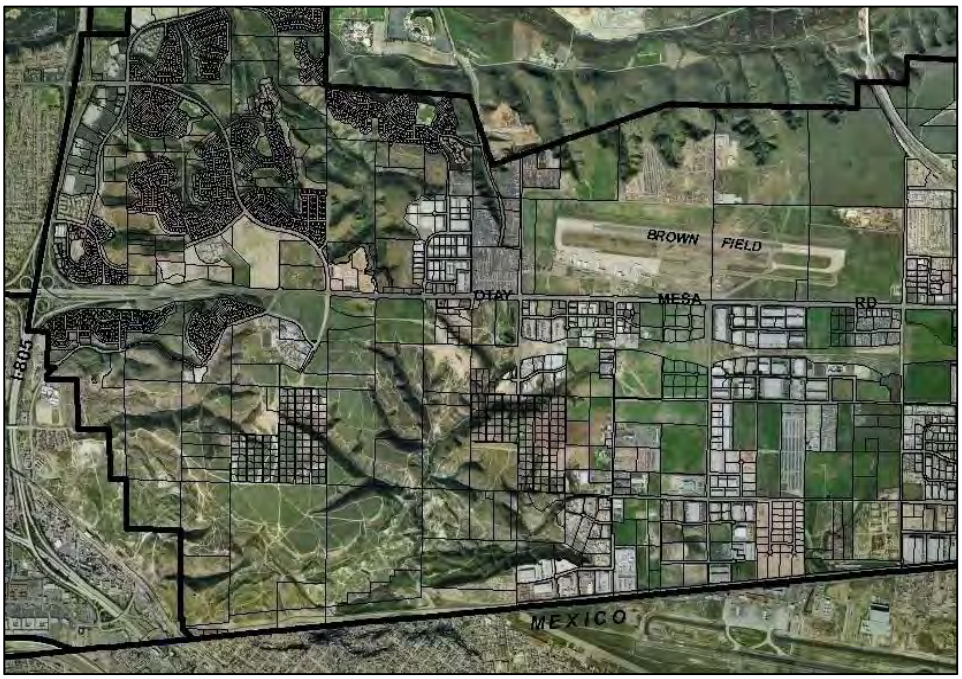
PROJECT: OM P-20

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$6,000,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$6,000,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2046	FY 2047	FY 2048	FY 2049	FY 2050	FY 2051	FY 2052	FY 2053
FBA-OM				$1,500,000	$4,500,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$1,500,000	$4,500,000	$0	$0	$0



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **CENTRAL VILLAGE NEIGHBORHOOD PARK (L)**

		PROJECT:	**OM P-20**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR ACQUISITION AND DEVELOPMENT OF A 5.0 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK AT A LOCATION TO BE DETERMINED WITHIN THE CENTRAL VILLAGE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

THE SCHEDULE IS DEPENDENT UPON THE ACTUAL RATE OF RESIDENTIAL DEVELOPMENT WITHIN THE OTAY MESA COMMUNITY.

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA HIKING AND BIKING TRAILS**

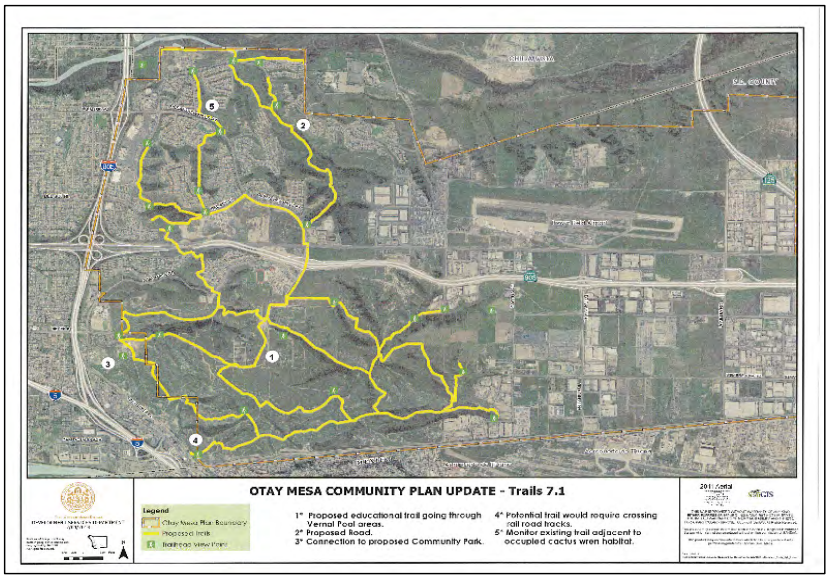
PROJECT: **OM P-21**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$7,918,000**						$1,000,000	
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$2,782,000**					$2,782,000		
TOTAL	**$10,700,000**	$0	$0	$0	$0	$2,782,000	$1,000,000	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026- 2053
FBA-OM			$200,000	$800,000			$1,000,000	$4,918,000
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$200,000	$800,000	$0	$0	$1,000,000	$4,918,000



CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA HIKING AND BIKING TRAILS**

		PROJECT:	**OM P-21**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT WOULD PROVIDE FOR APPOXIMATELY 22 MILES OF HIKING, BIKING, AND EDUCATIONAL TRAILS THROUGHOUT THE OTAY MESA COMMUNITY.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND WITH THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

OTHER FUNDING SOURCES:

UNIDENTIFIED: $2,782,000

NOTES:

SCHEDULE:

TRAILS WILL BE COMPLETED AS THE COMMUNITY DEVELOPS

CONTACT: HOWARD GREENSTEIN TELEPHONE: (619) 525-8233 EMAIL: hgreenstein@sandiego.gov

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Police Projects

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **POLICE SUBSTATION**

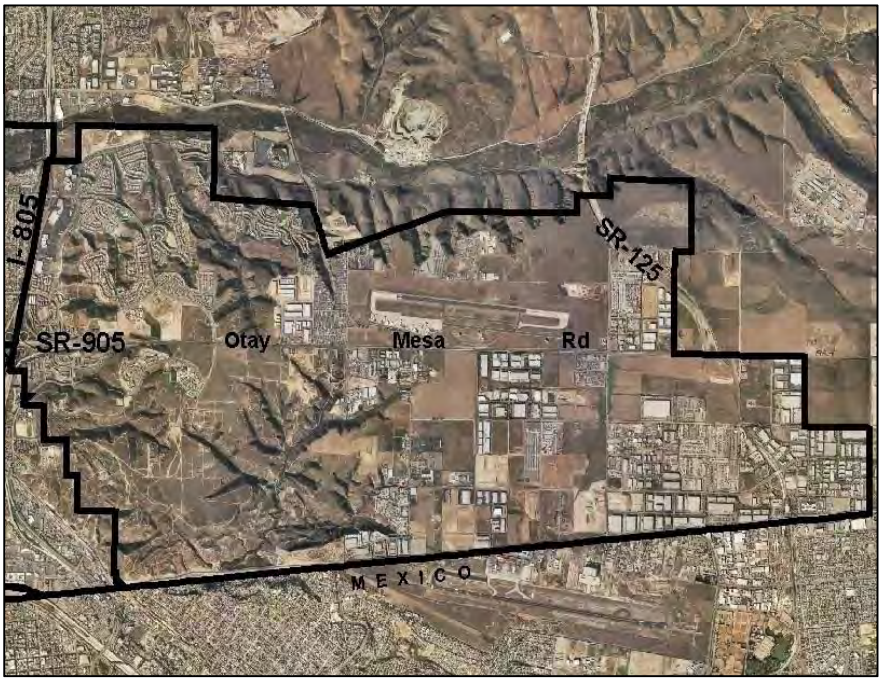
PROJECT: OM PO-2

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$19,400,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$19,400,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2042	FY 2043	FY 2044	FY 2045	FY 2046	FY 2047	FY 2048	FY 2049
FBA-OM			$7,200,000	$12,200,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$7,200,000	$12,200,000	$0	$0	$0	$0



CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **POLICE SUBSTATION**

		PROJECT:	**OM PO-2**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT A NEW 20,000 SQUARE FOOT POLICE SUBSTATION TO SERVE THE OTAY MESA AREA. THE POLICE SUBSTATION IS ANTICIPATED TO BE CO-LOCATED WITH THE FIRE STATION FACILITY AT A SITE TO BE DETERMINED.

JUSTIFICATION:

THIS PROJECT WILL ALLEVIATE CONGESTION AT EXISTING POLICE FACILITIES AND IMPROVE THE EFFICIENCY AND EFFECTIVENESS OF POLICE OPERATIONS AS DEVELOPMENT OCCURS IN OTAY MESA.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR ACQUISITION, DESIGN AND CONSTRUCTION ARE ANTICIPATED IN FY 2044 AND FY 2045.

CONTACT:	0	TELEPHONE:	0	EMAIL:	0

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Fire Projects

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **FIRE STATION NO. 49**

PROJECT: **OM F-2**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 33-086.0/S-00784

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$8,323,586**							
DIF-OM								
FBA-OM(w)	**$76,414**	$76,414						
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$8,400,000**	$76,414	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM	$1,861,176	$6,462,410						
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$1,861,176	$6,462,410	$0	$0	$0	$0	$0	$0

CONTACT: MICHELLE ABELLA-SHON TELEPHONE: (858) 573-1362 EMAIL: mshon@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **FIRE STATION NO. 49**

		PROJECT:	**OM F-2**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	33-086.0/S-00784	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDES FOR AN APPROXIMATE 10,500 SQUARE FOOT FIRE STATION TO SERVE THE OTAY MESA AND OTAY MESA NESTOR COMMUNITIES. THE FIRE STATION WILL BE LOCATED AT THE INTERSECTION OF OCEAN VIEW HILLS PARKWAY AND SEA FIRE POINT AND WILL ACCOMODATE ONE ENGINE, ONE AERIAL TRUCK, A PARAMEDIC AMBULANCE, BATTALION CHIEF VEHICLE, AND UP TO 12 PERSONNEL.

JUSTIFICATION:

THE PUBLIC FACILITIES ELEMENT OF THE OTAY MESA COMMUNITY PLAN IDENTIFIES THE NEED TO RE-LOCATE THE EXISTING TEMPORARY FIRE STATION CURRENTLY LOCATED AT THE INTERSECTION OF PALM AVENUE AND TWINING STREET TO A LOCATION EASTERLY OF I-805 ALONG OCEAN VIEW HILLS PARKWAY IN ORDER TO MEET THE NATIONAL STANDARD OF PROVIDING FIVE MINUTE EMERGENCY RESPONSE SERVICE TO THE COMMUNITY.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR ACQUISITION, DESIGN AND CONSTRUCTION ARE ANTICIPATED IN FY 2019 AND FY 2020.

CONTACT: MICHELLE ABELLA-SHON TELEPHONE: (858) 573-1362 EMAIL: mshon@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **FIRE STATION**

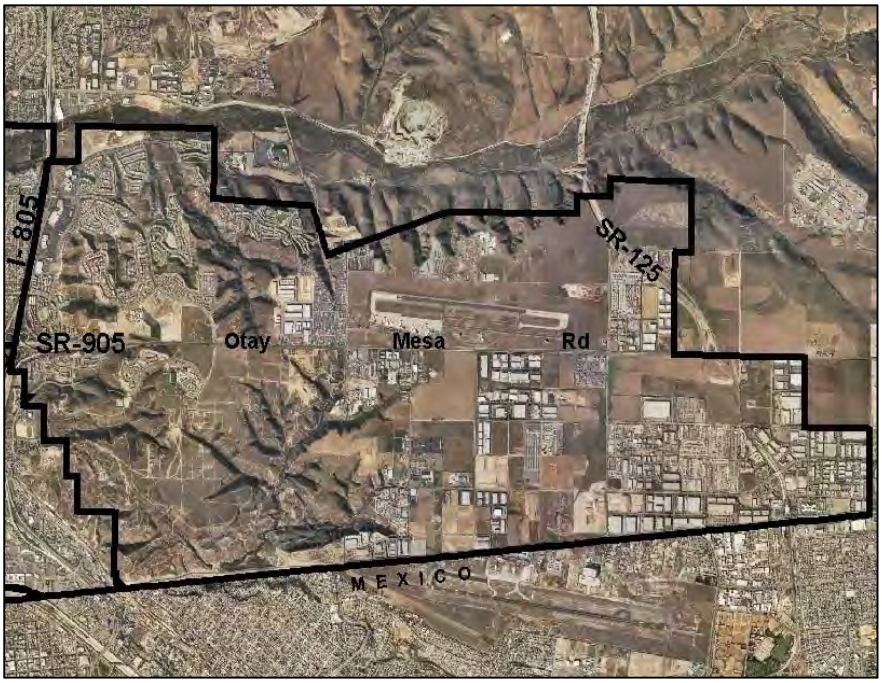
PROJECT: **OM F-3**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$8,500,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$8,500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
FBA-OM		$1,500,000	$7,000,000					
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$1,500,000	$7,000,000	$0	$0	$0	$0	$0



CONTACT: MICHELLE ABELLA-SHON TELEPHONE: (858) 573-1362 EMAIL: mshon@sandiego.gov

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **FIRE STATION**

		PROJECT:	**OM F-3**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT A NEW FIRE STATION TO SERVE THE OTAY MESA AREA. THE FIRE STATION IS ANTICIPATED TO BE CO-LOCATED WITH THE POLICE SUBSTATION FACILITY AT A SITE TO BE DETERMINED. THE APPROXIMATELY 10,500 SQUARE FOOT BUILDING WILL ACCOMMODATE ONE ENGINE, ONE AERIAL TRUCK, A PARAMEDIC AMBULANCE, BATTALION CHIEF VEHICLE, AND UP TO TWELVE PERSONNEL.

JUSTIFICATION:

THE PUBLIC FACILITIES ELEMENT OF THE OTAY MESA COMMUNITY PLAN AND THE CITY OF SAN DIEGO'S GENERAL PLAN IDENTIFIES THE NEED FOR AN ADDITIONAL FIRE STATION TO SERVE THE OTAY MESA COMMUNITY.

FUNDING ISSUES:

NOTES:

SCHEDULE:

FUNDING FOR ACQUISITION, DESIGN AND CONSTRUCTION ARE ANTICIPATED IN FY 2029 AND FY 2030.

CONTACT: MICHELLE ABELLA-SHON TELEPHONE: (858) 573-1362 EMAIL: mshon@sandiego.gov

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Library Projects

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BRANCH LIBRARY**

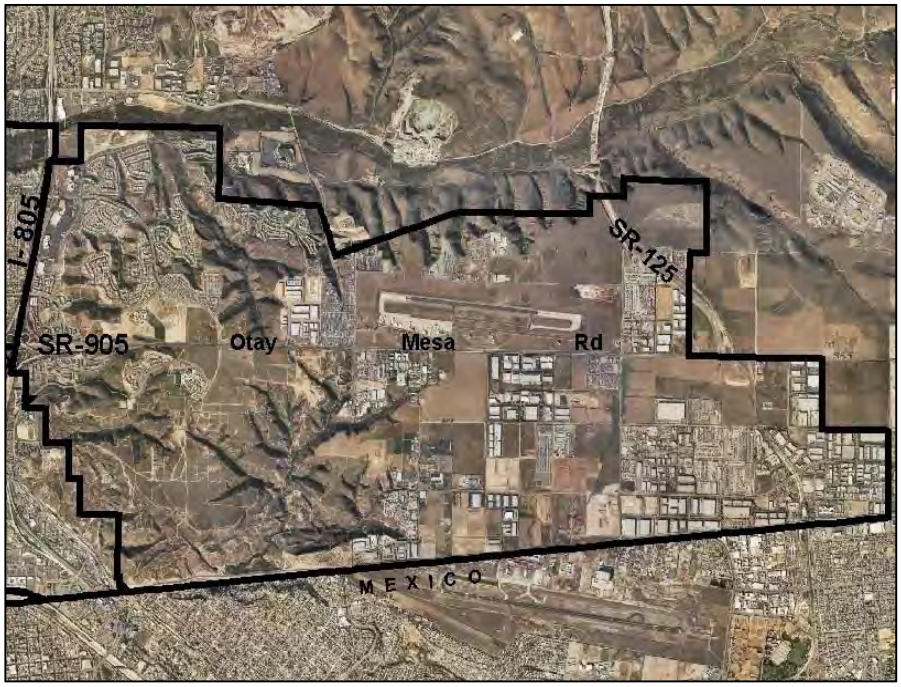
PROJECT: OM L-2.1

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 35-086.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$12,500,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$12,500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
FBA-OM		$1,950,000	$2,000,000	$8,550,000				
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$1,950,000	$2,000,000	$8,550,000	$0	$0	$0	$0



CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BRANCH LIBRARY**

		PROJECT:	**OM L-2.1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	35-086.0	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT A 15,000 SQUARE FOOT BRANCH LIBRARY, INCLUDING A MEETING ROOM, ON AN UNSPECIFIED 3-ACRE SITE IN THE VICINITY OF THE TOWN CENTER LOCATION. THIS FACILITY SHOULD BE DESIGNED TO ACCOMMODATE THE FUTURE EXPANSION OF THE LIBRARY, SHOULD THE BUILDOUT POPULATION EXCEED 45,000 PEOPLE.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE OTAY MESA COMMUNITY PLAN, AND IS IN CONFORMANCE WITH THE CITY'S GENERAL PLAN.

FUNDING ISSUES:

NOTES:

SEE COMPANION PROJECT: L-2.2

SCHEDULE:

FUNDING FOR ACQUISITION, DESIGN AND CONSTRUCTION ARE ANTICIPATED IN FY 2025 - FY 2027.

CONTACT:	0	TELEPHONE:	0	EMAIL:	0

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LIBRARY EXPANSION**

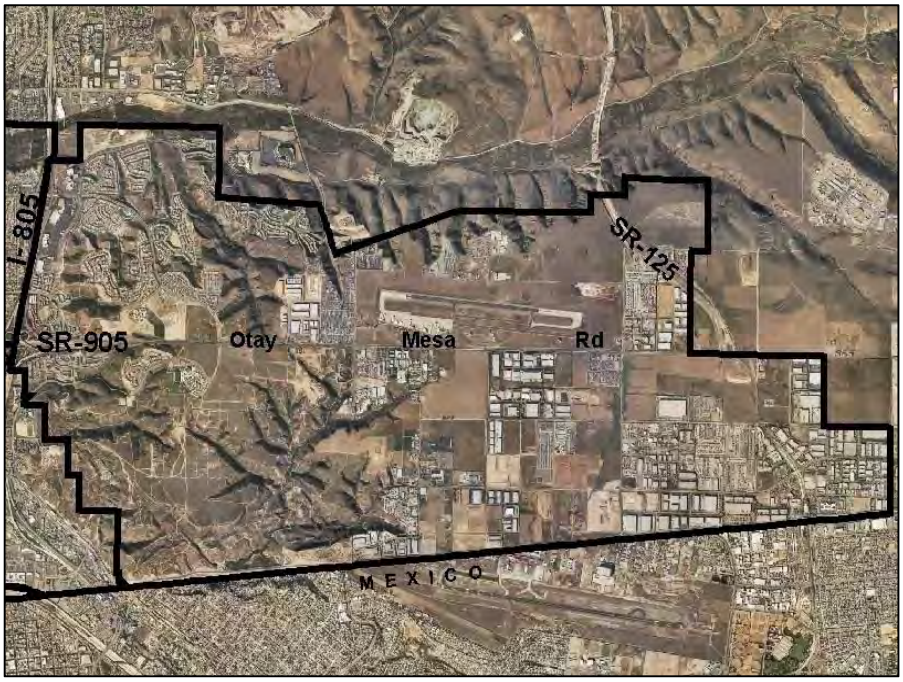
PROJECT: OM L-2.2

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM	**$8,500,000**							
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$8,500,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2044	FY 2045	FY 2046	FY 2047	FY 2048	FY 2049	FY 2050	FY 2051
FBA-OM					$8,500,000			
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$8,500,000	$0	$0	$0



CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **LIBRARY EXPANSION**

		PROJECT:	**OM L-2.2**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT A 10,000 SQUARE FOOT EXPANSION TO THE BRANCH LIBRARY ON AN UNSPECIFIED 3-ACRE SITE IN THE VICINITY OF THE TOWN CENTER LOCATION.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE OTAY MESA COMMUNITY PLAN, AND IS IN CONFORMANCE WITH THE CITY'S GENERAL PLAN.

FUNDING ISSUES:

NOTES:

SEE COMPANION PROJECT: L-2.2

SCHEDULE:

FUNDING FOR DESIGN AND CONSTRUCTION ARE ANTICIPATED IN FY 2048

CONTACT:	0	TELEPHONE:	0	EMAIL:	0

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Utilities Projects

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **WATER SUPPLY LINE IN OTAY VALLEY ROAD**

PROJECT: **OM U-6**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 40-930.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$775,000**							
OTHER								
TOTAL	**$775,000**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD							$775,000	
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$775,000	$0

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **WATER SUPPLY LINE IN OTAY VALLEY ROAD**

		PROJECT:	**OM U-6**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	40-930.0	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT APPROXIMATELY 5,000 LINEAR FEET OF 24" WATER PIPELINE IN THE RE-ALIGNED PORTION OF OTAY VALLEY ROAD.

JUSTIFICATION:

THIS PROJECT IS REQUIRED TO REPLACE THE EXISTING PIPELINE IN AN ALIGNMENT THAT PROVIDES REASONABLE ACCESS AND MAINTAINABILITY AND PROVIDES CAPACITY FOR NEW DEVELOPMENT. THE EXISTING PIPELINE WILL BE LEFT IN SERVICE.

FUNDING ISSUES:

NOTES:

THIS PROJECT IS INCLUDED FOR INFORMATIONAL PURPOSES ONLY.

SCHEDULE:

DESIGN AND CONSTRUCTION	FY 2025

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA TRUNK SEWER - PHASE II**

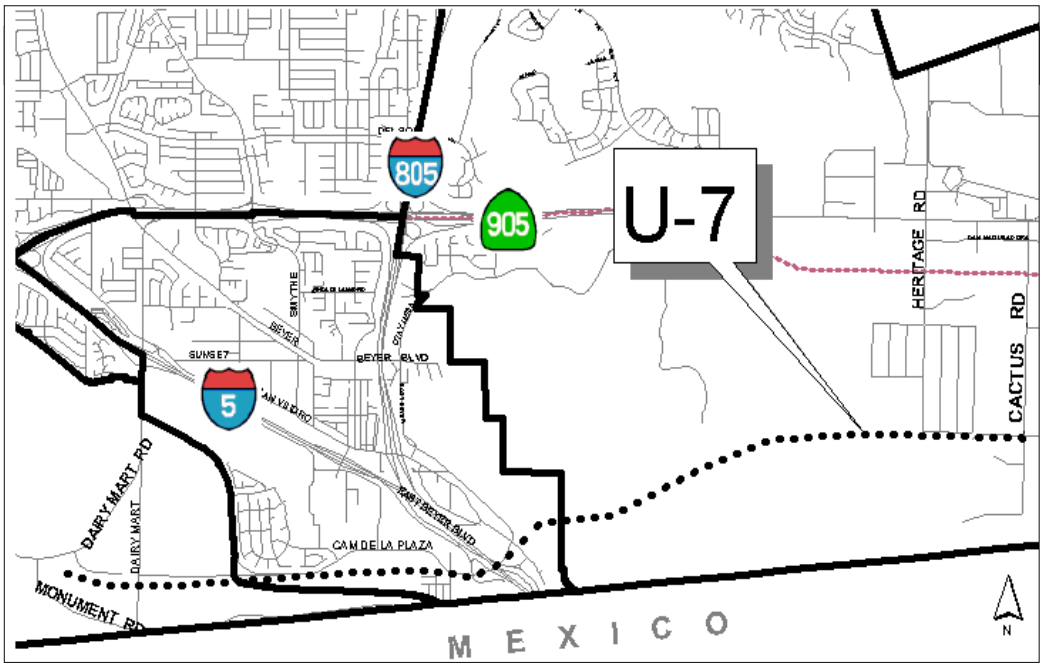
PROJECT: **OM U-7**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 40-930.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$30,140,460**	$30,140,460						
OTHER								
TOTAL	**$30,140,460**	$30,140,460	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0



CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA TRUNK SEWER - PHASE II**

		PROJECT:	**OM U-7**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	40-930.0	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT AN OUTFALL SEWER FROM CACTUS ROAD TO FUTURE "SOUTH BAY" ADVANCED TREATMENT PLANT LOCATED NEAR DAIRY MART ROAD AND MONUMENT ROAD.

JUSTIFICATION:

THE PROJECT IS NEEDED TO COMPLETE THE FINAL PHASE OF SEWER FACILITIES IDENTIFIED IN THE OTAY MESA SEWER MASTER PLAN. CAPACITY IN THE EXISTING SEWER FACILITIES WILL BE REACHED AS BUILDOUT OF THE PREVIOUSLY APPROVED DEVELOPMENT PROJECTS OCCURS. IN ORDER TO ACCOMMODATE ADDITIONAL DEVELOPMENT, A PERMANENT TRUNK SEWER LINE WILL BE REQUIRED TO SERVE THE OTAY MESA COMMUNITY.

FUNDING ISSUES:

NOTES:

INCLUDED FOR INFORMATIONAL PURPOSES ONLY.

SCHEDULE:

FUTURE PHASES WILL BE COMPLETED AS THE COMMUNITY DEVELOPS

CONTACT: TELEPHONE: EMAIL:

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Completed/Deleted Projects

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **STATE ROUTE 905**

PROJECT: **OM T-5**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 526970

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)	**$1,667,250**	$1,667,250						
FBA-OM(e)	**$2,720,250**	$2,720,250						
PDIF (w)								
PDIF (e)	**$800,000**	$800,000						
DEV/SUBD								
OTHER	**$424,000,000**	$424,000,000						
TOTAL	**$429,187,500**	$429,187,500	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **STATE ROUTE 905**

		PROJECT:	**OM T-5**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	526970	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDED FOR ACQUISITION OF RIGHT OF WAY FOR THE CONSTRUCTION OF SR-905 FROM 0.5 MILES EAST OF I-805 TO THE OTAY MESA INTERNATIONAL BORDER CROSSING. THE PROJECT ALSO PROVIDED FOR DESIGN AND CONSTRUCTION OF THE SR-905 AS A SIX-LANE FREEWAY WITH A WIDE MEDIAN TO ALLOW FOR ULTIMATELY AN 8+2HOV-LANE FREEWAY.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

COMPLETED

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD (Central)**

PROJECT: OM T-16.1

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 526720

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)	**$1,360,006**	$1,360,006						
FBA-OM(e)	**$1,507,952**	$1,507,952						
PDIF (w)	**$275,000**	$275,000						
PDIF (e)	**$825,000**	$825,000						
DEV/SUBD								
OTHER								
TOTAL	**$3,967,958**	$3,967,958	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **HERITAGE ROAD (Central)**

PROJECT: OM T-16.1

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP or JO #: 526720

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS PROJECT PROVIDED FOR CONSTRUCTION OF NEW HERITAGE ROAD FROM OTAY RIO BUSINESS PARK TO THE SOUTH TO THE TOP OF THE CANYON NEAR CORPORATE CENTER DRIVE.

JUSTIFICATION:

THE OTAY MESA COMMUNITY PLAN TRANSPORTATION ELEMENT SUGGESTS THAT AN INTEGRATED TRANSPORTATION NETWORK WILL PROVIDE MOBILITY AND ACCESSIBILITY TO THE RESIDENTS AND BUSINESSES OF THE COMMUNITY. THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

COMPLETED

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Michael Faraday Drive to Enrico Fermi)**

PROJECT: OM T-19.7

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$0**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SIEMPRE VIVA ROAD (Michael Faraday Drive to Enrico Fermi)**

PROJECT: OM T-19.7

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
CIP or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

DESCRIPTION:

THIS ROAD CURRENTLY MEETS THE FOUR-LANE MAJOR REQUIREMENTS AND NO ADDITIONAL IMPROVEMENTS ARE CURRENTLY ANTICIPATED. THE LENGTH OF THIS SEGMENT IS 1,400 LINEAL FEET

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

COMPLETED

CONTACT: TRANSPORTATION & STORM WATER TELEPHONE: (619) 533-3126 EMAIL: N/A

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OCEAN VIEW HILLS NEIGHBORHOOD PARK**

PROJECT: **OM P-1**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 29-442.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)	**$1,944,742**	$1,944,742						
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$1,944,742**	$1,944,742	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OCEAN VIEW HILLS NEIGHBORHOOD PARK**

		PROJECT:	**OM P-1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	29-442.0	COMMUNITY PLAN:	OM

DESCRIPTION:

ACQUISITION AND DEVELOPMENT OF A 5.2 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK SOUTH OF OCEAN VIEW HILLS PARKWAY WITHIN THE CALIFORNIA TERRACES PRECISE PLAN. IMPROVEMENTS INCLUDE PARKING, PLAY AREA, PICNIC FACILITIES, TURF AND OTHER LANDSCAPING, AND IRRIGATION.

JUSTIFICATION:

THIS PROJECT WAS IN CONFORMANCE WITH THE CITY'S PROGRESS GUIDE AND GENERAL PLAN GUIDELINES FOR POPULATION-BASED PARK ACREAGE, AND IMPLEMENTSED OTAY MESA COMMUNITY PLAN RECOMMENDATIONS.

FUNDING ISSUES:

THIS PROJECT WAS COMPLETED BY THE CALIFORNIA TERRACES SUBDIVISION WHO WERE REIMBURSED WITH DIF FUNDS.

NOTES:

SCHEDULE:

COMPLETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **ROBINHOOD RIDGE NEIGHBORHOOD PARK**

PROJECT: **OM P-3**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 29-481.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)	**$3,767,236**	$3,767,236						
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$3,767,236**	$3,767,236	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **ROBINHOOD RIDGE NEIGHBORHOOD PARK**

		PROJECT:	**OM P-3**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	29-481.0	COMMUNITY PLAN:	OM

DESCRIPTION:

ACQUISITION AND DEVELOPMENT OF A 10 ACRE (USEABLE ACRES) NEIGHBORHOOD PARK.

JUSTIFICATION:

THIS PROJECT IS CONSISTENT WITH THE GOALS OF THE OTAY MESA COMMUNITY PLAN AND THE CITY'S GENERAL PLAN, AND IS NEEDED TO SERVE THE COMMUNITY AT BUILDOUT.

FUNDING ISSUES:

NOTES:

SCHEDULE:

COMPLETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHERN AREA POLICE STATION**

PROJECT: **OM PO-1**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 36-021.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)	**$1,207,000**	$1,207,000						
DEV/SUBD								
OTHER								
TOTAL	**$1,207,000**	$1,207,000	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTHERN AREA POLICE STATION**

		PROJECT:	**OM PO-1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	36-021.0	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDED FOR OTAY MESA'S SHARE OF THE CONSTRUCTION OF A 20,999 SQUARE FOOT STRUCTURE TO HOUSE A POLICE COMMAND AND LIGHT VEHICLE MAINTENANCE FACILITY. THIS FACILITY SERVES THE SOUTHERN AREA OF THE CITY, INCLUDING OTAY MESA.

JUSTIFICATION:

THIS PROJECT ALLEVIATED CONGESTION AT EXISTING POLICE FACILITIES AND IMPROVED THE EFFICIENCY AND EFFECTIVENESS OF POLICE OPERATIONS.

FUNDING ISSUES:

NOTES:

SCHEDULE:

COMPLETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **FIRE STATION NO. 43**

PROJECT: **OM F-1**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 33-076.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)	**$2,650,000**	$2,650,000						
DEV/SUBD								
OTHER								
TOTAL	**$2,650,000**	$2,650,000	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **FIRE STATION NO. 43**

		PROJECT:	**OM F-1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	33-076.0	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCTED A NEW 8,900 SQUARE FOOT FIRE STATION TO SERVE THE OTAY MESA AREA. THE FIRE STATION HOUSES ONE ENGINE, ONE AERIAL LADDER TRUCK, ONE CRASH/RESCUE APPARATUS, AND A CREW OF TEN FIRE FIGHTERS. THE FIRE STATION WAS CONSTRUCTED ON 1.1 ACRES ON THE WEST SIDE OF LA MEDIA ROAD WITHIN BROWN FIELD.

JUSTIFICATION:

THE PUBLIC FACILITIES ELEMENT OF THE OTAY MESA COMMUNITY PLAN AND THE CITY OF SAN DIEGO'S GENERAL PLAN IDENTIFIED THE NEED FOR AN ADDITIONAL FIRE STATION TO SERVE THE OTAY MESA COMMUNITY.

FUNDING ISSUES:

NOTES:

SCHEDULE:

COMPLETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA/NESTOR BRANCH LIBRARY (Exp'n)**

PROJECT: **OM L-1**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 35-087.0/S-00691

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)	**$1,600,000**	$1,600,000						
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$1,930,185**	$1,930,185						
TOTAL	**$3,530,185**	$3,530,185	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA/NESTOR BRANCH LIBRARY (Exp'n)**

		PROJECT:	**OM L-1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	35-087.0/S-00691	COMMUNITY PLAN:	OM

DESCRIPTION:

CONTRIBUTED TO THE EXPANSION OF THE EXISTING BRANCH LIBRARY LOCATED AT THE INTERSECTION OF CORONADO AVENUE AND BEYER BOULEVARD.

JUSTIFICATION:

THE OTAY MESA BRANCH LIBRARY WILL NOT BE CONSTRUCTED UNTIL SUCH TIME AS THE COMMUNITY REACHES A POPULATION OF APPROXIMATELY 18,000 PERSONS WITHIN A RADIUS OF TWO MILES. THE EXPANSION OF THIS EXISTING FACILITY MINIMIZES ANY IMPACTS THAT THE COMMUNITY MAY HAVE ON THIS FACILITY UNTIL SUCH TIME AS A PERMANENT LIBRARY CAN BE CONSTRUCTED WITHIN THE OTAY MESA COMMUNITY.

FUNDING ISSUES:

NOTES:

SCHEDULE:

COMPLETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA RESERVOIR**

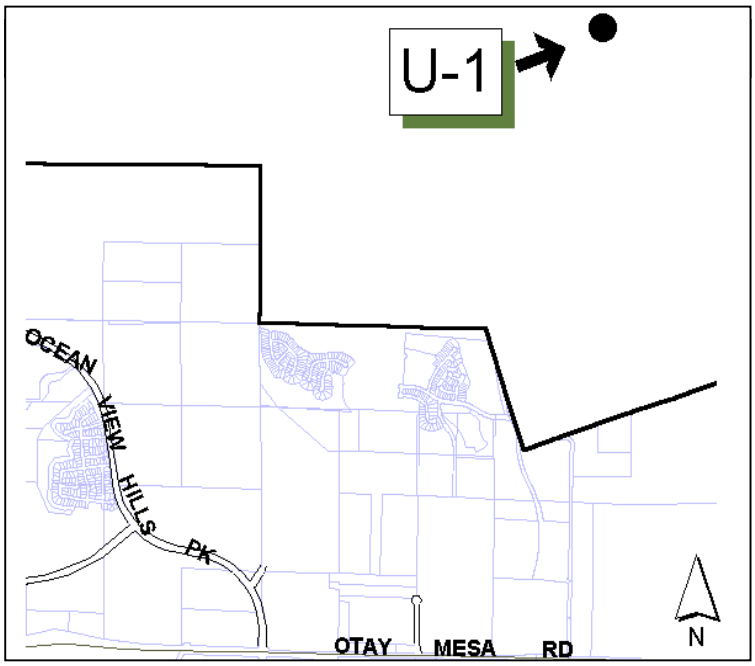
PROJECT: **OM U-1**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 73-250.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$0**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0



CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY MESA RESERVOIR**

		PROJECT:	**OM U-1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	73-250.0	COMMUNITY PLAN:	OM

DESCRIPTION:

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

DELETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTH SAN DIEGO PIPELINE NO. 2**

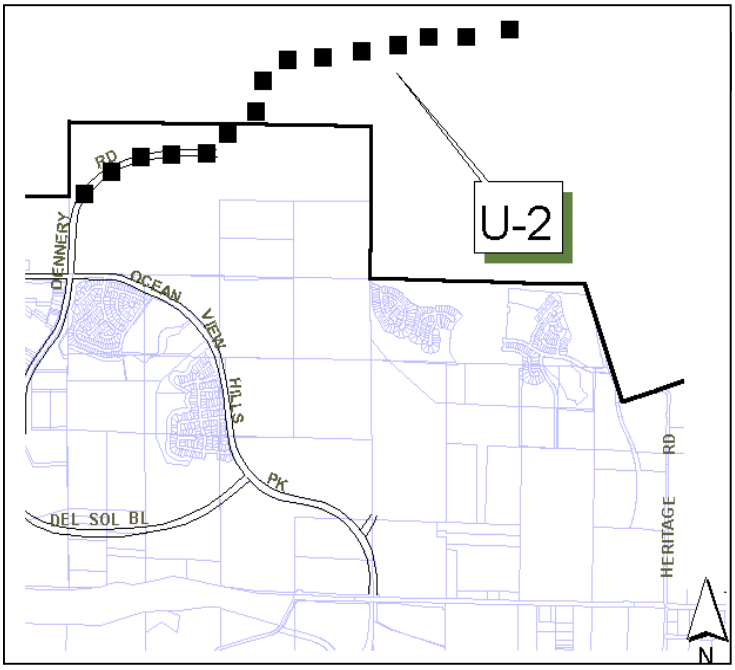
PROJECT: **OM U-2**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 73-249.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$29,006,391**	$29,006,391						
TOTAL	**$29,006,391**	$29,006,391	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0



CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **SOUTH SAN DIEGO PIPELINE NO. 2**

		PROJECT:	**OM U-2**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	73-249.0	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDES FOR INSTALLING AN ADDITIONAL ELEVEN MILES OF WATER TRANSMISSION PIPELINE BETWEEN THE SOUTH SAN DIEGO RESERVOIR AND BEYER BOULEVARD. THIS PROJECT IS PART OF A PARTICIPATION AGREEMENT BETWEEN THE CITY AND THE STOWE-PASSCO DEVELOPMENT.

JUSTIFICATION:

ADDITIONAL CAPACITY IS NEEDED TO MEET THE ANTICIPATED FUTURE WATER DEMANDS IN THE SOUTH SAN DIEGO AND OTAY MESA AREAS. A PORTION OF THIS PIPELINE IS ANTICIPATED TO BE REIMBURSED BY BENEFITING DEVELOPERS IN LATER YEARS AS A SUBSTANTIAL BENEFIT TO FUTURE DEVELOPMENT ON OTAY MESA AND OTHER SOUTH SAN DIEGO AREAS.

FUNDING ISSUES:

NOTES:

THIS PROJECT IS SHOWN FOR INFORMATION ONLY.

SCHEDULE:

COMPLETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OCEAN VIEW HILLS PARKWAY PUMP STATION**

PROJECT: **OM U-3**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$600,000**	$600,000						
OTHER								
TOTAL	**$600,000**	$600,000	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OCEAN VIEW HILLS PARKWAY PUMP STATION**

		PROJECT:	**OM U-3**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT A NEW 680 HYDROLIC GRADE LINE PUMP STATION.

JUSTIFICATION:

FUNDING ISSUES:

THIS PROJECT IS CONSIDERED A SUBDIVISION REQUIREMENT. THE DESIGN AND CONSTRUCTION OF THIS PROJECT WAS PERFORMED BY THE SUBDIVIDERS.

NOTES:

THIS PROJECT IS SHOWN FOR INFORMATIONAL PURPOSES ONLY.

SCHEDULE:

COMPLETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **MODIFY EXISTING WATER PUMP STATION**

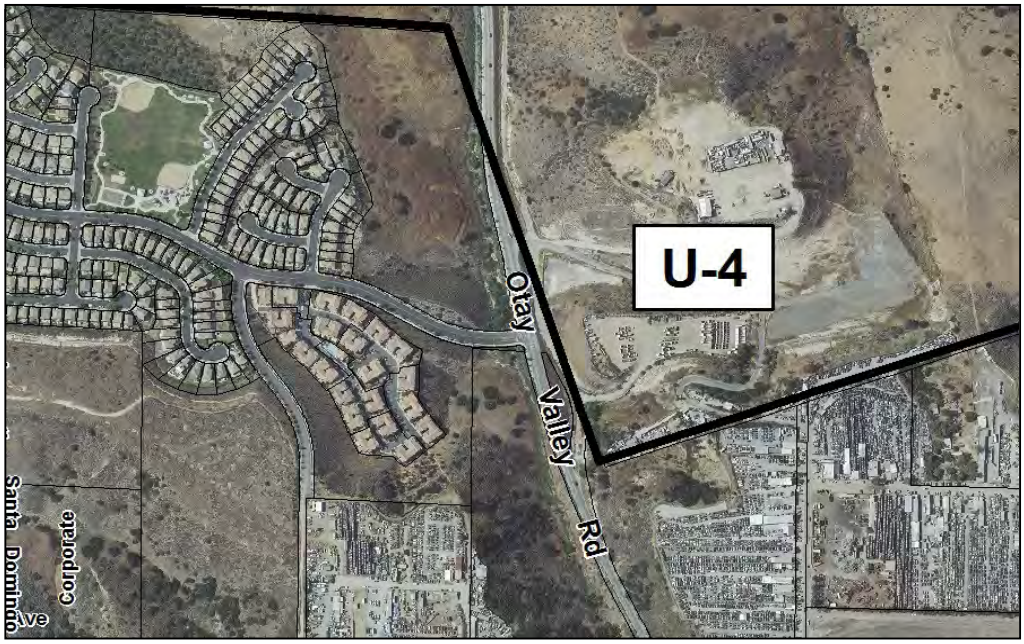
PROJECT: **OM U-4**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$400,000**	$400,000						
OTHER								
TOTAL	**$400,000**	$400,000	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0



CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **MODIFY EXISTING WATER PUMP STATION**

		PROJECT:	**OM U-4**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

THIS PROJECT PROVIDES FOR AN UPGRADE TO THE EXISTING PUMP STATION LOCATED ON OTAY VALLEY ROAD BY ADDING TELEMETRY, SOUND ATTENUATION, LANDSCAPING, AND OTHER MODIFICATIONS.

JUSTIFICATION:

THE UPGRADES ARE REQUIRED TO BRING THE PUMP STATION UP TO CURRENT AND ACCEPTABLE STANDARDS AS THE COMMUNITY DEVELOPS.

FUNDING ISSUES:

NOTES:

THIS PROJECT IS INCLUDED FOR INFORMATIONAL PURPOSES ONLY.

SCHEDULE:

COMPLETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **30" WATER SUPPLY PIPELINES IN RESIDENTIAL AREAS**

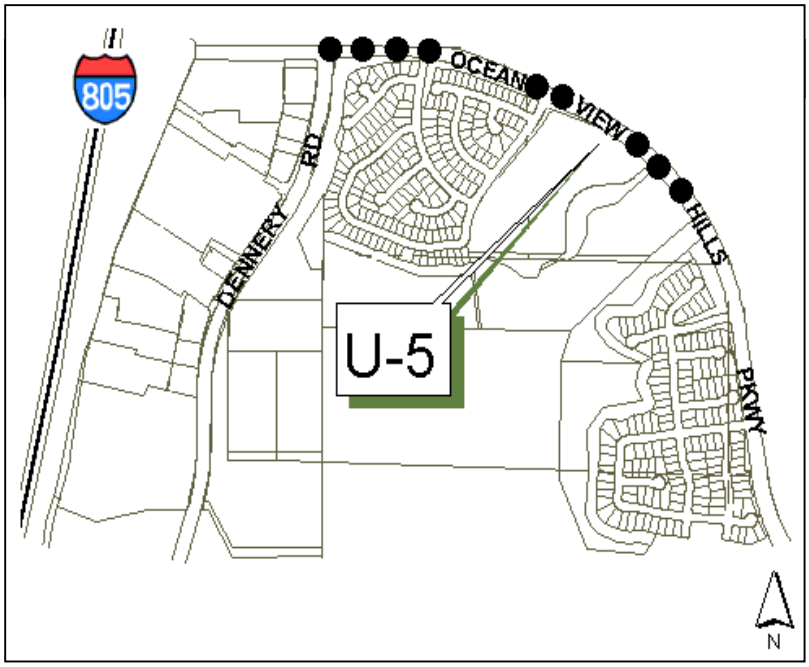
PROJECT: **OM U-5**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD	**$1,874,640**	$1,874,640						
OTHER								
TOTAL	**$1,874,640**	$1,874,640	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0



CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **30" WATER SUPPLY PIPELINES IN RESIDENTIAL AREAS**

		PROJECT:	**OM U-5**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

CONSTRUCT 11,680 LINEAR FEET OF 36" WATER TRANSMISSION LINE IN PALM AVENUE, DENNERY CANYON ROAD, AND DENNERY RANCH ROAD. THE CONSTRUCTION COST FOR THESE IMPROVEMENTS WERE ADVANCED BY THE INITIAL DEVELOPMENTS PURSUANT TO COUNCIL POLICY NO. 400-7.

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

COMPLETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY VALLEY TRUNK SEWER**

PROJECT: **OM U-8**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$0**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

DELETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **OTAY VALLEY TRUNK SEWER**

		PROJECT:	**OM U-8**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

PROJECT DELETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **VELOCITY CONTROL/SPREADING BASIN STUDY**

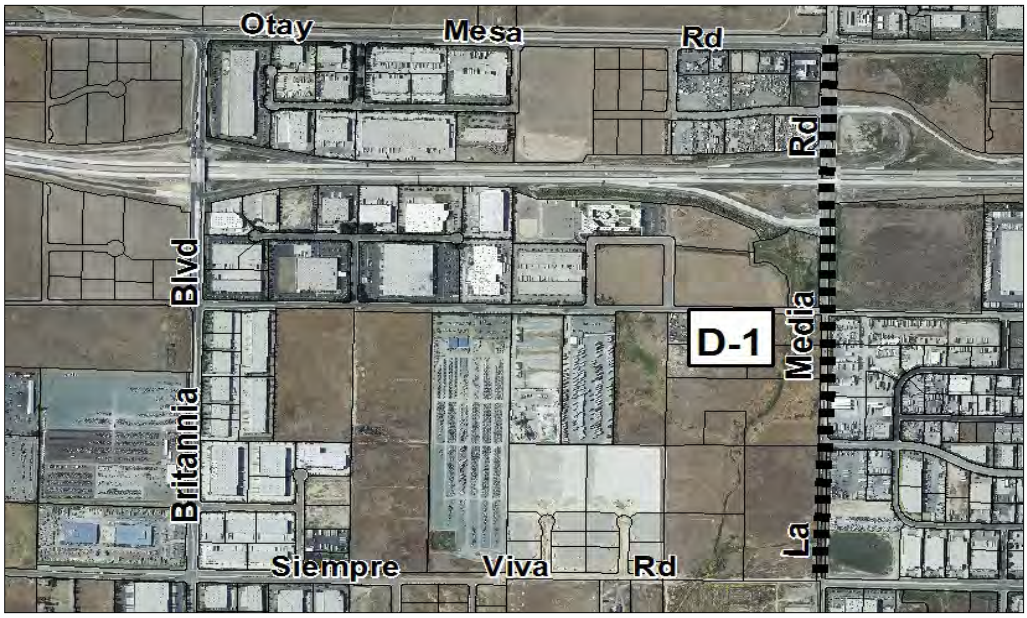
PROJECT: **OM D-1**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: 12-126.0

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER	**$156,255**	$156,255						
TOTAL	**$156,255**	$156,255	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0



CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **VELOCITY CONTROL/SPREADING BASIN STUDY**

		PROJECT:	**OM D-1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	12-126.0	COMMUNITY PLAN:	OM

DESCRIPTION:

THE PROJECT SCOPE INCLUDES A HEC-1 DRAINAGE STUDY AND PRELIMINARY DESIGN OF A DRAINAGE CHANNEL AND A DETENTION BASIN. THE STUDIES PREVIOUSLY DONE IN 1986-1988 ARE CONSIDERED TO BE OUT OF DATE DUE TO DEVELOPMENT CHANGES AND ENVIRONMENTAL CONSIDERATIONS. THE DRAINAGE CHANNEL ALIGNMENT WILL BE ALONG LA MEDIA ROAD BETWEEN OTAY MESA ROAD AND SIEMPRE VIVA ROAD.

JUSTIFICATION:

THE CITY OF SAN DIEGO'S ENGINEERING AND CAPITAL PROJECTS DEPARTMENT HAS DETERMINED THAT APPROXIMATELY 3,500 ACRES WITHIN THE OTAY MESA AREA CONTRIBUTES TO DRAINAGE INTO THE REPUBLIC OF MEXICO ADJACENT TO THE TIJUANA AIRPORT. AS DEVELOPMENT OCCURS WITHIN THE DRAINAGE BASIN AREA, THE FLOWS INTO THE REPUBLIC OF MEXICO WILL INCREASE IN PROPORTION TO THE DEVELOPMENT.

FUNDING ISSUES:

FUNDING FOR THIS PROJECT COMES FROM COLLECTION OF SPECIAL FEES AT THE TIME OF FINAL MAP/BUILDING PERMIT.

NOTES:

IN ORDER TO MITIGATE THE POTENTIAL ADVERSE DRAINAGE IMPACTS IN THE REPUBLIC OF MEXICO DUE TO THE OTAY MESA DEVELOPMENTS, THE OTAY MESA DRAINAGE STUDY WAS INITIATED. THE STUDY WILL ADDRESS THESE ISSUES AND ESTABLISH A VIABLE PLAN FOR A SYSTEM OF IMPROVEMENTS WHICH CAN BE USED TO COORDINATE THE DEVELOPMENT OF THE INDIVIDUAL STORM DRAIN SYSTEMS BEING DESIGNED AND BUILT BY DEVELOPERS.

SCHEDULE:

COMPLETED

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BROWN FIELD - (Land Acquisition for Runway Zone)**

PROJECT: **OM A-1**

DEPARTMENT: ENGINEERING & CAPITAL PROJECTS
WBS, CIP, or JO #: N/A

COUNCIL DISTRICT: 8
COMMUNITY PLAN: OM

SOURCE	**FUNDING:**	EXPENDED	CONT APPROP	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	**$0**	$0	$0	$0	$0	$0	$0	$0

SOURCE	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
FBA-OM								
DIF-OM								
FBA-OM(w)								
FBA-OM(e)								
PDIF (w)								
PDIF (e)								
DEV/SUBD								
OTHER								
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0

CONTACT: TELEPHONE: EMAIL:

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

TITLE: **BROWN FIELD - (Land Acquisition for Runway Zone)**

		PROJECT:	**OM A-1**
DEPARTMENT:	ENGINEERING & CAPITAL PROJECTS	COUNCIL DISTRICT:	8
CIP or JO #:	N/A	COMMUNITY PLAN:	OM

DESCRIPTION:

JUSTIFICATION:

FUNDING ISSUES:

NOTES:

SCHEDULE:

DELETED

CONTACT: TELEPHONE: EMAIL:

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Facilities Benefit Assessment List

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FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
1	62407105	KAISER FOUNDATION HEALTH PLAN INC	27.99	Regional Commerical-No Residential
2	64501013	PARDEE HOMES	21.61	Low Medium & Open Space
2	64540002	RIVEREDGE TERRACE L P	13.24	Low Medium
2	64540003	OCEANVIEW TERRACE L P	6.71	Open Space, Low Medium
2	64540004	OCEANVIEW TERRACE L P	0.59	Open Space
5	64504209	WESTERN PACIFIC HOUSING INC	1.54	Open Space
5	64504210	WESTERN PACIFIC HOUSING INC	0.99	Open Space, Institutional
6	63104212	PARDEE HOMES	1.16	Open Space
6	64504021	PARDEE HOMES	2.32	Open Space
6	64504057	PARDEE HOMES	3.19	Open Space
6	64504066	PARDEE HOMES	2.09	Medium High
6	64504068	PARDEE HOMES	0.89	Open Space
6	64504069	PARDEE HOMES	2.75	Open Space
6	64504070	PARDEE HOMES	45.72	Medium High & Institutional
6	64506041	PARDEE HOMES	2.90	Low Medium
6	64511304	PARDEE HOMES	0.00	Low
6	64511317	PARDEE HOMES	0.00	Parks
6	64540005	PARDEE HOMES	1.88	Low Medium
8	64504041	ROMAN CATHOLIC BISHOP OF SAN DIEGO	15.68	Open Space & Community Commercial-No Residential
9	64504023	REYNOLDS M W CONSTRUCTION CO	4.64	Open Space
10	64504022	STILES ENRIQUE M	2.32	Open Space
11	64504024	CA DELSOLE HOMES L P	9.38	Open Space & Right Of Way
11	64504027	CA DELSOLE HOMES LP	4.57	Open Space
13	63104102	F L I K INC	3.49	Regional Commerical-No Residential
13	63104104	F L I K INC	2.68	Regional Commerical-No Residential
13	63104105	F L I K INC	0.85	Regional Commerical-No Residential
13	63104106	F L I K INC	0.91	Regional Commerical-No Residential
13	63104107	F L I K INC	0.83	Regional Commerical-No Residential
13	63104202	F L I K INC	5.32	Regional Commerical-No Residential
19	63830130	HAM NORMALINDA	1.14	Low
20	66701001	SAN YSIDRO INDUSTRIAL PARK LTD	48.19	Neighborhood Village, Open Space
20	66701022	SAN YSIDRO INDUSTRIAL PARK LTD	61.16	Neighborhood Village, Open Space, Parks, Institutional
21	66701006	PARDEE HOMES	61.63	Neighborhood Village, Open Space, Parks, Institutional
21	66701015	PARDEE HOMES	41.07	Neighborhood Village, Open Space
21	66701019	PARDEE HOMES	6.91	Neighborhood Village, Parks

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
21	66701020	PARDEE HOMES	6.91	Neighborhood Village
21	66701027	PARDEE HOMES	0.00	Open Space
21	66701028	PARDEE HOMES	20.54	Open Space
21	66701030	PARDEE HOMES	56.08	Neighborhood Village, Open Space
21	66701031	PARDEE HOMES	46.03	Open Space
25	64605009	R FAMILY PROPERTIES II L L C	17.43	Light Industrial
27	66704013	PARDEE HOMES	158.72	Neighborhood Village, Open Space, Parks
28	66701014	HANDLER TRUST 08-27-83	20.39	Neighborhood Village
29	66701021	DEXSTAR INC	6.91	Neighborhood Village
34	64506104	PARDEE HOMES	35.00	Neighborhood Village, Parks, Open Space, Medium
34	64506106	PARDEE HOMES	10.12	Neighborhood Village, Institutional
34	64506107	PARDEE HOMES	10.16	Neighborhood Village, Parks
34	64506108	PARDEE HOMES	10.20	Neighborhood Village, Parks
34	64506109	PARDEE HOMES	10.24	Neighborhood Village
35	64506032	CANDLELIGHT PROPERTIES L L C	19.01	Medium
35	64506035	CANDLELIGHT PROPERTIES L L C	16.00	Medium
35	64506038	CANDLELIGHT PROPERTIES L L C	0.00	Community Commercial No Residential
35	64506105	CANDLELIGHT PROPERTIES L L C	5.00	Neighborhood Village, Medium
35	64508008	CANDLELIGHT PROPERTIES L L C	12.12	Medium, Open Space
36	64506028	SOUTHVIEW LLC	8.93	Medium
36	64508017	SOUTHVIEW LLC	34.81	Medium, Open Space, Right Of Way
38	64506017	SAN DIEGO GAS&ELECTRIC CO	3.89	Institutional, Open Space
40	64508003	OTAY MESA LLC	160.60	Neighborhood Village, Open Space, Institutional, Parks
41	64509030	MURILLO JORGE A A	0.00	Business & International Trade
42	64508018	HANDLER TRUST 08-27-83	13.60	Community Commercial No Residential
42	64508019	HANDLER TRUST 08-27-83	4.63	Community Commercial No Residential, Open Space
42	64509043	HANDLER TRUST 08-27-83	2.78	Open Space
42	64509051	HANDLER TRUST 08-27-83	0.56	Community Commercial - No Residential
43	64605008	VILLANUEVA LUZ M <AKA GONZALEZ LUZ M>	8.80	Light Industrial, Open Space
47	64508016	PARDEE HOMES	13.93	Community Commercial No Residential
47	64539005	PARDEE HOMES	11.28	Open Space
47	64539006	PARDEE HOMES	5.01	Open Space
47	64539007	PARDEE HOMES	3.49	Open Space
49	64505004	OTAY MESA CROSSING L L C	14.90	Open Space
50	64509038	NASR ALI KIAN	0.99	Business & International Trade

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
52	64505007	INGALLS MELVYN V	10.00	Medim, Light Industrial, Community Commercial- No Residential
54	64501008	BORST REVOCABLE TRUST 03-20-90	11.87	Open Space
59	64506110	FINE PARTICLE TECHNOLOGY CORP	86.38	Open Space
60	64509033	ACEVES EDUARDO&IRENE	1.10	Business & International Trade
61	66704004	JENNINGS FREDERICK	1.11	Open Space
64	64507101	QUINATA SUSANA A LIVING TRUST	0.84	Neighborhood Village, Right of Way
65	64507102	MEKHAEL GEORGE F	0.84	Neighborhood Village
66	64507103	ORTIZ MARY	0.84	Neighborhood Village, Parks
66	64507112	ORTIZ MARY	0.84	Neighborhood Village, Parks
67	64507104	FELCO CONSTRUCTION INC	0.84	Parks
68	64507105	BAYVIEW LOAN SERVICING L L C	0.84	Parks
69	64507106	WILKINSON FAMILY TRUST B 12-29-86	0.84	Neighborhood Village, Parks
70	64507107	DELRIO RICARDO&NORMA	0.84	Institutional
71	64507114	WOLFGRAMM FAMILY TRUST 05-01-03	0.84	Neighborhood Village, Right of Way
72	64507113	SAWAGED SAVANNAH H	0.84	Neighborhood Village
73	64507111	AVALOS CHARLES&MARY FAMILY TRUST 01-03-05 ET	0.84	Parks
74	64507110	VENZON FAMILY TRUST 11-20-99	0.84	Parks
75	64507109	SANDOVAL LUIS F	0.84	Neighborhood Village, Parks
76	64507108	SANDOVAL ROBERT F	0.84	Institutional
77	64507201	PREACHER RONDA R	0.84	Neighborhood Village, Right of Way
78	64507202	LOMELI RAMON C	0.84	Neighborhood Village
79	64507203	LOMELI FAMILY TRUST 03-19-99	0.84	Neighborhood Village
80	64507204	ORTIZ FAMILY TRUST 12-09-96	0.84	Neighborhood Village
80	64507205	ORTIZ FAMILY TRUST 12-09-96	0.84	Neighborhood Village
81	64507206	OROZCO JOSE M&MARTHA E	0.84	Neighborhood Village
82	64507207	GARCIA FAMILY TRUST 09-17-01	0.84	Neighborhood Village
84	64507213	MORENO TRUST	0.84	Neighborhood Village
85	64507212	TALUKDER MAHBUBUL A	0.84	Neighborhood Village
86	64507211	WHEELER JOHN F&VIVIAN REVOCABLE INTERVIVOS T	0.84	Neighborhood Village
87	64507210	VELEZ BARBARA A	0.84	Neighborhood Village
88	64507209	PHAM HUNG VAN&THUOC THI REVOCABLE 2006 TRU	0.84	Neighborhood Village
89	64507208	GARCIA CARLOS R&ELIZABETH	0.84	Neighborhood Village
90	64507301	AGUILAR MIGUEL <AKA MEJIA MIGUEL>	0.84	Neighborhood Village, Right of Way
91	64507302	SALERNO RALPH N TRUST 04-26-06	0.84	Neighborhood Village
91	64507312	SALERNO RALPH N TRUST 04-26-06	0.84	Neighborhood Village

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
93	64507304	MERCADO PEDRO G&JOSEFINA C	0.84	Neighborhood Village
94	64507214	PARDEE HOMES	0.84	Neighborhood Village, Right of Way
94	64507303	PARDEE HOMES	0.84	Neighborhood Village
94	64507305	PARDEE HOMES	0.84	Neighborhood Village
94	64507306	PARDEE HOMES	0.84	Neighborhood Village
94	64507308	PARDEE HOMES	0.84	Neighborhood Village
94	64507310	PARDEE HOMES	0.84	Neighborhood Village
94	64507311	PARDEE HOMES	0.84	Neighborhood Village
95	64507307	ALGERT JAMES H LIVING TRUST 01-05-06	0.84	Neighborhood Village
97	64507309	BEAVER ESSIE M	0.84	Neighborhood Village
98	64507313	BURROLA ERNESTINA LIVING TRUST 01-14-11	0.84	Neighborhood Village
99	64507314	ROMERO JUAN A&PILAR C	0.84	Neighborhood Village, Right of Way
100	64507401	ROWE CELESTE M	0.91	Neighborhood Village, Medium
101	64507402	FITZGERALD JOHN D&ELAINE M FAMILY TRUST	0.91	Neighborhood Village
102	64507403	ALCARAZ TERESITA L TR	0.91	Neighborhood Village
103	64507404	PARDEE HOMES	0.91	Neighborhood Village
103	64507405	PARDEE HOMES	0.91	Neighborhood Village
103	64507422	PARDEE HOMES	0.91	Neighborhood Village, Right of Way
103	64507423	PARDEE HOMES	0.91	Neighborhood Village, Right of Way
103	64507503	PARDEE HOMES	0.91	Neighborhood Village, Right of Way
103	64507504	PARDEE HOMES	0.91	Neighborhood Village, Right of Way
103	64507505	PARDEE HOMES	0.91	Neighborhood Village
103	64507521	PARDEE HOMES	0.91	Neighborhood Village, Open Space
103	64507523	PARDEE HOMES	0.91	Neighborhood Village
103	64507602	PARDEE HOMES	0.91	Neighborhood Village, Parks
103	64507607	PARDEE HOMES	0.91	Open Space
103	64507620	PARDEE HOMES	0.91	Neighborhood Village, Open Space
103	64507622	PARDEE HOMES	0.91	Neighborhood Village, Open Space
104	64507407	VALDIVIA HILARIO G&MARIA G REVOCABLE 1997 TRU	0.91	Neighborhood Village, Right of Way
108	64507410	VELEZ BARBARA	0.91	Neighborhood Village, Parks
109	64507411	GARCIA JOSE A&ROSA&GARCIA GUADALUPE D P	0.91	Neighborhood Village, Parks
111	64507413	SHIBUYA YOSHINDO&BETTY T TRUST 06-16-82	0.91	Neighborhood Village
112	64507414	NGUYEN THUAN D	0.91	Neighborhood Village
113	64507415	MARMOLEJO FRANK	0.91	Neighborhood Village, Parks
114	64507416	LUNA ROBERTO A	0.91	Parks

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
115	64507417	SANCHEZ JOSE M	0.91	Parks
119	64507424	WINANS JOHN R TR	0.91	Neighborhood Village, Right of Way
120	64507425	HUERTA CARMEN TRUST 06-14-07	0.91	Neighborhood Village
121	64507426	ARROYO FAMILY TRUST 10-06-05	0.91	Neighborhood Village, Medium
122	64507501	GANEM ALBERT F LIVING TRUST 01-07-92	0.91	Neighborhood Village, Medium, Right of Way
123	64507502	LOMELI FAMILY TRUST 02-22-07	0.91	Neighborhood Village, Right of Way
129	64507510	MIRANDA OCTAVIANO&ISABEL M	0.91	Neighborhood Village, Parks
130	64507511	SHIBUYA YOSHINDO&BETTY T TRUST 06-16-82	0.91	Neighborhood Village, Parks
131	64507512	PULIDO LIVING TRUST 12-12-06	0.91	Neighborhood Village, Parks
132	64507513	COLLINS JOHN S	0.91	Neighborhood Village
133	64507514	ARELLANO BURGUENO CORP	0.91	Neighborhood Village
134	64507515	LIERAS MANUEL&MARY C	0.91	Neighborhood Village
135	64507516	RODRIGUEZ FAMILY TRUST 10-09-02	0.91	Neighborhood Village
136	64507517	HOFFMAN JOSE M&BLANCA D	0.91	Neighborhood Village
137	64507518	BLAS FAMILY TRUST 09-03-93	0.91	Neighborhood Village
138	64507519	VALDIVIA LETICIA	0.91	Neighborhood Village
141	64507522	BRAMBILA GUILLERMO&ROSIE	0.91	Neighborhood Village, Open Space
142	64507524	RODDY JOSEPH F CO INC	0.91	Neighborhood Village
143	64507525	GAMBOA MANUEL&SONIA	0.91	Neighborhood Village
144	64507526	HUERTA CARMEN TR 06-14-97& VILLAESCUSA, TITO	0.91	Neighborhood Village, Medium
145	64507601	FUZET MONIQUE	0.91	Neighborhood Village, Parks, Medium
147	64507603	MUTSCHLER JOAN <AKA HOLTEL MARY J>	0.91	Neighborhood Village, Parks
148	64507604	DODD CHARLES	0.91	Neighborhood Village
149	64507605	BLAS ANTONIO&BEATRIZ	0.91	Neighborhood Village, Open Space
150	64507621	HATTIE DAVISSON PROPERTIES L P	0.91	Open Space
151	64507608	ALVAREZ JOSE	0.91	Neighborhood Village, Open Space
152	64507609	SAN YSIDRO LAND TRUST 07-19-07	0.91	Neighborhood Village, Open Space
153	64507610	LOZANO RAYMOND S&MARTHA	0.91	Neighborhood Village
154	64507611	NGUYEN NHATNAM	0.91	Neighborhood Village
155	64507612	VELASQUEZ AMPARO S REVOCABLE TRUST 09-06-00	0.91	Neighborhood Village
155	64507613	VELASQUEZ AMPARO S REVOCABLE TRUST 09-06-00	0.91	Neighborhood Village
156	64507614	ALCARAZ TERESITA L TR	0.91	Neighborhood Village
157	64507615	VALDIVIA HILARIO G&MARIA G REVOCABLE 1997 TRU	0.91	Neighborhood Village
158	64507616	ORTIZ MARCELINO&TERESA TRUST 12-30-93	0.91	Neighborhood Village
159	64507617	FELCO CONSTRUCTION INC	0.91	Neighborhood Village

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
160	64507618	LEE MICHAEL	0.91	Neighborhood Village
161	64507619	AISPURO NIEVES A&MARIA G	0.91	Neighborhood Village
163	64507623	GUTIERREZ EDGAR	0.91	Neighborhood Village
164	64507624	GARCIA MANUEL A	0.91	Neighborhood Village
165	6450762501	FLORES JOSEPH V&GUADALUPE	0.91	Neighborhood Village
165	6450762502	SONGBIRD TRUST 10-09-06	0.91	Neighborhood Village
165	6450762503	SONGBIRD TRUST 10-09-06	0.91	Neighborhood Village
165	6450762504	LANGARICA HERIBERTO P	0.91	Neighborhood Village
166	64507626	AYALA RUDY S&LUCIA M	0.91	Neighborhood Village, Medium
167	64509031	NORTH ISLAND FINANCIAL CREDIT UNION	1.72	Business & International Trade
168	64509045	WRIGHT JAMES	1.62	Business & International Trade
168	64509046	WRIGHT JAMES	1.97	Business & International Trade
169	64509034	BEJARANO MARTIN	1.10	Business & International Trade
174	64509048	REYNOSO ALFONSO&EVA	0.00	Open Space
175	64509008	IGNACIO CARRILLO JR	1.25	Open Space
176	64509007	HUERTA JORGE A	1.25	Open Space
177	64505034	STREET PROPERTIES INC	17.43	Ligth Industrial & Open Space
177	64505035	STREET PROPERTIES INC	12.71	Ligth Industrial & Open Space
178	64505024	PICHLER DAN TRUST 09-14-04	5.84	Open Space, Heavy Industrial
179	64505025	WILSON MARK&ELIZABETH FAMILY TRUST 11-01-07	3.59	Heavy Industrial, Light Industrial
180	64505029	STREET PROPERTIES INC	17.00	Heavy Industrial
180	64505030	STREET PROPERTIES INC	9.57	Heavy Industrial
181	64505043	STREETCONE-S D L L C	36.01	Heavy Industrial
183	64509023	ROBLES JOSE D J III	1.25	Open Space
184	64509020	MARTINO SUZETTE&MARTINO ALBERT J JR	1.25	Open Space
185	64509019	INGALLS MELVYN V	2.50	Open Space
186	64509022	MARTINO SUZETTE&MARTINO ALBERT J JR	1.25	Open Space
187	64509021	MILLER JOHN H FAMILY TRUST 03-11-99	1.25	Open Space
188	64509018	VONGUNDEN JOHN W	1.25	Open Space
189	64510101	SALATINO R G FAMILY TRUST 08-14-02	0.96	Open Space
190	64510102	HATTIE DAVISSON PROPERTIES L P	0.96	Open Space, Right of Way
190	64510111	HATTIE DAVISSON PROPERTIES L P	0.96	Open Space, Right of Way
190	64510112	HATTIE DAVISSON PROPERTIES L P	0.97	Open Space
191	64510103	CLOPHUS JANITH	0.96	Open Space
192	64510104	MARTINEZ AGUSTIN	0.96	Open Space

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
193	64510105	HATTIE DAVISSON PROPERTIES L P	0.96	Open Space
193	64510106	HATTIE DAVISSON PROPERTIES L P	0.96	Open Space
193	64510107	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510108	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village, Open Space
193	64510204	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village, Open Space
193	64510205	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510206	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510207	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510208	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510209	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510210	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village, Open Space, Right of Way
193	64510303	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village, Right of Way, Open Space
193	64510304	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510305	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510306	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510307	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510308	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510309	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village
193	64510310	HATTIE DAVISSON PROPERTIES L P	0.96	Neighborhood Village, Right of Way, Open Space
195	64510109	ROWLAND DAVID E	0.96	Open Space
195	64510110	ROWLAND DAVID E	0.96	Open Space, Right of Way
197	64510212	MCCARTHY DAN	0.97	Open Space
198	64510301	CAREFREE PROPERTIES L L C	0.97	Open Space
198	64510302	CAREFREE PROPERTIES L L C	0.96	Open Space
198	64510311	CAREFREE PROPERTIES L L C	0.96	Open Space
199	64510312	HETTER FREDERICK J&NOHEMI	0.98	Open Space
200	64609101	BACKAL ANNE TRUST 10-31-07	0.90	Open Space
200	64609102	BACKAL ANNE TRUST 10-31-07	0.90	Open Space
200	64609103	BACKAL ANNE TRUST 10-31-07	0.91	Open Space
200	64609104	BACKAL ANNE TRUST 10-31-07	0.91	Open Space
200	64609105	BACKAL ANNE TRUST 10-31-07	0.91	Open Space, Right of Way
200	64609106	BACKAL ANNE TRUST 10-31-07	0.91	Neighborhood Village, Open Space, Right of Way
200	64609111	BACKAL ANNE TRUST 10-31-07	0.91	Neighborhood Village
200	64609112	BACKAL ANNE TRUST 10-31-07	0.91	Neighborhood Village
200	64609201	BACKAL ANNE TRUST 10-31-07	0.91	Open Space

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
200	64609202	BACKAL ANNE TRUST 10-31-07	0.92	Open Space
200	64609203	BACKAL ANNE TRUST 10-31-07	0.91	Open Space
200	64609204	BACKAL ANNE TRUST 10-31-07	0.91	Open Space
200	64609216	BACKAL ANNE EST OF	0.91	Parks, Institutional
201	64609107	CLARA DAVISSON PROPERTIES L P	0.91	Neighborhood Village
201	64609108	CLARA DAVISSON PROPERTIES L P	0.91	Neighborhood Village
201	64609109	CLARA DAVISSON PROPERTIES L P	0.91	Neighborhood Village
201	64609110	CLARA DAVISSON PROPERTIES L P	0.91	Neighborhood Village
201	64609221	CLARA DAVISSON PROPERTIES L P	0.91	Neighborhood Village
201	64609222	CLARA DAVISSON PROPERTIES L P	0.91	Neighborhood Village
202	64609113	SAMPO MICHAEL&PENNY	0.91	Neighborhood Village
203	64609114	JACOB FAMILY TRUST 11-13-92	0.91	Neighborhood Village
204	64609116	EVANS AGNES C FAMILY TRUST 10-04-90	0.91	Neighborhood Village
205	64609115	ZUNIGA JOSEPH A	0.91	Neighborhood Village
206	64609117	STONEY CARL J JR	0.91	Neighborhood Village
206	64609119	STONEY CARL J JR	0.91	Neighborhood Village
207	64609118	HATTIE DAVISSON PROPERTIES L P	0.91	Neighborhood Village
207	64609120	HATTIE DAVISSON PROPERTIES L P	0.91	Neighborhood Village
208	64609121	RUSSELL WESLEY L&GERALDINE C REVOCABLE FAMIL	0.91	Neighborhood Village
209	64609122	SORENSON LIVING TRUST 03-13-91	0.91	Neighborhood Village
209	64609123	SORENSON LIVING TRUST 03-13-91	0.91	Neighborhood Village
209	64609124	SORENSON LIVING TRUST 03-13-91	0.91	Neighborhood Village, Open Space
210	64609128	OAKLAND WARREN H 1989 TRUST 03-27-89	0.00	Open Space
211	64609127	OAKLAND HARRY L	0.00	Open Space
211	64609129	OAKLAND HARRY L	0.00	Open Space
211	64609130	OAKLAND HARRY L	0.00	Open Space
212	64609205	HATTIE DAVISSON PROPERTIES L P	0.91	Neighborhood Village, Open Space, Right of Way
212	64609208	HATTIE DAVISSON PROPERTIES L P	0.91	Neighborhood Village
212	64609210	HATTIE DAVISSON PROPERTIES L P	0.91	Institutional, Neighborhood Village
212	64609214	HATTIE DAVISSON PROPERTIES L P	0.91	Institutional
212	64609215	HATTIE DAVISSON PROPERTIES L P	0.91	Parks, Institutional
212	64609218	HATTIE DAVISSON PROPERTIES L P	0.91	Parks
212	64609308	HATTIE DAVISSON PROPERTIES L P	0.91	Neighborhood Village
212	64609316	HATTIE DAVISSON PROPERTIES L P	0.91	Institutional, Parks
212	64609317	HATTIE DAVISSON PROPERTIES L P	0.91	Parks

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
213	64609206	DARBY 1990 TRUST 07-23-90	0.91	Neighborhood Village, Open Space, Right of Way
214	64609207	WALLS MAHALA SUE TRUST 10-08-81	0.91	Neighborhood Village
215	64609209	CLARA DAVISSON PROPERTIES L P	0.91	Institutional, Neighborhood Village
216	64609211	HOWLEY PATRICIA A TRUST 08-30-96	0.91	Institutional, Neighborhood Village
217	64609212	SAMPO MIKE P&PENNY L	0.91	Institutional
218	64609213	BACKAL JAIME	0.91	Institutional
219	64609217	RITCHEY FAMILY TRUST 07-27-92	0.91	Parks
220	64609219	ROCK PENNY M TRUST 12-11-98	0.91	Parks
221	64609220	COLLINS JOSEPH JR TR	0.91	Parks
222	64609224	VELASQUEZ AMPARO S REVOCABLE TRUST 09-06-00	0.91	Neighborhood Village, Open Space
222	64609225	VELASQUEZ AMPARO S REVOCABLE TRUST 09-06-00	0.91	Neighborhood Village, Open Space
223	64609223	BENNETT JACK R TRUST OF 1990	0.91	Neighborhood Village
225	64609226	DUENAS JOE A&PEGGY M	0.91	Neighborhood Village
226	64609301	BARTON SHARON L	0.92	Open Space
226	64609302	BARTON SHARON L	0.93	Open Space
227	64609303	GASKIN ROY A&MARGARET E	0.91	Neighborhood Village, Open Space, Right of Way
228	64609304	INGALLS MELVYN V	0.91	Open Space, Right of Way
229	64609305	BECKMAN NATALIE	0.91	Neighborhood Village, Right of Way
230	64609306	CARLSON&BEAULOYE	0.91	Neighborhood Village
231	64609307	WATSON FAMILY BYPASS TRUST 11-04-93	0.91	Neighborhood Village
231	64609309	WATSON FAMILY BYPASS TRUST 11-04-93	0.91	Neighborhood Village, Institutional
231	64609310	WATSON FAMILY BYPASS TRUST 11-04-93	0.91	Neighborhood Village, Institutional
231	64609311	WATSON FAMILY BYPASS TRUST 11-04-93	0.91	Institutional
231	64609312	WATSON FAMILY BYPASS TRUST 11-04-93	0.91	Institutional
232	64609313	CARCANO HERIBERTA	0.91	Institutional
233	64609338	SAMPO MICHAEL&PENNY	2.73	Parks, Institutional
234	64609334	OROZCO JOSE M&MARTHA E	0.91	Parks
235	64609330	QUIJADA FAMILY TRUST 09-16-96	0.91	Neighborhood Village
236	64609332	SAMPO MICHAEL P&PENNY L	0.91	Neighborhood Village
238	64609337	TINSAY REYNALDO G	0.91	Neighborhood Village, Open Space
238	64609340	TINSAY REYNALDO	0.91	Neighborhood Village
238	64609341	TINSAY REYNALDO G	0.91	Neighborhood Village, Open Space
239	64609342	BURGUENO OCTAVIO	0.91	Neighborhood Village, Open Space
241	64609336	RODRIGUEZ PROPERTIES TRUST 02-15-12	0.91	Institutional
243	64617005	VISTA SOUTH MELROSE L P	5.75	Business & International Trade

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245	64617011	WRIGHT JAMES M	3.66	Business Park
246	64619006	HSIU-STEIN TRUST 07-14-05	1.62	Business & International Trade
246	64619008	HSIU-STEIN TRUST 07-14-05	0.81	Business & International Trade
246	64619029	HSIU-STEIN TRUST 07-14-05	0.80	Business & International Trade
248	64619032	LEBATA INC	3.50	Business & International Trade
249	64619019	ROWE FAMILY TRUST 02-25-04	0.75	Business & International Trade
250	64619021	SPARKS FAMILY TRUST 12-10-98	0.54	Business & International Trade
250	64619030	SPARKS LOUIS T JR&YOLANDA C	0.91	Business & International Trade
252	64610075	B F V 1	17.90	Business Park, Open Space
252	64610076	SESI DECEDENTS TRUST 01-19-95	15.02	Community Village, Business Park, Open Space
253	64610048	TATUM CHARLES E&IRMA J TRUST	0.91	Right of Way, Business Park
255	64610043	VARGAS REYNALDO&MARISELA	0.91	Business Park
256	64610069	ALCARAZ BYBETH	2.67	Right of Way, Business Park
257	64610068	MAYOR RAFAELA	0.91	Community Village, Right of Way
258	64610021	KAY MARK INC	10.00	Community Village, Right of Way, Open Space
259	64610018	MARTINEZ AGUSTIN REVOCABLE TRUST 05-21-03	10.00	Community Village
260	64610017	MARTINEZ AGUSTIN REVOCABLE TRUST 05-21-03	10.00	Community Village
261	64610020	MARTINEZ AGUSTIN REVOCABLE TRUST 05-21-03	19.08	Community Village
262	64610037	LOPEZ MAX D T&CONSUELO L	0.98	Community Village
263	64610038	MARTINEZ AGUSTIN REVOCABLE TRUST 05-21-03 ET	9.55	Community Village
264	64610071	MARTINEZ MARIA G TRUST 04-11-96	14.85	Community Village
265	64610054	TONATICO INVESMENTS L L C	4.85	Community Village
266	64610077	PAEZ JOSEPH JR	39.62	Community Village, Parks
267	64610074	CHANG JAW MIN TR	37.90	Business Park, Parks
269	64610064	NAVARRO FAMILY TRUST 03-01-00	2.35	Business Park
270	64610065	MARTINEZ FAMILY TRUST 07-21-99	2.35	Business Park
271	64610066	MOSELEY JANET	2.07	Business Park
272	64610067	MARTINEZ MARIA G TRUST 04-11-96	7.17	Business Park
273	64610040	REAL FRANK G TR <AKA GONZALEZ FRANCISCO>	4.61	Business Park
277	64610145	QUA ROBERT D&SHIRLEE TRS	9.49	Business & International Trade
278	64610178	VISTA SOUTH MELROSE L P	5.12	Business & International Trade
278	66705033	D E E H LLC	4.35	Heavy Industrial
279	64610179	BROWN FIELD TECHNOLOGY PARK L L C	2.28	Business & International Trade
279	64610180	BROWN FIELD TECHNOLOGY PARK L L C	1.58	Business & International Trade
279	64610181	BROWN FIELD TECHNOLOGY PARK L L C	1.28	Business & International Trade

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279	64610182	BROWN FIELD TECHNOLOGY PARK L L C	1.24	Business & International Trade
279	64610183	BROWN FIELD TECHNOLOGY PARK L L C	1.49	Business & International Trade
279	64610184	BROWN FIELD TECHNOLOGY PARK L L C	1.14	Business & International Trade
279	64610185	BROWN FIELD TECHNOLOGY PARK L L C	2.42	Business & International Trade
279	64610186	BROWN FIELD TECHNOLOGY PARK L L C	3.10	Business & International Trade
279	64610187	BROWN FIELD TECHNOLOGY PARK L L C	3.51	Business & International Trade
279	64610188	BROWN FIELD TECHNOLOGY PARK L L C	6.18	Business & International Trade
279	64610189	BROWN FIELD TECHNOLOGY PARK L L C	3.62	Business Park Residential
279	64610190	BROWN FIELD TECHNOLOGY PARK L L C	3.75	Business Park Residential
279	64610191	BROWN FIELD TECHNOLOGY PARK L L C	7.09	Business Park Residential
279	64610192	BROWN FIELD TECHNOLOGY PARK L L C	1.60	Business Park Residential
279	64610193	BROWN FIELD TECHNOLOGY PARK L L C	1.47	Business Park Residential
279	64610194	BROWN FIELD TECHNOLOGY PARK L L C	1.65	Business Park Residential
279	64610195	BROWN FIELD TECHNOLOGY PARK L L C	1.31	Business Park Residential
279	64610196	BROWN FIELD TECHNOLOGY PARK L L C	1.77	Business Park Residential
279	64610197	BROWN FIELD TECHNOLOGY PARK L L C	1.32	Business Park Residential
279	64610198	BROWN FIELD TECHNOLOGY PARK L L C	2.78	Business Park Residential
284	66705054	MCMAHON REAL ESTATE INVESTMENTS LLC	13.50	Heavy Industrial
285	66705068	NOBLE HOUSE REAL ESTATE L L C	4.09	Heavy Industrial
285	66705069	NOBLE HOUSE REAL ESTATE L L C	7.41	Open Space
286	66705044	ATLAS WOOD PRODUCTS INC	5.25	Heavy Industrial
287	66705041	CAMERON JOHN A&SHIRLEY FAMILY TRUST 12-14-95	2.76	Heavy Industrial
288	66705042	V C H NUMBER ONE L P	3.00	Heavy Industrial
289	66705046	SUPERIOR READY MIX CONCRETE L P	6.50	Heavy Industrial, Open Space
290	66705048	BARTOLIC RICHARD	2.44	Heavy Industrial
291	66705049	CACTUS ROAD ASSOCIATES L L C	6.84	Heavy Industrial, Open Space
292	66705018	MARTINEZ MARIA G TRUST 04-11-96	4.54	Heavy Industrial
293	66705023	ALVAREZ R&M PARTNERSHIP L P	4.53	Heavy Industrial
293	66705024	ALVAREZ R&M PARTNERSHIP L P	5.00	Heavy Industrial
293	66705027	ALVAREZ R&M PARTNERSHIP L P	8.96	Heavy Industrial
293	66705028	ALVAREZ R&M PARTNERSHIP L P	5.26	Heavy Industrial
293	66705029	ALVAREZ R&M PARTNERSHIP L P	9.80	Heavy Industrial
295	66705058	CHROME INC	9.15	Heavy Industrial
296	66705014	MELIDEO MICHAEL REVOCABLE 1996 TRUST	5.00	Heavy Industrial
297	66705060	EDEEN HILDA V TR	3.85	Heavy Industrial

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
298	66705035	CACTUS ROAD LP	6.98	Heavy Industrial
298.1	66705038	I M S GROUP L L C	9.31	Heavy Industrial
298.2	66705036	PROPERTY PARTNERS L P	7.61	Heavy Industrial
298.2	66705064	HARMONY GROVE PARTNERS L P	9.05	Heavy Industrial
301	64622109	MANAGING GP INC	2.31	Business & International Trade
307	64622003	PARKER PROPERTIES INC	3.33	Business Park
311	64611019	CROWN ENTERPRISES INC	19.70	Business & International Trade
312	64630005	P C C P S G KEARNY OTAY J R Y L L C	2.52	Business & International Trade
312.1	64630009	LOT 9 B I P L L C	2.13	Business & International Trade
312.2	64630014	OTAY BORDER PROPERTIES L L C	1.60	Business & International Trade
313	64611039	OTAY MESA DEVELOPMEMT	38.81	Business & International Trade
314	64611026	RRM PROPERTIES LTD	12.83	Business & International Trade
315	64611027	GUILLEN JUAN R	12.95	Business & International Trade
316	64611028	ZIVELONGHI ANA G REVOCABLE 2012 TRUST 01-04-1	13.13	Business & International Trade
317	64611010	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	10.00	Business & International Trade
317	64611201	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	10.21	Business & International Trade
317	64611204	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	1.17	Business & International Trade
317	64611205	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	1.01	Business & International Trade
317	64611206	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	1.70	Business & International Trade
317	64611207	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	1.14	Business & International Trade
317	64611208	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	1.01	Business & International Trade
317	64611209	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	1.64	Business & International Trade
317	64611210	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	1.86	Business & International Trade
317	64611211	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	1.29	Business & International Trade
317	64611212	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	10.27	Business & International Trade
317	64611213	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	0.86	Business & International Trade
317	64611214	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	0.81	Business & International Trade
318	64611005	HARRY CARL&ROSA FAMILY 2007 TRUST 12-27-07 ET	9.16	Business & International Trade
319	64611006	DELAROSA BEATRIZ C	4.77	Business & International Trade
320	64611007	KUTA LIVING REVOCABLE TRUST 12-18-03	5.00	Business & International Trade
320	64611008	KUTA LIVING REVOCABLE TRUST 12-18-03	17.04	Business & International Trade
320	64611009	KUTA LIVING REVOCABLE TRUST 12-18-03	2.50	Business & International Trade
321	64611011	ZOURA FAMILY TRUST 10-08-09	19.09	Business & International Trade
322	64611012	MILLER ROBERT E FAMILY TRUST 02-20-02	10.00	Business & International Trade
324	66706020	ALVAREZ R&M PARTNERSHIP L P	6.97	Business & International Trade

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
325	66706027	PINELLAS TAMPA I INC	8.64	Business & International Trade
326	66706023	SEA 9 LLC C/O FRANK GOLDBERG	7.99	Business & International Trade
327.1	66708001	OTAY-TJ NORTH L L C	5.60	Institutional
327.1	66708002	OTAY-TJ NORTH L L C	2.02	Institutional
327.1	66708003	OTAY-TJ NORTH L L C	1.49	Institutional
327.1	66708004	OTAY-TJ NORTH L L C	1.50	Institutional
327.2	66708005	OTAY-TIJUANA VENTURE L L C	5.00	Institutional
327.2	66708006	OTAY-TIJUANA VENTURE L L C	5.05	Institutional
327.2	66708007	OTAY-TIJUANA VENTURE L L C	1.07	Institutional
327.2	66708008	OTAY-TIJUANA VENTURE L L C	1.59	Institutional
327.2	66708009	OTAY-TIJUANA VENTURE L L C	5.01	Institutional
327.2	66708010	OTAY-TIJUANA VENTURE L L C	5.03	Institutional
327.1	66708011	OTAY-TJ NORTH L L C	1.09	Institutional
327.1	66708012	OTAY-TJ NORTH L L C	0.99	Institutional
327.1	66708013	OTAY-TJ NORTH L L C	1.22	Institutional
327.1	66708014	OTAY-TJ NORTH L L C	0.78	Institutional
327.1	66708015	OTAY-TJ NORTH L L C	1.00	Institutional
327.1	66708016	OTAY-TJ NORTH L L C	1.00	Institutional
327.1	66708017	OTAY-TJ NORTH L L C	1.00	Institutional
327.1	66708018	OTAY-TJ NORTH L L C	1.20	Institutional
327.1	66708019	OTAY-TJ NORTH L L C	1.06	Institutional
327.1	66708020	OTAY-TJ NORTH L L C	1.04	Institutional
327.1	66708021	OTAY-TJ NORTH L L C	1.03	Institutional
327.1	66708022	OTAY-TJ NORTH L L C	1.05	Institutional
327.1	66708023	OTAY-TJ NORTH L L C	1.00	Institutional
327.1	66708024	OTAY-TJ NORTH L L C	1.21	Institutional
327.1	66708025	OTAY-TJ NORTH L L C	1.54	Institutional
327.1	66708026	OTAY-TJ NORTH L L C	1.27	Institutional
327.1	66708027	OTAY-TJ NORTH L L C	1.33	Institutional
327.1	66708028	OTAY-TJ NORTH L L C	1.30	Institutional
327.1	66708029	OTAY-TJ NORTH L L C	1.30	Institutional
327.1	66708030	OTAY-TJ NORTH L L C	1.30	Institutional
328	66706011	OTAY-TIJUANA VENTURE L L C	24.15	Business & International Trade
328	66706012	OTAY-TIJUANA VENTURE L L C	4.75	Business & International Trade
329	66706028	CORN DAXTON J	15.39	Business & International Trade

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
330	6670601601	MARQUEZ CAROLE G TR	10.00	Business & International Trade
330	6670601602	RIESGO FAMILY TRUST 10-26-96	10.00	Business & International Trade
331	66706015	SAN DIEGO C M I L L C	10.00	Business & International Trade
332	66706010	HAGEY JAMES TRUST	49.40	Business & International Trade
333	64612134	WESTERN ALLIANCE BANCORPORATION	17.61	Business & International Trade
333	64612135	WESTERN ALLIANCE BANCORPORATION	33.51	Business & International Trade
334	64629004	SUNROAD OTAY PARTNERS L P	1.64	Regional Commercial
334	64629008	SUNROAD OTAY PARTNERS L P	1.64	Regional Commercial
334	64629017	SUNROAD OTAY PARTNERS L P	3.36	Regional Commercial
334	64629018	SUNROAD OTAY PARTNERS L P	3.26	Regional Commercial
334	64629019	SUNROAD OTAY PARTNERS L P	3.34	Regional Commercial
334	64629024	SUNROAD OTAY PARTNERS L P	2.97	Regional Commercial
334	64629025	SUNROAD OTAY PARTNERS L P	3.24	Regional Commercial
334	64629026	SUNROAD OTAY PARTNERS L P	3.05	Regional Commercial
334	64629027	SUNROAD OTAY PARTNERS L P	2.86	Regional Commercial
334	64629121	SUNROAD OTAY PARTNERS L P	2.81	Business & International Trade
335	64612129	SUNROAD OTAY PARTNERS L P	7.73	Regional Commercial - No Residential
335	64612131	SUNROAD OTAY PARTNERS L P	11.73	Regional Commercial - No Residential
336	64612133	SOUTH BAY EXPRESSWAY L P	12.78	Business & International Trade
337	64611134	HAMANN GREGG FAMILY TRUST 04-25-86	16.28	Business & International Trade
339	64628001	SUNROAD COMMERCIAL CENTRE PARTNERS L P	0.98	Heavy Commercial
339	64628002	SUNROAD COMMERCIAL CENTRE PARTNERS L P	0.98	Heavy Commercial
339	64628003	SUNROAD COMMERCIAL CENTRE PARTNERS L P	0.98	Heavy Commercial
339	64628004	SUNROAD COMMERCIAL CENTRE PARTNERS L P	0.96	Heavy Commercial
339	64628005	SUNROAD COMMERCIAL CENTRE PARTNERS L P	0.96	Heavy Commercial
339	64628006	SUNROAD COMMERCIAL CENTRE PARTNERS L P	1.89	Heavy Commercial
339	64628007	SUNROAD COMMERCIAL CENTRE PARTNERS L P	1.89	Heavy Commercial
339	64628011	SUNROAD COMMERCIAL CENTRE PARTNERS L P	1.75	Heavy Commercial
339	64628012	SUNROAD COMMERCIAL CENTRE PARTNERS L P	1.72	Heavy Commercial
339	64628013	SUNROAD COMMERCIAL CENTRE PARTNERS L P	2.08	Heavy Commercial
340	64611143	LA MEDIA KIFFMANN L L C	3.48	Heavy Commercial
340	64611144	LA MEDIA KIFFMANN L L C	3.38	Heavy Commercial
340	64611145	LA MEDIA KIFFMANN L L C	2.75	Heavy Commercial
341	64611130	ROBINHOOD III	6.38	Open Space
343	64613045	SAN DIEGO GAS&ELECTRIC CO	1.87	Heavy Industrial

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
343	64613050	SAN DIEGO GAS&ELECTRIC CO	2.62	Heavy Industrial
344	64613056	PICO BIOMASS L L C	19.67	Light Industrial
345	64613055	SAN DIEGO DEVELOPMENT GROUP	14.74	Light Industrial
349	64607039	STREET JOE C	13.83	Heavy Industrial
349	64607050	STREET JOE C	9.01	Right of Way
350	64607046	DANTE CORP	3.55	Right of Way
351	64624025	STREET JOE C	38.04	Heavy Industrial
353	64625005	BALTAZAR JUAN F G	1.04	Heavy Industrial
354	64625009	ZAVALZA TRUCKING CO INC	1.03	Heavy Industrial
354	64625010	ZAVALZA TRUCKING CO INC	1.03	Heavy Industrial
355	64625004	BRIBIESCA MARIO A	1.04	Heavy Industrial
356	64625011	MERZIOTIS CHRISTOPHER G TRUST 03-29-01	1.03	Heavy Industrial
358	64625016	ERPELDING FAMILY TRUST 02-24-92	0.94	Heavy Industrial
358	64625017	ERPELDING FAMILY TRUST 02-24-92	1.01	Heavy Industrial
360	66707106	SIEMPRE VIVA BUSINESS PARK 1718 L L C	1.92	Business & International Trade
360	66707107	SIEMPRE VIVA BUSINESS PARK 1718 L L C	2.00	Business & International Trade
360	66707150	SIEMPRE VIVA BUSINESS PARK 1718 L L C	4.18	Business & International Trade
360	66707151	SIEMPRE VIVA BUSINESS PARK 1718 L L C	6.52	Business & International Trade
362	64614322	L I T INDUSTRIAL LTD PTNSHP	9.23	Business & International Trade
362	64614326	L I T INDUSTRIAL LIMITED PARTNERSHIP	22.29	Business & International Trade
364	64614307	RAUB ENTERPRISES L L C	0.00	Heavy Commercial
365	64614304	OTAY BORDER PARTNERSHIP LP	0.96	Heavy Commercial
367	64612050	OWDP LLC	9.16	Business & International Trade
368	64612041	OTAY TRUCK PARKING L P	9.40	Business & International Trade
368	64612042	OTAY MESA PROPERTY L P	5.92	Business & International Trade
368	64612043	OTAY MESA PROPERTY L P	3.33	Business & International Trade
368	64612046	OTAY TRUCK PARKING L P	27.86	Business & International Trade
368	64612047	UNIT 7 L P	17.56	Business & International Trade
368	64612048	OTAY MESA PROPERTY L P	17.84	Business & International Trade
368	64612049	UNIT 5 L P	18.55	Business & International Trade
368	64621029	OTAY TRUCK PARKING L P	14.98	Business & International Trade
368	64626001	OTAY TRUCK PARKING L P	1.72	Business & International Trade
368	64626002	OTAY TRUCK PARKING L P	1.15	Business & International Trade
368	64626003	OTAY TRUCK PARKING L P	1.15	Business & International Trade
368	64626004	OTAY TRUCK PARKING L P	1.15	Business & International Trade

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
368	64626005	OTAY TRUCK PARKING L P	1.57	Business & International Trade
368	64626006	OTAY TRUCK PARKING L P	1.25	Business & International Trade
368	64626007	OTAY TRUCK PARKING L P	1.06	Business & International Trade
368	64626008	OTAY TRUCK PARKING L P	1.54	Business & International Trade
368	64626012	OTAY TRUCK PARKING L P	1.53	Business & International Trade
368	64626013	OTAY TRUCK PARKING L P	1.42	Business & International Trade
368	64626021	OTAY TRUCK PARKING L P	8.32	Business & International Trade
368	64626022	OTAY TRUCK PARKING L P	8.28	Business & International Trade
368	64626106	OTAY TRUCK PARKING L P	1.54	Business & International Trade
368	64626107	OTAY MESA PROPERTY L P	1.60	Business & International Trade
368	64626108	OTAY MESA PROPERTY L P	1.13	Business & International Trade
368	64626109	OTAY MESA PROPERTY L P	1.00	Business & International Trade
368	64626110	OTAY MESA PROPERTY L P	0.98	Business & International Trade
368	64626113	OTAY MESA PROPERTY L P	1.21	Business & International Trade
368	64626114	OTAY MESA PROPERTY L P	1.21	Business & International Trade
368	64626115	OTAY MESA PROPERTY L P	1.21	Business & International Trade
369	64615004	GUTIERREZ ANTONIO G	1.15	Business & International Trade
369	64615005	GUTIERREZ ANTONIO G	1.15	Business & International Trade
370	64615001	GUTIERREZ SALVADOR G	1.55	Business & International Trade
370	64615002	GUTIERREZ SALVADOR G	1.15	Business & International Trade
370	64615008	GUTIERREZ SALVADOR G	1.02	Business & International Trade
370	64615009	GUTIERREZ SALVADOR G	0.96	Business & International Trade
370	64615010	GUTIERREZ SALVADOR G	1.30	Business & International Trade
371	64615006	OTAY TRUCK PARKING L P	1.15	Business & International Trade
372	64615011	OTAY MESA PROPERTY L P	1.20	Business & International Trade
372	64615012	OTAY MESA PROPERTY L P	0.96	Business & International Trade
372	64615015	OTAY CONCRETE PARKING L P	1.28	Business & International Trade
375	66705050	R K N A TRANSPORTATION LLC	6.63	Heavy Industrial, Open Space
376	64615024	OTAY CONCRETE PARKING L P	1.28	Business & International Trade
376	64615049	OTAY MESA PROPERTY L P	1.61	Business & International Trade
377	64615025	OTAY CONCRETE PARKING L P	0.69	Business & International Trade
377	64615026	OTAY CONCRETE PARKING L P	0.69	Business & International Trade
377	64615042	OTAY CONCRETE PARKING L P	0.83	Business & International Trade
377	64615043	OTAY CONCRETE PARKING L P	0.94	Business & International Trade
380	64615031	LOPEZ ALEX&ROSE	0.69	Business & International Trade

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
381	64615050	OTAY TRUCK PARKING L P	1.48	Business & International Trade
382	64615041	SCHWARTZ EUGENE L L C	0.69	Business & International Trade
383	64615039	INTER-AMERICAN INVESTMENTS INC	0.69	Business & International Trade
383	64615040	INTER-AMERICAN INVESTMENTS INC	0.69	Business & International Trade
385	64615035	CACTUS ROAD L L C	0.69	Business & International Trade
388	64615051	OTAY MESA PROPERTY L P	1.48	Business & International Trade
389	64621002	OTAY CONCRETE PARKING L P	1.23	Business & International Trade
392	64621005	MEXBROS HOLDINGS INC	1.43	Business & International Trade
392	64621014	MEXBROS HOLDINGS INC	1.10	Business & International Trade
400	64621022	FRANKE JOHN C&LOIS R LIVING TRUST 04-30-94	0.92	Business & International Trade
400	64621023	FRANKE JOHN C&LOIS R LIVING TRUST 4-30-94	1.29	Business & International Trade
404	64621036	LEYVA GILBERTO&SOLEDAD	1.29	Business & International Trade
406	64614125	LOZANO ERNESTO LIVING TRUST 10-22-10	1.34	Business & International Trade
407	64614127	AMISTAD PARK DEVELOPMENT INC	1.11	Business & International Trade
408	64614108	YU FAMILY TRUST	1.97	Business & International Trade
409	64614105	OTAY INVESTORS GROUP	4.77	Business & International Trade
410	64614114	HARVEST ROAD LTD	2.11	Business & International Trade
411	64614113	RAUB ENTERPRISES L L C	0.00	Business & International Trade
413	64614129	BAROB GROUP LTD	0.91	Business & International Trade
417	64614401	P I PROPERTIES NO 23 L L C	0.72	Heavy Commercial
417	64614402	P I PROPERTIES NO 23 L L C	0.69	Heavy Commercial
418	64614408	WELLS FARGO BANK	0.55	Heavy Commercial
419	64614209	LAS AMERICAS BUSINESS PARK L L C	3.52	Light Industrial
419	64614210	LAS AMERICAS BUSINESS PARK L L C	3.89	Light Industrial
426	64618046	J&M INTERNATIONAL	1.83	Heavy Commercial
427	64618028	WAISBORD MANUEL TR	0.89	Heavy Commercial
428	64618027	R MC & R CO INC	0.88	Heavy Commercial
430	64618037	TELLO JUAN&ESPINOZA ALICIA	1.85	Heavy Commercial
431	64618035	TELLO MELINDA	1.25	Heavy Commercial
432	64618006	BORDER IMAGE CORP INC	1.37	Heavy Commercial
438	64616009	CACTUS ROAD L P	1.00	Light Industrial
441	64616027	WILLIAMSON&ANDREW	1.08	Light Industrial
444	64616031	SAIL OTAY L L C	1.08	Light Industrial
444	64616032	SAIL OTAY L L C	1.09	Light Industrial
445	64616037	DEAISPURO ROSA MARIA L	0.54	Light Industrial

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
446	64616041	JOLLIFFE JOHN E&CASAS-JOLLIFFE SYLVIA M TRS	0.54	Light Industrial
447	64616042	BRAMBILA JAIME M&MARIA L F	0.54	Light Industrial
448	64616043	CASTILLON DANIEL A LIVING TRUST 04-08-08	0.54	Light Industrial
449	64616044	TELLO GRACIELA TRUST 07-14-05	0.54	Light Industrial
450	64616045	BILIUNAS EDWARD&AMY H	0.54	Light Industrial
454	64616105	TRANSBORDER PROPERTIES L L C	1.10	Light Industrial
458	64616114	ACEVES-FLORES SILVIA	1.05	Light Industrial
459	64616116	AMISTAD PARK DEVELOPMENT INC	0.54	Light Industrial
460	64616117	ACEVEDO ISAAC	0.54	Light Industrial
461	64616118	ACEVEDO ISAAC	0.54	Light Industrial
461	64616129	ACEVEDO ISAAC	0.54	Light Industrial
464	64616123	MARCONI DRIVE LOT 23 L L C	0.54	Light Industrial
466	64616130	MACORNI BUSINESS PARK L L C	0.54	Light Industrial
467	64616131	MACORNI BUINESS PARK L L C	0.54	Light Industrial
468	64616028	OTAY PROPERTIES L L C	1.08	Light Industrial
469	64625003	BENAVIDES GABRIEL L	1.04	Heavy Industrial
470	64625006	MEJIA MIGUEL	2.25	Heavy Industrial
474	66705047	CAMACHO SURVIVORS TRUST 06-25-98	2.78	Heavy Industrial, Open Space
475	64611137	LA MEDIA KIFFMANN L L C	0.62	Heavy Commercial
475	64611138	LA MEDIA KIFFMANN L L C	0.72	Heavy Commercial
475	64611140	LA MEDIA KIFFMANN L L C	3.84	Heavy Commercial
475	64611141	LA MEDIA KIFFMANN L L C	3.81	Heavy Commercial
481	64617014	PETO JEANNE H TR (04-26-68)	5.26	Business Park, Open Space
490	63104111	PALM 805 INVESTMENT ASSOCIATES LIMITED LP	4.92	Open Space
491	64518012	DAVISSON HATTIE M TRUST 07-25-00	1.28	Light Industrial
491	64518013	CLARA DAVISSON PROPERTIES L P	1.00	Light Industrial
491	64518014	CLARA DAVISSON PROPERTIES L P	1.00	Light Industrial
496	64611129	SOUTHWESTERN COMMUNITY COLLEGE DISTRICT	11.33	Institutional
496	64611142	SOUTHWESTERN COMMUNITY COLLEGE DISTRICT	16.91	Institutional
497	64611117	L&S AMERICAS WEST TWO L L C	7.81	Institutional
499	64614130	JIMENEZ MARTHA Y	2.22	Business & International Trade
500	64614131	KIM MYOUNGHUN&SHERRY	3.05	Business & International Trade
502	64617002	RCP BLOCK&BRICK INC	4.03	Business & International Trade
505	64607048	PLANT FRANK E JR FAMILY TRUST 07-30-07	10.60	Light Industrial
505	64607049	PLANT FRANK E JR FAMILY TRUST 07-30-07	6.22	Light Industrial, Right of Way

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
507	64507420	MANZANO FRANCISCO J A&DEAGUILAR ELENA C	0.91	Neighborhood Village, Right of Way
511	64614323	REALTY ASSOCIATES FUND VII L P	5.88	Business & International Trade
513	64627004	PITTS FREDERICK C FAMILY TRUST	0.80	Business & International Trade
514	64627003	CACTUS ROAD L P	0.92	Business & International Trade
523	64617012	OKA ASSOCIATES L P	6.75	Business Park, Open Space
524	64615037	GONZALEZ JOSE J&MARIA	0.69	Business & International Trade
524	64615038	GONZALEZ JOSE J&MARIA	0.69	Business & International Trade
525	64612126	IMPERIAL INDUSTRIAL GROUP LTD	30.72	Business & International Trade
526	64504017	SAN YSIDRO SCHOOL DISTRICT	4.08	Insitutional, Open Space, Right Of Way
526	64504018	SAN YSIDRO SCHOOL DISTRICT	6.15	Open Space
526	64504055	SAN YSIDRO SCHOOL DISTRICT	6.70	Institutional
528	64614115	S R I LAND CO L L C	1.35	Business & International Trade
529	64614134	OTAY CROSSING RV&BOAT STORAGE L L C	1.37	Business & International Trade
530	64614132	OTAY HOSPITALITY L L C	2.44	Business & International Trade
531	64509052	ANDERSON JAMES&JACQULINE	0.83	Business & International Trade, Open Space
532	64539003	GREENFIELD SQUARE L L C	2.47	Open Space
533	64607038	KEARNY P C C P OTAY 311 L L C	60.52	Open Space
534	64602013	OTAY BUSINESS PARK L L C	7.89	Open Space
534	64603025	OTAY BUSINESS PARK L L C	40.57	Open Space
535	64603026	KEARNY P C C P OTAY 311 L L C	39.92	Open Space
537	64617004	GOODWILL INDUSTRIES OF SAN DIEGO COUNTY	5.25	Business & International Trade
538	64611133	SOUTHLAND CORP	1.46	Heavy Commercial
539	64539004	OTAY GREENFIELD DEVELOPERS L L C	0.62	Open Space
540	64613058	CALPEAK POWER-BORDER LAND HOLDINGS L L C	10.12	Light Industrial
541	64506034	SWEETWATER UNION HIGH SCHOOL DISTRICT	50.10	Institutional
541	64506037	SWEETWATER UNION HIGH SCHOOL DISTRICT	6.98	Institutional
994	64607051	SOUTH BAY EXPRESSWAY L P	3.95	Light Industrial
994	64607052	SOUTH BAY EXPRESSWAY L P	0.54	Right of Way
994	64607053	SOUTH BAY EXPRESSWAY L P	2.97	Right of Way
995	64607054	SAN DIEGO ASSN OF GOVERNMENTS	5.14	Right of Way
996	64506111	STATE OF CALIFORNIA	5.50	Open Space
996	64506112	STATE OF CALIFORNIA	1.21	Open Space
996	64508011	STATE OF CALIFORNIA DEPT OF TRANSPORTATION	10.00	Open Space, Right of Way
996	64508020	STATE OF CALIFORNIA DEPT OF TRANSPORTATION	7.58	Open Space
996	64509024	STATE OF CALIFORNIA DEPT OF TRANSPORTATION	40.00	Open Space, Right of Way

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
996	64509040	STATE OF CALIFORNIA DEPT OF TRANSPORTATION	3.45	Open Space
996	64509044	STATE OF CALIFORNIA DEPT OF TRANSPORTATION	0.78	Open Space
996	64509047	STATE OF CALIFORNIA DEPT OF TRANSPORTATION	2.20	Open Space
996	64509050	STATE OF CALIFORNIA DEPT OF TRANSPORTATION	2.43	Open Space
996	64518004	STATE OF CALIFORNIA	1.02	Light Industrial
996	64518005	STATE OF CALIFORNIA	1.02	Light Industrial
996	64518016	STATE OF CALIFORNIA	1.35	Light Industrial
996	64602009	STATE OF CALIFORNIA	7.64	Open Space
996	64603017	STATE OF CALIFORNIA	5.68	Open Space
996	64603018	STATE OF CALIFORNIA	15.67	Open Space
996	64606008	STATE OF CALIFORNIA	150.60	Open Space
996	64607043	STATE OF CALIFORNIA	26.00	Open Space
997	64606005	UNITED STATES OF AMERICA	159.16	Institutional, Open Space
997	64614207	UNITED STATES OF AMERICA	22.00	Institutional
997	64614223	UNITED STATES OF AMERICA	15.97	Institutional
997	64614234	UNITED STATES OF AMERICA	0.00	Institutional
997	64614237	UNITED STATES OF AMERICA	6.59	Institutional
997	64614238	UNITED STATES OF AMERICA	2.86	Light Industrial
997	64614242	UNITED STATES OF AMERICA	3.55	Light Industrial
997	64614243	UNITED STATES OF AMERICA	3.20	Light Industrial
997	64614244	UNITED STATES OF AMERICA	3.16	Light Industrial
997	64614319	UNITED STATES OF AMERICA	3.43	Institutional
997	64614321	UNITED STATES OF AMERICA	3.42	Institutional
997	66701011	UNITED STATES OF AMERICA	3.86	Open Space
997	66701024	UNITED STATES OF AMERICA IMMIGRATION&NATUR	2.06	Open Space
997	66701029	UNITED STATES OF AMERICA	16.32	Open Space
997	66701032	UNITED STATES OF AMERICA	19.98	Open Space
997	66704007	UNITED STATES OF AMERICA	80.00	Open Space
997	66704012	UNITED STATES OF AMERICA	69.71	Open Space
997	66704014	UNITED STATES OF AMERICA IMMIGRATION&NATUR	25.45	Open Space
997	66705040	UNITED STATES OF AMERICA IMMIGRATION&NATUR	4.59	Institutional
997	66705057	UNITED STATES OF AMERICA	9.21	Institutional
997	66705059	UNITED STATES OF AMERICA	1.15	Institutional
997	66705061	UNITED STATES OF AMERICA	1.15	Institutional
997	66705063	UNITED STATES OF AMERICA	2.30	Institutional

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
997	66705065	UNITED STATES OF AMERICA	0.00	Right of Way
997	66706025	UNITED STATES OF AMERICA	4.62	Institutional
997	66706029	UNITED STATES OF AMERICA	9.60	Institutional
997	66706037	UNITED STATES OF AMERICA	4.62	Institutional
997	66707141	UNITED STATES OF AMERICA	10.24	Institutional
998	63807073	COUNTY OF SAN DIEGO	9.92	Open Space
998	63807074	COUNTY OF SAN DIEGO	83.00	Open Space
998	64505003	COUNTY SAN DIEGO	5.00	Open Space
999	63104108	CITY OF SAN DIEGO	12.62	Open Space
999	63104110	CITY OF SAN DIEGO	4.93	Open Space
999	63104211	CITY OF SAN DIEGO	5.88	Open Space
999	63129202	CITY OF SAN DIEGO	4.90	Parks
999	63807024	CITY OF SAN DIEGO	0.00	Open Space
999	64504050	CITY OF SAN DIEGO	17.24	Open Space
999	64504067	CITY OF SAN DIEGO	15.43	Parks
999	64504204	CITY OF SAN DIEGO	2.51	Open Space
999	64504205	CITY OF SAN DIEGO	4.08	Open Space
999	64504206	CITY OF SAN DIEGO	12.49	Open Space
999	64504207	CITY OF SAN DIEGO	14.45	Open Space
999	64504208	CITY OF SAN DIEGO	70.87	Open Space
999	64505036	CITY OF SAN DIEGO	1.11	Open Space
999	64505037	CITY OF SAN DIEGO	0.77	Open Space
999	64505038	CITY OF SAN DIEGO	1.71	Open Space
999	64506007	CITY OF SAN DIEGO	43.94	Open Space
999	64506020	CITY OF SAN DIEGO	3.12	Open Space
999	64506102	CITY OF SAN DIEGO	40.00	Open Space
999	64507406	CITY OF SAN DIEGO	0.91	Open Space
999	64507408	CITY OF SAN DIEGO	0.91	Open Space
999	64507409	CITY OF SAN DIEGO	0.91	Open Space
999	64507412	CITY OF SAN DIEGO	0.91	Open Space
999	64507418	CITY OF SAN DIEGO	0.91	Open Space
999	64507419	CITY OF SAN DIEGO	0.91	Open Space
999	64507421	CITY OF SAN DIEGO	0.91	Neighborhood Village, Right of Way
999	64507506	CITY OF SAN DIEGO	0.91	Open Space, Right of Way
999	64507507	CITY OF SAN DIEGO	0.91	Open Space, Right of Way

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
999	64507508	CITY OF SAN DIEGO	0.91	Open Space
999	64507509	CITY OF SAN DIEGO	0.91	Open Space
999	64507520	CITY OF SAN DIEGO	0.91	Open Space
999	64507606	CITY OF SAN DIEGO	0.91	Open Space
999	64508004	CITY OF SAN DIEGO	40.00	Open Space
999	64508006	CITY OF SAN DIEGO	40.00	Open Space
999	64508012	CITY OF SAN DIEGO	70.00	Open Space
999	64509016	CITY OF SAN DIEGO	17.72	Open Space, Business & International Trade
999	64509039	CITY OF SAN DIEGO	12.93	Business & International Trade, Open Space
999	64509049	CITY OF SAN DIEGO	0.00	Open Space
999	64510201	CITY OF SAN DIEGO	0.97	Open Space
999	64510202	CITY OF SAN DIEGO	0.96	Open Space
999	64510203	CITY OF SAN DIEGO	0.96	Open Space, Right of Way
999	64510211	CITY OF SAN DIEGO	0.96	Open Space
999	64511230	CITY OF SAN DIEGO	9.70	Open Space
999	64511305	CITY OF SAN DIEGO	8.92	Open Space
999	64511306	CITY OF SAN DIEGO	5.98	Open Space
999	64511307	CITY OF SAN DIEGO	22.69	Open Space
999	64528023	CITY OF SAN DIEGO	26.43	Open Space
999	64538011	CITY OF SAN DIEGO	51.43	Open Space
999	64605002	CITY OF SAN DIEGO	74.45	Institutional
999	64605003	CITY OF SAN DIEGO	402.03	Institutional
999	64605004	CITY OF SAN DIEGO	23.76	Institutional
999	64606003	CITY OF SAN DIEGO	153.90	Institutional
999	64606004	CITY OF SAN DIEGO	4.42	Institutional
999	64606006	CITY OF SAN DIEGO	148.86	Institutional
999	64614236	CITY OF SAN DIEGO	3.39	Institutional
999	64614318	CITY OF SAN DIEGO	1.18	Institutional
999	64614320	CITY OF SAN DIEGO	1.18	Institutional
999	66704002	CITY OF SAN DIEGO	40.00	Open Space
999	66704003	CITY OF SAN DIEGO	18.89	Open Space
999	66704005	CITY OF SAN DIEGO	15.00	Open Space
999	66704006	CITY OF SAN DIEGO	5.00	Open Space
999	66705031	CITY OF SAN DIEGO	0.13	Heavy Industrial
999	66705066	CITY OF SAN DIEGO	31.28	Open Space

FBA Assmt #	APN	OWNER	ACREAGE	LAND USE
999	66705067	CITY OF SAN DIEGO	9.27	Open Space
999	66707140	CITY OF SAN DIEGO	3.47	Institutional

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Development Impact Fee Property List

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APN	OWNER	ACREAGE	LAND USE
62407104	D M PROPERTIES L P	1.11	Regional Commercial-No Residential
63104112	HD DEVELOPMENT OF MARYLAND INC	12.15	Regional Commercial-No Residential
63104113	LEE YAM NGON&SUE JUAN LIVING TRUST 06-10-99	0.78	Regional Commercial-No Residential
63104114	LEE YAM NGON&SUE JUAN LIVING TRUST 06-10-99	1.43	Regional Commercial-No Residential
63104115	HD DEVELOPMENT OF MARYLAND INC	1.12	Regional Commercial-No Residential
63104201	WAL-MART REAL EST BUSINESS TRUST	12.82	Regional Commercial-No Residential
63104103	F L I K INC	3.39	Regional Commercial-No Residential
63104204	VONS COMPANIES INC	5.85	Regional Commercial-No Residential
63104205	CHEVRON U S A INC	1.03	Regional Commercial-No Residential
63104206	CARL KARCHER ENTERPRISES INC <LF> REGNER VANNA P TRUST 03-19-01	0.72	Regional Commercial-No Residential
63104207	TACO BELL CORP <LF> COLBERT CARY C&LINDA A	0.69	Regional Commercial-No Residential
63104208	CHULA VISTA TOWN CENTER ASSOCIATES II L P	0.98	Regional Commercial-No Residential
63104214	ORLANSKY FAMILY L L C	0.00	Regional Commercial-No Residential
63104215	J&N TIRES L L C	0.00	Regional Commercial-No Residential
63104216	CHULA VISTA TOWN CENTER ASSOCIATES II L P	3.29	Regional Commercial-No Residential
63129205	ATLAS STORAGE SOUTH BAY L L C	2.94	Light Industrial
64506038	CANDLELIGHT PROPERTIES L L C	0.07	Community Commercial - No Residential
64506039	COX COMMUNICATIONS P C S L P <LF> SANTEE INVS INC ET AL	0.01	Community Commercial - No Residential
64518001	CORPORATE CENTER DR&BUSINESS CENTER CT L L C	1.18	Light Industrial
64518009	PAULUS ENTERPRISES LLC	1.13	Light Industrial
64518010	PAULUS ENTERPRISES LLC	1.12	Light Industrial
64518011	PAULUS ENTERPRISES LLC	1.11	Light Industrial
64518015	KOSTADENA L L C	0.71	Light Industrial
64518018	CROWER WEST L L C	5.61	Light Industrial
64528001	MONTALVO LIVING TRUST 05-06-09	0.99	Light Industrial
64528002	MARS ENTERPRISES INC	1.03	Light Industrial
64528003	MARRUENDA MANUEL LIVING TRUST 04-25-08	1.23	Light Industrial
64528004	SO CAL AG PROPERTIES INC	2.12	Light Industrial
64528005	PAULUS ENTERPRISES LLC	1.13	Light Industrial
64528006	PAULUS ENTERPRISES LLC	1.11	Light Industrial
64528007	PAULUS ENTERPRISES LLC	1.11	Light Industrial
6452802501-36	AMEZCUA JORGE L & ELENA & ET AL	6.55	Light Industrial
64528026	EASTGROUP PROPERTIES L P	16.26	Light Industrial
64538002	PPF SUDBERRY OCEAN VIEW HILLS LP	1.10	Light Industrial
64538003	PPF SUDBERRY OCEAN VIEW HILLS LP	1.10	Light Industrial
64538004	PPF SUDBERRY OCEAN VIEW HILLS LP	4.37	Light Industrial

APN	OWNER	ACREAGE	LAND USE
64538005	PPF SUDBERRY OCEAN VIEW HILLS LP	1.10	Light Industrial
64538006	PPF SUDBERRY OCEAN VIEW HILLS LP	1.10	Light Industrial
64538012	PPF SUDBERRY OCEAN VIEW HILLS LP	8.26	Light Industrial
64538013	PPF SUDBERRY OCEAN VIEW HILLS LP	8.97	Light Industrial
64538014	PPF SUDBERRY OCEAN VIEW HILLS LP	6.79	Light Industrial
64610009	A D E S A CALIFORNIA L L C <LF> FIRST INDUSTRIAL L P	19.30	Parks
64610010	INSURANCE AUTO AUCTIONS INC <LF> FIRST INDUSTRIAL L P	38.49	Business Park
64610011	R C P BLOCK&BRICK INC	17.37	Business Park
64610013	A D E S A CALIFORNIA L L C <LF> FIRST INDUSTRIAL L P	10.00	Business Park
64610014	A D E S A CALIFORNIA L L C <LF> FIRST INDUSTRIAL L P	9.25	Business Park
64611040	C P R T LAND HOLDINGS INC	38.77	Business & International Trade
64611041	MARQUEZ BROTHERS L L C	1.63	Business & International Trade
64611042	HAN SUK HEE	1.28	Business & International Trade
64611043	KANG PAUL	1.84	Business & International Trade
64611044	2189 BRITTANIA L L C	2.07	Business & International Trade
64611045	SANTA MONICA PRODUCE INC	1.09	Business & International Trade
64611046	SANTA ANITA FARMS L L C	1.60	Business & International Trade
6461104701-07	MEUCHADIM OF CALIF LP & ET AL	4.27	Business & International Trade
6461104801-08	ESTRADA MARLENE & ET AL	4.23	Business & International Trade
64611115	KAVENISH LTD L P	8.59	Business Park
64611132	SOUTHLAND CORP	1.61	Heavy Commercial
64611135	LA MEDIA KIFFMANN L L C	1.54	Heavy Commercial
64611136	LA MEDIA KIFFMANN L L C	0.82	Heavy Commercial
64611139	LA MEDIA KIFFMANN L L C	1.37	Heavy Commercial
64611202	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	1.88	Business & International Trade
64611203	SIEMPRE VIVA ROAD DEVELOPMENT L L L P	1.25	Business & International Trade
64612044	OTAY ACQUISTION LLC	1.23	Business & International Trade
64612045	OTAY ACQUISTION LLC	2.12	Business & International Trade
64613059	LARKSPUR ENERGY L L C	2.77	Heavy Industrial
64613101	PINOS PRODUCE INC	2.35	Light Industrial
64613103	ALASKAN COPPER COMPANIES INC	2.13	Light Industrial
64613104	ALASKAN COPPER COMPANIES INC	2.15	Right Of Way
64613105	ALASKAN COPPER COMPANIES INC	2.19	Right Of Way
64613106	ALASKAN COPPER COMPANIES INC	2.06	Light Industrial
64613108	PINOS PRODUCE INC	2.44	Light Industrial
64613109	LBA REALTY FUND III-COMPANY I L L C	4.27	Right Of Way

APN	OWNER	ACREAGE	LAND USE
64613110	LBA REALTY FUND III-COMPANY I L L C	4.14	Light Industrial
64613111	LBA REALTY FUND III-COMPANY I L L C	3.53	Light Industrial
64613112	LBA REALTY FUND III-COMPANY I L L C	6.14	Light Industrial
64613114	SANYO E&E CORP	18.87	Light Industrial & ROW
64613117	SANYO NORTH AMERICA CORP	18.87	Light Industrial
64614116	OTAY CROSSING SELF STORAGE L L C	1.28	Business & International Trade
64614126	SALCEDO MARIA D	1.13	Business & International Trade
64614128	MOBILE HOME ACCEPTANCE CORP	2.34	Business & International Trade
64614133	HARIOM INC	2.53	Heavy Commercial
64614135	OTAY CROSSING SELF STORAGE L L C	4.08	Business & International Trade
64614211	LAS AMERICAS BUSINESS PARK L L C	3.88	Light Industrial
64614212	LAS AMERICAS BUSINESS PARK L L C	3.84	Light Industrial
64614215	WILSON/BATIZ OF CA LLC	3.51	Light Industrial
64614216	EIFLER RANDY&SUSAN REVOCABLE TRUST 08-31-01	3.45	Light Industrial
64614217	COSTCO WHOLESALE CORP	7.29	Light Industrial
64614218	COSTCO WHOLESALE CORP	7.44	Light Industrial
64614219	PACIFIC RIM INDUSTRIAL PARK LLC	7.66	Light Industrial
64614220	PACIFIC RIM INDUSTRIAL PARK LLC	7.74	Light Industrial
64614221	HYUNDAI PRECISION AMERICA INC	7.46	Light Industrial
6461422601-48	GUILLEN-MILLICAN PATRICIA & ET AL	5.97	Light Industrial
6461423101-10	9931 VIA DELAAMISTAD LLC & ET AL	2.69	Light Industrial
64614232	PANN FAMILY L L C	2.00	Light Industrial
64614239	OTAY COMMERCIAL PARTNERS L P	8.19	Light Industrial
64614240	OTAY COMMERCIAL PARTNERS L P	3.36	Light Industrial
64614241	HOMAN II L L C	2.90	Light Industrial
64614301	PLAZA SIEMPRE L L C	2.09	Business & International Trade
64614302	PLAZA SIEMPRE L L C	2.27	Business & International Trade
64614303	OTAY CENTER DRIVE INC	1.01	Heavy Commercial
64614305	OTAY CENTER COMPLEX L L C	1.00	Business & International Trade
64614306	OTAY CENTER COMPLEX L L C	1.00	Business & International Trade
64614324	L I T INDUSTRIAL LTD PTNSHP	11.06	Business & International Trade
64614405	P I PROPERTIES NO 9 L L C	2.50	Heavy Commercial
64614407	TESORO SOUTH COAST COMPANY L L C	0.76	Heavy Commercial
64615003	GUTIERREZ SALVADOR G	1.15	Business & International Trade
64615007	R K R DLFY LLC	6.97	Business & International Trade
64615013	NICERIDE L L C	0.96	Business & International Trade

APN	OWNER	ACREAGE	LAND USE
64616014	TRITON HOLDINGS L L C	1.07	Business & International Trade
64615016	DAJOMA L L C	0.92	Business & International Trade
64615017	LARSON IRRIGATION LLC	0.92	Business & International Trade
64615018	LEGENDARY PARTNERS L L C	0.92	Business & International Trade
64615019	ROE FAMILY 1999 TRUST 04-07-99	0.92	Business & International Trade
64615020	OTAY TRIANGLE L P	1.28	Business & International Trade
64615027	CACHO FAMILY TRUST 05-04-99	0.69	Business & International Trade
64615028	CACHO FAMILY TRUST 05-04-99	0.69	Business & International Trade
64615029	OPTION FINANCIAL	0.69	Business & International Trade
64615030	LOBATO TORIBIO&NORMA	0.69	Business & International Trade
64615032	RANCH PARTNERSHIP L L C	0.69	Business & International Trade
64615033	FRANKE JOHN C&LOIS R LIVING TRUST 04-30-94	1.28	Business & International Trade
64615034	CACTUS ROAD L L C	0.92	Business & International Trade
64615036	ORANGE COAST L L C	0.69	Business & International Trade
6461504401-12	SOUTH OTAY MESA BUSINESS PARK L L C & ET AL	1.75	Business & International Trade
64615045	SOUTH OTAY MESA BUSINESS PARK L L C	1.14	Business & International Trade
6461504601-15	ABENCERRAJE JULIOL&LUNA-ABENCERRAJE MIRIAM	1.15	Business & International Trade
64615047	CACTUS ROAD L L C	1.15	Business & International Trade
64615048	CACTUS ROAD L L C	1.15	Business & International Trade
64616001	PADILLA FAMILY 2006 TRUST 02-22-06	1.02	Light Industrial
64616002	SHERMO CORP	1.01	Light Industrial
64616003	NAKACH FAMILY TRUST 03-07-05	1.01	Light Industrial
64616004	COURTNEY BUSINESS CENTER L L C	1.04	Light Industrial
64616007	GUILLEN JUAN R	1.00	Light Industrial
64616008	NISHIBA INDUSTRIES CORP	1.04	Light Industrial
64616010	OTAY ADEJO PROPERTIES L L C	1.04	Light Industrial
64616011	T S E MARCONI L L C	1.03	Light Industrial
64616012	T S E MARCONI L L C	1.03	Light Industrial
64616013	MARCONI COURT PARTNERS L L C	1.00	Light Industrial
64616014	TRITON HOLDINGS L L C	1.20	Light Industrial
64616015	KELVIN CARLOS TRUST 10-17-12	1.12	Light Industrial
64616016	L&S AMERICAS WEST TWO L L C	0.94	Light Industrial
64616017	BESTICK INC	1.00	Light Industrial
64616018	SCHOFIELD PHILIP D TRUST 04-01-67	1.00	Light Industrial
64616019	SCHOFIELD PHILIP DOLESE TRUST 4-1-1967	1.05	Light Industrial
64616020	TRANSBORDER PROPERTIES L L C	1.06	Light Industrial

APN	OWNER	ACREAGE	LAND USE
64616021	REALTY ASSOCIATES FUND VII L P	0.98	Light Industrial
64616022	REALTY ASSOCIATES FUND VII L P	0.98	Light Industrial
64616023	REALTY ASSOCIATES FUND VII L P	1.02	Light Industrial
64616024	REALTY ASSOCIATES FUND VII L P	1.18	Light Industrial
64616025	JALISCO TRADING CORP	1.08	Light Industrial
64616026	JALISCO TRADING CORP	1.08	Light Industrial
64616029	MACORNI BUSINESS PARK L L C	1.08	Light Industrial
64616030	MACORNI BUSINESS PARK L L C	1.08	Light Industrial
64616033	PLAZA LAS CALIFORNIAS	1.09	Light Industrial
64616034	C V INDUSTRIAL SUPPLY INC	0.54	Light Industrial
64616035	PROVISION HEALTH CORP	0.54	Light Industrial
64616036	CAMACHO BYPASS TRUST 06-25-98	0.54	Light Industrial
64616038	BARRAGAN LEONOR F TRUST 09-12-08	0.54	Light Industrial
64616039	BAROB GROUP LTD	0.54	Light Industrial
64616040	SHREM TRUST 10-20-90	0.54	Light Industrial
64616046	BILIUNAS EDWARD&AMY H	0.54	Light Industrial
64616047	BILIUNAS EDWARD&AMY H	0.54	Light Industrial
64616048	SIMPSON ROBERT D JR&FLORA	2.25	Light Industrial
64616103	REALTY ASSOCIATES FUND VII L P	0.99	Light Industrial
64616104	REALTY ASSOCIATES FUND VII L P	0.99	Light Industrial
64616106	F&R REAL ESTATE INC	1.09	Light Industrial
64616107	WRIGHT JAMES M	0.98	Light Industrial
64616108	WRIGHT JAMES M	1.03	Light Industrial
64616109	WRIGHT JAMES M	1.05	Light Industrial
64616115	BOND RANCH	1.21	Light Industrial
64616119	HORTON FAMILY TRUST 02-08-85	0.54	Light Industrial
6461612001-08	10031 MARCONI DR L L C & ET AL	0.54	Light Industrial
6461612101-08	S D PROPERTY FUND L L C & ET AL	0.54	Light Industrial
64616122	BAY INVESTMENT CO L L C	0.54	Light Industrial
64616124	GREITZER LIVING TRUST 10-24-96	0.54	Light Industrial
64616125	MOSHTAGHI ABBAS	0.54	Light Industrial
64616126	SYNERGY TRUST 08-05-08	0.54	Light Industrial
64616127	SYNERGY TRUST 08-05-08	0.54	Light Industrial
6461612801-07	KCHIS LIVING TRUST 10-25-04, & ET AL	0.54	Light Industrial
64616132	WRIGHT JAMES M	1.87	Light Industrial
64616133	WRIGHT JAMES M	1.71	Light Industrial

APN	OWNER	ACREAGE	LAND USE
64616134	REALTY ASSOCIATES FUND VII L P	2.00	Light Industrial
64616135	REALTY ASSOCIATES FUND VII L P	1.45	Light Industrial
64617004	GOODWILL INDUSTRIES OF SAN DIEGO COUNTY	5.25	Business & International Trade
64617008	DREIS HAROLD A	5.20	Business Park & Open Space
64617010	WRIGHT JAMES M	2.63	Business Park
64617016	HATTIE DAVISSON PROPERTIES L P	4.74	Business Park & Open Space
64617017	LAMKIN CORP	1.20	Business Park & Open Space
64617018	LAMKIN CORP	1.06	Business Park & Open Space
64617019	M J S PRINCIPALS L L C	2.69	Business & International Trade
64617022	OTAY MESA SELF STORAGE L L C	0.95	Business & International Trade
64617023	OTAY MESA SELF STORAGE L L C	2.05	Business & International Trade
64617024	M J S PRINCIPALS L L C	0.87	Business & International Trade
64617025	NAYLA L L C	0.94	Business & International Trade
6461702601-10	GREENBRIDGE CAPITAL PARTNERS IV L L C & ET AL	6.01	Business Park
64617027	VISTA SOUTH MELROSE L P	6.87	Business & International Trade
64618002	MCDONALDS CORP <DBA DELAWARE MCDONALDS CORP>	1.54	Heavy Commercial
64618003	IHOP PROPERTIES INC <LF> WELLS LARRY TRUST 09-05-07 ET AL	1.70	Heavy Commercial
64618009	2495 ROLL DRIVE L L C	1.11	Heavy Commercial
64618010	PLAZA DE LAS CALIFORNIA L L C	1.08	Heavy Commercial
64618011	RAINBOW OTAY PROPERTIES L L C	1.09	Heavy Commercial
64618012	ROLL DRIVE LIMITED PARTNERSHIP	1.11	Heavy Commercial
64618013	OTAY 13 INVESTORS L L C	0.99	Heavy Commercial
64618014	OTAY PROFESSIONAL ASSOCIATES	1.02	Heavy Commercial
64618015	ROLL DRIVE LIMITED PARTNERSHIP	1.16	Heavy Commercial
64618016	RAINBOW OTAY PROPERTIES L L C	1.09	Heavy Commercial
64618017	PLAZA DE LAS CALIFORNIA L L C	1.08	Heavy Commercial
64618018	2495 ROLL DRIVE L L C	1.13	Heavy Commercial
64618031	FIRST INTERNATIONAL BANK	0.66	Heavy Commercial
64618032	MEUCHADIM OF CALIFORNIA L P	0.77	Heavy Commercial
64618033	MEUCHADIM OF CALIFORNIA L P	0.66	Heavy Commercial
64618034	MEUCHADIM OF CALIFORNIA L P	0.52	Heavy Commercial
64618038	KIM MYOUNG H&SHERRY Y	1.20	Business & International Trade
64618039	TPROVECTUS L L C	0.76	Business & International Trade
64618040	R MC&R CO INC	1.02	Heavy Commercial
64618044	JUST 4 FUN L L C <LF> SIDEKICKS L L C	0.54	Heavy Commercial
64618045	ALBORZ PETROLEUM INC	1.26	Heavy Commercial

APN	OWNER	ACREAGE	LAND USE
64618047	JACK IN THE BOX INC <LF> SIDEKICKS L L C	0.00	Heavy Commercial
64618048	SIDEKICKS L L C	0.62	Heavy Commercial
64618049	SIDEKICKS L L C	0.77	Heavy Commercial
64619002	NAHUM L L C	1.00	Business & International Trade
64619009	PACIFIC BELL	0.70	Business & International Trade
64619010	MUTINA L L C	0.69	Business & International Trade
64619011	HIXSON FAMILY TRUST 08-26-93	1.20	Business & International Trade
64619015	STAHL ENTERPRISE L L C	0.79	Business & International Trade
64619016	I E PACIFIC INC	0.83	Business & International Trade
64619023	H E S PARTNERS L P	1.69	Business & International Trade
64619024	H E S PARTNERS L P	1.37	Business & International Trade
64619025	H E S PARTNERS L P	0.69	Business & International Trade
64619026	MESA DEORO BUSINESS PARK L P	2.43	Business & International Trade
6461902701-15	CEBALLOS ABRAHAM G & ET AL	2.43	Business & International Trade
64619028	BORDER ASSEMBLY INC	0.99	Business & International Trade
64619031	DANTE CORP	2.34	Business & International Trade
64621001	CAMACHO ENRIQUE&MARGARITA	1.26	Business & International Trade
64621003	MEXBROS HOLDINGS INC	1.60	Business & International Trade
64621004	MEXBROS HOLDINGS INC	1.67	Business & International Trade
64621006	L&S AMERICAS WEST LLC	1.27	Business & International Trade
64621007	KURODA-SAN JESUS H	1.15	Business & International Trade
64621008	KURODA-SAN JESUS H	1.15	Business & International Trade
64621009	A G M LLC	1.15	Business & International Trade
64621010	A G M LLC	1.28	Business & International Trade
64621011	PINA LUIS&VIRGINIA	0.92	Business & International Trade
64621012	KURODA-SAN JESUS H	0.92	Business & International Trade
64621013	L&S AMERICAS WEST LLC	0.92	Business & International Trade
64621015	MEXBROS HOLDINGS INC	1.29	Business & International Trade
64621016	MEXBROS HOLDINGS INC	1.39	Business & International Trade
64621020	RURVECA L L C	1.15	Business & International Trade
64621021	NOBLE HOUSE REAL ESTATE L L C	1.18	Business & International Trade
64621024	NOBLE HOUSE REAL ESTATE L L C	1.66	Business & International Trade
64621025	RURVECA L L C	1.60	Business & International Trade
64621030	A G M LLC	1.51	Business & International Trade
64621031	GESSFORD GLEN N LIVING TRUST 10-13-94	1.61	Business & International Trade
64621035	RUBIGON INC	1.01	Business & International Trade

APN	OWNER	ACREAGE	LAND USE
64621037	MAJ L L C	5.79	Business & International Trade
64621038	FUND VII/SIEMPRE VIVA L L C	7.67	Business & International Trade
6462103901-04	PAOLI PABLO J&ROBERTA REVOC LIVING 2000 TRUST 12-12-00 & ET AL	2.19	Business & International Trade
6462104001-04	AVENID COSTA SUR LLC & ET AL	2.19	Business & International Trade
6462104101-04	ORTIZ YADIRA A & ET AL	2.24	Business & International Trade
64622002	PAEZ JOE JR	2.62	Business Park
64622004	PARKER PROPERTIES INC	3.76	Business Park
64622005	JUAN MANUEL DELATORRE PROPERTIES L L C	3.78	Business Park
64622008	DEXUS INDUSTRIAL S P E FINANCED PORTFOLIO L L C	2.63	Business Park
64622021	B-D ASSURANCE CO LTD	5.95	Business Park
64622022	BROWN FIELD BUSINESS PARK L P	5.02	Business Park
64622023	DEXUS INDUSTRIAL S P E FINANCED PORTFOLIO L L C	1.41	Business Park
64622026	DEXUS INDUSTRIAL S P E FINANCED PORTFOLIO L L C	3.77	Business Park
64622029	EDL V LTD	11.65	Business Park
64622030	DELIMEX ACQUISITION INC	6.43	Business Park
64622031	CLUM GUY C TRUST 06-08-94	2.76	Business Park
64622032	AUERBACH FAMILY 1987 TRUST 09-08-07	9.55	Business Park
64622102	TERRIFIC TRIO L P	2.61	Business & International Trade
64622103	B B G&M L L C	2.14	Business & International Trade
64622110	SAINT ANDREWS LLC	2.15	Business & International Trade
64622116	COMERICA BANK	3.57	Business & International Trade
64622128	STERIS ISOMEDIX SERVICES INC	3.74	Business & International Trade
64622129	PERFORMANCE HOLDING PROPERTIES L L C	5.56	Business & International Trade
64622131	BROWN FIELD BUSINESS PARK L P	9.59	Business & International Trade
64622132	7603 ST. ANDREWS AVENUE L L C	11.91	Business & International Trade
64622133	R L M REAL PROPERTY L L C	7.19	Business & International Trade
64622140	BROWN FIELD BUSINESS PARK L P	4.58	Business & International Trade
64622141	BROWN FIELD BUSINESS PARK L P	2.66	Business & International Trade
64622142	BROWN FIELD BUSINESS PARK L P	2.05	Business & International Trade
64623006	PACIFIC RIM BUSINESS CENTRE L L C	2.61	Light Industrial
64623009	WEST OTAY L L C	1.87	Light Industrial
64623015	PACIFIC RIM COMMERCE CENTER L L C	4.25	Light Industrial
64623016	PACIFIC RIM COMMERCE CENTER L L C	4.19	Light Industrial
64623017	PACIFIC RIM BUSINESS CENTRE L L C	3.03	Light Industrial
64623022	PACIFIC RIM BUSINESS CENTRE L L C	2.90	Light Industrial
64623025	TRISTAR HOTELS L L C	1.83	Light Industrial

APN	OWNER	ACREAGE	LAND USE
64623027	PACIFIC RIM BUSINESS CENTRE L L C	2.79	Light Industrial
64623028	PACIFIC RIM POINTE L L C	1.64	Light Industrial
64623030	CASAS-JOLLIFFE PACIFIC RIM L L C	6.93	Light Industrial
64624049	WHALEN KENNETH J TRUST 07-01-05	6.65	Light Industrial
64624050	LOT 18 OTAY MESA ROAD INC	5.25	Light Industrial
64624051	LOT 18 OTAY MESA ROAD INC	6.63	Light Industrial
64624052	NORMAN RALPH S	0.88	Light Industrial
64624053	JIPSON L L C	1.04	Light Industrial
64624054	MARINE J FAMILY L L C	1.03	Light Industrial
64624055	IBARRA JAVIER&GARCIA-IBARRA ANGELICA	0.88	Light Industrial
64624056	ENTERPRISE PROPERTIES L L C	1.78	Light Industrial
64624057	R D J FRESH PRODUCE L L C	1.19	Light Industrial
64624058	GUTIERREZ DANTE	1.19	Light Industrial
64624059	CASTANEDA MAURICIO	2.20	Light Industrial
64624060	CHEN LLOYD L&DONG LIPING	2.20	Light Industrial
64624061	1411 AIR WING L L C	1.06	Light Industrial
64624062	AIR WING L L C	1.06	Light Industrial
64624063	1351 AIR WING L L C	1.78	Light Industrial
64624067	R C J PROPERTIES L L C	2.20	Light Industrial
64624068	CORONADO JUAN	0.87	Light Industrial
64624069	CHOI HWA SIK	0.92	Light Industrial
64624070	BURBOA FRANCISCO J B FAMILY TRUST 10-21-81	1.46	Light Industrial
64624077	GRANITE PIPER RANCH L P	10.02	Light Industrial
64624078	GRANITE PIPER RANCH L P	9.31	Light Industrial
6462407901-53	MANAGEMENT SECURITY ADVISER L L C & ET AL	8.44	Light Industrial
64625002	OCTANE RESOURCES L L C	0.99	Heavy Industrial
64625007	IMPORT WATCHES INC	1.18	Heavy Industrial
64625008	SALCEDO MARIA D	1.03	Heavy Industrial
64625012	MERZIOTIS FAMILY TRUST 03-29-01	1.02	Heavy Industrial
64625013	MERZIOTIS CHRISTOPHER G TRUST 03-29-01	2.06	Heavy Industrial
64625014	S V D P MANAGEMENT INC	1.05	Heavy Industrial
64625015	S V D P MANAGEMENT INC	3.25	Heavy Industrial
64625018	S V D P MANAGEMENT INC	2.20	Heavy Industrial
64625019	S V D P MANAGEMENT INC	2.21	Heavy Industrial
64625020	B&C WHOLESALE EXPORTS	0.96	Heavy Industrial
64625021	S V D P MANAGEMENT INC	1.03	Heavy Industrial

APN	OWNER	ACREAGE	LAND USE
64625022	S V D P MANAGEMENT INC	4.63	Heavy Industrial
64625023	OCTANE RESOURCES L L C	2.02	Heavy Industrial
64626111	UNITED STATES OF AMERICA	1.55	Business & International Trade
64626112	UNITED STATES OF AMERICA	1.92	Business & International Trade
64627002	29TH STREET CAPITAL COMMERCIAL I L P	0.76	Business & International Trade
64627005	ALL RIGHT STORAGE INC	1.13	Business & International Trade
64627006	ALL RIGHT STORAGE INC	1.34	Business & International Trade
64627007	SANYIKA L L C	1.03	Business & International Trade
64627008	H BAZA C TRUST 08-02-07	1.31	Business & International Trade
64627009	GREY SQUIRREL L L C	0.97	Business & International Trade
64627010	BOW TAPE L L C	0.99	Business & International Trade
64627011	29TH STREET CAPITAL COMMERCIAL I L P	1.12	Business & International Trade
64629120	PPF INDUSTRIAL 2020 PIPER RANCH ROAD L P	31.01	Business & International Trade
64630001	GM OTAY LP	5.71	Business & International Trade
64630002	GM OTAY LP	3.09	Business & International Trade
64630003	GM OTAY LP	2.46	Business & International Trade
64630004	PALM INDUSTRIAL PARK L L C	3.44	Business & International Trade
64630006	7525 BRITANNIA L L C	1.53	Business & International Trade
64630007	BARRAGAN FAMILY TRUST 05-15-94	1.86	Business & International Trade
64630008	SHAYOTA INVESTMENTS L L C	2.38	Business & International Trade
64630010	J B REAL ESTATE HOLDINGS L L C	2.51	Business & International Trade
64630011	J B REAL ESTATE HOLDINGS L L C	2.55	Business & International Trade
64630013	OTAY BORDER PROPERTIES L L C	2.00	Business & International Trade
66705004	SIEMPRE VENTURE L L C	4.51	Heavy Industrial
66705032	HAMANN J C FAMILY TRUST	8.27	Heavy Industrial
66705034	LEBATA INC	6.87	Heavy Industrial
66705037	ICE II REAL ESTATE L P	6.78	Heavy Industrial
66705043	Y R C INC <LF> NATMI TRUCK TERMINALS L L C	4.79	Heavy Industrial
66705045	FIRST BANK	7.50	Heavy Industiral, Open Space
66705051	OTAY MESA WEST 69 L L C	7.61	Heavy Industrial
66705052	SWIFT TRANSPORTATION CO INC	6.93	Heavy Industrial
66705053	KELLER UCHIDA REALTY RESOURCES L L C	8.50	Heavy Industrial
66705055	OTAY MESA WEST 67 L L C 13.07ac Not Pd	25.40	Heavy Industiral, Open Space
66705062	C R S PARTNERS L P	18.76	Heavy Industrial
66706019	COAST CITRUS DISTRIBUTORS	8.24	Business & International Trade
66706024	GOLDBERG FRANK M TR	7.94	Business & International Trade

APN	OWNER	ACREAGE	LAND USE
66706026	GOLDBERG FRANK M TR	6.58	Business & International Trade
66706030	J M A C INC <DBA A A A A AUTO STORAGE&PARK>	2.21	Business & International Trade, Institutional
66706031	RAPTOR HOLDINGS LLC	1.98	Business & International Trade
66706032	SAINT ANDREWS L L C	1.64	Business & International Trade
66706033	HAMBALKO FAMILY REVOCABLE TRUST 05-15-97	1.51	Business & International Trade
66706034	BENBARN L L C	4.71	Business & International Trade
66706035	SAFCHILD INVESTMENTS L L C	3.82	Business & International Trade
66707101	SIEMPRE VIVA BUSINESS PARK WEST LLC	2.69	Business & International Trade
66707120	C L P F-SIEMPRE I L P	6.25	Business & International Trade
66707121	C L P F-SIEMPRE I L P	6.04	Business & International Trade
66707122	CLPF-SIEMPRE I LP	5.74	Business & International Trade
66707123	CLPF-SIEMPRE I LP	5.44	Business & International Trade
66707124	IRON MOUNTAIN STATUTORY TRUST-2001	5.14	Business & International Trade
66707125	IRON MOUNTAIN STATUTORY TRUST-2001	4.84	Business & International Trade
66707126	B I T HOLDING SEVENTY INC	4.54	Business & International Trade
66707127	SAN DIEGO VISTA STEEL SERVICE CORP	4.24	Business & International Trade
66707128	J J B SILVERHAWK L P	3.94	Business & International Trade
66707129	J J B SILVERHAWK L P	3.64	Business & International Trade
66707130	KOJIMA CO LTD	3.34	Business & International Trade
66707133	KOJIMA CO LTD	2.76	Business & International Trade
66707134	SAMWHA USA INC	2.72	Business & International Trade
66707135	AGROSYNERGY OF CALIFORNIA L L C	3.51	Business & International Trade
66707136	N A P SAN DIEGO L L C	3.37	Business & International Trade
66707137	B I T HOLDING SEVENTY INC	3.37	Business & International Trade
66707138	B I T HOLDING SEVENTY INC	2.70	Business & International Trade
66707139	B I T HOLDING SEVENTY INC	3.49	Business & International Trade
66707142	B I T HOLDING SEVENTY INC	3.58	Business & International Trade
66707143	B I T HOLDING SEVENTY INC	2.87	Business & International Trade
66707144	B I T HOLDING SEVENTY INC	2.83	Business & International Trade
66707145	B I T HOLDING SEVENTY INC	3.63	Business & International Trade
66707146	B I T HOLDING SEVENTY INC	2.79	Business & International Trade
66707147	B I T HOLDING SEVENTY INC	3.73	Business & International Trade
66707148	SIEMPRE VIVA BUSINESS PARK WEST LLC	4.85	Business & International Trade
66707149	SIEMPRE VIVA BUSINESS PARK WEST LLC	2.23	Business & International Trade

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(R-2014-413)
COR.COPY

RESOLUTION NUMBER R- 308901

DATE OF FINAL PASSAGE APR 30 2014

A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN DIEGO ORDERING THE DESIGNATION OF AN AREA OF BENEFIT IN OTAY MESA AND THE BOUNDARIES THEREOF AND ESTABLISHING THE AMOUNT OF THE FACILITIES BENEFIT ASSESSMENT AGAINST EACH PARCEL WITHIN THE AREA OF BENEFIT.

WHEREAS, pursuant to San Diego Municipal Code section 61.2200 et seq., on MAR 11 2014, the Council of the City of San Diego adopted Resolution No. R 308812 (Resolution of Intention) declaring its intention to designate an area of benefit within Otay Mesa to finance the cost of the public facilities projects identified in the "Otay Mesa Public Facilities Financing Plan and Facilities Benefit Assessment, Fiscal Year 2014" (Financing Plan), on file in the Office of the City Clerk as Document No. RR- 308811 and

WHEREAS, on MAR 11 2014, the Council adopted Resolution No. R-308811 approving the Financing Plan; and

WHEREAS, by Resolution No. R- 308812, the Council fixed at 2:00 p.m., or as soon thereafter as the matter may be heard, on APR 22 2014, at the City Council Chambers, 12th Floor, City Administration Building, 202 C Street, San Diego, California, the time and place for a public hearing to consider the designation of the area of benefit, including the public facilities projects to be financed, the extent of the facilities benefit assessment area of benefit, and the proposed facilities benefit assessments to be levied upon parcels within the designated area of benefit; and

WHEREAS, the City Clerk has given notices of the passage of the Resolution of Intention and of the time and place and purpose of the hearing, as required by San Diego Municipal Code section 61.2205; and

WHEREAS, at the time and place stated in the notices, a hearing was duly held by the Council, and during the course of the hearing, the Financing Plan was duly presented and considered, and all written protests and objections received, if any, were duly presented, read, heard and considered, and all persons appearing at the hearing and desiring to be heard were given that opportunity, and a full, fair and completed hearing was had; and

WHEREAS, the specific public facilities projects, the cost of which is proposed to be charged to the properties located within the area of benefit, are identified in the Financing Plan; and

WHEREAS, a capital improvement program with respect to the public facilities projects is included in the Financing Plan; and

WHEREAS, the proposed boundaries of the facilities benefit assessment area of benefit are shown in the Financing Plan; and

WHEREAS, the method pursuant to which the cost of the public facilities projects are to be apportioned among the parcels within the facilities benefit assessment area of benefit and the estimated amount of the facilities benefit assessments which will be charged to each such parcel is contained in the Financing Plan; and

WHEREAS, the Council has determined that it is necessary to provide for 3 percent annual automatic increases for Fiscal Year 2015 through Fiscal Year 2020, and then 2 percent each year thereafter in the amount of facilities benefit assessments for landowners who have not paid their facilities benefit assessments without the necessity for further proceedings pursuant to San Diego Municipal Code section 61.2212 in order to reflect increases in the cost of money

during the period between the imposition of the facilities benefit assessment, the payment of facilities benefit assessments and completion of the public facilities projects. The annual automatic increase is based on the March to March Construction Cost Index for San Diego/Los Angeles and the August to August Consumer Price Index for San Diego; and

WHEREAS, the amount of contribution or advance which the City or other public entity will make toward the total cost of the public facilities projects is set forth in the Financing Plan; and

WHEREAS, the goal of the Financing Plan is to ensure funds are available to provide needed community public facilities; NOW, THEREFORE,

BE IT RESOLVED, by the Council of the City of San Diego, as follows:

1. That the foregoing recitals are true and correct and incorporated fully herein by this reference.

2. That the Financing Plan is incorporated by reference into this Resolution as support and justification for satisfaction of findings required pursuant to the Mitigation Fee Act, as set forth in California Government Code section 66000 et seq., for imposition of the facilities benefit assessment fees. Specifically, it is determined and found that this documentation:

a. Identifies the purpose of the fees, which is to ensure that each new development project pays its proportionate share of funding needed for the community public facilities projects necessary to serve new development;

b. Identifies the use to which the fees are to be put, which includes, but is not limited to, the funding of public facilities projects to serve the community at full community development as identified in the Otay Mesa Community Plan and the City of San Diego General Plan. A list of the public facilities projects is shown in the Financing Plan;

c. Demonstrates how there is a reasonable relationship between the fees' use and the type of development project on which the fees are imposed, which includes the following: The fees will be used to provide for community infrastructure projects needed to serve both residential and non-residential development based on the increased intensity of the development permitted in accordance with the fee schedule in effect at the time a building permit is issued. Credit will be given for any existing development;

d. Demonstrates how there is a reasonable relationship between the need for the public facility and the type of development project on which the fees are imposed, which includes the following:

(i) Transportation Projects: Both residential development and non-residential development utilize the communities' transportation system, which require various street and bridge projects, traffic signal interconnect systems, and medians.

(ii) Park and Recreation Projects: Residential development utilizes the community's parks, and improvements are necessary based on the projected population at full community development and General Plan standards.

(iii) Library Projects: Residential development utilizes the community libraries, and improvements are necessary based on the projected population at full community development and General Plan standards.

(iv) Fire/Rescue Projects: Residential and non-residential development will be served by community fire/rescue facilities, and additional facilities are necessary based on the projected population at full community development, General Plan standards, and established emergency response times.

3. The designation of the area of benefit as identified in the Financing Plan is ordered.

4. The establishment of the facilities benefit assessment against each parcel within the area of benefit as identified in the Financing Plan is ordered and is effective sixty days from the date of final passage of this resolution.

5. The Mayor, or his designee, is authorized and directed to prepare a map of the boundaries of the area of benefit based on this Resolution and to file the map with the City Clerk in accordance with the provisions of San Diego Municipal Code section 61.2209(a).

6. The City Clerk is authorized and directed to record the map of the boundaries of the area of benefit in the Office of the County Recorder of the County of San Diego in accordance with the provisions of San Diego Municipal Code section 61.2209(a).

7. The City Clerk is authorized and directed to execute and record a Notice of Assessment in the Office of the County Recorder of the County of San Diego in accordance with the provisions of San Diego Municipal Code section 61.2209(b).

9. The Chief Financial Officer is authorized and directed to transfer, appropriate and expend the subject facilities benefit assessment funds as necessary to ensure timely payment of all Otay Mesa public facilities projects identified in the Financing Plan.

APPROVED: JAN I. GOLDSMITH, City Attorney

By Hilda R. Mendoza for
Heidi K. Vonblum
Deputy City Attorney

HKV:HRM:nja:mm
01/14/14
03/10/14 Cor. Copy
Or.Dept: Facilities Financing
Doc. No. 705110_2

(R-2014-413)
COR.COPY

I hereby certify that the foregoing Resolution was passed by the Council of the City of San Diego, at this meeting of APR 22 2014.

ELIZABETH S. MALAND
City Clerk

By Karen Cole
Deputy City Clerk

Approved: 4/29/14
(date)

KEVIN L. FAULCONER, Mayor

Vetoed: _____
(date)

KEVIN L. FAULCONER, Mayor

FISCAL YEAR	SINGLE FAMILY DUs	MULTI-FAMILY DUs	NON-RESIDENTIAL ADTs
2014	$30,827	$27,402	$556
2015	$31,752	$28,224	$572
2016	$32,705	$29,071	$589
2017	$33,686	$29,943	$607
2018	$34,697	$30,841	$625
2019	$35,738	$31,766	$644
2020	$36,810	$32,719	$663
2021	$37,546	$33,373	$676
2022	$38,297	$34,040	$690
2023	$39,063	$34,721	$704
2024	$39,844	$35,415	$718
2025	$40,641	$36,123	$732
2026	$41,454	$36,845	$747
2027	$42,283	$37,582	$762
2028	$43,129	$38,334	$777
2029	$43,992	$39,101	$793
2030	$44,872	$39,883	$809
2031	$45,769	$40,681	$825
2032	$46,684	$41,495	$842
2033	$47,618	$42,325	$859
2034	$48,570	$43,172	$876
2035	$49,541	$44,035	$894
2036	$50,532	$44,916	$912
2037	$51,543	$45,814	$930
2038	$52,574	$46,730	$949
2039	$53,625	$47,665	$968
2040	$54,698	$48,618	$987
2041	$55,792	$49,590	$1,007
2042	$56,908	$50,582	$1,027
2043	$58,046	$51,594	$1,048
2044	$59,207	$52,626	$1,069
2045	$60,391	$53,679	$1,090
2046	$61,599	$54,753	$1,112
2047	$62,831	$55,848	$1,134
2048	$64,088	$56,965	$1,157
2049	$65,370	$58,104	$1,180
2050	$66,677	$59,266	$1,204
2051	$68,011	$60,451	$1,228
2052	$69,371	$61,660	$1,253
2053	$70,758	$62,893	$1,278
2054	$72,173	$64,151	$1,304
2055	$73,616	$65,434	$1,330
2056	$75,088	$66,743	$1,357
2057	$76,590	$68,078	$1,384
2058	$78,122	$69,440	$1,412
2059	$79,684	$70,829	$1,440
2060	$81,278	$72,246	$1,469
2061	$82,904	$73,691	$1,498
2062	$84,562	$75,165	$1,528

APPENDIX H

OTAY MESA COMMUNITY PLAN SELECTED ALTERNATIVE 3B

APPENDIX D

SCENARIO 3B WITHOUT LA MEDIA ROAD

1. **Scenario 3B Without La Media Road Land Use Summary & Trip Generation File**
2. **Revised Otay Mesa 3B – 2030 Street Network Plot**
3. **Revised Otay Mesa CPU 2030 3B ADT Plot (Without La Media Road)**
4. **SANDAG 2050 Regional Transportation Plan (excerpt, pg. A-17)**
5. **CALTRANS Ramp Meter Rate E-Mail**
6. **I-805 Peak Hour Volume Data**
7. **City Requested ADT Adjustments**
8. **E-Memo: OMCPU Intersection Peak Hour Turn Volumes (Method Used)**
9. **Freeway On-Ramp Lengths**
10. **Buildout Recommended Lane Configurations – Alternative 3B Without La Media Road**
11. **Buildout AM / PM Peak Hour Traffic – Alternative 3B Without La Media Road**
12. **Table Appendix D-1, Traffic Signal Warrant Worksheets**
13. **Intersection LOS Worksheets**

Otay Mesa Buildout (3B) Land Use Summary			
Land Use	Input Vehicle Trip Generation		
	Type	Amount	Veh. Trips
Single Family	du	4,273	37,570
Multi-Family	du	14,501	116,056
Elementary school	site	7	8,295
Junior College	student	5,000	9,095
Senior High School	student	4,800	8,230
∗IBT - Office	ksf	2,771	39,103
∗L-R Office	ksf	362	5,760
∗Heavy Industry	ksf	8,458	34,962
∗IBT- Industrial Park	ksf	8,034	64,283
∗IBT - Business Park	ksf	5,356	87,819
∗Industrial Park	ksf	6,020	97,463
∗Light Industry LGR IP	ksf	12,685	101,497
∗IBT - Manufacturing	ksf	2,678	10,823
Commercial Airport	Flt	682	1,368
✔ Community Commercial	ksf	3,848	269,768
✔ Neighborhood Commercial	ksf	69	8,295
Gas Station w/fdmt	pump	27	6,710
∗ IBT- Warehouse	ksf	8,034	40,060
Truck Storage	acre	30	920
Warehouse or Storage	ksf	63	315
Active Park	acre	166	7,284
Cross Border Facility (CBF)	Passenger	17,225	31,205
Lodging - Hotel (BRWN FLD & CBF)	room	570	5,693
Air & Space Museum (BRWN FLD)		360	732
Restaurant (BRWN FLD)		30	12,000
Park & Ride (BRWN FLD)	Site	1	297
Solar Field (BRWN FLD)		67	5
Communication or Utility	acre	6	18
OMPOE in/out Laden	truck	2,000	8,096
OMPOE in/out unladen	truck	4,000	16,192
Church	site	5	205
Police or Fire Station	site	11	225
Other Health Care	ksf	293	14,681
Grand Total:			***1,045,025***

Source: T:\DWP\om_cpu042809\2030_r3b_nlamedia\subtgmx.pr

∗ **Industrial Square footage total of 54,461,000**

✔ **Commercial square footage total of 3,917,000**

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4429	101	SINGLE FAMILY	du	800.0	10080.	7034.
4429	4112	RIGHT-OF-WAY	acre	62.0	0.	0.
4429	7601	ACTIVE PARK	acre	6.0	400.	263.
4429	9101	INACTIVE USE	acre	249.7	0.	0.
4429	9710	MULTI-FAMILY(UNDER20DU/AC)	du	820.0	9348.	6563.
4429		TOTAL			19828.	13860.
4431	6102	CHURCH	acre	5.0	267.	205.
4431	7601	ACTIVE PARK	acre	11.0	733.	482.
4431	9711	GAS STATION W/FDMT(PUMP)	pump	12.0	2466.	1790.
4431	9719	OTHER HEALTH CARE(KSF)	ksf	292.7	19788.	14681.
4431		TOTAL			23254.	17158.
4443	101	SINGLE FAMILY	du	1069.0	13469.	9399.
4443	4112	RIGHT-OF-WAY	acre	47.4	0.	0.
4443	7601	ACTIVE PARK	acre	5.3	353.	232.
4443	9101	INACTIVE USE	acre	263.2	0.	0.
4443	9710	MULTI-FAMILY(UNDER20DU/AC)	du	330.0	3762.	2641.
4443		TOTAL			17584.	12273.
4450	4112	RIGHT-OF-WAY	acre	13.6	0.	0.
4450	9101	INACTIVE USE	acre	187.3	0.	0.
4450		TOTAL			0.	0.
4460	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	830.9	8226.	6648.
4460		TOTAL			8226.	6648.
4463	4112	RIGHT-OF-WAY	acre	15.8	0.	0.
4463	9101	INACTIVE USE	acre	168.4	0.	0.
4463		TOTAL			0.	0.
4464	4112	RIGHT-OF-WAY	acre	24.4	0.	0.
4464	9733	COMMUNITY COMMERCIAL (KSF)	ksf	770.9	77088.	54542.
4464		TOTAL			77088.	54542.
4467	101	SINGLE FAMILY	du	387.0	4876.	3403.
4467	4112	RIGHT-OF-WAY	acre	28.4	0.	0.
4467	7601	ACTIVE PARK	acre	7.0	466.	307.
4467	9101	INACTIVE USE	acre	132.7	0.	0.
4467	9710	MULTI-FAMILY(UNDER20DU/AC)	du	216.0	2462.	1729.
4467		TOTAL			7805.	5438.
4472	4112	RIGHT-OF-WAY	acre	40.0	0.	0.
4472	9101	INACTIVE USE	acre	238.3	0.	0.
4472	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	725.0	7177.	5801.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4472	9717	INDUSTRIAL PARK(KSF)	ksf	777.0	15540.	12739.
4472	9768	AIR&SPACE MUSEUM(BRWN FLD)	ksf	360.0	1080.	732.

4472	9770	SOLAR FIELD (BRWN FLD)	acre	66.5	7.	5.
4472		TOTAL			23804.	19277.
4479	4112	RIGHT-OF-WAY	acre	60.5	0.	0.
4479	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1960.2	19406.	15684.
4479	9734	HEAVY INDUSTRY (KSF)	ksf	1960.2	9801.	8103.
4479		TOTAL			29207.	23787.
4496	4112	RIGHT-OF-WAY	acre	6.4	0.	0.
4496	9101	INACTIVE USE	acre	54.2	0.	0.
4496	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1016.0	11582.	8131.
4496	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	33.2	5630.	3983.
4496		TOTAL			17212.	12115.
4497	4112	RIGHT-OF-WAY	acre	16.0	0.	0.
4497	9101	INACTIVE USE	acre	67.0	0.	0.
4497	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1916.6	18975.	15335.
4497		TOTAL			18975.	15335.
4499	101	SINGLE FAMILY	du	123.0	1550.	1081.
4499	4112	RIGHT-OF-WAY	acre	54.9	0.	0.
4499	7601	ACTIVE PARK	acre	4.9	326.	215.
4499	9101	INACTIVE USE	acre	32.9	0.	0.
4499	9710	MULTI-FAMILY(UNDER20DU/AC)	du	630.0	7182.	5042.
4499	9714	WAREHOUSING OR STORAGE(KSF)	ksf	63.2	385.	315.
4499		TOTAL			9443.	6653.
4505	4112	RIGHT-OF-WAY	acre	33.0	0.	0.
4505	6806	ELEMENTARY SCHOOL	site	1.0	2119.	1185.
4505	7601	ACTIVE PARK	acre	15.0	999.	657.
4505	9101	INACTIVE USE	acre	21.0	0.	0.
4505	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1578.0	17989.	12629.
4505		TOTAL			21107.	14472.
4511	4112	RIGHT-OF-WAY	acre	5.7	0.	0.
4511	6806	ELEMENTARY SCHOOL	acre	2.0	4237.	2370.
4511	9733	COMMUNITY COMMERCIAL (KSF)	ksf	234.7	23470.	16606.
4511		TOTAL			27707.	18976.
4517	101	SINGLE FAMILY	du	435.0	5481.	3825.
4517	4112	RIGHT-OF-WAY	acre	78.1	0.	0.
4517	9101	INACTIVE USE	acre	64.4	0.	0.
4517		TOTAL			5481.	3825.
4520	4112	RIGHT-OF-WAY	acre	26.8	0.	0.
4520	9733	COMMUNITY COMMERCIAL (KSF)	ksf	326.7	32670.	23115.
4520		TOTAL			32670.	23115.
4521	4112	RIGHT-OF-WAY	acre	10.0	0.	0.
4521	9733	COMMUNITY COMMERCIAL (KSF)	acre	271.7	27168.	19222.
4521		TOTAL			27168.	19222.
4522	4112	RIGHT-OF-WAY	acre	16.7	0.	0.
4522	9101	INACTIVE USE	acre	24.7	0.	0.
4522	9735	IBT-WAREHOUSE (KSF)	ksf	161.6	986.	806.
4522	9736	IBT-BUSINESS PARK(KSF)	ksf	107.7	2154.	1766.
4522	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	161.6	1600.	1293.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4522	9738	IBT-MANUFACTURING (KSF)	ksf	53.9	269.	218.
4522	9747	IBT-OFFICE(KSF-53.9;ZN 4522)	ksf	53.9	1373.	1053.
4522		TOTAL			6383.	5135.
4524	4112	RIGHT-OF-WAY	acre	20.9	0.	0.
4524	9735	IBT-WAREHOUSE (KSF)	ksf	379.4	2315.	1892.
4524	9736	IBT-BUSINESS PARK(KSF)	ksf	252.9	5059.	4147.
4524	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	379.4	3756.	3036.
4524	9738	IBT-MANUFACTURING (KSF)	ksf	126.5	632.	511.
4524	9749	IBT-OFFICE(KSF-126;ZN 4524)	ksf	126.5	2618.	2007.
4524		TOTAL			14380.	11593.
4525	4112	RIGHT-OF-WAY	acre	20.0	0.	0.
4525	9735	IBT-WAREHOUSE (KSF)	ksf	370.5	2260.	1847.
4525	9736	IBT-BUSINESS PARK(KSF)	ksf	247.0	4940.	4049.
4525	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	370.5	3668.	2964.
4525	9738	IBT-MANUFACTURING (KSF)	ksf	123.5	617.	499.
4525	9750	IBT-OFFICE(KSF-123;ZN 4525)	ksf	123.5	2569.	1969.
4525		TOTAL			14053.	11329.
4526	101	SINGLE FAMILY	du	75.0	945.	659.
4526	4112	RIGHT-OF-WAY	acre	14.6	0.	0.
4526	9101	INACTIVE USE	acre	45.0	0.	0.
4526	9710	MULTI-FAMILY(UNDER20DU/AC)	du	340.0	3876.	2721.
4526	9733	COMMUNITY COMMERCIAL (KSF)	ksf	248.3	24829.	17567.
4526		TOTAL			29650.	20948.
4527	4112	RIGHT-OF-WAY	acre	20.5	0.	0.
4527	9735	IBT-WAREHOUSE (KSF)	ksf	423.4	2583.	2111.
4527	9736	IBT-BUSINESS PARK(KSF)	ksf	282.3	5645.	4628.
4527	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	423.4	4192.	3388.
4527	9738	IBT-MANUFACTURING (KSF)	ksf	141.1	706.	570.
4527	9751	IBT-OFFICE(KSF-141;ZN 4527)	ksf	141.1	2837.	2174.
4527		TOTAL			15962.	12871.
4528	4112	RIGHT-OF-WAY	acre	16.7	0.	0.
4528	9717	INDUSTRIAL PARK(KSF)	ksf	199.6	3991.	3272.
4528	9733	COMMUNITY COMMERCIAL (KSF)	ksf	478.9	47892.	33885.
4528		TOTAL			51883.	37156.
4529	4112	RIGHT-OF-WAY	acre	17.0	0.	0.
4529	9735	IBT-WAREHOUSE (KSF)	ksf	118.7	724.	592.
4529	9736	IBT-BUSINESS PARK(KSF)	ksf	79.1	1582.	1297.
4529	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	118.7	1175.	949.
4529	9738	IBT-MANUFACTURING (KSF)	ksf	39.5	198.	160.
4529	9747	IBT-OFFICE(KSF-53.9;ZN 4522)	ksf	39.5	1009.	773.
4529		TOTAL			4687.	3771.
4530	4112	RIGHT-OF-WAY	acre	42.2	0.	0.
4530	9717	INDUSTRIAL PARK(KSF)	ksf	217.4	4347.	3564.
4530	9733	COMMUNITY COMMERCIAL (KSF)	ksf	521.7	52167.	36910.
4530		TOTAL			56515.	40474.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4531	4112	RIGHT-OF-WAY	acre	33.2	0.	0.
4531	4113	COMMUNICATION OR UTILITY	acre	2.1	8.	6.
4531	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1128.0	11167.	9025.
4531	9734	HEAVY INDUSTRY (KSF)	ksf	149.9	749.	619.
4531		TOTAL			11925.	9651.
4532	4112	RIGHT-OF-WAY	acre	8.2	0.	0.
4532	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1337.1	13237.	10698.
4532		TOTAL			13237.	10698.
4545	4112	RIGHT-OF-WAY	acre	23.3	0.	0.
4545	9101	INACTIVE USE	acre	87.3	0.	0.
4545	9710	MULTI-FAMILY(UNDER20DU/AC)	du	381.0	4343.	3049.
4545	9717	INDUSTRIAL PARK(KSF)	ksf	778.2	15564.	12759.
4545	9733	COMMUNITY COMMERCIAL (KSF)	ksf	17.0	1699.	1202.
4545		TOTAL			21606.	17010.
4546	101	SINGLE FAMILY	du	59.0	743.	519.
4546	4112	RIGHT-OF-WAY	acre	2.9	0.	0.
4546	4113	COMMUNICATION OR UTILITY	acre	3.9	16.	12.
4546	9101	INACTIVE USE	acre	134.1	0.	0.
4546	9710	MULTI-FAMILY(UNDER20DU/AC)	du	40.0	456.	320.
4546		TOTAL			1215.	851.
4547	4112	RIGHT-OF-WAY	acre	16.6	0.	0.
4547	7601	ACTIVE PARK	acre	8.1	539.	355.
4547	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1111.0	12665.	8892.
4547	9717	INDUSTRIAL PARK(KSF)	ksf	991.9	19838.	16263.
4547	9733	COMMUNITY COMMERCIAL (KSF)	ksf	15.7	1568.	1110.
4547		TOTAL			34611.	26619.
4548	4112	RIGHT-OF-WAY	acre	18.2	0.	0.
4548	9717	INDUSTRIAL PARK(KSF)	ksf	1417.9	28358.	23247.
4548		TOTAL			28358.	23247.
4549	4112	RIGHT-OF-WAY	acre	18.2	0.	0.
4549	9101	INACTIVE USE	acre	6.4	0.	0.
4549	9706	JUNIOR COLLEGE (STUDENTS)	stu	5000.0	11500.	9095.
4549	9717	INDUSTRIAL PARK(KSF)	ksf	179.2	3585.	2939.
4549		TOTAL			15085.	12033.
4550	4112	RIGHT-OF-WAY	acre	9.3	0.	0.
4550	9735	IBT-WAREHOUSE (KSF)	ksf	200.1	1221.	998.
4550	9736	IBT-BUSINESS PARK(KSF)	ksf	133.4	2668.	2188.
4550	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	200.1	1981.	1601.
4550	9738	IBT-MANUFACTURING (KSF)	ksf	66.7	334.	270.
4550	9746	IBT-OFFICE(KSF-66.7;ZN 4550)	ksf	66.7	1614.	1237.
4550		TOTAL			7819.	6294.
4551	4112	RIGHT-OF-WAY	acre	45.0	0.	0.
4551	9735	IBT-WAREHOUSE (KSF)	ksf	502.3	3064.	2505.
4551	9736	IBT-BUSINESS PARK(KSF)	ksf	334.9	6698.	5491.
4551	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	502.3	4973.	4019.
4551	9738	IBT-MANUFACTURING (KSF)	ksf	167.4	837.	677.
4551	9753	IBT-OFFICE(KSF-166;ZN 4551)	ksf	167.4	3232.	2477.
4551		TOTAL			18804.	15168.
4558	101	SINGLE FAMILY	du	125.0	1575.	1099.
4558	4112	RIGHT-OF-WAY	acre	3.6	0.	0.
4558	6806	ELEMENTARY SCHOOL	site	1.0	2119.	1185.

4558	7601	ACTIVE PARK	acre	5.2	346.	228.
4558	9101	INACTIVE USE	acre	108.3	0.	0.
4558	9710	MULTI-FAMILY(UNDER20DU/AC)	du	590.0	6726.	4722.
4558		TOTAL			10766.	7234.
4560	4112	RIGHT-OF-WAY	acre	15.2	0.	0.
4560	6806	ELEMENTARY SCHOOL	site	1.0	2119.	1185.
4560	7601	ACTIVE PARK	acre	24.2	1612.	1061.
4560	9101	INACTIVE USE	acre	145.5	0.	0.
4560	9710	MULTI-FAMILY(UNDER20DU/AC)	du	3754.0	42796.	30045.
4560		TOTAL			46526.	32291.
4561	101	SINGLE FAMILY	du	765.0	9639.	6726.
4561	4112	RIGHT-OF-WAY	acre	3.8	0.	0.
4561	6806	ELEMENTARY SCHOOL	site	2.0	4237.	2370.
4561	7601	ACTIVE PARK	acre	20.7	1379.	907.
4561	9101	INACTIVE USE	acre	166.0	0.	0.
4561	9707	L-R OFF(KSF-98;ZN4561,4578)	ksf	98.0	2156.	1653.

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Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4561	9710	MULTI-FAMILY(UNDER20DU/AC)	du	2025.0	23085.	16207.
4561	9733	COMMUNITY COMMERCIAL (KSF)	ksf	47.0	4704.	3329.
4561		TOTAL			45201.	31192.
4562	4112	RIGHT-OF-WAY	acre	13.4	0.	0.
4562	7601	ACTIVE PARK	acre	39.4	2624.	1727.
4562	9101	INACTIVE USE	acre	54.3	0.	0.
4562	9717	INDUSTRIAL PARK(KSF)	ksf	1178.9	23579.	19329.
4562	9725	SENIOR HIGH SCHOOL(STUDENTS)	stu	2400.0	9120.	4115.
4562		TOTAL			35323.	25172.
4563	4112	RIGHT-OF-WAY	acre	4.9	0.	0.
4563	9735	IBT-WAREHOUSE (KSF)	ksf	1001.5	6109.	4993.
4563	9736	IBT-BUSINESS PARK(KSF)	ksf	667.6	13353.	10946.
4563	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	1001.5	9915.	8013.
4563	9738	IBT-MANUFACTURING (KSF)	ksf	333.8	1669.	1349.
4563	9758	IBT-OFFICE(KSF-333;ZN 4563)	ksf	333.8	5441.	4171.
4563		TOTAL			36487.	29472.
4564	4112	RIGHT-OF-WAY	acre	3.4	0.	0.
4564	9101	INACTIVE USE	acre	38.0	0.	0.
4564	9735	IBT-WAREHOUSE (KSF)	ksf	702.9	4287.	3504.
4564	9736	IBT-BUSINESS PARK(KSF)	ksf	468.6	9372.	7683.
4564	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	702.9	6958.	5624.
4564	9738	IBT-MANUFACTURING (KSF)	ksf	234.3	1171.	947.
4564	9754	IBT-OFFICE(KSF-234;ZN 4564)	ksf	234.3	4170.	3196.
4564		TOTAL			25959.	20954.
4565	4112	RIGHT-OF-WAY	acre	19.5	0.	0.
4565	9735	IBT-WAREHOUSE (KSF)	ksf	1035.5	6317.	5163.
4565	9736	IBT-BUSINESS PARK(KSF)	ksf	690.3	13807.	11318.
4565	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	1035.5	10252.	8285.
4565	9738	IBT-MANUFACTURING (KSF)	ksf	345.2	1726.	1395.
4565	9756	IBT-OFFICE(KSF-345;ZN 4565)	ksf	345.2	5592.	4286.
4565		TOTAL			37692.	30447.

4566	4112	RIGHT-OF-WAY	acre	15.2	0.	0.
4566	9735	IBT-WAREHOUSE (KSF)	ksf	844.2	5150.	4209.
4566	9736	IBT-BUSINESS PARK(KSF)	ksf	562.8	11256.	9227.
4566	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	844.2	8358.	6754.
4566	9738	IBT-MANUFACTURING (KSF)	ksf	281.4	1407.	1137.
4566	9755	IBT-OFFICE(KSF-282;ZN 4566)	ksf	281.4	4784.	3667.
4566		TOTAL			30954.	24995.
4567	4112	RIGHT-OF-WAY	acre	9.0	0.	0.
4567	9733	COMMUNITY COMMERCIAL (KSF)	ksf	95.4	9540.	6750.
4567	9735	IBT-WAREHOUSE (KSF)	ksf	208.9	1274.	1042.
4567	9736	IBT-BUSINESS PARK(KSF)	ksf	139.3	2785.	2283.
4567	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	208.9	2068.	1671.
4567	9738	IBT-MANUFACTURING (KSF)	ksf	69.6	348.	281.
4567	9746	IBT-OFFICE(KSF-66.7;ZN 4550)	ksf	69.6	1685.	1292.
4567		TOTAL			17700.	13319.

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4569	4112	RIGHT-OF-WAY	acre	24.0	0.	0.
4569	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1086.8	10760.	8696.
4569		TOTAL			10760.	8696.
4570	4112	RIGHT-OF-WAY	acre	11.0	0.	0.
4570	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1287.4	12745.	10301.
4570		TOTAL			12745.	10301.
4578	101	SINGLE FAMILY	du	435.0	5481.	3825.
4578	4112	RIGHT-OF-WAY	acre	3.8	0.	0.
4578	7601	ACTIVE PARK	acre	13.6	906.	596.
4578	9101	INACTIVE USE	acre	239.4	0.	0.
4578	9707	L-R OFF(KSF-98;ZN4561,4578)	ksf	98.0	2156.	1653.
4578	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1150.0	13110.	9204.
4578	9733	COMMUNITY COMMERCIAL (KSF)	ksf	47.0	4704.	3329.
4578		TOTAL			26357.	18606.
4580	4112	RIGHT-OF-WAY	acre	9.4	0.	0.
4580	9101	INACTIVE USE	acre	5.0	0.	0.
4580	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	83.0	822.	664.
4580	9733	COMMUNITY COMMERCIAL (KSF)	ksf	352.2	35218.	24918.
4580		TOTAL			36040.	25582.
4581	4112	RIGHT-OF-WAY	acre	11.0	0.	0.
4581	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	2156.4	21349.	17254.
4581		TOTAL			21349.	17254.
4584	4112	RIGHT-OF-WAY	acre	20.0	0.	0.
4584	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	65.3	647.	523.
4584	9733	COMMUNITY COMMERCIAL (KSF)	ksf	158.5	15851.	11215.
4584	9735	IBT-WAREHOUSE (KSF)	ksf	177.1	1081.	883.
4584	9736	IBT-BUSINESS PARK(KSF)	ksf	118.1	2362.	1936.
4584	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	177.1	1754.	1417.
4584	9738	IBT-MANUFACTURING (KSF)	ksf	59.0	295.	239.
4584	9745	IBT-OFFICE(KSF-59.0;ZN 4584)	ksf	59.0	1470.	1127.
4584		TOTAL			23460.	17340.

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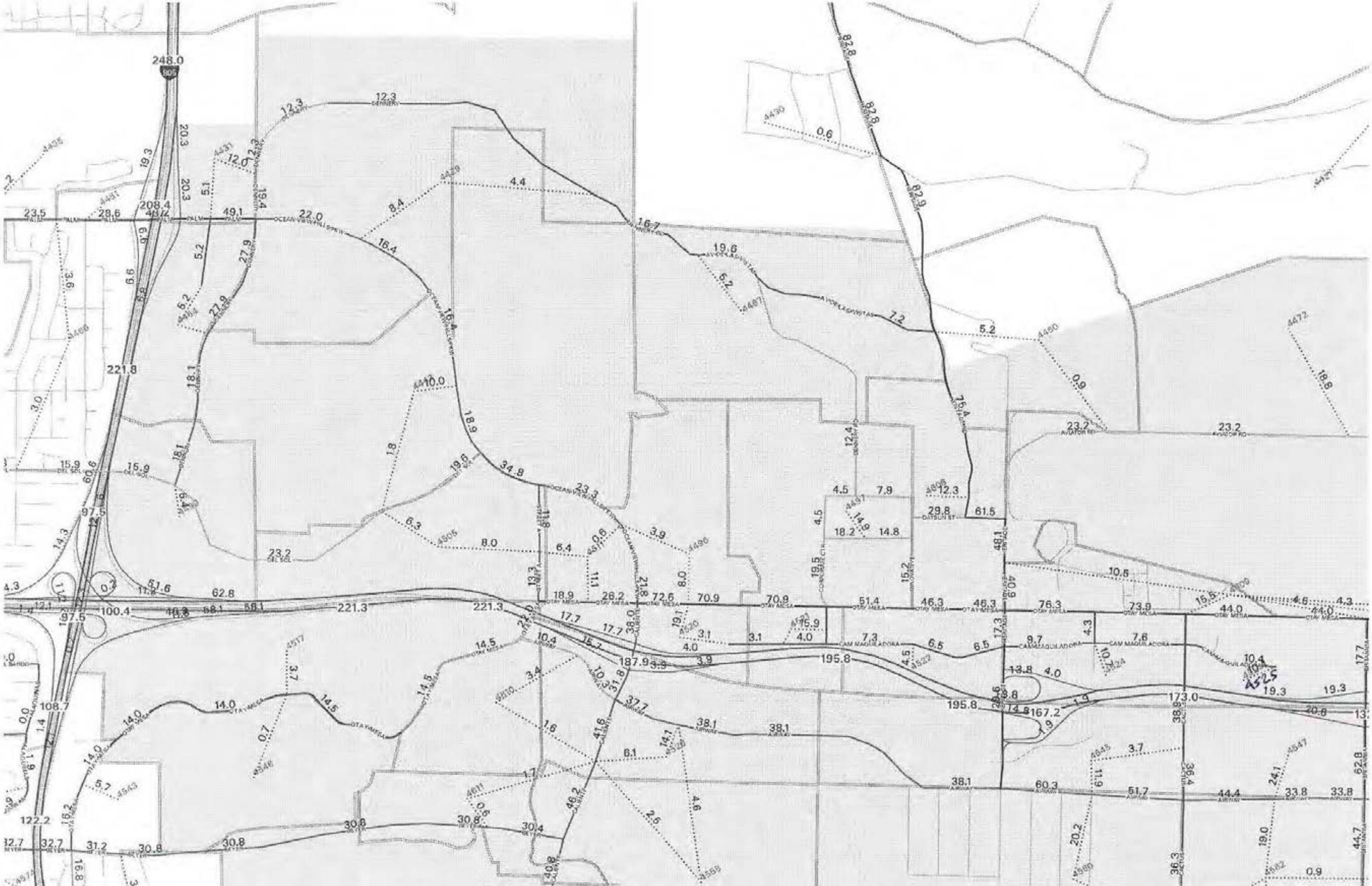
Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4586	4112	RIGHT-OF-WAY	acre	7.1	0.	0.
4586	9101	INACTIVE USE	acre	257.7	0.	0.
4586	9734	HEAVY INDUSTRY (KSF)	ksf	1887.7	9438.	7803.
4586		TOTAL			9438.	7803.
4587	4112	RIGHT-OF-WAY	acre	10.9	0.	0.
4587	9734	HEAVY INDUSTRY (KSF)	ksf	3039.0	15195.	12563.
4587		TOTAL			15195.	12563.
4588	4112	RIGHT-OF-WAY	acre	6.1	0.	0.
4588	9740	CROSS BORDER FACILITY (PASS)	pass	17225.0	48230.	31205.
4588	9741	CROSS BORDER FAC-HOTEL(RM)	room	300.0	4860.	2996.
4588	9742	CROSS BORDER FAC-INDPRK(KSF)	ksf	280.0	4088.	3351.
4588	9743	CROSS BORDER FAC-GAS (PUMP)	pump	12.0	2466.	1790.
4588	9744	CROSS BORDER FAC-RETAIL(KSF)	ksf	78.5	4420.	3127.
4588	9752	IBT-OFFICE(KSF-270;ZN 4588)	ksf	269.9	4643.	3559.
4588	9759	IBT-WAREHOUSE(KSF-ZN4588)	ksf	530.0	3233.	2643.
4588	9760	IBT-BUSINESS PARK(KSF-4588)	ksf	353.4	7068.	5794.
4588	9761	IBT-INDUST PARK(KSF-4588)	ksf	530.0	5247.	4241.
4588	9762	IBT-MANUFACTURING(KSF-4588)	ksf	176.7	883.	714.
4588		TOTAL			85138.	59419.
4589	9101	INACTIVE USE	acre	53.0	0.	0.
4589	9735	IBT-WAREHOUSE (KSF)	ksf	300.2	1831.	1497.
4589	9736	IBT-BUSINESS PARK(KSF)	ksf	200.2	4003.	3282.
4589	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	300.2	2972.	2402.
4589	9738	IBT-MANUFACTURING (KSF)	ksf	100.1	500.	404.
4589	9748	IBT-OFFICE(KSF-100;ZN 4589)	ksf	100.1	2192.	1680.
4589	9771	FIRE OR POLICE STATION	acre	10.9	305.	225.
4589		TOTAL			11804.	9490.
4590	4112	RIGHT-OF-WAY	acre	24.0	0.	0.
4590	9735	IBT-WAREHOUSE (KSF)	ksf	1078.1	6576.	5375.
4590	9736	IBT-BUSINESS PARK(KSF)	ksf	718.7	14375.	11784.
4590	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	1078.1	10673.	8626.
4590	9738	IBT-MANUFACTURING (KSF)	ksf	359.4	1797.	1452.
4590	9757	IBT-OFFICE(KSF-359;ZN 4590)	ksf	359.4	5786.	4435.
4590		TOTAL			39207.	31672.
4606	4001	OMPOE IN/OUT LADEN(TRUCKS)	truck	2000.0	10600.	8096.
4606		TOTAL			10600.	8096.
4607	4002	OMPOE IN/OUT UNLADEN(TRUCKS)	truck	4000.0	21200.	16192.
4607		TOTAL			21200.	16192.
4608	4112	RIGHT-OF-WAY	acre	22.0	0.	0.
4608	9101	INACTIVE USE	acre	44.0	0.	0.
4608	9710	MULTI-FAMILY(UNDER20DU/AC)	du	145.0	1653.	1160.
4608	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	108.5	1074.	868.
4608	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	35.9	6095.	4312.
4608	9734	HEAVY INDUSTRY (KSF)	ksf	1420.9	7105.	5874.
4608		TOTAL			15926.	12215.

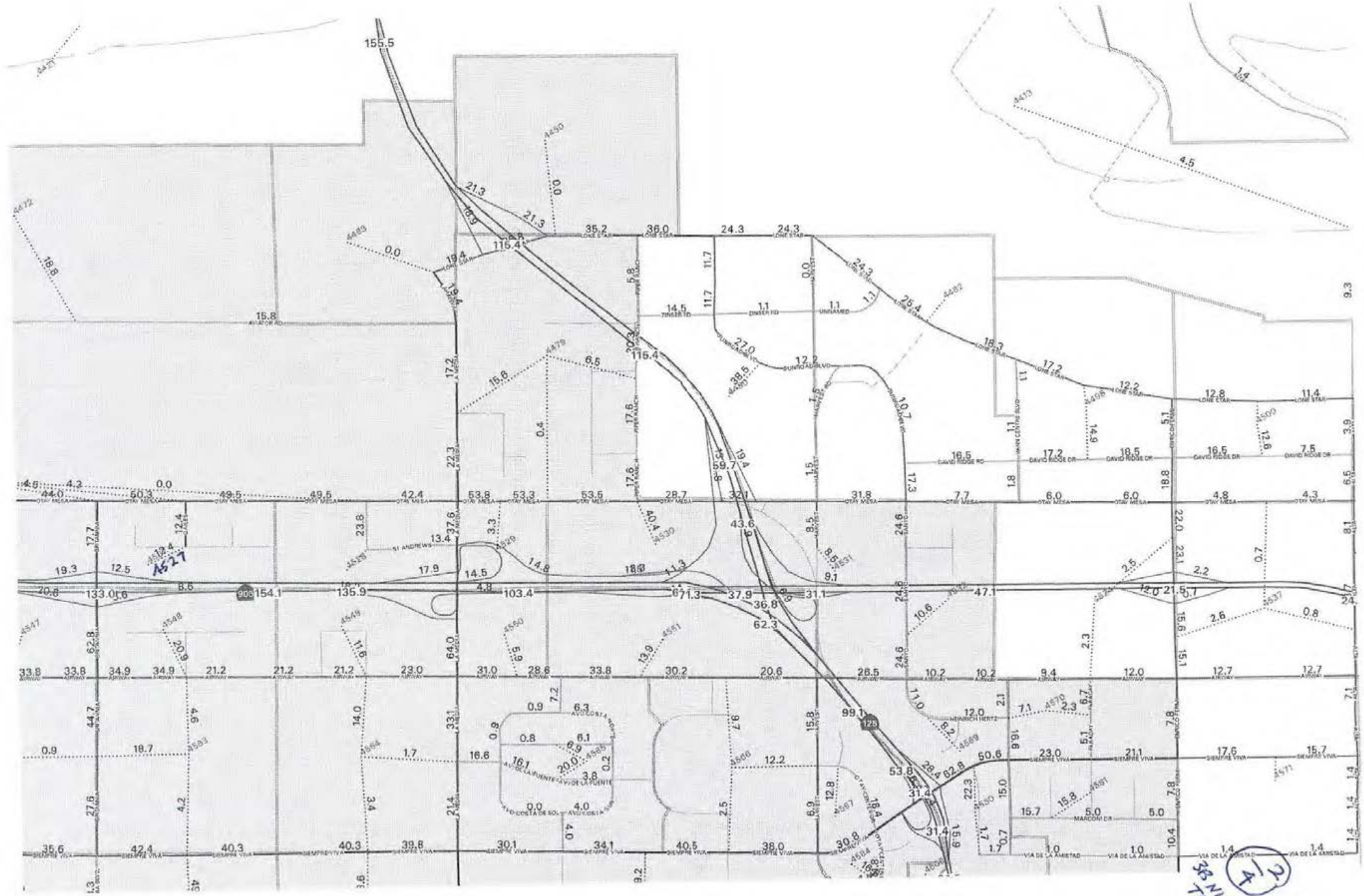
OTAY MESA Final 2030 3B (.5 FAR)
trip generation and land use by zone

Zone	Code	Name	Type	Amount	Trips Person	Trips Vehicle
4609	9720	TRUCK STORAGE (WRHSGSTRG)	acre	30.0	1125.	920.
4609	9726	COMMERCIAL AIRPORT (OM/FLT)	flt	682.0	2114.	1368.
4609	9733	COMMUNITY COMMERCIAL (KSF)	ksf	182.9	18290.	12941.
4609	9763	COMMERCIAL OFFICE(BRWN FLD)	ksf	165.9	3202.	2454.
4609	9764	HOTEL (BRWN FLD)	room	270.0	4374.	2697.
4609	9765	GAS STATION (BRWN FLD)	ksf	3.2	4311.	3130.
4609	9766	FAST FOOD REST (BRWN FLD)	ksf	14.3	14098.	9975.
4609	9767	HIGH T/O REST (BRWN FLD)	ksf	15.8	2861.	2025.
4609	9769	PARK & RIDE (BRWN FLD)	acre	0.7	389.	297.
4609		TOTAL			50766.	35806.
4610	4112	RIGHT-OF-WAY	acre	23.3	0.	0.
4610	9101	INACTIVE USE	acre	1.6	0.	0.
4610	9710	MULTI-FAMILY(UNDER20DU/AC)	du	110.0	1254.	880.
4610	9725	SENIOR HIGH SCHOOL(STUDENTS)	stu	2400.0	9120.	4115.
4610		TOTAL			10374.	4995.
4611	7601	ACTIVE PARK	acre	5.8	386.	254.
4611	9101	INACTIVE USE	acre	23.8	0.	0.
4611	9710	MULTI-FAMILY(UNDER20DU/AC)	du	265.0	3021.	2121.
4611		TOTAL			3407.	2375.



3B WITHOUT LA MEDIA
READABLE VOLUMES & TAZs

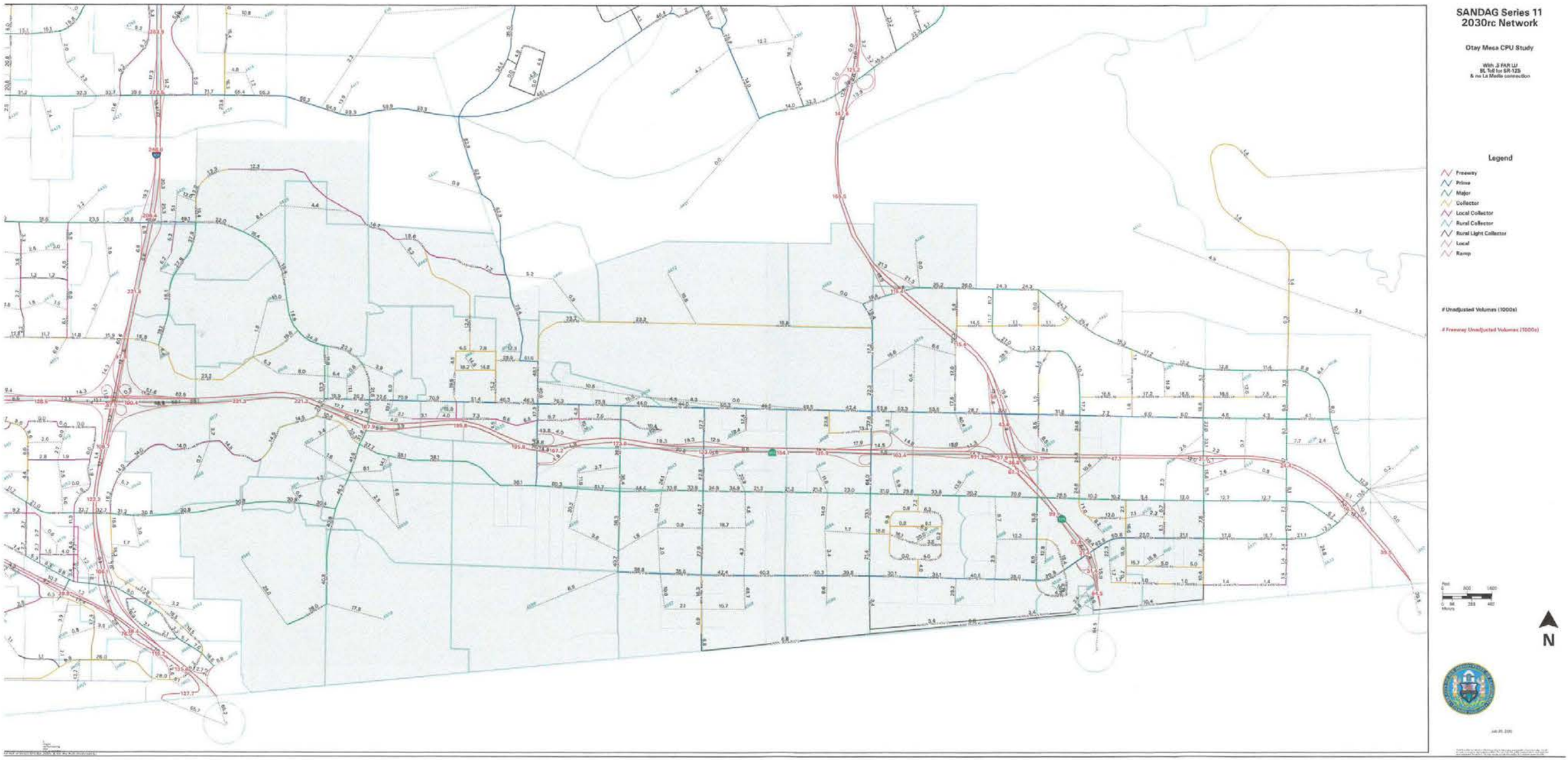
A-1

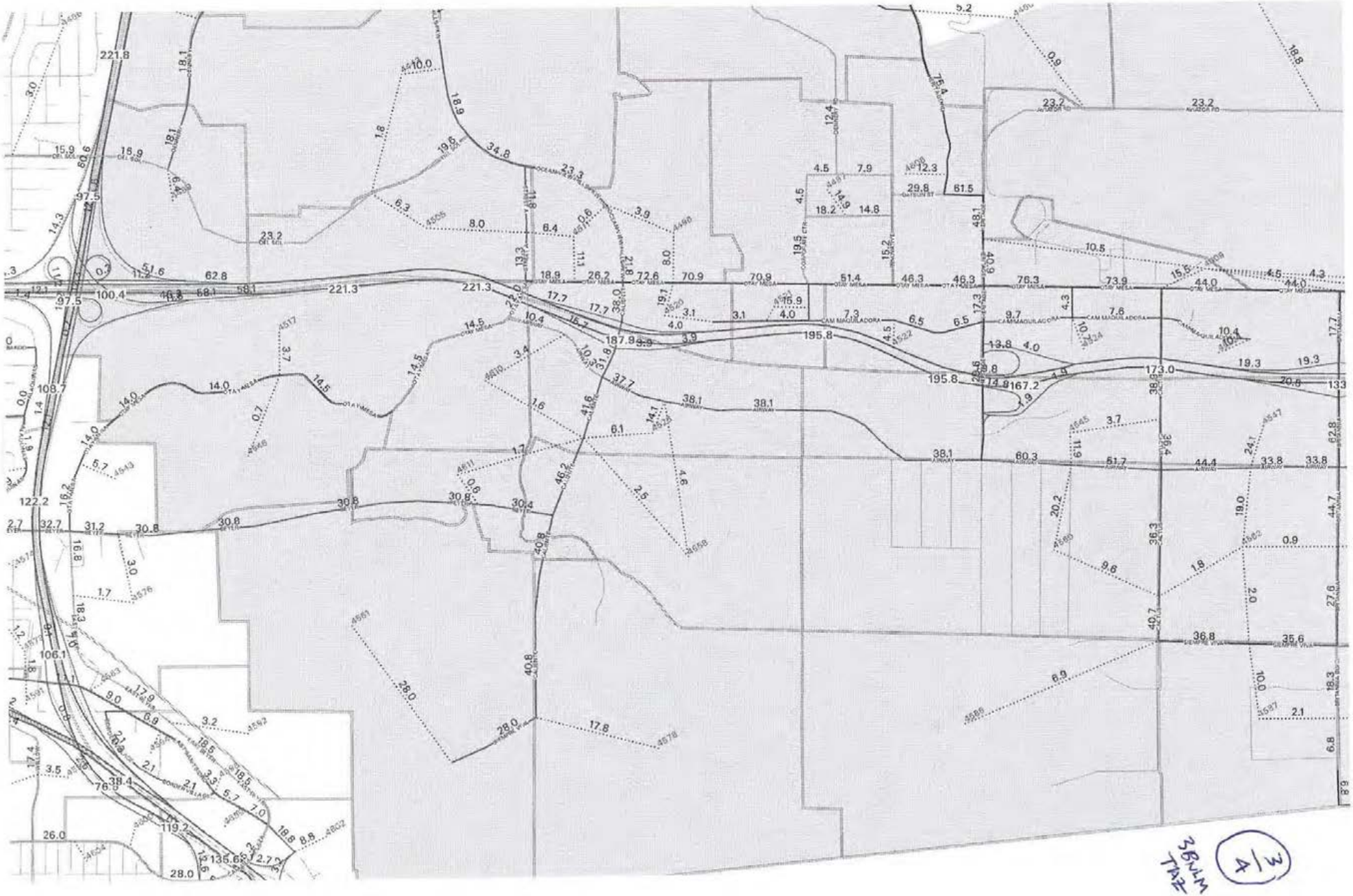


155.5
115.4
35.2
36.0
24.3
24.3
LONE STAR
ZINSER RD
UNNAMED
SUNROAD BLVD
DAVID RIDGE RD
DAVID RIDGE DR
OTAY MESA
ST ANDREWS
AVIATOR RD
AVIATOR
SIEMPRE VIVA
VIA DE LA AMISTAD
MARCONI DR
HEINRICH HERTZ
AVD COSTA NORTE
AVD DE LA FUENTE
AVD COSTA DE SOL
AVD COSTA SUR
905
125
A527
2/4
3B NLM
TAZ

REVISED OTAY MESA 3B - 2030 Street Network

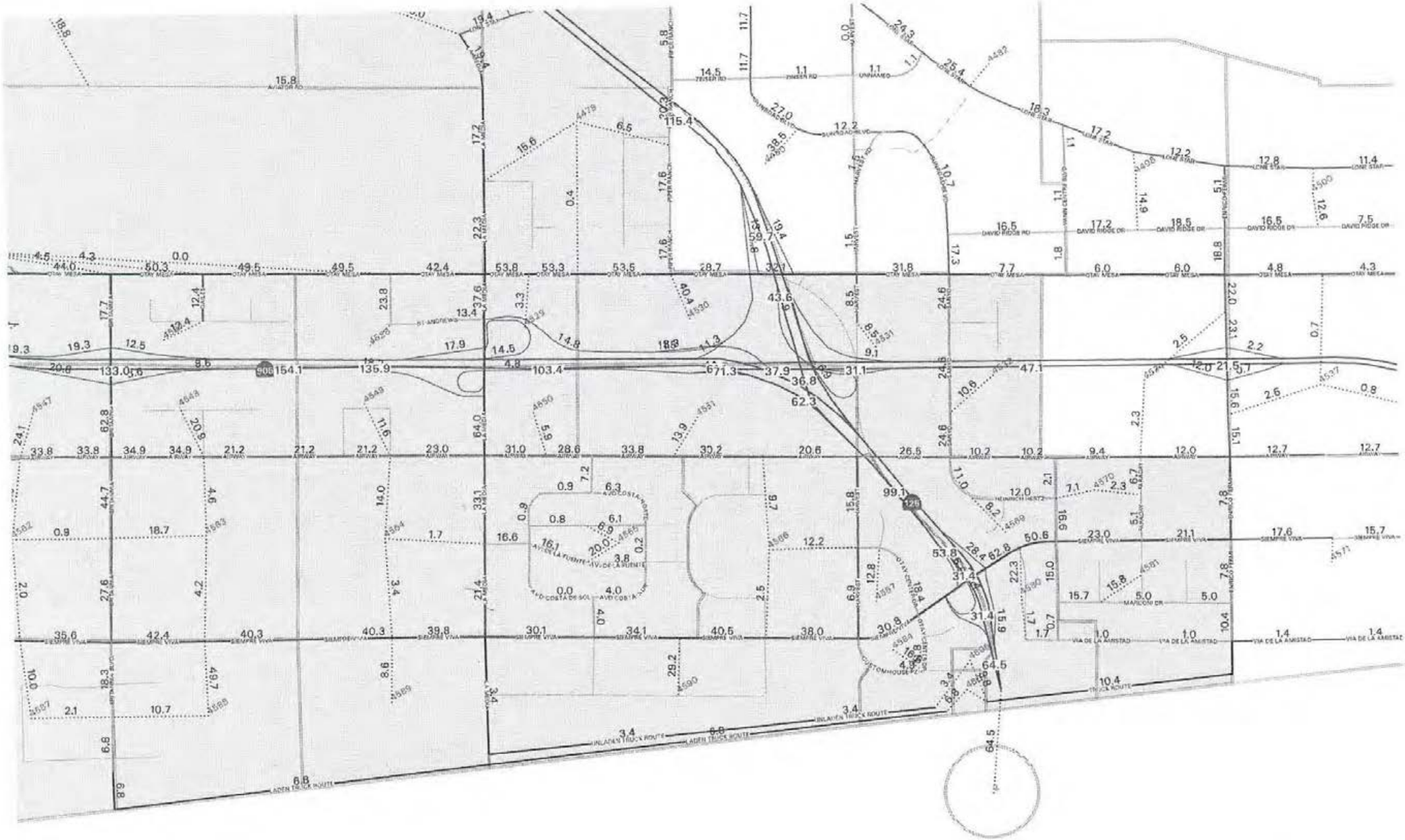
DRAFT - REVISED OTAY MESA CPU 2030 3B ADT PLOT





3BNLM
TAZ

3/4



LONE STAR
ZINSER RD
UNNAMED
SUNROAD BLVD
DAVID RIDGE DR
OTAY MESA
ST ANDREWS
AVD COSTA DE SOL
AVD COSTA
SIEMPRE VIVA
VIA DE LA AMISTAD
TRUCK ROUTE
INLADEN TRUCK ROUTE
LADEN TRUCK ROUTE

3BNLM
TAZ

4/4

APPENDIX J

Transportation Analysis

TRANSPORTATION ANALYSIS

For

OTAY MESA COMMUNITY PLAN UPDATE

Prepared for

THE CITY OF SAN DIEGO

Final Report, June 14, 2012
with corrections dated August 30, 2013
on four pages (ES-21, ES-38, ES-67, and 5-32).

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APPENDICES

A. Existing Conditions

B. Adopted Community Plan

C. Scenario 3B With La Media Road

D. Scenario 3B Without La Media Road

ES. EXECUTIVE SUMMARY

In support of the Otay Mesa Community Plan Update, this traffic study was prepared to evaluate existing and future traffic conditions at buildout of the community for three scenarios, the Adopted Community Plan, Scenario 3B With La Media Road, and Scenario 3B Without La Media Road.

No Project Scenario / Adopted Community Plan: The adopted Otay Mesa Community Plan concentrates residential development in the western third of Otay Mesa with industrial and commercial uses planned for the central and eastern portions of the community. The original 1981 land use map anticipated the development of 18,200 dwelling units in Otay Mesa. However, a 1997 community plan amendment to incorporate the Multiple Species Conservation Program (MSCP) reduced the potential residential build-out units resulting in 12,206 dwelling units currently being anticipated by the Otay Mesa Community Plan. The traffic forecast for this alternate assumed 5,776,000 square feet of commercial uses and 64,465,000 square feet of industrial uses. The buildout of this plan would generate a total of 1,165,103 average daily vehicle trips.

Land Use Scenario 3B With La Media Road: Approximately 18,774 dwelling units could be developed under this plan by increasing the housing unit yield in the southwestern residential areas, creating Community Villages south of Airway Road, west of Cactus Road and in an area south of SR-905 and west of Britannia Boulevard. This plan would retain industrial and commercial uses between Otay Mesa Road and SR-905. A cross border facility is included in this plan. The traffic forecast for this alternative assumed 3,917,000 square feet of commercial uses and 54,461,000 square feet of industrial uses. The buildout of this plan would generate 1,045,025 average daily vehicle trips.

The City of Chula Vista is preparing a General Plan Amendment, anticipated in Spring 2012, that would delete the La Media Road bridge crossing the Otay River Valley from their General Plan, and has deleted this project from their facilities financing plan. Therefore, the "With La Media Road" connection to Chula Vista appears to no longer be a viable alternative. For this reason, the detailed analysis provided in Chapter 6 for the 3B With La Media Road alternative is not summarized here in the Executive Summary.

Land Use Scenario 3B Without La Media Road – Proposed Community Plan Buidlout: The Adopted Community Plan includes the extension of La Media Road north of Lone Star Road to cross the Otay River Valley on a bridge. However, the City of Chula Vista has indicated that they will be deleting this crossing from their General Plan Circulation Element. The Scenario 3B land use assumptions remain unchanged, but the segment of La Media Road crossing the Otay River Valley has been deleted for this analysis. Approximately 18,774 dwelling units could be developed under this plan. The buildout of this plan would generate 1,045,025 average daily vehicle trips.

For buildout conditions this study evaluated 121 roadway segments, 17 freeway segments, 53 intersections, 14 freeway on-ramp meters, and queuing at 31 freeway interchange intersections.

I. EXISTING CONDITIONS

The existing Otay Mesa Community Plan land uses are only partially built out and the future street network is incomplete. The future SR-905 freeway is partially built and was opened to traffic in December 2010 from Britannia Boulevard to the international border, but has not yet been fully constructed from I-805 to Britannia Boulevard. The existing conditions analysis is based on data collected before SR-905 was opened to traffic from Britannia Boulevard to the international border.

Roadway Segments

Provided below is a summary of existing conditions on roadway segments that are operating at unacceptable levels of service "E" or "F'.

- Otay Mesa Road (SR-905 to Caliente Avenue) LOS F;
- Otay Mesa Road (Caliente Avenue to Corporate Center Drive) LOS F;
- Otay Mesa Road (Corporate Center Drive to Heritage Road) LOS E;
- Otay Mesa Road (Otay Mesa Center Road to La Media Road) LOS E;
- Otay Valley Road (Main Street to Avenida De Las Vistas) LOS F;
- Otay Valley Road / Heritage Road (Avenida De Las Vistas to Otay Mesa Road) LOS F;
- La Media Road (Airway Road to Siempre Viva Road) LOS F.

All other roadway segments evaluated operate acceptably, at levels of service better than "E" or "F".

Freeway Segments

All study area freeway segments of Interstate I-805 and SR-905 operate acceptably.

Intersections

The following intersection currently operates unacceptably.

- Otay Mesa Road / Heritage Road – LOS E during AM peak hour.

Ramp Meters

Currently, the I-805 / Palm Avenue and the SR-905 / Siempre Viva Road interchange ramps do not have ramp meters installed. The other interchanges evaluated in the buildout scenarios did not exist at the time of existing traffic counts.

Freeway Interchange Queues

Freeway interchange intersection queues were not evaluated for existing conditions.

II. NO PROJECT SCENARIO / ADOPTED COMMUNITY PLAN BUILDOUT

Roadway Segments

Roadway segments at buildout were evaluated for levels of service based on the City of San Diego Street Design manual. The initial "without mitigation" classification of roadways is based on the existing functional classifications or the current Community Plan classification if the street did not exist in the existing conditions assessment or if analyzing the projected volumes on the existing facility would not be meaningful because it would not be possible to carry those volumes on the existing-sized facility due to its capacity. Segments that would be at level of service "E" or "F" are considered to be significantly impacted by implementation of the land use plan. **Table ES II-1** lists segments that would be at level of service "E" or "F", without reclassification and construction to a higher standard, and the level of service after reclassification and construction to a higher standard.

TABLE ES II-1

Buildout Adopted Community Plan

Roadway Segments at LOS "E" or "F"

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	LOS	New Class	New LOS	S?
Otay Mesa Road	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	78,000	F	N	-	Y
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	74,000	F	N	-	Y
	Britannia Blvd. to Ailsa Ct.	7	6-PA	60,000	58,500	E	N	-	Y
	Ailsa Ct. to La Media Rd.	8	7-M	55,000	49,500	E	6-PA	C	N
	SR-125 to Harvest Rd.	11	4-M	40,000	42,500	F	6-PA	C	N
	Harvest Rd. to Sanyo Ave.	12	4-M	40,000	38,500	E	6-PA	C	N
Airway Road	Caliente Ave. to Heritage Rd.	15	4-M	40,000	59,000	F	6-PA	E	Y
	Heritage Rd. to Cactus Rd.	16	4-M	40,000	39,500	E	6-M	C	N
	Cactus Rd. to Britannia Blvd.	17	4-M	40,000	46,500	F	6-M	E	Y
	Britannia Blvd. to La Media Rd.	18	4-M	40,000	39,000	E	6-M	C	N
	La Media Rd. to Harvest Rd.	19	4-M	40,000	54,500	F	6-M	F	Y
	Harvest Rd. to Sanyo Ave.	20	4-M	40,000	49,500	F	6-M	E	Y
Siempre Viva Road	Caliente Ave. to East Beyer Blvd.	25	4-M	40,000	47,000	F	N	-	Y
	Otay Center Dr. to SR-905	31	6-PA	60,000	64,500	F	N	-	Y
	SR-905 to Paseo de las Americas	32	6-PA	60,000	72,000	F	N	-	Y
Palm Avenue	I-805 to Dennery Rd.	37	7-PA	65,000	69,500	F	N	-	Y
Caliente Avenue	Airway Rd. to Siempre Viva Rd.	43	4-M	40,000	48,000	F	6-M	E	Y
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	6-PA	60,000	87,000	F	N	-	Y
	Avenida De Las Vistas to Datsun St.	47	6-M	50,000	77,500	F	6-PA	F	Y
	Datsun St. to Otay Mesa Rd.	48	6-M	50,000	47,500	E	6-PA	C	N
	SR-905 to Airway Rd.	50	6-M	50,000	52,000	F	6-PA	D	N
	Airway Rd. to Siempre Viva Rd.	51	6-M	50,000	58,000	F	6-PA	E	Y
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	4-CL	30,000	35,000	F	4-M	D	N
	Siempre Viva Rd. to South End	54	4-CL	30,000	29,500	E	N	-	Y
Britannia Boulevard	SR-905 to Airway Rd.	56	4-M	40,000	52,000	F	6-PA	D	N
	Siempre Viva Rd. to South End	58	2-C	8,000	32,500	F	4-M	D	N
La Media Road	Birch Rd. to Lone Star Rd.**	59	6-PA	60,000	93,000	F	N	-	Y
	Lone Star Rd. to Aviator Rd.	60	6-PA	60,000	64,500	F	N	-	Y
	Aviator Rd. to Otay Mesa Rd.	61	6-PA	60,000	64,500	F	N	-	Y
	SR-905 to Airway Rd.	63	6-PA	60,000	75,500	E	N	-	Y
Harvest Road	Otay Center Dr. to Siempre Viva Rd.	67	4-M	40,000	38,000	E	N	-	Y

= Segment Number

**Segment is in Chula Vista

(1) = Current Community Plan Classification unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N). - Shading indicates a significant impact.

N = New Classification is not proposed.

New LOS = LOS after change in classification.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB / 2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

TABLE ES II-1

Buildout Adopted Community Plan

Roadway Segments at LOS "E" or "F"

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	LOS	New Class	New LOS	S?
Lone Star Road	La Media Rd. to SR-125	71	4-M	40,000	38,000	E	6-PA	C	N
	SR-125 to Piper Ranch Rd.	72	4-M	40,000	55,000	F	6-PA	D	N
	Piper Ranch Rd. to City / County Boundary	73	4-M	40,000	54,500	F	6-PA	D	N
Aviator Road	Heritage Rd. to La Media Rd. (3)	74	2-C	8,000	15,500	F	4-CL	C	N
Dennery Road	Red Coral Ln. to Black Coral Ln.	78	2-CL	15,000	15,000	E	N	-	Y
	Black Coral Ln. to East End	79	2-CN	10,000	21,500	F	N	-	Y
Avenida De Las Vistas	Vista Santo Domingo to Dennery Rd.	81	2-CN	10,000	25,000	F	N	-	Y
Del Sol Boulevard	Surf Crest Dr. to Riviera Pointe	83	2-CN	10,000	26,000	F	N	-	Y
	Riviera Pointe to Dennery Rd.	84	2-CL	15,000	26,000	F	N	-	Y
Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	89	2-C	8,000	21,500	F	N	-	Y
Corporate Center Drive	Progressive Ave. to Innovative Dr.	93	2-C	8,000	13,000	F	2-CL	D	N
Sanyo Avenue	Otay Mesa Rd. to Airway Rd. (4)	97	4-C	15,000	43,000	F	4-M	F	Y
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas (4)	98	2-CL	15,000	27,000	F	N	-	Y
Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	99	2-C	8,000	33,500	F	4-M	D	N
	Siempre Viva Rd. to Marconi Dr.	100	2-C	8,000	16,000	F	4-CL	C	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	2-C	8,000	16,500	F	2-CL	F	Y
Otay Center Drive	Harvest Rd. to Siempre Viva Rd. (4)	102	4-C	15,000	14,000	E	4-CL	B	N
St. Andrews Avenue	Otay Mesa Center Rd. To La Media Rd.	105	2-C	8,000	20,500	F	4-CL	D	N
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	107	2-C	8,000	9,000	F	4-C	C	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	2-C	8,000	7,500	E	N	-	Y
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	2-C	8,000	17,000	F	N	-	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	2-C	8,000	36,500	F	4-M	E	Y
Datsun Street	Innovative Dr. to Heritage Rd. (3)	114	2-C	8,000	31,000	F	4-CL	F	Y
Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave.(3)	115	2-CL	15,000	18,000	F	4-CL	C	N
Excellante Street	Airway Rd. to Gigantic St.	116	4-C	15,000	19,500	F	N	-	Y
Gigantic Street	Excellante St. to Centurion St.	117	4-C	15,000	19,500	F	N	-	Y
Centurion Street	Airway Rd. to Gigantic St.	118	4-C	15,000	18,500	F	N	-	Y
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr. (3) (4)	119	2-CN	10,000	17,000	F	N	-	Y

= Segment Number

(1) = Current Community Plan Classification unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N). - Shading indicates a significant impact.

N =New classification is not proposed.

New LOS = LOS after change in classification.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB / 2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

As shown in this table 59 roadway segments would operate at level of service "E" or "F" with the assumed initial classification or "without mitigation". After reclassification and construction to a higher standard, 38 segments would operate at "E" or "F" and remain significantly impacted, as indicated with a "Y" in the last column with the (S?) heading.

Figure ES II-1 shows recommended roadway classifications and also segments highlighted in red that are proposed to be classified to a higher standard.

Refer to Chapter 5, page 5-11 for the discussion of the proposed mitigations and / or explanation of why the significant impact is not proposed to be fully mitigated.

A comparison of the Buildout Adopted Community Plan significantly impacted roadway segments to the 3B Without La Media Road Scenario is provided below, based on the listing of impacted roadway segments shown in **Table ES II-2**.

The Adopted Community Plan Scenario has 38 roadway segments that would remain significantly impacted after mitigation.

The 3B Without La Media Road Scenario would have 24 roadway segments that would remain significantly impacted after mitigation.

The following 19 roadway segments would remain significantly impacted under both scenarios.

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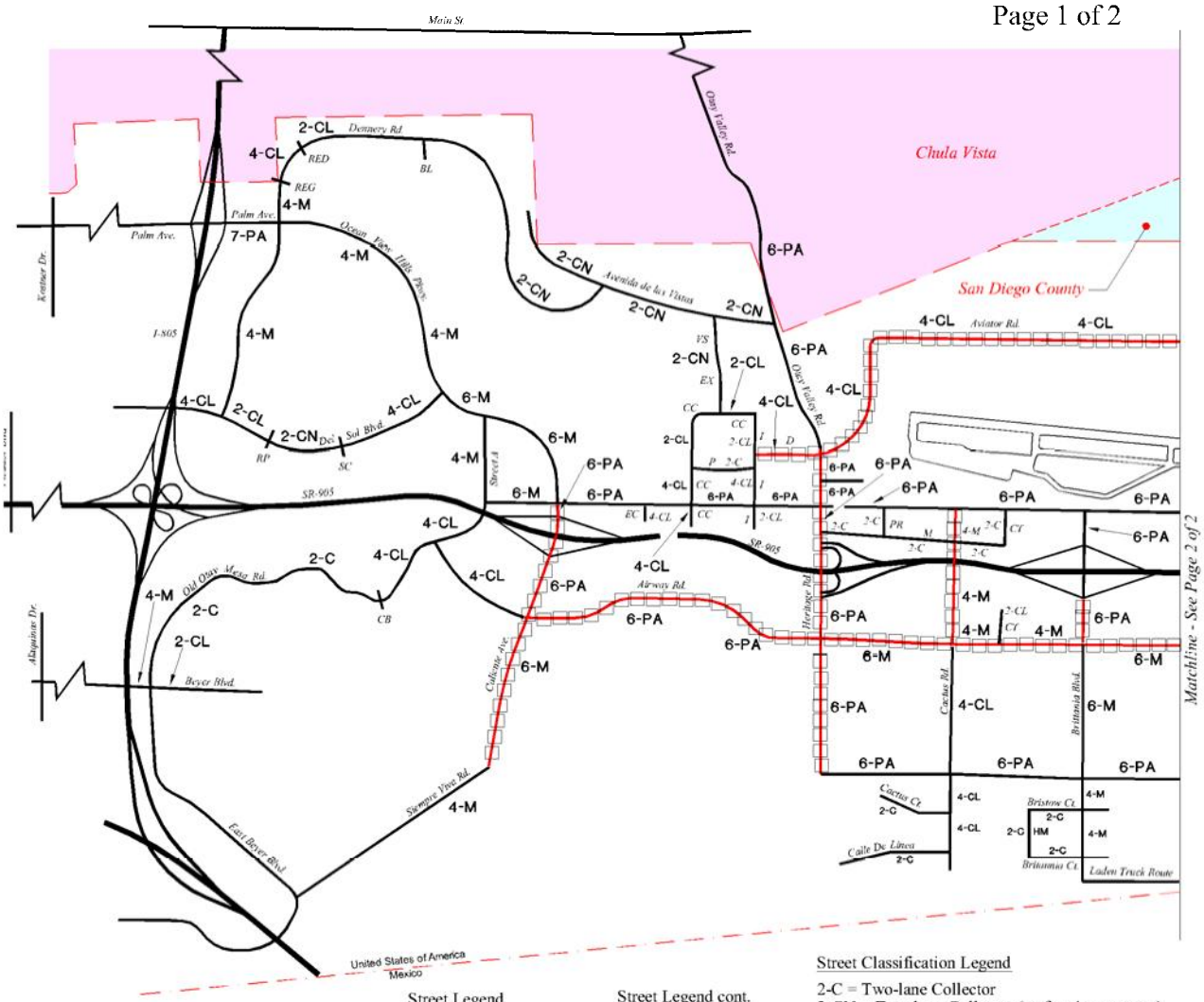


Based on Adopted Community Plan
(11-30-10 Traffic Model Date)

LEGEND

= City of San Diego Boundary

= Reclassification to a Higher Standard

Street Legend

D = Datsun St.
P = Progressive Ave.
EC = Emerald Crest Dr.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
VS = Vista Santo Domingo

Street Legend cont.

REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.
CT = Continental St.
HM = Hixson Mesa Way

Street Classification Legend

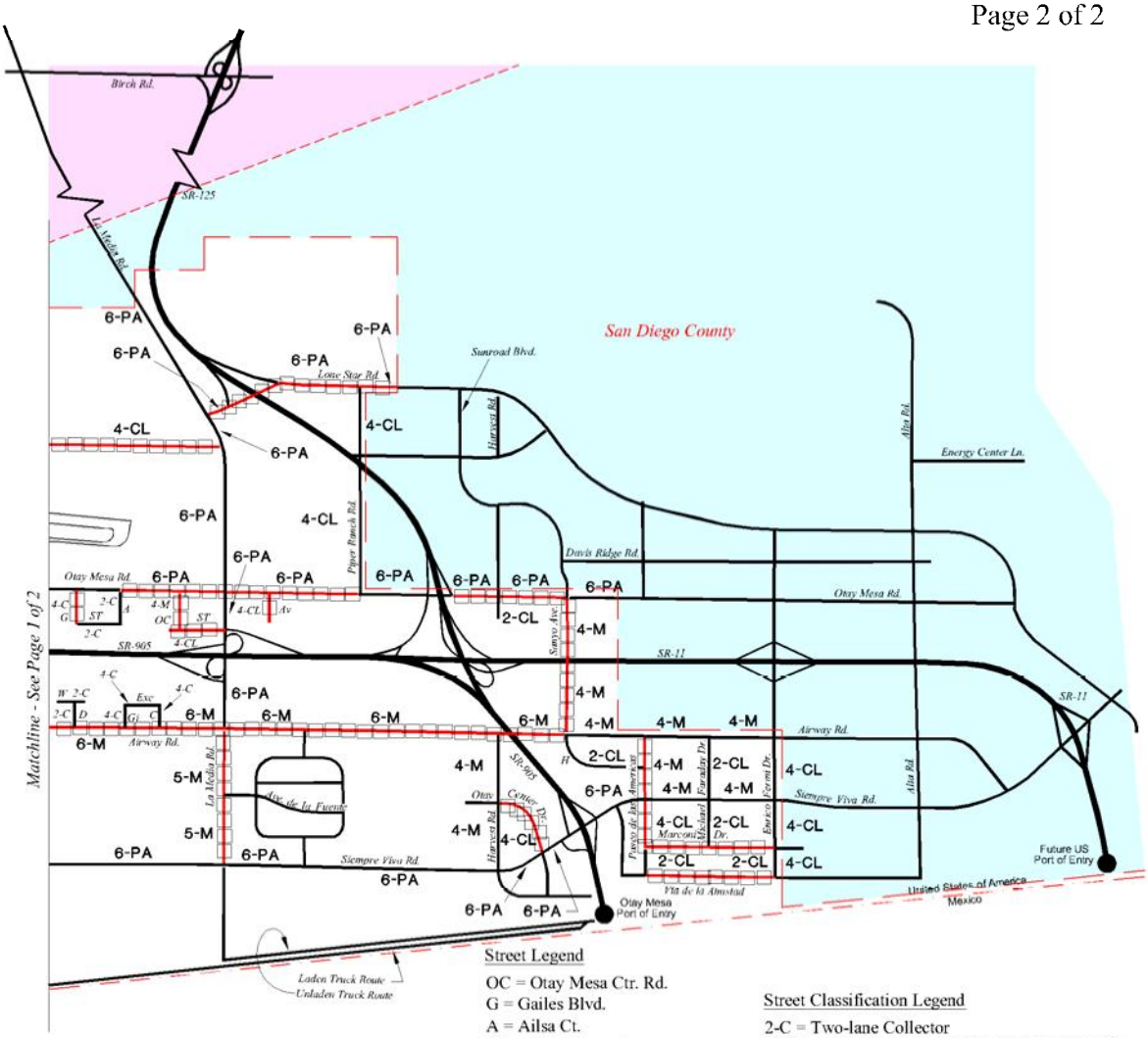
2-C = Two-lane Collector
2-CN = Two-lane Collector (no fronting property)
2-CL = Two-lane Collector (with left turn lane)
4-C = Four-lane Collector (without left turn lane)
4-CL = Four-lane Collector (with left turn lane)
4-M = Four-lane Major Arterial
5-M = Five-lane Major Arterial (3 SB/2 NB)
6-M = Six-lane Major Arterial
6-PA = Six-lane Primary Arterial
7-PA = Seven-lane Primary Arterial

N
NO SCALE

FIGURE ES - II -1

Adopted Community Plan Land Use Scenario
With Proposed Roadway Classification Recommendations
(Mitigation / Reclassification to a Higher Standard shown in Red)

Page 2 of 2



Street Legend

OC = Otay Mesa Ctr. Rd.
G = Gailes Blvd.
A = Ailsa Ct.
ST = St. Andrews Ave.
H = Heinrich Hertz Dr.
C = Centurion St.
Gi = Gigantic St.
Exc = Excellante St.
Av = Avenida Costa Azul
W = Waterville Rd.
D = Dublin Dr.
OP = Otay Pacific Dr.
OPP = Otay Pacific Pl.
LC = Las Californias Dr.

Street Classification Legend

2-C = Two-lane Collector
2-CN = Two-lane Collector (no fronting property)
2-CL = Two-lane Collector (with left turn lane)
4-C = Four-lane Collector (without left turn lane)
4-CL = Four-lane Collector (with left turn lane)
4-M = Four-lane Major Arterial
5-M = Five-lane Major Arterial (3 SB/2 NB)
6-M = Six-lane Major Arterial
6-PA = Six-lane Primary Arterial
7-PA = Seven-lane Primary Arterial

Based on Adopted Community Plan
(11-30-10 Traffic Model Date)

LEGEND

= City of San Diego Boundary

= Reclassification to a Higher Standard

FIGURE ES - II -1

Adopted Community Plan Land Use Scenario
With Proposed Roadway Classification Recommendations
(Mitigation / Reclassification to a Higher Standard shown in Red)

N
NO SCALE

TABLE ES II-2

Comparison Of
Buildout Adopted Community Plan To
3B Without La Media Road Scenario
Roadway Segment Significant Impacts After Mitigation

Street	Segment	#	ACP (1) S?	3B W/Out La Media (2) S?
Otay Mesa	Caliente Ave. to Corporate Center Dr.	2	Y	Y
	Heritage Rd. to Cactus Rd.	5	Y	Y
	Britannia Blvd. to Ailsa Ct.	7	Y	N
Airway Road	Caliente Ave. to Heritage Rd.	15	Y	Y
	Heritage Rd. to Cactus Rd.	16	N	Y
	Cactus Rd. to Britannia Blvd.	17	Y	N
	La Media Rd. to Harvest Rd.	19	Y	N
	Harvest Rd. to Sanyo Ave.	20	Y	N
Siempre Viva Road	Caliente Ave. to East Beyer Blvd.	25	Y	N
	Otay Center Dr. to SR-905	31	Y	Y
	SR-905 to Paseo de las Americas	32	Y	Y
Palm Avenue	I-805 to Dennery Rd.	37	Y	N
Caliente Avenue	Airway Rd. to Siempre Viva Rd.	43	Y	Y
	Beyer Blvd. to Siempre Viva Rd.	43A	Y	Y
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	Y	Y
	Avenida De Las Vistas to Datsun St.	47	Y	Y
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	N	Y
	Airway Rd. to Siempre Viva Rd.	53	N	Y
	Siempre Viva Rd. to South End	54	Y	N
Britannia Boulevard	SR-905 to Airway Rd.	56	N	Y
La Media Road	Birch Rd. to Lone Star Rd.**	59	Y	N
	Lone Star Rd. to Aviator Rd.	60	Y	N
	Aviator Rd. to Otay Mesa Rd.	61	Y	N
	SR-905 to Airway Rd.	63	Y	Y
Harvest Road	Otay Center Dr. to Siempre Viva Rd.	67	Y	N
Dennery Road	Red Coral Ln. to Black Coral Ln.	78	Y	N
	Black Coral Ln. to East End	79	Y	Y
Avenida De Las Vistas	Vista Santo Domingo to Dennery Rd.	81	Y	Y
Del Sol Boulevard	Surf Crest Dr. to Riviera Pointe	83	Y	Y
	Riviera Pointe to Dennery Rd.	84	Y	Y
Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	89	Y	Y
Sanyo Avenue	Otay Mesa Rd. to Airway Rd.	97	Y	N
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas	98	Y	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	Y	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	Y	Y
	Pacific Rim Ct. to Cactus Rd.	109	N	Y
Progressive Avennue	Corporate Center Dr. to Innovative Dr.	112	Y	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	Y	N
Datsun Street	Innovative Dr. to Heritage Rd.	114	Y	Y
Excellante Street	Airway Rd. to Gigantic St.	116	Y	N
Gigantic Street	Excellante St. to Centurion St.	117	Y	N
Centurion Street	Airway Rd. to Gigantic St.	118	Y	N
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr.	119	Y	Y

= Segment Number

** = **Segment in Chula Vista.**

S? = Significant impact, Yes (Y) or No (N).

(1) = Significant impact in the Adopted Community Plan Scenario.

(2) = Significant impact in the 3B Without La Media Road Scenario.

Y = Shading indicates a significant impact.

- Otay Mesa Road (Caliente Avenue to Corporate Center Drive);
- Otay Mesa Road (Heritage Road to Cactus Road);
- Airway Road (Caliente Avenue to Heritage Road);
- Siempre Viva Road (Otay Center Drive to SR-905)
- Siempre Viva Road / SR-905 to Paseo de las Americas);
- Caliente Avenue (Airway Road to Siempre Viva Road);
- Caliente Avenue (Beyer Boulevard to Siempre Viva Road);
- Heritage Road / Otay Valley Road (Main Street to Avenida de las Vistas);
- Heritage Road / Otay Valley Road (Avenida de las Vistas to Datsun Street);
- La Media Road (SR-905 to Airway Road);
- Dennery Road (Black Coral Lane to East End);
- Avenida de las Vistas (Vista Santo Domingo to Dennery Road);
- Del Sol Boulevard (Surf Crest Drive to Riviera Pointe);
- Del Sol Boulevard (Riviera Pointe to Dennery Road);
- Old Otay Mesa Road (Crescent Bay Drive to Airway Road);
- Camino Maquiladora (Heritage Road to Pacific Rim Court);
- Progressive Avenue (Corporate Center Drive to Innovative Drive);
- Datsun Street (Innovative Drive to Heritage Road);
- Exposition Way / Vista Santo Domingo (Avenida de las Vista to Corporate Center Drive).

The following 19 roadway segments would remain significantly impacted after mitigation in the Adopted Community Plan land use scenario, but not in the 3B Without La Media Road scenario:

- Otay Mesa Road (Britannia Boulevard to Ailsa Court);
- Airway Road (Cactus Road to Britannia Boulevard);
- Airway Road (La Media Road to Harvest Road);
- Airway Road (Harvest Road to Sanyo Avenue);
- Siempre Viva Road (Caliente Avenue to East Beyer Boulevard);
- Palm Avenue (I-805 to Dennery Road);
- Cactus Road (Siempre Viva Road to South End);
- La Media Road (Birch Road to Lone Star Road); (No segment in 3B Wihtout La Media Road);
- La Media Road (Lone Star Road to Aviator Road);
- La Media Road (Aviator Road to Otay Mesa Road);
- Harvest Road (Otay Center Drive to Siempre Viva Road);
- Dennery Road (Red Coral Lane to Black Coral Lane);
- Sanyo Avenue (Otay Mesa Road to Airway Road)
- Heinrich Hertz Drive (Airway Road to Paseo de las Americas);
- Marconi Drive (Paseo de las Americas to Enrico Fermi Drive);
- Otay Mesa Center Road (Otay Mesa Road to St. Andrews Avenue);
- Excellante Street (Airway Road to Gigantic Street);
- Gigantic Street (Excellante Street to Centurion Street);
- Centurion Street (Airway Road to Gigantic Street).

The following roadway segments would remain significantly impacted after mitigation in the 3B Without La Media Road land use scenario but not in the Adopted Community Plan scenario.

- Airway Road (Heritage Road to Cactus Road);
- Cactus Road (Otay Mesa Road to Airway Road);
- Cactus Road (Airway Road to Siempre Viva Road);
- Britannia Boulevard (SR-905 to Airway Road);
- Camino Maquiladora (Pacific Rim Court to Cactus Road).

Figure ES II-2 shows the Adopted Community Plan land use scenario roadway segments that would remain at level of service "E" or "F" after mitigation.

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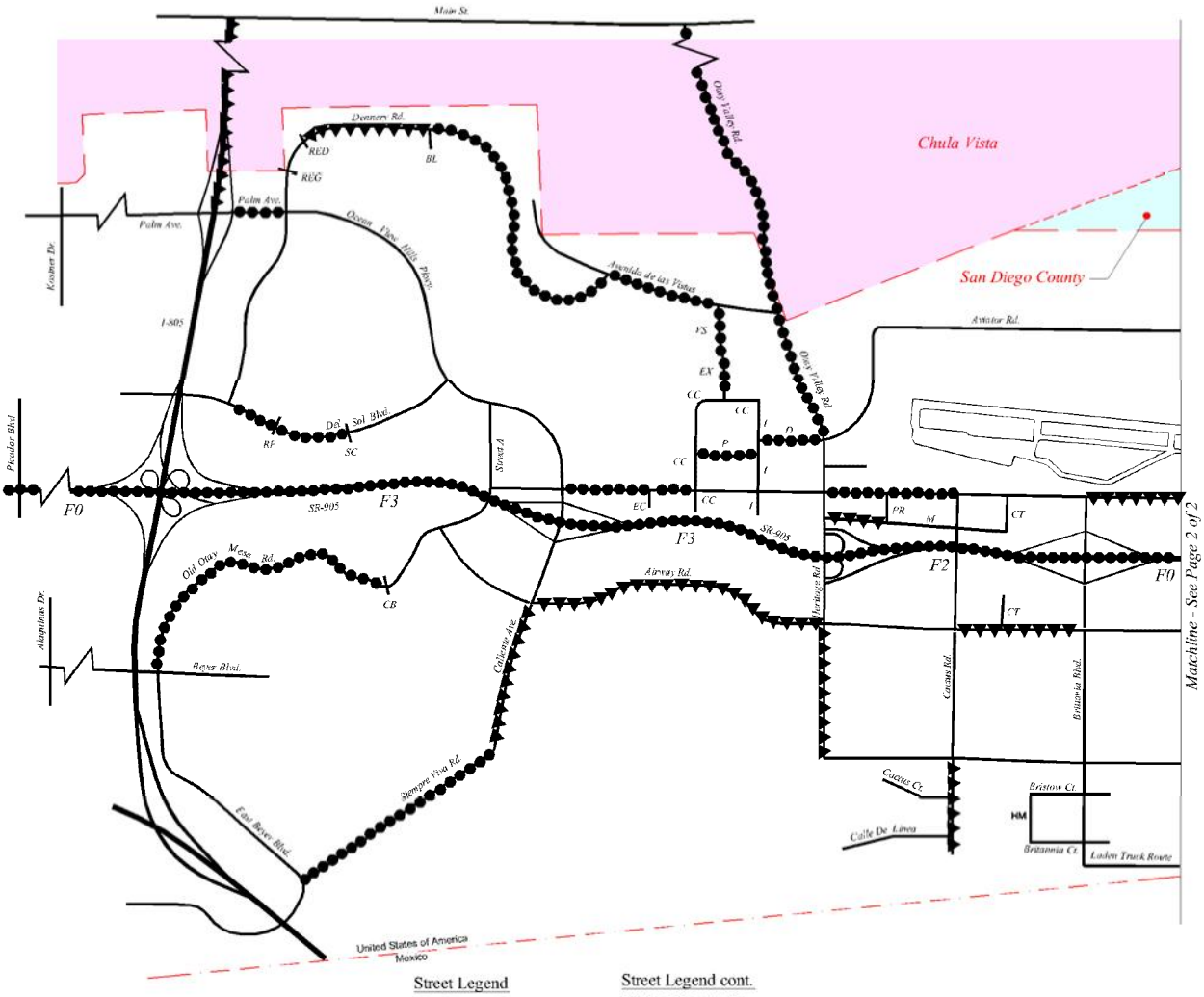

FIGURE ES - II -2

Adopted Community Plan Land Use Scenario
Roadway Segments Remaining at LOS "E" or "F" After Mitigation

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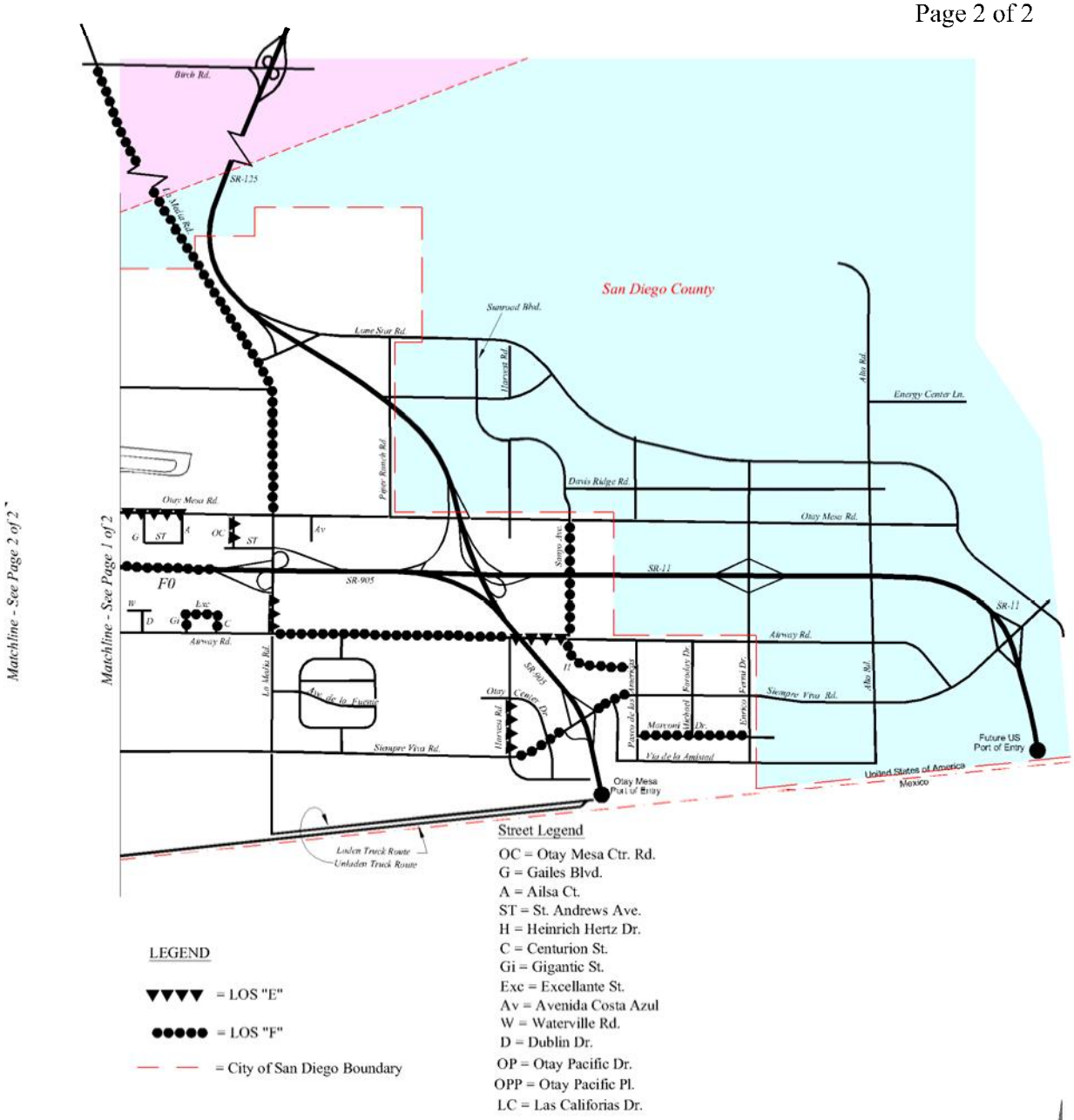

FIGURE ES - II -2

Adopted Community Plan Land Use Scenario
Roadway Segments Remaining at LOS "E" or "F" After Mitigation

Freeway Segments

Table ES II-3 lists freeway segments evaluated for the "No Project" buildout Adopted Community Plan scenario.

Interstate 805

Segments of Interstate 805 north of State Route 905 are projected to be significantly impacted by buildout of the Adopted Otay Mesa Community Plan and regional cumulative traffic. With existing lanes and an additional northbound auxiliary lane currently being constructed between SR-905 and Palm Avenue, the segment of I-805 north of SR-905 are expected to be at level of service "F". The Adopted SANDAG 2050 Regional Transportation Plan (RTP) includes two managed lanes on I-805 in each direction north of SR-905. With these additional lanes, the segment of I-805 between Main Street and Palm Avenue would be at level of service "E". The segment between Palm Avenue and SR-905 would be at level of service "D" during peak hours.

Table ES II-4 shows freeway levels of service with HOV lanes added to segments at level of service "F".

State Route 905 is assumed with six lanes and auxillary lanes as is being constructed by Caltrans. Impacts would be significant and unmitigated between Picador Boulevard and La Media Road. State Route 905 has been designed so that median High Occupancy Vehicle (HOV) lanes could be installed in the future, but are not currently planned or funded by Caltrans or SANDAG. The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts, but would not provide acceptable levels of service.

TABLE ES II-3

Buildout Adopted Community Plan Freeway Segment Levels of Service

Segment		Lanes (1-Way)	Cap.	ADT (1)	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	2 + AUX	6,500	144,500	7,707	1.19	F0
	I-805 to Caliente Ave. (4)	3 + CL	8,550	249,000	13,280	1.55	F3
	Caliente Ave. to Heritage Rd.	3	7,050	220,500	11,760	1.67	F3
	Heritage Rd. to Britannia Blvd.	3	7,050	192,000	10,240	1.45	F2
	Britannia Blvd. to La Media Rd.	3	7,050	165,000	8,800	1.25	F0
	La Media Rd. to SR-125	3	7,050	119,500	6,373	0.90	D
	SR-125 to Siempre Viva Rd.	3	7,050	106,500	5,680	0.81	D
	Siempre Viva Rd. to Border	3	7,050	71,000	3,787	0.54	B
I-805	Main St. to Palm Ave.	4+AUX	11,200	264,000	14,080	1.26	F1
	Palm Ave. to SR-905	4+AUX	11,200	234,500	12,507	1.12	F0
	SR-905 to I-5	4	9,400	119,000	6,347	0.68	C
	I-5 to Border	6	14,100	143,500	7,653	0.54	B
SR-125	Birch Rd. to Lone Star Rd.	4 (Toll)	9,400	97,000	5,173	0.55	B
	Lone Star Rd. to SR-905	4 (Toll)	9,400	71,500	3,813	0.41	A
SR – 11	SR-905 to Enrico Fermi Dr.	2	4,700	49,500	2,640	0.56	B
	Enrico Fermi Dr. to Siempre Viva Rd	2	4,700	25,500	1,360	0.29	A
	Siempre Viva Rd. to Border	2	4,700	43,500	2,320	0.49	B

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

F = Shading indicates a significant impact.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (11-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

TABLE ES II-4

Buildout Adopted Community Plan Freeway Segment Levels of Service

(With HOV Lanes Added To LOS F Segments)

Segment		ADD HOV	Lanes (1Way)	Cap.	ADT (1)	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	+H	2 + AUX	8,100	144,500	7,707	0.95	E
	I-805 to Caliente Ave. (4)	+H	3 + CL	10,150	249,000	13,280	1.31	F1
	Caliente Ave. to Heritage Rd.	+H	3	8,650	220,500	11,760	1.36	F2
	Heritage Rd. to Britannia Blvd.	+H	3	8,650	192,000	10,240	1.18	F0
	Britannia Blvd. to La Media Rd.	+H	3	8,650	165,000	8,800	1.02	F0
I-805	Main St. to Palm Ave,	+2H	4+AUX	14,400	264,000	14,080	0.98	E
	Palm Ave. to SR-905	+2H	4+AUX	14,400	234,500	12,507	0.87	D

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

F = Shading indicates a significant impact.

+H = Add HOV lane in each direction.
+2H = Add two HOV lanes in each direction.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (11-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

A comparison of the Buildout Adopted Community Plan significantly impacted freeway segments to the 3B Without La Media Road Scenario is provided below, based on the listing of impacted freeway segments shown in **Table ES II-5**.

The Adopted Community Plan Scenario has six freeway segments that would remain significantly impacted after mitigation.

The 3B Without La Media Road Scenario has three freeway segments that would remain significantly impacted after mitigation.

The following three freeway segments would remain significantly impacted under both scenarios:

- SR-905 (I-805 to Caliente Avenue);
- SR-905 (Caliente Avenue to Heritage Road);
- SR-905 (Heritage Road to Britannia Boulevard).

The following three freeway segments would remain significantly impacted under the Adopted Community Plan Scenario but not the 3B Without La Media Road Scenario:

- SR-905 (Picador Boulevard to I-805);
- SR-905 (Britannia Boulevard to La Media Road);
- I-805 (Main Street to Palm Avenue).

TABLE ES II-5

Comparison of

Buildout Community Plan to 3B Without La Media Road Scenario

Freeway Segment Significant Impacts After Mitigation

(With HOV Lanes Added)

Segment		ADD HOV	Lanes (1Way)	LOS (1)	LOS (2)
SR-905	Picador Blvd. to I-805	+H	2 + AUX	E	D
	I-805 to Caliente Ave.	+H	3 + CL	F1	F0
	Caliente Ave. to Heritage Rd.	+H	3	F2	F0
	Heritage Rd. to Britannia Blvd.	+H	3	F0	F0
	Britannia Blvd. to La Media Rd.	+H	3	F0	D
I-805	Main St. to Palm Ave,	+2H	4+AUX	E	D

Legend
LOS = Level of Service

(1) = Adopted Community Plan land use scenario.

(2) = 3B Without La Media Road land use scenario.

F = Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:
SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

Intersections

Intersections projected to operate at level of service "E" or "F" are considered to be significantly impacted by implementation of the land use plan. **Table ES II-6** shows intersection levels of service. Of the 53 intersections evaluated at Buildout in the No Project / Adopted Community Plan scenario, four would be at level of service "E" and 42 would be at level of service "F" during the AM peak hour. During the PM peak hour, five would be at level of service "E" and 43 would be at level of service "F". A total of 49 intersections would operate at level of service "E" or "F" during the morning and / or evening peak hour.

With proposed mitigation, two would be at level of service "E" and 33 would be at level of service "F" during the AM peak hour. During the PM peak hour, ~~five~~ six would be at level of service "E" and 31 would be at level of service "F'. With proposed mitigation, a total of ~~39~~ 40 intersections would operate at level of service "E" or "F' during the morning and / or evening peak hour.

Several interchange intersections that can be designed for acceptable levels of service are included as significantly impacted due to upstream queues extending through the intersection causing increased delay and a degraded level of service, as footnoted in this table.

Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches. The Design Manual requires widening for an additional 10 feet at approaches to intersecting four or six lane streets for a two lane left turn, and this additional width is not considered mitigation. Therefore, dual left turns are to be assumed at all four or six lane major and primary arterials, before mitigation, unless a supporting traffic

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TABLE ES II-6

Buildout Adopted Community Plan Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
1	Palm Ave. / I-805 SB Ramps	64.8	E	111.7	F	36.6	D	71.5	E
2	Palm Ave. / I-805 NB Ramps	167.1	F	172.8	F	5.6	A	8.9	(1) A
3	Palm Ave. / Dennery Rd.	36.0	D	69.4	E	-	-	-	-
4	Otay Mesa Rd. / Caliente Ave.	359.8	F	201.6	F	236.3	F	102.0	F
5	Caliente Ave. / SR-905 WB Ramps	154.1	F	162.7	F	64.7	E	57.4	E
6	Caliente Ave. / SR-905 EB Ramps	225.9	F	214.7	F	92.9	F	56.8	E
7	Caliente Ave. / Airway Rd.	347.1	F	510.6	F	326.2	F	396.2	F
8	Caliente Ave. / Siempre Viva Rd.	86.4	F	82.0	F	-	-	-	-
9	Otay Mesa Rd. / Heritage Rd.	350.5	F	286.1	F	285.8	F	155.8	F
10	Heritage Rd. / SR-905 WB Ramps	36.8	(1) D	240.9	F	14.6	B	13.2	B
11	Heritage Rd. / SR-905 EB Ramps	64.3	E	127.7	F	50.4	(1) D	45.7	(1) D
12	Heritage Rd. / Airway Rd.	457.0	F	555.0	F	143.3	F	225.6	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	481.3	F	302.6	F	249.9	F	166.0	F
15	Airway Rd. / Cactus Rd.	212.3	F	319.4	F	115.2	F	100.7	F
16	Siempre Viva Rd. / Cactus Rd.	269.6	F	290.1	F	127.9	F	108.2	F
17	Otay Mesa Rd. / Britannia Blvd.	63.8	E	72.0	E	24.0	(1) C	54.1	(1) D
18	Britannia Blvd. / SR-905 WB Ramps	191.8	F	298.2	F	46.7	(1) D	187.9	F
19	Britannia Blvd. / SR-905 EB Ramps	290.0	F	283.7	F	276.0	F	124.5	F
20	Britannia Blvd. / Airway Rd.	453.3	F	490.5	F	218.1	F	206.7	F
21	Siempre Viva Rd. / Britannia Blvd.	502.4	F	494.6	F	208.2	F	302.3	F
22	Otay Mesa Rd. / La Media Rd.	484.5	F	495.7	F	148.3	F	128.0	F

Note: #13 is a right angle intersection (as assumed in the traffic model) with only two approaches.

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact

TABLE ES II-6 (Continued)

Buildout Adopted Community Plan Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
23	La Media Rd. / SR-905 WB Ramps	257.6	F	335.2	F	117.7	F	195.7	F
24	La Media Rd. / SR-905 EB Ramps	319.2	F	224.8	F	218.5	F	157.6	F
25	La Media Rd. / Airway Rd.	786.8	F	654.3	F	236.9	F	338.7	F
26	La Media Rd. / Siempre Viva Rd.	303.0	F	238.6	F	90.6	F	102.7	F
27	La Media Rd. / Lone Star Rd.	547.7	F	755.8	F	399.5	F	492.2	F
28	Lone Star Rd. / SR-125 SB Off Ramp	52.4	(1) D	14.4	(1) B	-	-	-	-
29	Lone Star Rd. / SR-125 NB On Ramp	3.3	(1) A	7.2	(1) A	-	-	-	-
30	Lone Star Rd. / Piper Ranch Rd.	67.5	E	15.4	B	43.2	D	15.2	B
31	Otay Mesa Rd. / Piper Ranch Rd.	274.0	F	284.6	F	89.7	F	165.7	F
32	Otay Mesa Rd. / SR-125 SB Off Ramp	40.2	(1) D	7.9	(1) A	16.5	(1) B	7.3	A
33	Otay Mesa Rd. / SR-125 NB On Ramp	3.3	(1) A	14.9	(1) B	-	-	-	-
34	Otay Mesa Rd. / Harvest Rd.	132.3	F	87.2	F	34.1	C	41.9	(1) D
35	Siempre Viva Rd. / Otay Center Dr.	298.0	F	471.8	F	235.5	F	225.9	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	149.3	F	248.1	F	-	-	-	-
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	(2) 4,196	F	(2) 899.3	F	292.5	F	40.4	(1) D
37	Siempre Viva Rd. / SR-905 NB Ramps	150.8	F	431.7	F	144.1	F	355.8	F
38	Siempre Viva Rd. / Paseo de las Americas	648.7	F	751.1	F	352.0	F	430.7	F
39	Dennery Rd. / Del Sol Blvd.	104.7	F	72.2	E	-	-	-	-
40	Ocean View Hills Pkwy. / Del Sol Blvd.	172.7	F	192.2	F	68.2	E	132.4	F
41	Ocean View Hills Pkwy. / Street A	162.6	F	258.4	F	49.8	D	51.9	D
42	Old Otay Mesa Rd. / Beyer Blvd.	623.1	F	638.2	F	47.7	D	46.0	D
43	Otay Mesa Rd. / Corporate Center Dr.	146.2	F	125.8	F	103.7	F	96.5	F
44	Otay Mesa Rd. / Innovative Dr.	96.4	F	64.8	E	82.8	F	36.2	D

Legend
CD = Control Delay
LOS = Level of Service
(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.
(2) Unsignalized: SB to WB Right Turn at LOS F (AM and PM Peak Hours);
F = Shading indicates a significant impact.

Page 3 of 3

TABLE ES II-6 (Continued)

Buildout Adopted Community Plan Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
45	Harvest Rd. / Airway Rd.	41.1	D	238.9	F	38.1	D	101.5	F
46	Harvest Rd. / Siempre Viva Rd.	239.9	F	230.4	F	203.8	F	221.1	F
47	Otay Mesa Rd. / Sanyo Ave.	296.7	F	424.5	F	109.9	F	113.5	F
48	Airway Rd. / Sanyo Ave.	740.3	F	371.4	F	178.8	F	131.1	F
49	Paseo de las Americas / Heinrich Hertz Dr.	(3) 196.9	F	(3) 440.2	F	10.4	B	15.0	B
50	Paseo de las Americas / Marconi Dr.	(4) 57.8	F	(4) 268.1	F	4.6	A	60.6	E
51	Heritage Rd. / Otay Valley Rd. / Datsun St.	531.8	F	676.7	F	181.3	F	290.3	F
52	Aviator Rd. / La Media Rd.	159.9	F	79.4	E	102.4	F	54.4	D
53	Otay Valley Rd. / Avenida De Las Vistas	850.4	F	361.8	F	-	-	-	-

Note: Control delay results should be considered unreliable at delay values higher than two times the LOS E value of 80.0 seconds.

Legend
CD = Control Delay
LOS = Level of Service
(3) Unsignalized: Northbound Left, Eastbound Left and Right Turns at LOS F (AM and PM Peak Hours)
(4) Unsignalized: Southbound Left, Westbound Left Turns at LOS F (AM Peak Hour);
Westbound Right Turn at LOS F (PM Peak Hour).
For unsignalized intersections, LOS F is at greater than 50.0 seconds delay / vehicle.
F = Shading indicates a significant impact.

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F

Source: 2000 Highway Capacity Manual

study documents that a single left turn would be sufficient. Overlapping left-turn / right-turn phases are recommended at the high volume right turns during the traffic signal design stage.

Separate single or dual turn lanes at new intersections should be designed with appropriate right of way widths. At retrofit locations additional lanes have been reviewed for initial feasibility by on-site observations and aerial photography. In some cases additional right of way will be needed, but only during the design phase will the required widths be determined.

Improvements are recommended at the interchange ramps for SR-905 / Caliente Avenue, SR-905 / Future Heritage Road, SR-905 / Britannia Boulevard; SR-905 / La Media Rd.; SR-905 / Siempre Viva Road. Subsequent design requirements from Caltrans may change the recommended lane configurations.

All locations are signalized. Lane configurations with and without mitigation are shown in **Figure ES II-3**.

Figure ES II-4 shows graphically the intersection levels of service after mitigation.

Refer to Chapter 5, page 5-41 for discussion of the proposed mitigation and / or explanation of why the significant impact is not proposed to be fully mitigated.

A comparison of the Buildout Adopted Community Plan Scenario significantly impacted intersections after mitigation to the 3B Without La Media Road Scenario is provided below, based on the listing of remaining significantly impacted intersections shown in **Table ES II-7**.

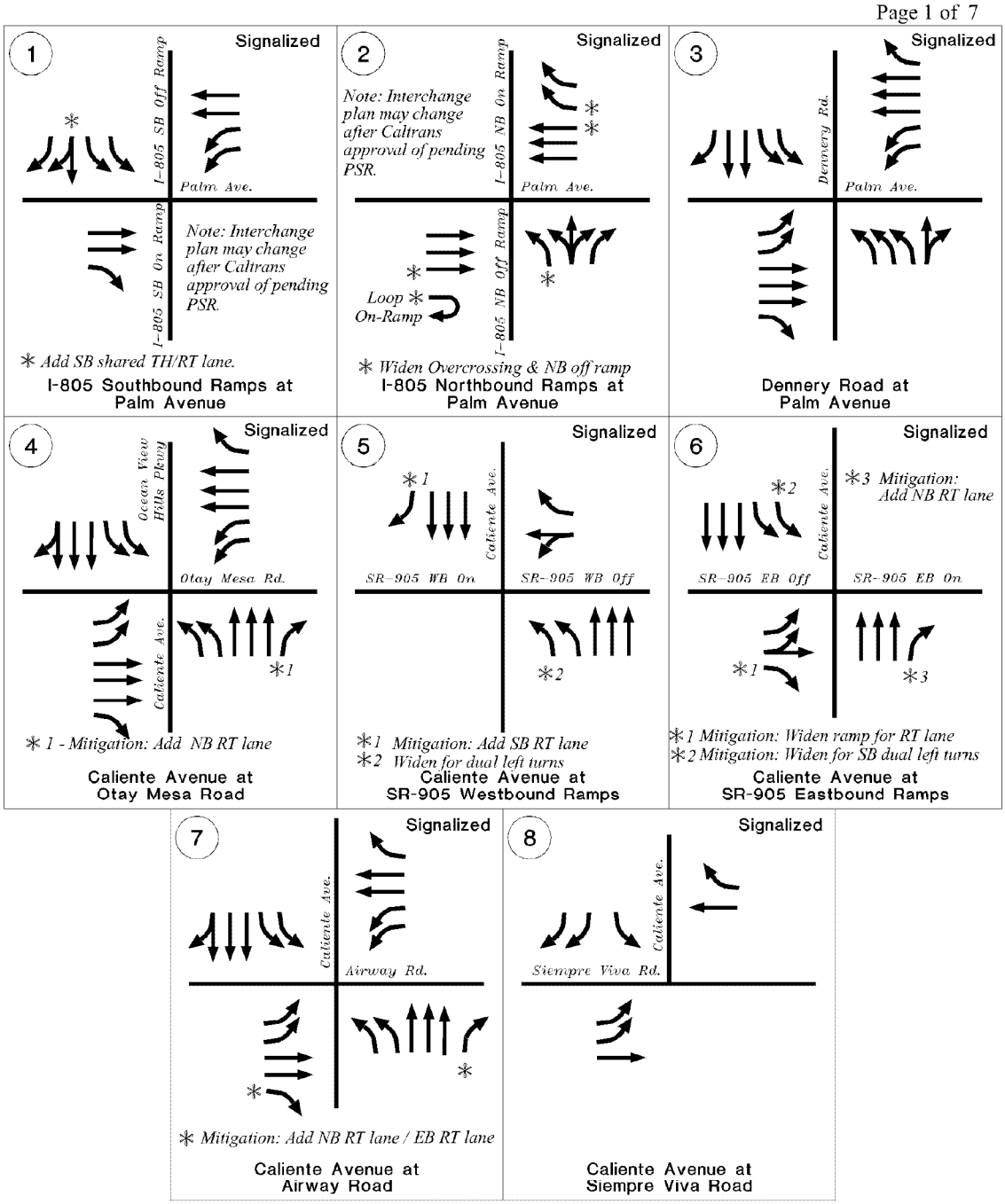

FIGURE ES-II-3

Buildout Recommended Lane Configurations - Adopted Community Plan (With Mitigation)

Page 2 of 7

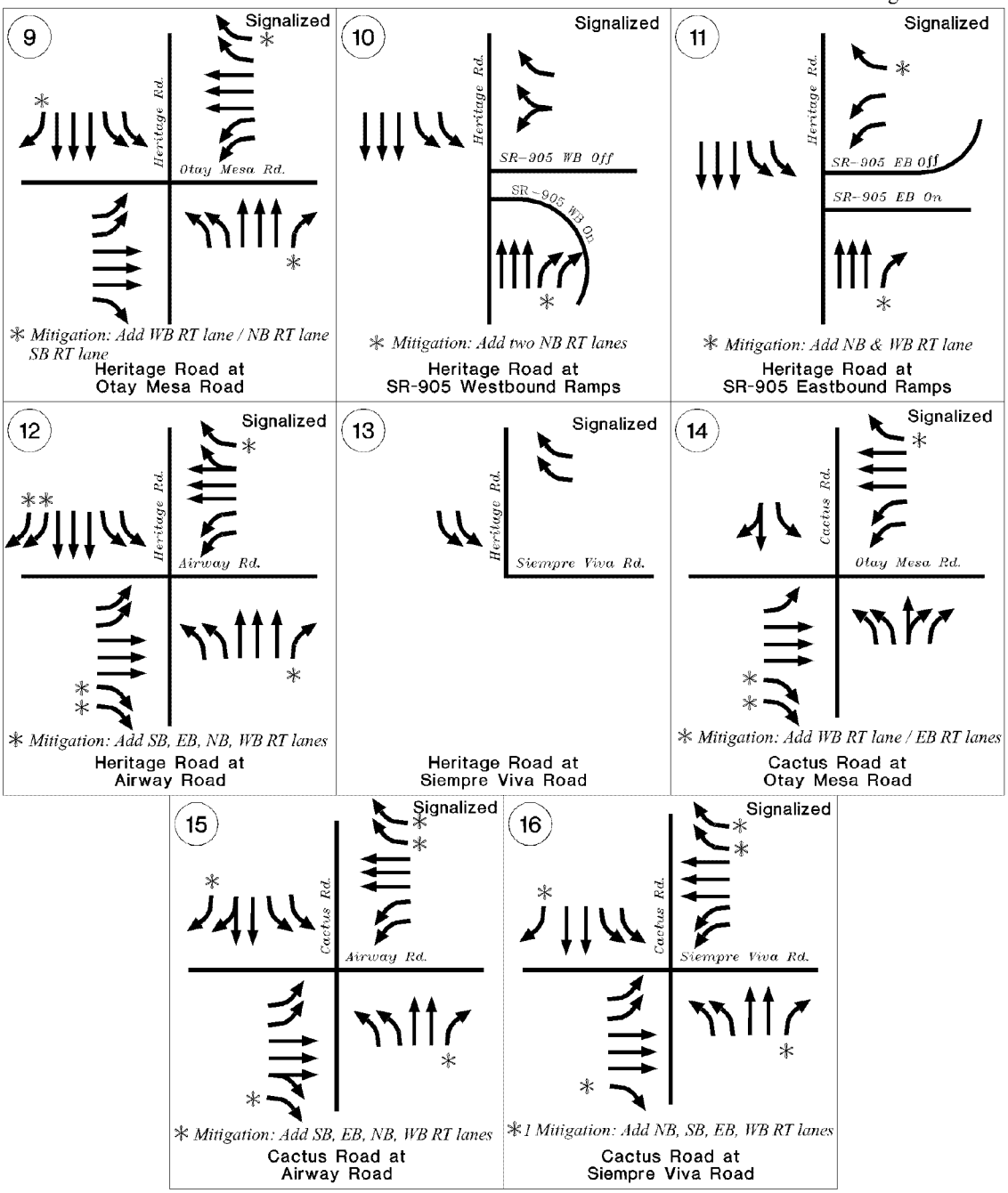

FIGURE ES-II-3

Buildout Recommended Lane Configurations - Adopted Community Plan (With Mitigation)

Page 3 of 7

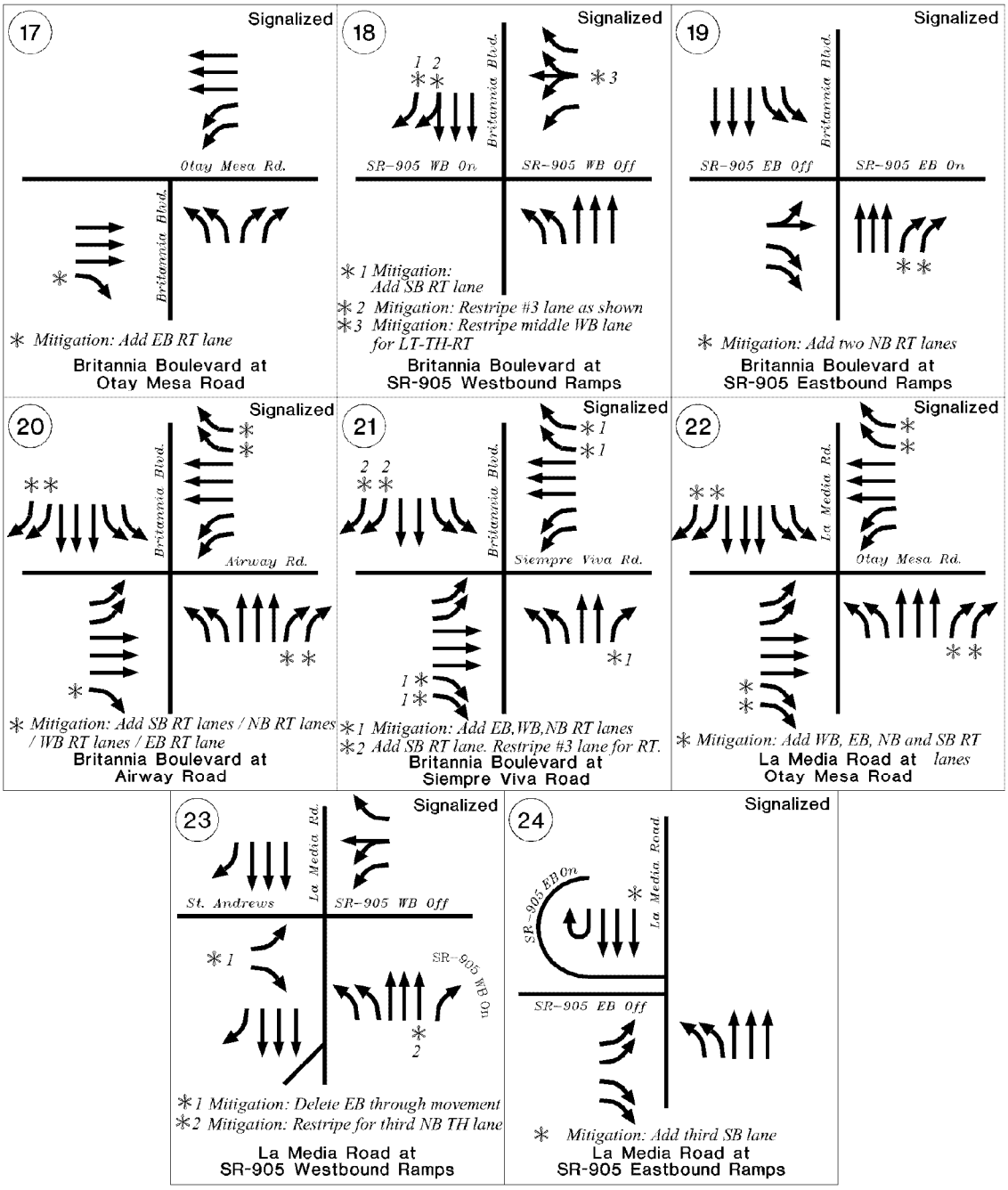

FIGURE ES-II-3

Buildout Recommended Lane Configurations - Adopted Community Plan (With Mitigation)

Page 4 of 7

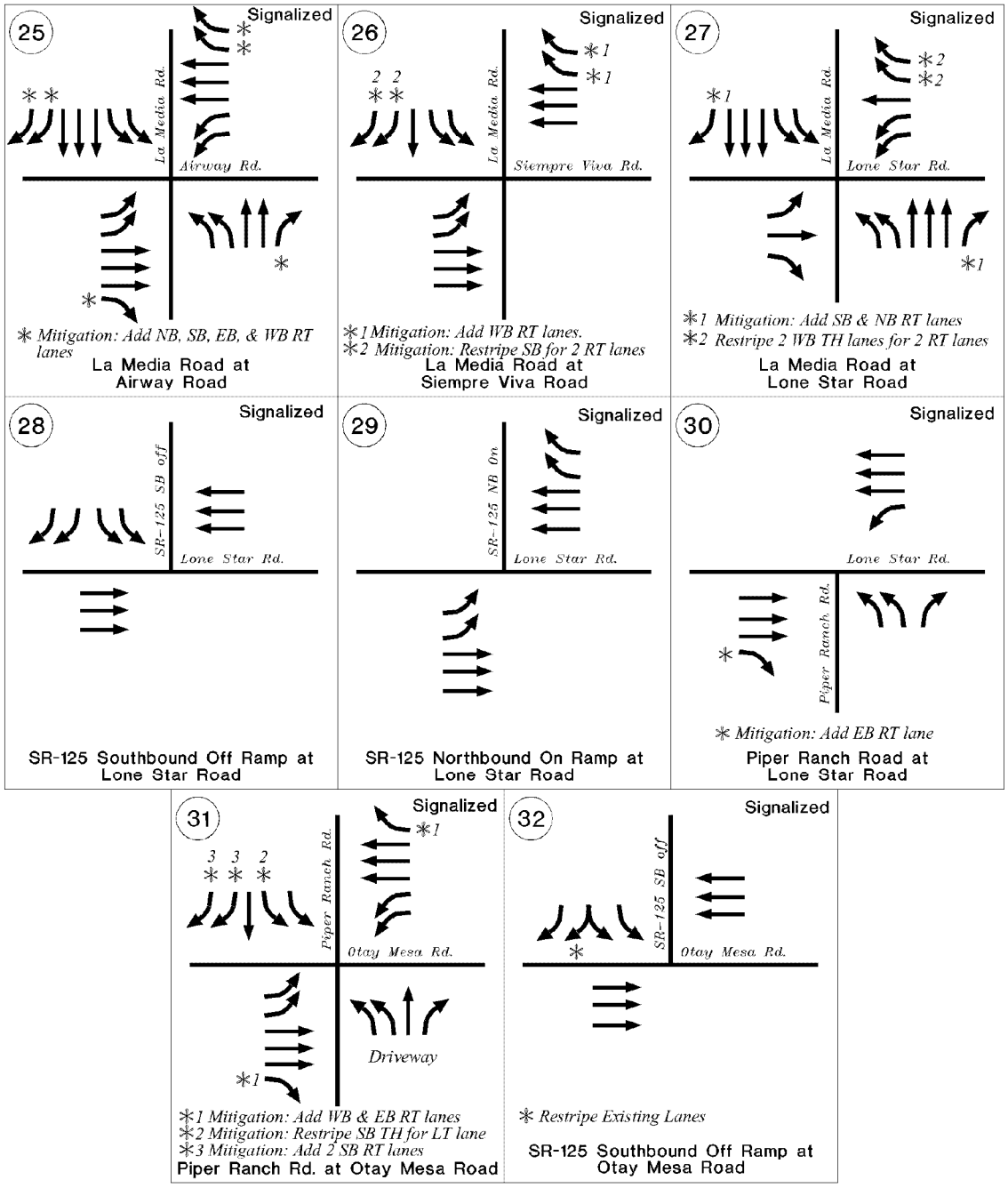

FIGURE ES-II-3

Buildout Recommended Lane Configurations - Adopted Community Plan (With Mitigation)

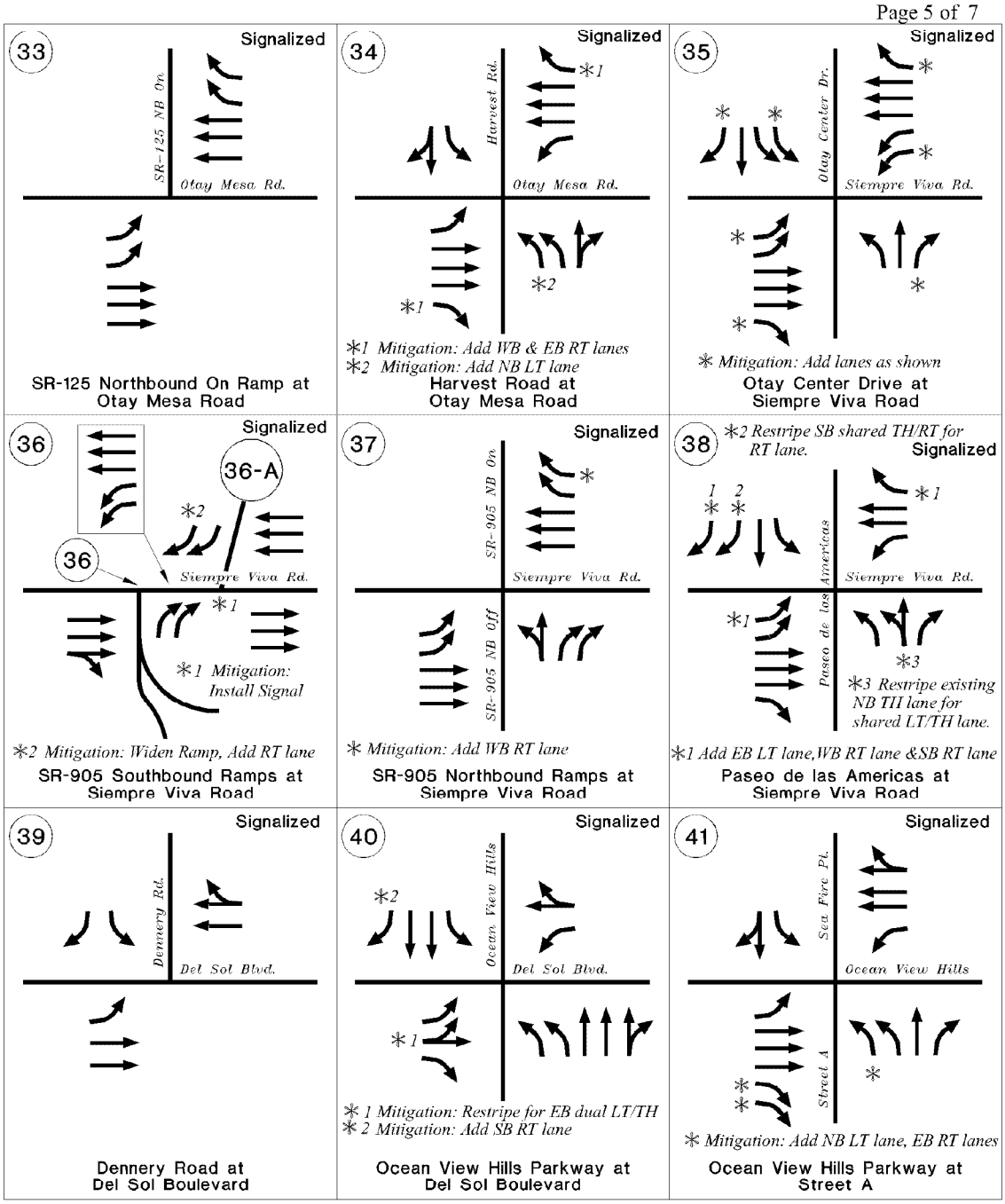

FIGURE ES-II-3

Buildout Recommended Lane Configurations - Adopted Community Plan (With Mitigation)

Page 6 of 7

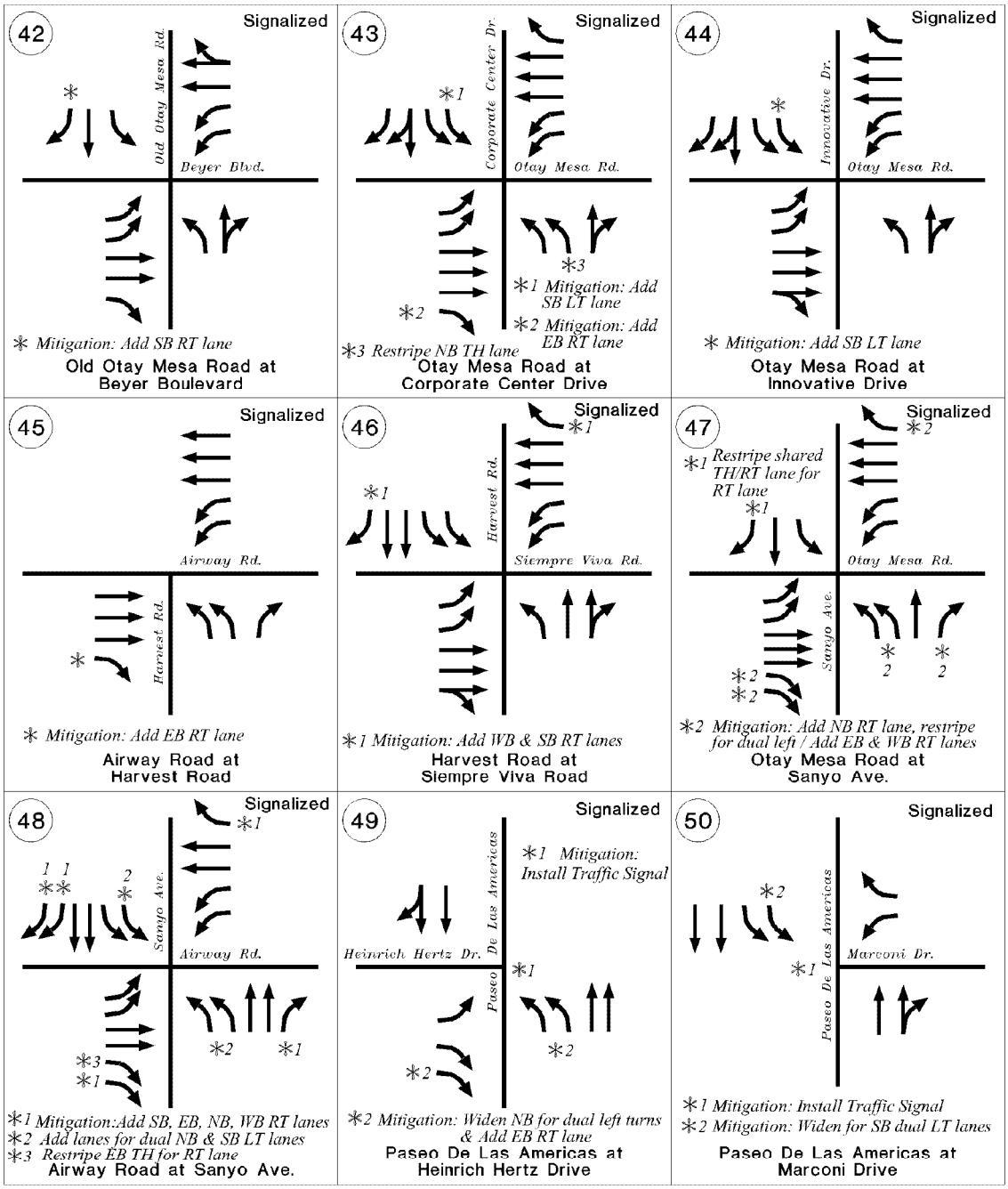

FIGURE ES-II-3

Buildout Recommended Lane Configurations - Adopted Community Plan (With Mitigation)

Page 7 of 7

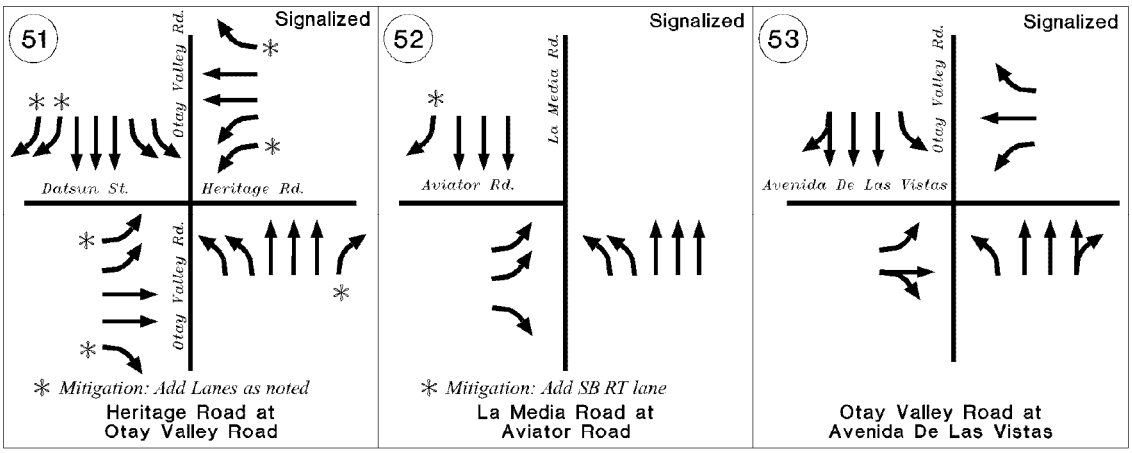

FIGURE ES-II-3

Buildout Recommended Lane Configurations - Adopted Community Plan (With Mitigation)

Page 1 of 2

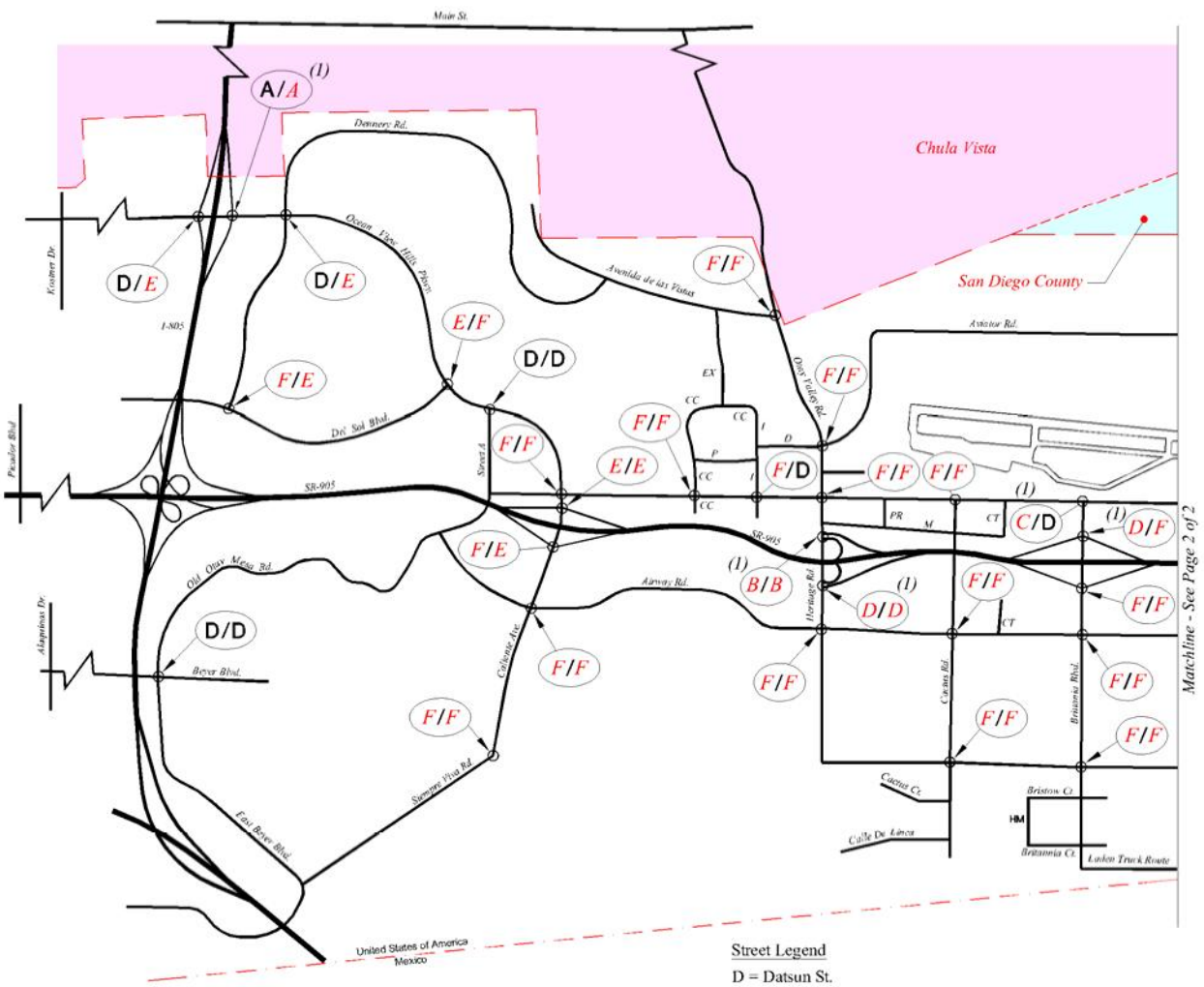

FIGURE ES - II -4

Adopted Community Plan
Intersection Levels of Service (With Mitigation)

Page 2 of 2

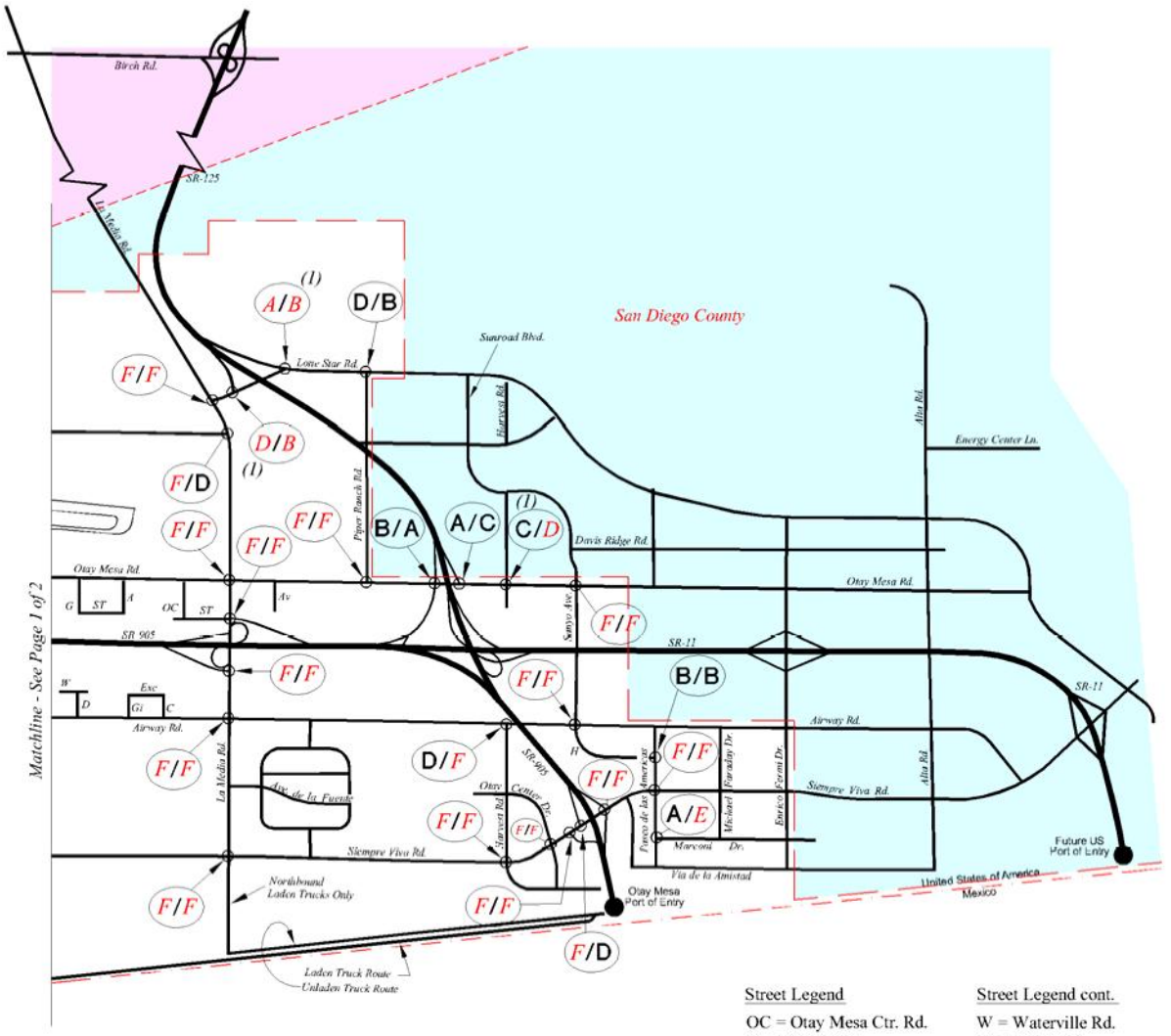

FIGURE ES - II -4

Adopted Community Plan
Intersection Levels of Service (With Mitigation)

Page 1 of 3

TABLE ES II-7

Comparison Of
Buildout Adopted Community Plan To
3B Without La Media Road Scenario
Intersection Significant Impacts After Mitigation

		Adopted Community Plan		3B Without La Media Road	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Intersection	LOS	LOS	LOS	LOS
1	Palm Ave. / I-805 SB Ramps	D	E	C	D
2	Palm Ave. / I-805 NB Ramps	A	(1) A	A	A
3	Palm Ave. / Dennery Rd.	D	E	C	E
4	Otay Mesa Rd. / Caliente Ave.	F	F	F	F
5	Caliente Ave. / SR-905 WB Ramps	E	E	(1) C	(1) C
6	Caliente Ave. / SR-905 EB Ramps	F	E	E	E
7	Caliente Ave. / Airway Rd.	F	F	F	F
8	Caliente Ave. / Siempre Viva Rd.	F	F	F	F
9	Otay Mesa Rd. / Heritage Rd.	F	F	F	F
10	Heritage Rd. / SR-905 WB Ramps	B	B	(1) B	(1) C
11	Heritage Rd. / SR-905 EB Ramps	(1) D	(1) D	(1) D	(1) C
12	Heritage Rd. / Airway Rd.	F	F	F	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	F	F	F	F
15	Airway Rd. / Cactus Rd.	F	F	F	F
16	Siempre Viva Rd. / Cactus Rd.	F	F	D	F
17	Otay Mesa Rd. / Britannia Blvd.	(1) C	(1) D	E	D
18	Britannia Blvd. / SR-905 WB Ramps	(1) D	F	E	F
19	Britannia Blvd. / SR-905 EB Ramps	F	F	F	E
20	Britannia Blvd. / Airway Rd.	F	F	F	F
21	Siempre Viva Rd. / Britannia Blvd.	F	F	F	F
22	Otay Mesa Rd. / La Media Rd.	F	F	F	F

Note: #13 is a right angle intersection (as assumed in the traffic model) with only two approaches.

Legend

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact

TABLE ES II-7 (Continued)

Comparison Of
Buildout Adopted Community Plan To
3B Without La Media Road Scenario
Intersection Significant Impacts After Mitigation

		Adopted Community Plan		3B Without La Media Road	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Intersection	LOS	LOS	LOS	LOS
23	La Media Rd. / SR-905 WB Ramps	F	F	F	F
24	La Media Rd. / SR-905 EB Ramps	F	F	F	(1) D
25	La Media Rd. / Airway Rd.	F	F	F	F
26	La Media Rd. / Siempre Viva Rd.	F	F	F	D
27	La Media Rd. / Lone Star Rd.	F	F	N/A	N/A
28	Lone Star Rd. / SR-125 SB Off Ramp	(1) D	(1) B	E	F
29	Lone Star Rd. / SR-125 NB On Ramp	(1) A	(1) A	(1) A	F
30	Lone Star Rd. / Piper Ranch Rd.	D	B	A	(1) A
31	Otay Mesa Rd. / Piper Ranch Rd.	F	F	D	D
32	Otay Mesa Rd. / SR-125 SB Off Ramp	(1) B	(1) A	C	(1) B
33	Otay Mesa Rd. / SR-125 NB On Ramp	(1) A	(1) B	A	C
34	Otay Mesa Rd. / Harvest Rd.	C	(1) D	B	(1) D
35	Siempre Viva Rd. / Otay Center Dr.	F	F	F	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	F	F	(1) C	F
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	F	(1) D	F	(1) B
37	Siempre Viva Rd. / SR-905 NB Ramps	F	F	(1) D	F
38	Siempre Viva Rd. / Paseo de las Americas	F	F	E	F
39	Dennery Rd. / Del Sol Blvd.	F	E	D	D
40	Ocean View Hills Pkwy. / Del Sol Blvd.	E	F	D	D
41	Ocean View Hills Pkwy. / Street A	D	D	D	C
42	Old Otay Mesa Rd. / Beyer Blvd.	D	D	F	F
43	Otay Mesa Rd. / Corporate Center Dr.	F	F	E	F
44	Otay Mesa Rd. / Innovative Dr.	F	D	F	F

Legend

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact.

TABLE ES II-7 (Continued)

Comparison Of
Buildout Adopted Community Plan To
3B Without La Media Road Scenario
Intersection Significant Impacts After Mitigation

		Adopted Community Plan		3B Without La Media Road	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Intersection	LOS	LOS	LOS	LOS
45	Harvest Rd. / Airway Rd.	D	F	D	B
46	Harvest Rd. / Siempre Viva Rd.	F	F	C	D
47	Otay Mesa Rd. / Sanyo Ave.	F	F	F	F
48	Airway Rd. / Sanyo Ave.	F	F	D	D
49	Paseo de las Americas / Heinrich Hertz Dr.	B	B	A	B
50	Paseo de las Americas / Marconi Dr.	A	E	B	B
51	Heritage Rd. / Otay Valley Rd. / Datsun St.	F	F	F	F
52	Aviator Rd. / La Media Rd.	F	D	C	B
53	Otay Valley Rd. / Avenida De Las Vistas	F	F	F	F

Legend

F = Shading indicates a significant impact.

The Adopted Community Plan Scenario has 42 intersections during the AM peak hour and ~~44~~ 46 during the PM peak hour that would remain significantly impacted after mitigation.

The 3B Without La Media Road Scenario has 34 intersections during the AM peak hour and 37 during the PM peak hour that would remain significantly impacted after mitigation.

The following 35 intersections would remain significantly impacted under both scenarios:

- Palm Avenue / Dennery Road (PM);
- Otay Mesa Road / Caliente Avenue (AM & PM);
- Caliente Avenue / SR-905 WB Ramps (AM & PM);
- Caliente Avenue / SR-905 EB Ramps (AM &PM);
- Caliente Avenue / Airway Road (AM & PM);
- Caliente Avenue / Siempre Viva Road (AM & PM);
- Otay Mesa Road / Heritage Road (AM & PM);
- Heritage Road / SR-905 EB Ramps (AM & PM);
- Heritage Road / Airway Road (AM & PM);
- Otay Mesa Road / Cactus Road (AM & PM);
- Airway Road / Cactus Road (AM & PM);
- Siempre Viva Road / Cactus Road (PM);
- Otay Mesa Road / Britannia Boulevard (AM);
- Britannia Boulevard / SR-905 WB Ramps (AM & PM);
- Britannia Boulevard / SR-905 EB Ramps (AM & PM);
- Britannia Boulevard / Airway Road (AM & PM);

- Siempre Viva Road / Britannia Boulevard (AM & PM);
- Otay Mesa Road / La Media Road (AM & PM);
- La Media Road / SR-905 WB Ramps (AM & PM);
- La Media Road / SR-905 EB Ramps (AM);
- La Media Road / Airway Road (AM & PM);
- La Media Road / Siempre Viva Road (AM);
- Lone Star Road / SR-125 SB Off Ramp (PM);
- Lone Star Road / SR-125 NB On Ramp (PM);
- Otay Mesa Road / Harvest Road (PM);
- Siempre Viva Road / Otay Center Drive (AM & PM);
- Siempre Viva Road / SR-905 SB to EB Ramp(PM);
- Siempre Viva Road / SR-905 SB to WB Ramp (AM & PM):
- Siempre Viva Road / SR-905 NB Ramps (PM);
- Siempre Viva Road / Paseo de las Americas (AM & PM);
- Otay Mesa Road / Corporate Center Drive (AM & PM);
- Otay Mesa Road / Innovative Drive (AM);
- Otay Mesa Road / Sanyo Avenue (AM & PM);
- Heritage Road / Otay Valley Road / Datsun Street (AM & PM);
- Otay Valley Road / Avenida De Las Vistas (AM & PM).

The following 11 intersections would remain significantly impacted under the Adopted Community Plan Scenario, but not the 3B Without La Media Road Scenario:

- Palm Avenue / I-805 SB Ramps;
- Palm Avenue / I-805 NB Ramps;
- Otay Mesa Road / SR-125 NB On-Ramp;
- Otay Mesa Road / Piper Ranch Road;
- Dennery Road / Del Sol Boulevard;
- Ocean View Hills Parkway / Del Sol Boulevard;
- Harvest Road / Airway Road;
- Harvest Road / Siempre Viva Road;
- Airway Road / Sanyo Avenue;
- Paseo de las Americas / Marconi Drive;
- Aviator Road / La Media Road.

The following three intersections would remain significantly impacted under the 3B Without La Media Road Scenario, but not the Adopted Community Plan Scenario:

- Heritage Road / SR-905 WB Ramps;
- Lone Star Road / Piper Ranch Road;
- Old Otay Mesa Road / Beyer Boulevard.

Ramp Meters

There are currently no freeway on-ramp traffic metering signals in operation at the 14 locations evaluated. Future freeway on-ramp meter operations were evaluated for the No Project / Adopted Community Plan scenario at the fourteen future on-ramp meters. The likely most restrictive ramp meter rate as provided by Caltrans was used for this evaluation.

The City of San Diego Traffic Impact Study Manual and the Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service do not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. The 14 ramp meters were evaluated for the AM and PM peak hours. Ramp meter delays above 15 minutes would occur at six ramps during the AM peak hours and 11 ramps during the PM peak hours. Ramp meter delays above 15 minutes would occur during a total of 17 peak hours during the AM and PM peak hours.

Ramp meter delays above 15 minutes are considered significant impacts if downstream freeways are operating at level of service "E" or "F". The following five ramp locations would be significantly impacted using this significance criteria:

- SR-905 / Caliente Avenue Westbound on-ramp (AM and PM);
- SR-905 / Heritage Road Westbound on-ramp (PM);
- SR-905 Britannia Boulevard Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound on-ramp (PM);
- SR-905 / La Media Road Westbound on-ramp (AM and PM).

Figure ES II-5 shows the intersections that would be significantly impacted by ramp meter delays.

A comparison of the Adopted Community Plan land use scenario to the 3B Without La Media Road land use scenario indicates that the significantly impacted ramp meter locations above would be the same under the 3B Scenario, except with the addition of:

- SR-905 / Heritage Road Westbound On-Ramp (AM).

Ramp meter queues are also tabulated. Considering the queues that would exceed the ramp storage length, there are estimated to be 17 times queues would exceed the ramp storage length during the 28 peak hours evaluated at the 11 ramps listed below:

- I-805 / Palm Avenue Northbound On-ramp (AM and PM);
- SR-905 / Caliente Avenue Westbound On-ramp (AM and PM);
- SR-905 / Heritage Road Westbound On-ramp (PM);
- SR-905 / Britannia Boulevard Westbound On-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound On-ramp (PM);
- SR-905 / La Media Road Westbound On-ramp (AM and PM);
- SR-905 / La Media Road Eastbound On-ramp (PM);
- SR-905 / Siempre Viva Road Northbound On-ramp (AM and PM);
- SR-905 / Siempre Viva Road Southbound On-ramp (PM);
- SR-125 / Otay Mesa Road Northbound On-ramp (PM);
- SR-125 / Lone Star Road Northbound On-ramp (AM and PM).

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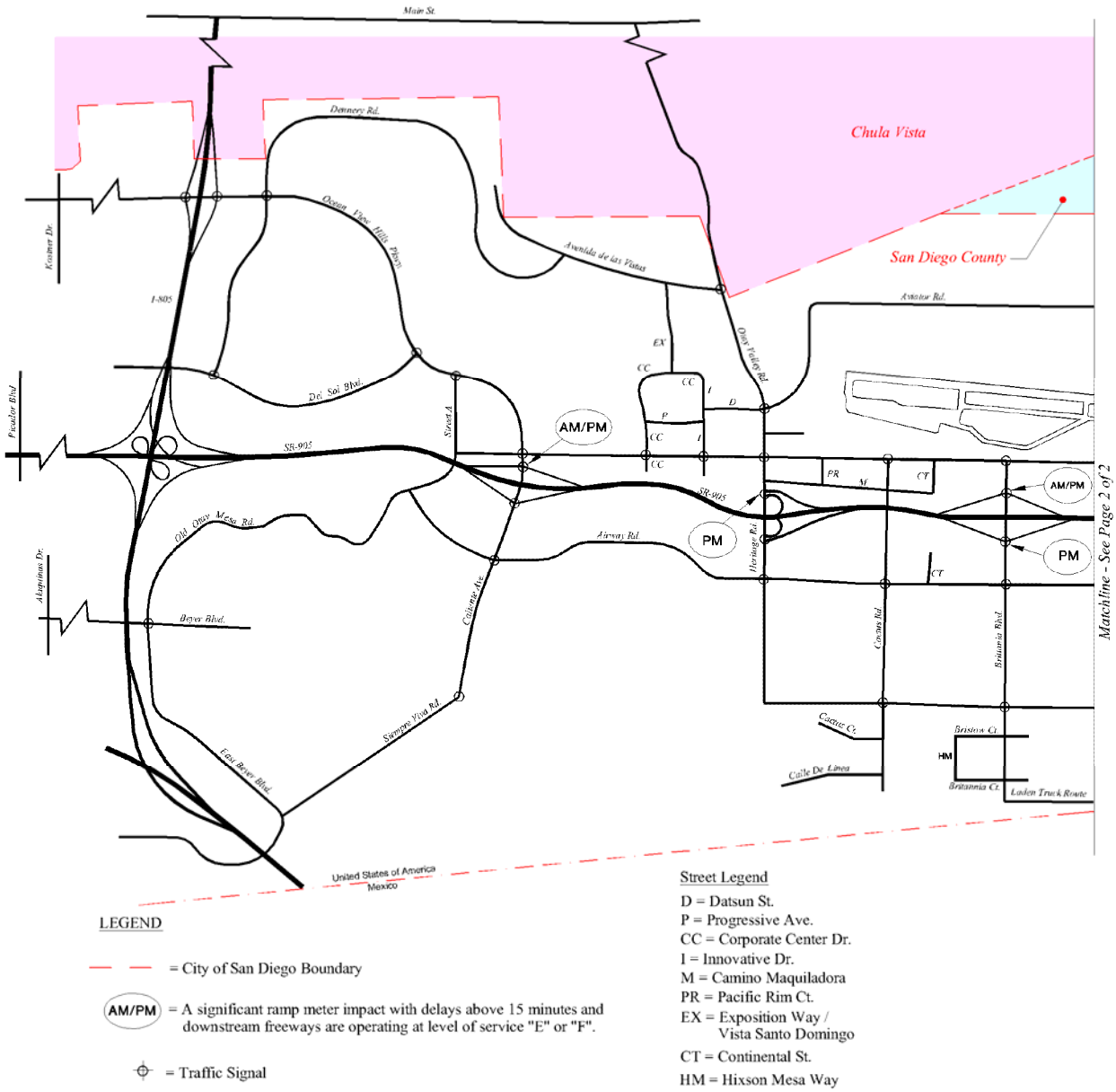
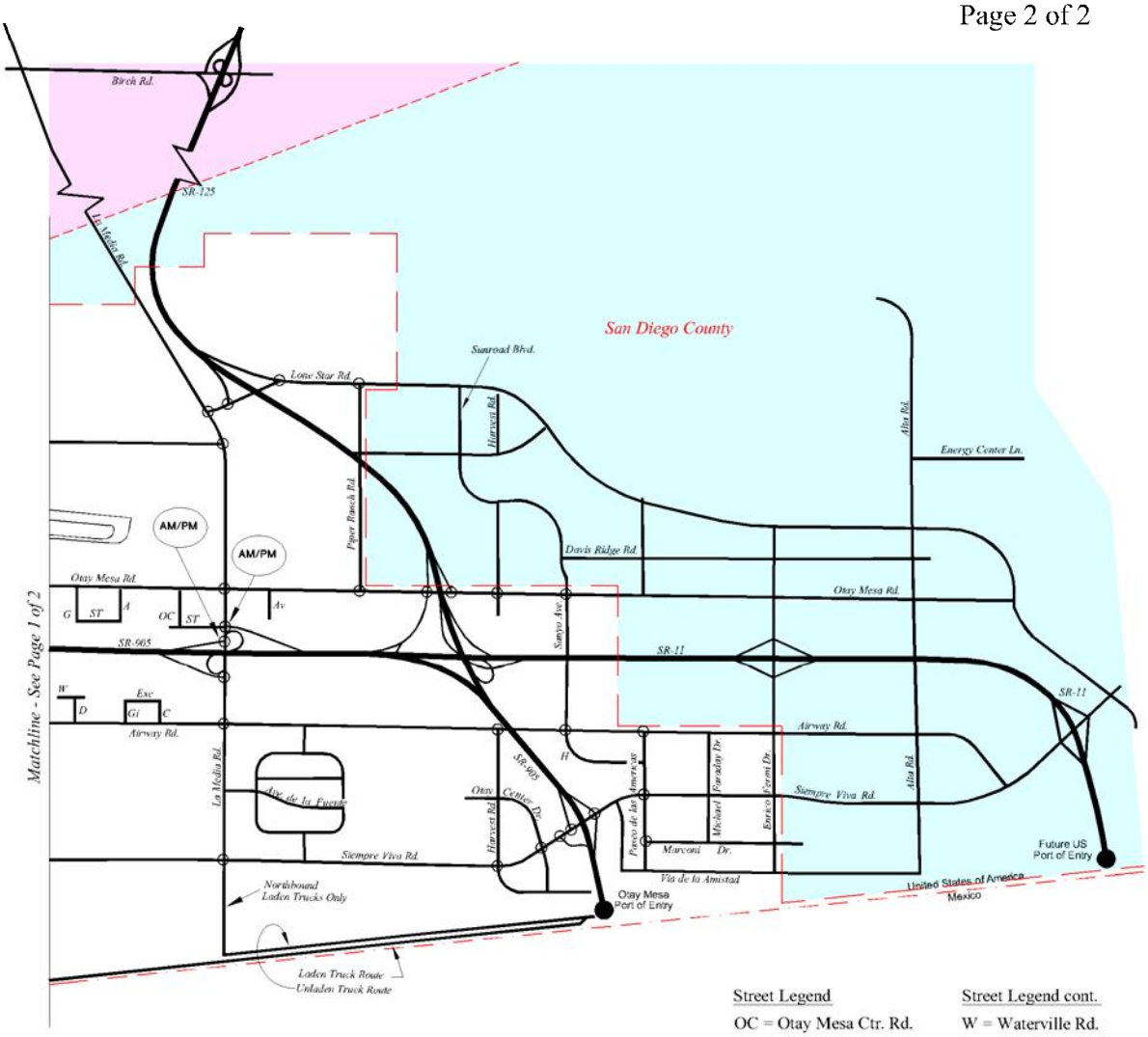


FIGURE ES - II -5

Adopted Community Plan
Significant Ramp Meter Delays

Page 2 of 2



LEGEND

= City of San Diego Boundary

AM/PM = A significant ramp meter impact with delays above 15 minutes and downstream freeways are operating at level of service "E" or "F".

= Traffic Signal

Street Legend

OC = Otay Mesa Ctr. Rd.
G = Gailes Blvd.
A = Ailsa Ct.
ST = St. Andrews Ave.
H = Heinrich Hertz Dr.
C = Centurion St.
Gi = Gigantic St.
Exc = Excellante St.
Av = Avenida Costa Azul

Street Legend cont.

W = Waterville Rd.
D = Dublin Dr.
OP = Otay Pacific Dr.
OPP = Otay Pacific Pl.
LC = Las Californias Dr.

N
NO SCALE

FIGURE ES - II -5
Adopted Community Plan
Significant Ramp Meter Delays

A comparison of the Adopted Community Plan land use scenario to the 3B Without La Media Road land use scenario indicates the locations would be the same for each scenario, but the peak hours would change with the Adopted Community Plan as listed below:

- SR-905 / Heritage Road Westbound On-Ramp (AM & PM);
- SR-125 / Otay Mesa Road Northbound On-Ramp (AM & PM);
- SR-125 / Lone Star Road Northbound On-Ramp (PM Only).

Freeway Interchange Queues

A queue analysis was prepared at the interchange ramp intersections plus closely spaced adjacent intersections within the study area, without and with the recommended intersection mitigation.

The queue analysis was provided to indicate the locations that might need queue storage enhancements such as extending right or left turn storage lengths, if feasible, during design and to ensure that any intersection with excessive queues was not reported as operating acceptably.

Of the 166 queues evaluated without intersection mitigation, during AM and PM peak hours, 92 are expected to exceed the available storage between these closely spaced intersections at freeway interchange ramps. With intersection mitigation, 192 queues were evaluated and 76 are expected to exceed the available storage length extending through the adjacent intersection. **Table ES II-8** lists the locations of the excessive queues.

Page 1 of 2

Table ES II-8

Buildout Adopted Community Plan

Queue Analysis With Mitigation

Queue Locations North / South	AM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Southbound			Northbound		
	RT	TH	LT	LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	None	None	7,380
Caliente Ave. / SR-905 WB Ramps	428	50	-	315	None	-
Caliente Ave. / SR-905 EB Ramps	-	None	140	-	1,448	None
Caliente Ave. / Airway Rd.	-	225	2,500	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	None	None	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	75	None	-	650	None
Heritage Rd. / Airway Rd.	None	1,550	1,328	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	None	-	None
Britannia Blvd. / SR-905 WB Ramps	-	None	-	560	None	-
Britannia Blvd. / SR-905 EB Ramps	-	618	None	-	193	-
Britannia Blvd. / Airway Rd.	628	1,390	2,750	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	1,973	905	135
La Media Rd. / SR-905 WB Ramps	None	2,450	-	None	1,548	-
La Media Rd. / SR-905 EB Ramps	None	3,100	-	None	1,308	-
La Media Rd. / Airway Rd.	1,198	1,378	3,650	-	-	-

Queue Locations North / South	PM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Southbound			Northbound		
	RT	TH	LT	LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	250	33	2,775
Caliente Ave. / SR-905 WB Ramps	12	150	-	1,005	1,335	-
Caliente Ave. / SR-905 EB Ramps	-	None	None	-	1,570	None
Caliente Ave. / Airway Rd.	-	968	2,500	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	None	None	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	None	None	-	1,775	None
Heritage Rd. / Airway Rd.	288	None	None	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	None	-	None
Britannia Blvd. / SR-905 WB Ramps	-	110	-	4,425	None	-
Britannia Blvd. / SR-905 EB Ramps	-	None	None	-	2,000	None
Britannia Blvd. / Airway Rd.	None	None	90	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	640	745	None
La Media Rd. / SR-905 WB Ramps	3	2,425	-	None	None	-
La Media Rd. / SR-905 EB Ramps	None	1,725	-	360	1,950	-
La Media Rd. / Airway Rd.	None	None	2,325	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane
= Shading indicates excess queue.

Page 2 fo 2

Table ES II-8

Buildout Adopted Community Plan

Queue Analysis With Mitigation

Queue Locations East / West	AM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Eastbound			Westbound		
	RT	TH	LT	LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	None	None	-
Palm Ave. / I-805 NB Ramps	None	None	-	-	None	None
Palm Ave. Dennery Rd.	None	None	None	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	None	5,300	None
Siempre Viva Rd. / SR-905 SB Ramps	-	1,140	-	None	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	2,325	943	-	1,375	None
Siempre Viva Rd. / Paseo de las Americas	2,350	33	3,100	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	485	130	None
Lone Star Rd. / SR-125 SB Off Ramp	-	1,488	-	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	None	-	None	None
Lone Star Rd. / Piper Ranch Rd.	None	1,875	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	None	-	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	None	-	None	None
Otay Mesa Rd. / Harvest Rd.	None	1,015	None	-	-	-

Queue Locations East / West	PM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Eastbound			Westbound		
	RT	TH	LT	LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	None	None	-
Palm Ave. / I-805 NB Ramps	None	None	-	-	None	None
Palm Ave. Dennery Rd.	1,383	None	None	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	553	None	None
Siempre Viva Rd. / SR-905 SB Ramps	-	5,650	-	1,593	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	None	6,000	-	None	4,225
Siempre Viva Rd. / Paseo de las Americas	None	None	2,750	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	193	None	3,725
Lone Star Rd. / SR-125 SB Off Ramp	-	None	-	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	None	-	None	298
Lone Star Rd. / Piper Ranch Rd.	None	None	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	None	-	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	None	-	None	608
Otay Mesa Rd. / Harvest Rd.	None	None	None	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane
= Shading indicates excess queue.

Figure ES II-6 shows the interchange intersections that would be affected by excessive queues. Vehicle queues will extend through these intersections from an upstream intersection so that any acceptable peak hour level of service will be at level of service "F" due to vehicles blocking this intersection. The intersection level of service table (**Table ES II-6**) includes this condition as footnoted.

III. SCENARIO 3B WITHOUT LA MEDIA ROAD (PROPOSED COMMUNITY PLAN BUILDOUT)

Roadway Segments

Roadway segments at buildout were evaluated for levels of service based on the City of San Diego Street Design manual. The initial "without mitigation" classification of roadways is based on the existing functional classifications or the current Community Plan classification if the street did not exist in the existing conditions assessment or if analyzing the projected volumes on the existing facility would not be meaningful because it would not be possible to carry those volumes on the existing-sized facility due to its capacity. Segments that would be at level of service "E" or "F" are considered to be significantly impacted by implementation of the land use plan. **Table ES III-1** lists segments that would be at level of service "E" or "F" for this scenario, without reclassification and construction to a higher standard, and the level of service after reclassification and construction to a higher standard.

As shown in this table, 41 roadway segments would operate at level of service "E" or "F" with the assumed initial classification. After reclassification and construction to a higher standard, 24 segments would operate at "E" or F" and remain significantly impacted, as indicated with a "Y" in the last column with the (S?) heading. For comparison, the No Project Scenario has 59 segments at level of service "E" or "F" initially and 38 segments that remain significantly impacted.

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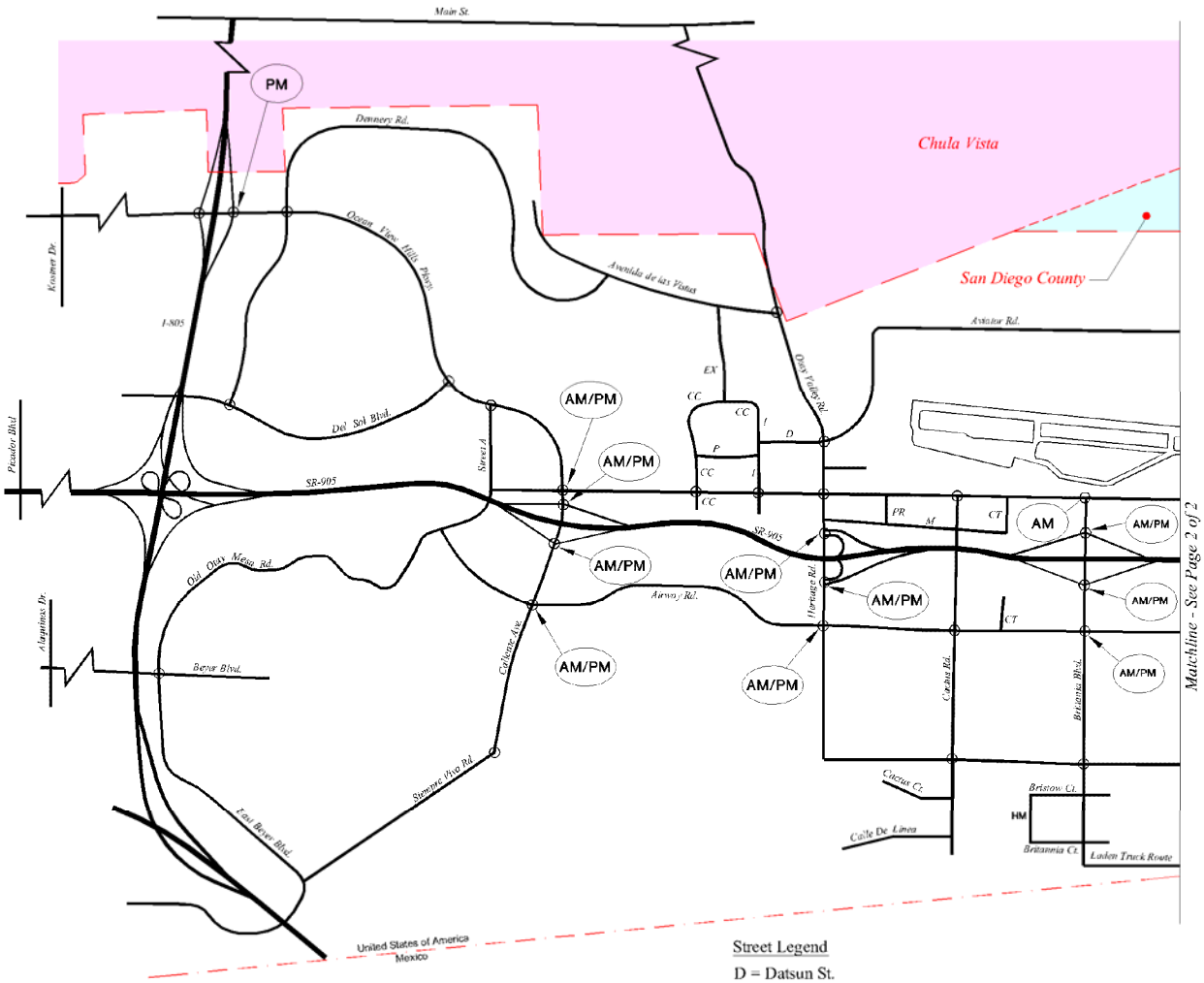

LEGEND

= City of San Diego Boundary

AM/PM = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degrated due to vehicles blocking this intersection.

= Traffic Signal

Street Legend

D = Datsun St.
P = Progressive Ave.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way / Vista Santo Domingo
CT = Continental St.
HM = Hixson Mesa Way

FIGURE ES - II -6
Adopted Community Plan
Interchange and Adjacent Intersection Queueing Impacts

N
NO SCALE

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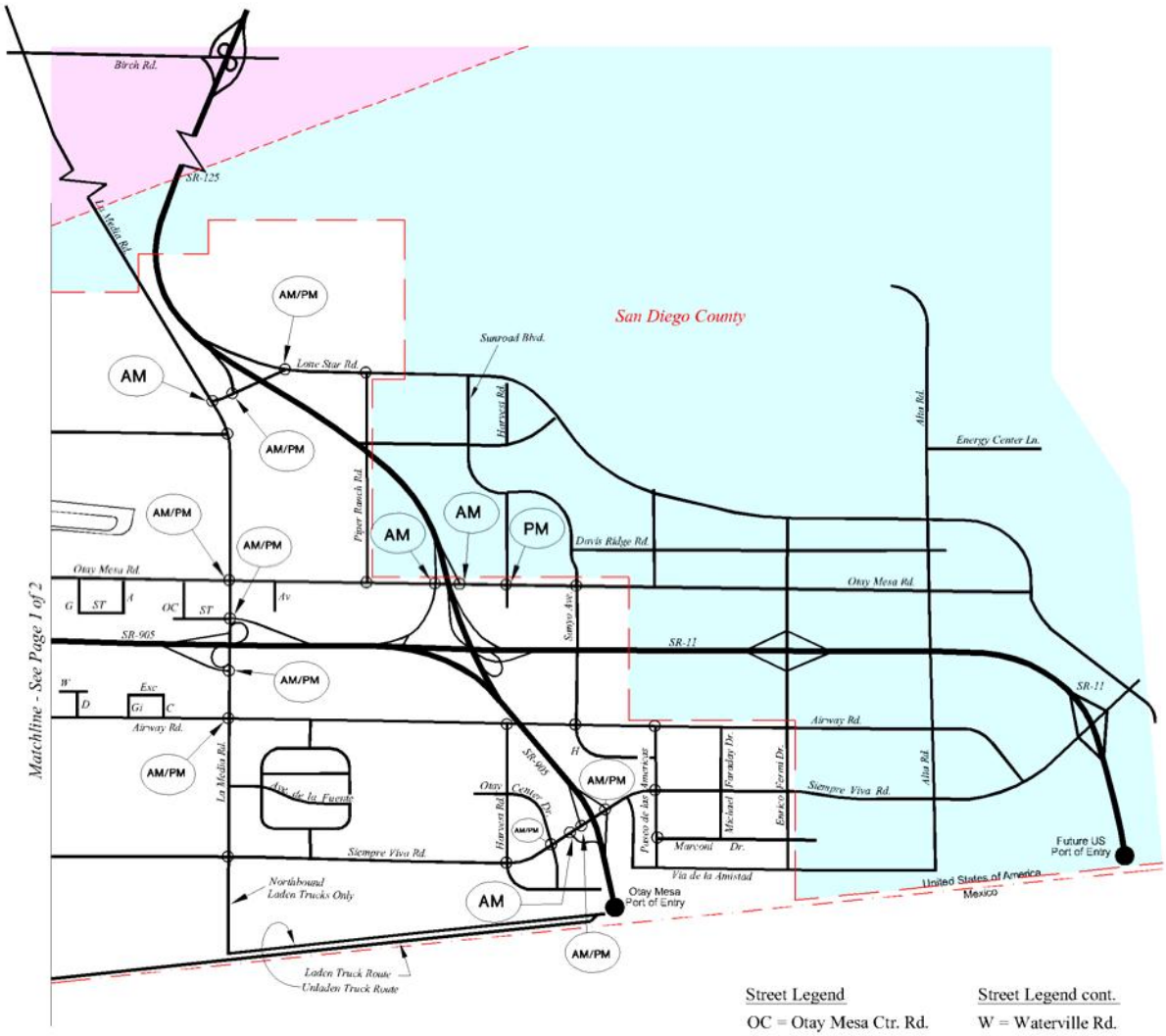


FIGURE ES - II -6

Adopted Community Plan

Interchange and Adjacent Intersection Queueing Impacts

TABLE ES III-1

Buildout Scenario 3B Without La Media Rd.

Roadway Segments at LOS "E" or "F"

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	LOS		New Class	NEW LOS	S?
Otay Mesa Road	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	72,500	F		N	-	Y
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	76,500	F		N	-	Y
	SR-125 to Harvest Rd.	11	4-M	40,000	36,000	E		6-PA	C	N
Airway Road	Caliente Ave. to Heritage Rd.	15	4-M	40,000	38,000	E		N	-	Y
	Heritage Rd. to Cactus Rd.	16	4-M	40,000	60,500	F		6-PA	F	Y
	Cactus Rd. to Britannia Blvd.	17	4-M	40,000	44,500	F		6-M	D	N
Siempre Viva Road	Otay Center Dr. to SR-905	31	6-PA	60,000	60,000	E		N	-	Y
	SR-905 to Paseo de las Americas	32	6-PA	60,000	63,000	F		N	-	Y
Caliente Avenue	Airway Rd. to Beyer Blvd.	43	4-M	40,000	46,000	F		6-M	E	Y
	Beyer Blvd. to Siempre Viva Rd.	43A	4-M	40,000	41,000	F		N	-	Y
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas	46	6-PA	60,000	83,000	F		N	-	Y
	Avenida De Las Vistas to Datsun St.	47	6-M	50,000	75,500	F		6-PA	F	Y
	Datsun St. to Otay Mesa Rd.	48	6-M	50,000	48,000	E		6-PA	C	N
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	4-CL	30,000	40,500	F		4-M	F	Y
	Airway Rd. to Siempre Viva Rd.	53	4-CL	30,000	40,500	F		4-M	F	Y
Britannia Boulevard	SR-905 to Airway Rd.	56	4-M	40,000	63,000	F		6-PA	F	Y
	Airway Rd. to Siempre Viva Rd.	57	4-M	40,000	44,500	F		6-M	D	N
	Siempre Viva Rd. to South End	58	2-C	8,000	22,000	F		4-CL	D	N
La Media Road	SR-905 to Airway Rd.	63	6-PA	60,000	64,000	F		N	-	Y

= Segment Number

** = Segment is in Chula Vista.

(1) = Current Community Plan Classification unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

N = New classification is not proposed.

New LOS = LOS after change in classification.

= Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

TABLE ES III-1

Buildout Scenario 3B Without La Media Rd.

Roadway Segments at LOS "E" or "F"

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	LOS	New Class	NEW LOS	S?
Lone Star Road	Piper Ranch Rd. to City / County Boundary	73	4-M	40,000	36,000	E	6-PA	C	N
Aviator Road	Heritage Rd. to La Media Rd. (3)	74	2-C	8,000	23,000	F	4-CL	D	N
Dennery Road	Black Coral Ln. to East End	79	2-CN	10,000	16,500	F	N	-	Y
Avendia De Las Vistas	Vista Santo Domingo to Dennery Rd.	81	2-CN	10,000	19,500	F	N	-	Y
Del Sol	Surf Crest Dr. to Riviera Pointe	83	2-CN	10,000	23,000	F	N	-	Y
Boulevard	Riviera Pointe to Dennery Rd.	84	2-CL	15,000	23,000	F	N	-	Y
Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	89	2-C	8,000	16,000	F	N	-	Y
Corporate Center Drive	Progressive Ave. to Innovative Dr.	93	2-C	8,000	8,000	E	2-CL	C	N
Sanyo Avevue	Otay Mesa Rd. to Airway Rd. (4)	97	4-C	15,000	24,500	F	4-CL	D	N
Paseo de las	Airway Rd. to Siempre Viva Rd.	99	2-C	8,000	16,500	F	4-CL	C	N
Americas	Siempre Viva Rd. to Marconi Dr.	100	2-C	8,000	15,000	F	4-CL	C	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	2-C	8,000	8,000	E	2-CL	C	N
Otay Center Drive	Harvest Rd. to Siempre Viva Rd. (3)	102	4-C	15,000	15,500	F	4-CL	C	N
St. Andrews Avenue	Otay Mesa Center Rd. to La Media Rd.	105	2-C	8,000	13,500	F	4-CL	C	N
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	107	2-C	8,000	12,500	F	4-C	D	N
Camino	Heritage Rd. to Pacific Rim Ct.	108	2-C	8,000	9,500	F	N	-	Y
Maquiladora	Pacific Rim Ct. to Cactus Rd.	109	2-C	8,000	7,500	E	N	-	Y
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	2-C	8,000	11,500	F	N	-	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	2-C	8,000	24,000	F	4-CL	D	N
Datsun Street	Innovative Dr. to Heritage Rd. (3)	114	2-C	8,000	30,000	F	4-CL	E	Y
Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave. (3)	115	2-CL	15,000	19,000	E	4-CL	B	N
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr. (4)	119	2-CN	10,000	12,500	F	N	-	Y

= Segment Number

(1) = Current Community Plan Classification unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

N = New classification is not proposed.

New LOS = LOS after change in classification.

= Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial
7-PA = 7-lane Primary Arterial
7-M = 7-lane Major Arterial
6-PA = 6-lane Primary Arterial
6-M = 6-lane Major Arterial
5-M = 5-lane Major Arterial (3SB /2NB)
4-P = 4-lane Primary Arterial
4-M = 4-lane Major Arterial
4-CL = 4-lane Collector (with continuous left turn lane)
4-C = 4-lane Collector (without continuous left turn lane)
2-CL = 2-lane Collector (with continuous left turn lane
2-CN = 2-lane Collector (no fronting property)
2-C = 2-lane Collector (without continuous left turn lane)

Figure ES III-1 shows recommended roadway classifications and also segments highlighted in red that are proposed to be classified to a higher standard.

Refer to Chapter 7, page 7-11 for discussion of the proposed mitigation and / or explanation of why the significant impact is not proposed to be fully mitigated.

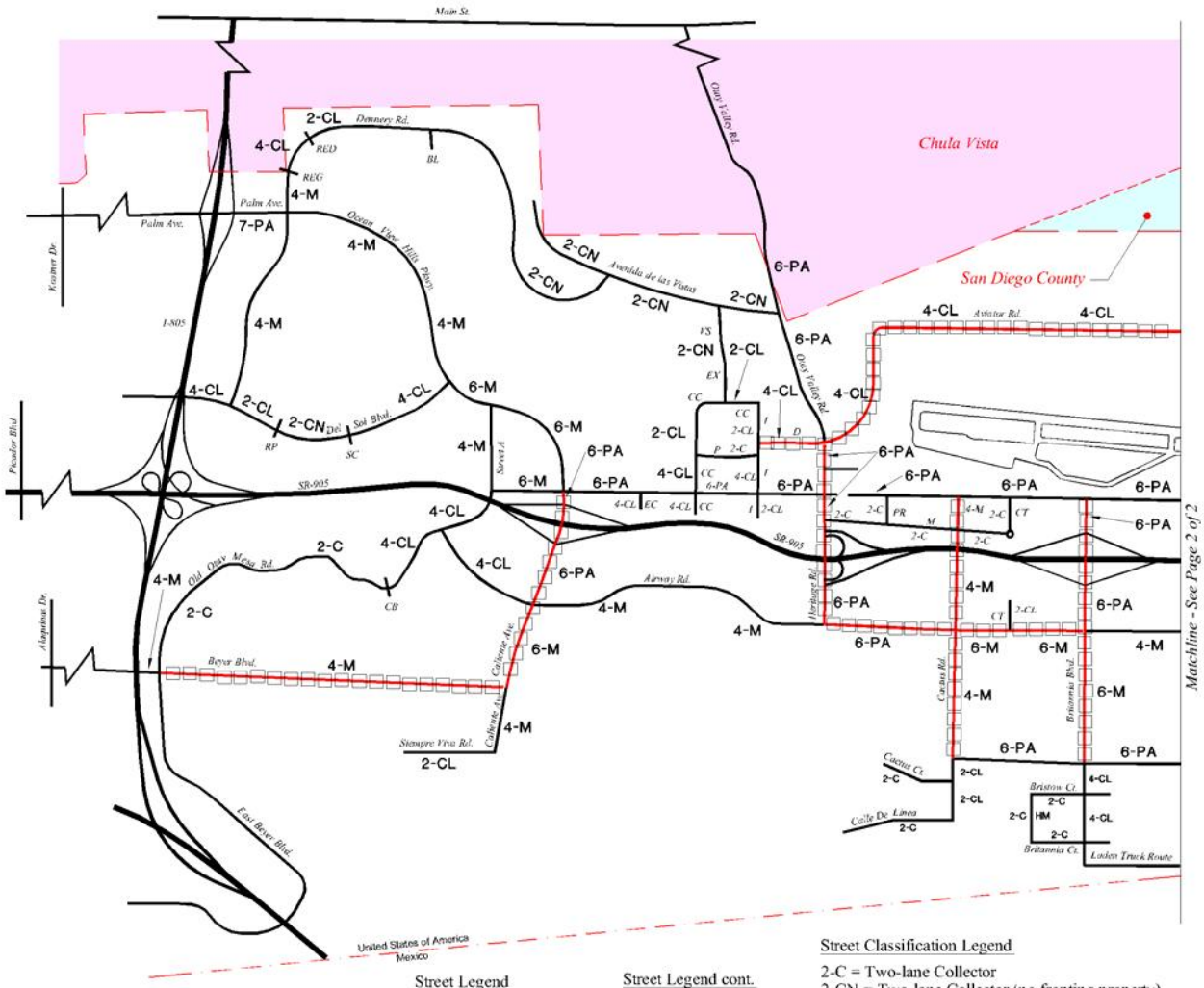
A comparison of the 3B Without La Media Road land use plan significantly impacted roadway segments to the Buildout Adopted Community Plan Scenario is provided below, based on the listing of impacted roadway segments shown in **Table ES III-2**.

The 3B Without La Media Road Scenario has 24 roadway segments that would remain significantly impacted after mitigation.

The Adopted Community Plan Scenario has 38 roadway segments that would remain significantly impacted after mitigation.

The following 19 roadway segments would remain significantly impacted under both scenarios.

Page 1 of 2



Based on Alternative 3B Without La Media Rd.
(7-26-10 Run Date, Series 11)

LEGEND

= City of San Diego Boundary

= Reclassification to a Higher Standard

Street Legend

D = Datsun St.
P = Progressive Ave.
EC = Emerald Crest Dr.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
VS = Vista Santo Domingo

Street Legend cont.

REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.
CT = Continental St.
HM = Hixson Mesa Way

Street Classification Legend

2-C = Two-lane Collector
2-CN = Two-lane Collector (no fronting property)
2-CL = Two-lane Collector (with left turn lane)
4-C = Four-lane Collector (without left turn lane)
4-CL = Four-lane Collector (with left turn lane)
4-M = Four-lane Major Arterial
5-M = Five-lane Major Arterial (3 SB/2 NB)
6-M = Six-lane Major Arterial
6-PA = Six-lane Primary Arterial
7-PA = Seven-lane Primary Arterial

FIGURE ES - III -1

Scenario 3B Without La Media Road Land Use Scenario
With Proposed Roadway Classification Recommendations
(Mitigation / Reclassification to a Higher Standard shown in Red)

N
NO SCALE

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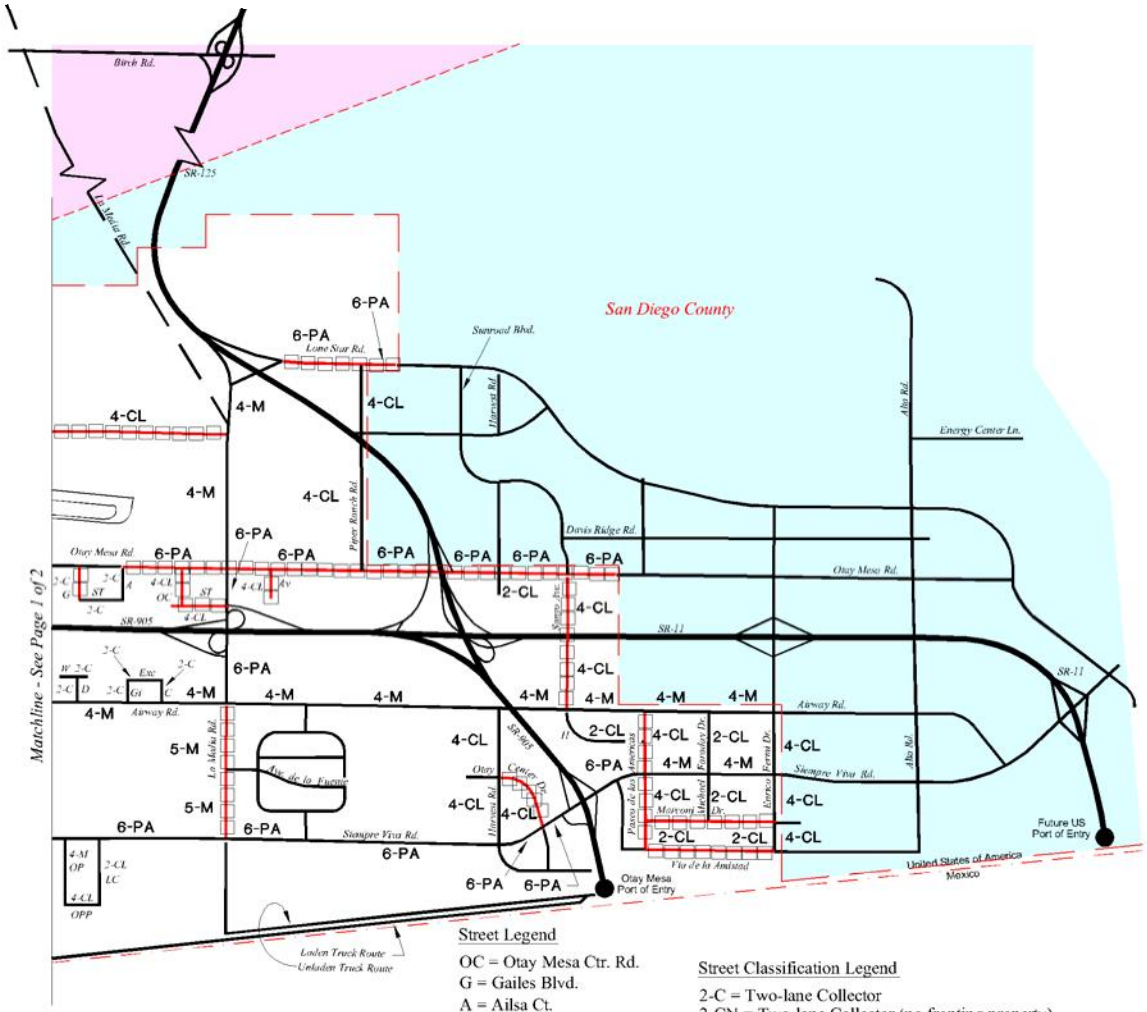

FIGURE ES - III -1

Scenario 3B Without La Media Road Land Use Scenario
With Proposed Roadway Classification Recommendations
(Mitigation / Reclassification to a Higher Standard shown in Red)

TABLE ES III-2

Comparison Of
Buildout 3B Without La Media Road Scenario To
Adopted Community Plan
Roadway Segments Significant Impacts After Mitigation

Street	Segment	#	ACP (1) S?	3B W/Out La Media (2) S?
Otay Mesa	Caliente Ave. to Corporate Center Dr.	2	Y	Y
	Heritage Rd. to Cactus Rd.	5	Y	Y
	Britannia Blvd. to Ailsa Ct.	7	Y	N
Airway Road	Caliente Ave. to Heritage Rd.	15	Y	Y
	Heritage Rd. to Cactus Rd.	16	N	Y
	Cactus Rd. to Britannia Blvd.	17	Y	N
	La Media Rd. to Harvest Rd.	19	Y	N
	Harvest Rd. to Sanyo Ave.	20	Y	N
Siempre Viva Road	Caliente Ave. to East Beyer Blvd.	25	Y	N
	Otay Center Dr. to SR-905	31	Y	Y
	SR-905 to Paseo de las Americas	32	Y	Y
Palm Avenue	I-805 to Dennery Rd.	37	Y	N
Caliente Avenue	Airway Rd. to Siempre Viva Rd.	43	Y	Y
	Beyer Blvd. to Siempre Viva Rd.	43A	Y	Y
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	Y	Y
	Avenida De Las Vistas to Datsun St.	47	Y	Y
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	N	Y
	Airway Rd. to Siempre Viva Rd.	53	N	Y
	Siempre Viva Rd. to South End	54	Y	N
Britannia Boulevard	SR-905 to Airway Rd.	56	N	Y
La Media Road	Birch Rd. to Lone Star Rd.**	59	Y	N/A
	Lone Star Rd. to Aviator Rd.	60	Y	N
	Aviator Rd. to Otay Mesa Rd.	61	Y	N
	SR-905 to Airway Rd.	63	Y	Y
Harvest Road	Otay Center Dr. to Siempre Viva Rd.	67	Y	N
Dennery Road	Red Coral Ln. to Black Coral Ln.	78	Y	N
	Black Coral Ln. to East End	79	Y	Y
Avenida De Las Vistas	Vista Santo Domingo to Dennery Rd.	81	Y	Y
Del Sol Boulevard	Surf Crest Dr. to Riviera Pointe	83	Y	Y
	Riviera Pointe to Dennery Rd.	84	Y	Y
Old Otay Mesa Road	Crescent Bay Dr. to Beyer Blvd.	89	Y	Y
Sanyo Avenue	Otay Mesa Rd. to Airway Rd.	97	Y	N
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas	98	Y	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	Y	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	Y	Y
	Pacific Rim Ct. to Cactus Rd.	109	N	Y
Progressive Avennue	Corporate Center Dr. to Innovative Dr.	112	Y	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	Y	N
Datsun Street	Innovative Dr. to Heritage Rd.	114	Y	Y
Excellante Street	Airway Rd. to Gigantic St.	116	Y	N
Gigantic Street	Excellante St. to Centurion St.	117	Y	N
Centurion Street	Airway Rd. to Gigantic St.	118	Y	N
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr.	119	Y	Y

= Segment Number

**** = Segment in Chula Vista.**

S? = Significant impact, Yes (Y) or No (N).

(1) = Significant impact in the Adopted Community Plan Scenario.

(2) = Significant impact in the 3B Without La Media Road Scenario.

Y = Shading indicates a significant impact.

- Otay Mesa Road (Caliente Avenue to Corporate Center Drive);
- Otay Mesa Road (Heritage Road to Cactus Road);
- Airway Road (Caliente Avenue to Heritage Road);
- Siempre Viva Road (Otay Center Drive to SR-905)
- Siempre Viva Road / SR-905 to Paseo de las Americas);
- Caliente Avenue (Airway Road to Siempre Viva Road);
- Caliente Avenue (Beyer Boulevard to Siempre Viva Road);
- Heritage Road / Otay Valley Road (Main Street to Avenida de las Vistas);
- Heritage Road / Otay Valley Road (Avenida de las Vistas to Datsun Street);
- La Media Road (SR-905 to Airway Road);
- Dennery Road (Black Coral Lane to East End);
- Avenida de las Vistas (Vista Santo Domingo to Dennery Road);
- Del Sol Boulevard (Surf Crest Drive to Riviera Pointe);
- Del Sol Boulevard (Riviera Pointe to Dennery Road);
- Old Otay Mesa Road (Crescent Bay Drive to Airway Road);
- Camino Maquiladora (Heritage Road to Pacific Rim Court);
- Progressive Avenue (Corporate Center Drive to Innovative Drive);
- Datsun Street (Innovative Drive to Heritage Road);
- Exposition Way / Vista Santo Domingo (Avenida de las Vista to Corporate Center Drive).

The following 19 roadway segments would remain significantly impacted after mitigation in the Adopted Community Plan land use scenario, but not in the 3B Without La Media Road scenario:

- Otay Mesa Road (Britannia Boulevard to Ailsa Court);
- Airway Road (Cactus Road to Britannia Boulevard);
- Airway Road (La Media Road to Harvest Road);
- Airway Road (Harvest Road to Sanyo Avenue);
- Siempre Viva Road (Caliente Avenue to East Beyer Boulevard);
- Palm Avenue (I-805 to Dennery Road);
- Cactus Road (Siempre Viva Road to South End);
- La Media Road (Birch Road to Lone Star Road); (No segment in 3B Without La Media Road);
- La Media Road (Lone Star Road to Aviator Road);
- La Media Road (Aviator Road to Otay Mesa Road);
- Harvest Road (Otay Center Drive to Siempre Viva Road);
- Dennery Road (Red Coral Lane to Black Coral Lane);
- Sanyo Avenue (Otay Mesa Road to Airway Road)
- Heinrich Hertz Drive (Airway Road to Paseo de las Americas);
- Marconi Drive (Paseo de las Americas to Enrico Fermi Drive);
- Otay Mesa Center Road (Otay Mesa Road to St. Andrews Avenue);
- Excellante Street (Airway Road to Gigantic Street);
- Gigantic Street (Excellante Street to Centurion Street);
- Centurion Street (Airway Road to Gigantic Street).

The following roadway segments would remain significantly impacted after mitigation in the 3B Without La Media Road land use scenario but not in the Adopted Community Plan scenario.

- Airway Road (Heritage Road to Cactus Road);
- Cactus Road (Otay Mesa Road to Airway Road);
- Cactus Road (Airway Road to Siempre Viva Road);
- Britannia Boulevard (SR-905 to Airway Road);
- Camino Maquiladora (Pacific Rim Court to Cactus Road);

Figure ES III-2 shows the 3B Without La Media Road use scenario roadway segments that would remain at level of service "E" or "F" after mitigation.

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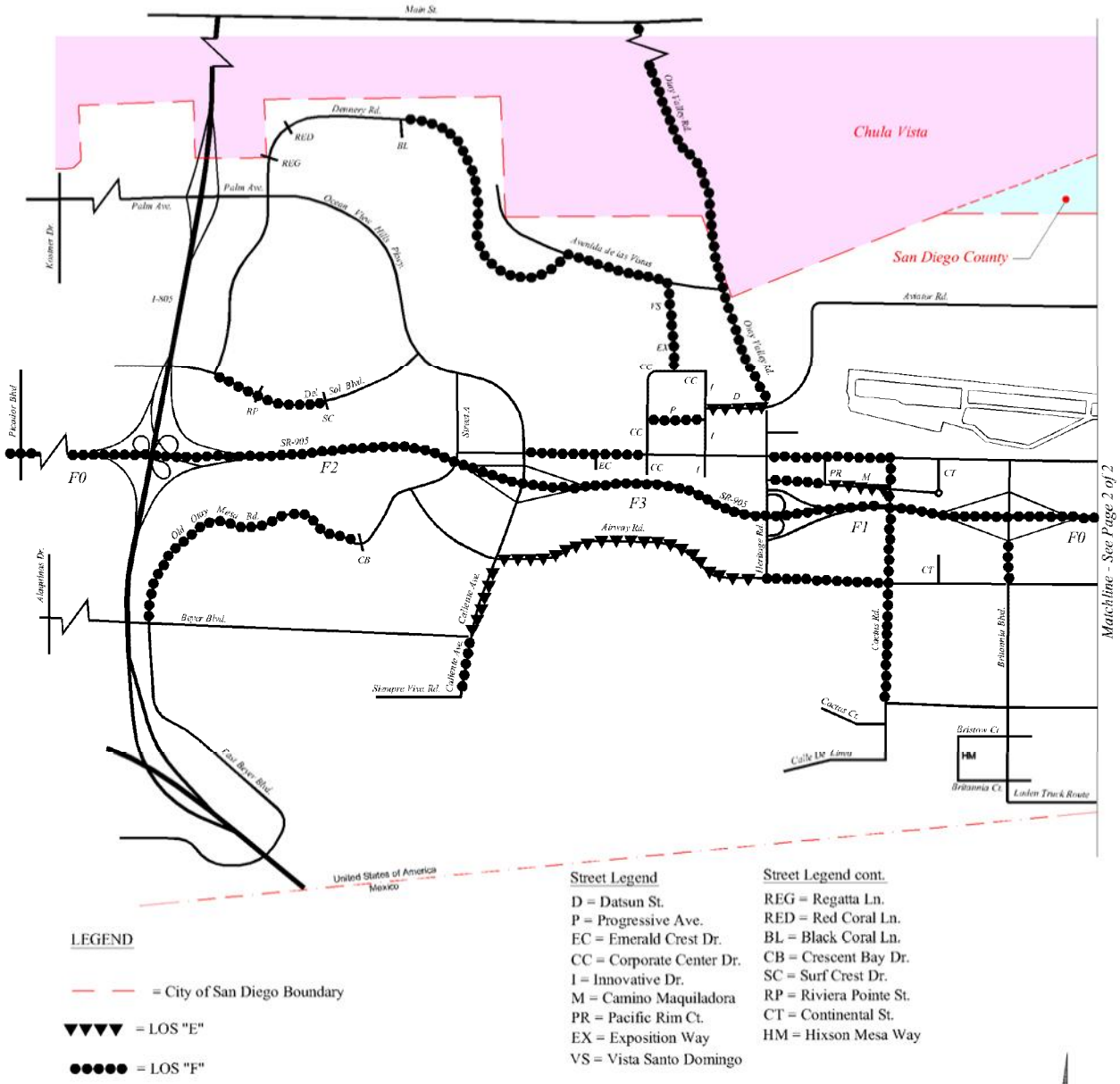

Street Legend

D = Datsun St.
P = Progressive Ave.
EC = Emerald Crest Dr.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
VS = Vista Santo Domingo

Street Legend cont.

REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.
CT = Continental St.
HM = Hixson Mesa Way

LEGEND

— — = City of San Diego Boundary
▼▼▼▼ = LOS "E"
●●●●● = LOS "F"

FIGURE ES - III -2

Scenario 3B Without La Media Road Land Use Scenario
Roadway Segments Remaining at LOS "E" or "F" After Mitigation

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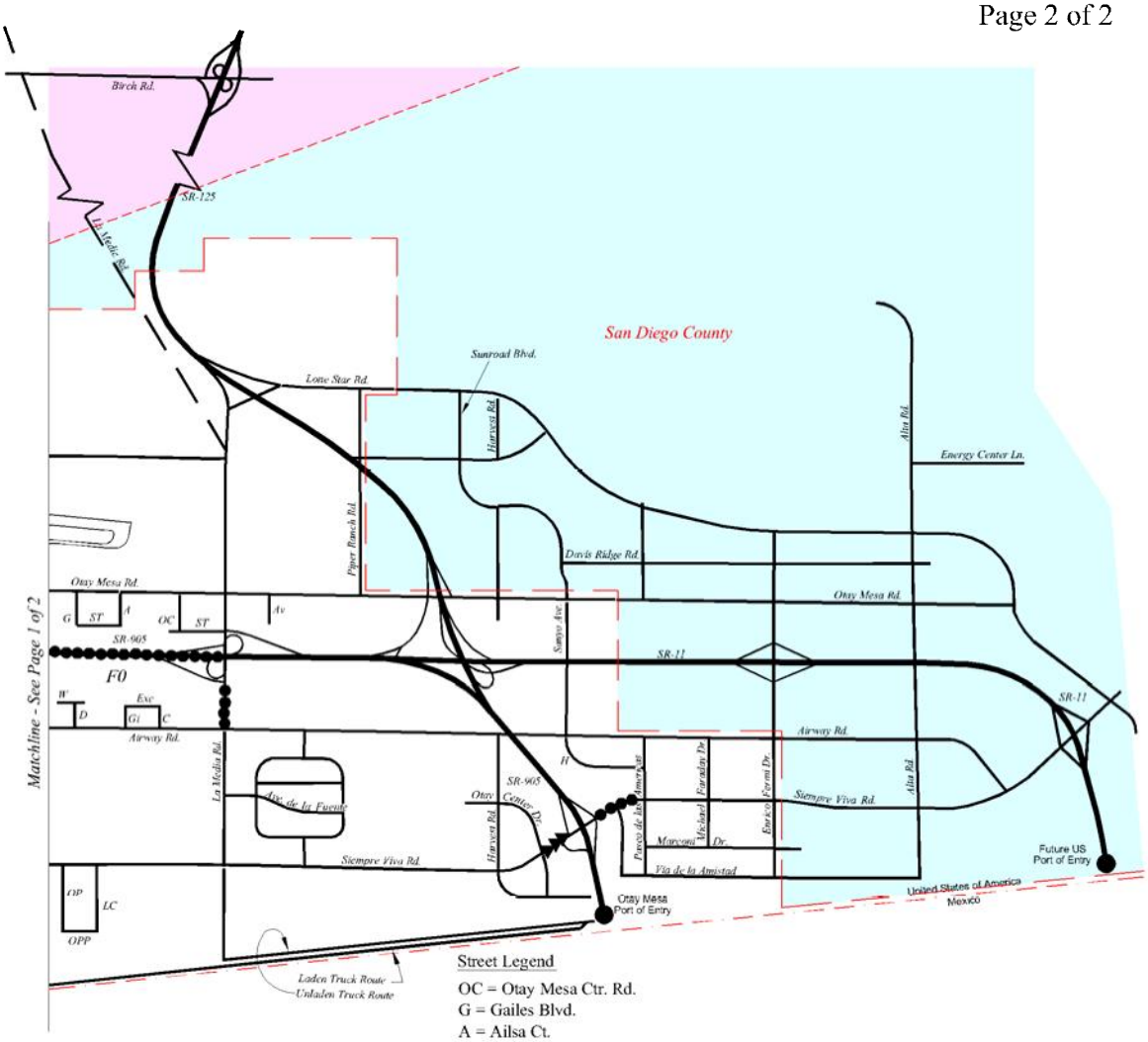

FIGURE ES - III -2

Scenario 3B Without La Media Road Land Use Scenario
Roadway Segments Remaining at LOS "E" or "F" After Mitigation

Freeway Segments

Table ES III-3 lists freeway segments evaluated for the 3B Without La Media Road scenario.

Interstate 805

Segments of Interstate 805 north of State Route 905 are projected to be significantly impacted by buildout of the proposed Otay Mesa Community Plan (Scenario 3B Without La Media Road scenario) and regional cumulative traffic. With existing lanes and an additional northbound auxiliary lane currently being constructed between SR-905 and Palm Avenue, the segments of I-805 north of SR-905 are expected to be at level of service "F". The Adopted SANDAG 2050 Regional Transportation Plan (RTP) includes two managed lanes on I-805 in each direction north of SR-905. With these additional lanes, the segments of I-805 between Main Street and Palm Avenue and the segment between Palm Avenue and SR-905 would be at level of service "D" during peak hours.

Table ES III-4 shows freeway levels of service with HOV lanes added to segments at level of service "F".

State Route 905 is assumed with six lanes and auxillary lanes as is being constructed by Caltrans. Impacts would be significant and unmitigated between Picador Boulevard and La Media Road. State Route 905 has been designed so that median High Occupancy Vehicle (HOV) lanes could be installed in the future, but are not currently planned or funded by Caltrans. The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts, but would not provide acceptable levels of service.

TABLE ES III-3

Scenario 3B Freeway Segment Levels of Service Without La Media Road

Segment		Lanes (1-Way)	Cap.	ADT (1)	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	2 + AUX	6,500	128,500	6,853	1.05	F0
	I-805 to Caliente Ave. (4)	3 + CL	8,550	221,000	11,787	1.38	F2
	Caliente Ave. to Heritage Rd.	3	7,050	196,000	10,453	1.48	F3
	Heritage Rd. to Britannia Blvd.	3	7,050	173,000	9,227	1.31	F1
	Britannia Blvd. to La Media Rd.	3	7,050	154,000	8,213	1.16	F0
	La Media Rd. to SR-125	3	7,050	103,500	5,520	0.78	C
	SR-125 to Siempre Viva Rd.	3	7,050	99,000	5,280	0.75	C
	Siempre Viva Rd. to Border	3	7,050	64,500	3,440	0.49	B
I-805	Main St. to Palm Ave.	4+AUX	11,200	248,000	13,227	1.18	F0
	Palm Ave. to SR-905	4+AUX	11,200	222,000	11,840	1.06	F0
	SR-905 to I-5	4	9,400	122,000	6,507	0.69	C
	I-5 to Border	6	14,100	135,500	7,227	0.51	B
SR-125	Birch Rd. to Lone Star Rd.	4 (Toll)	9,400	155,500	8,293	0.88	D
	Lone Star Rd. to SR-905	4(Toll)	9,400	115,500	6,160	0.66	C
SR – 11	SR-905 to Enrico Fermi Dr.	2	4,700	47,000	2,507	0.53	B
	Enrico Fermi Dr. to Siempre Viva Rd	2	4,700	24,500	1,307	0.28	A
	Siempre Viva Rd. to Border	2	4,700	39,500	2,107	0.45	B

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

F0 = Shading indicates a significant impact.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (7-26-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

TABLE ES III-4

Scenario 3B Without La Media Road Freeway Segment Levels of Service

(With HOV Lanes Added To LOS F Segments)

Segment		ADD HOV	Lanes (1Way)	Cap.	ADT (1)	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	+H	2 + AUX	8,100	128,500	6,853	0.83	D
	I-805 to Caliente Ave. (4)	+H	3 + CL	10,150	221,000	11,787	1.13	F0
	Caliente Ave. to Heritage Rd.	+H	3	8,650	196,000	10,453	1.18	F0
	Heritage Rd. to Britannia Blvd.	+H	3	8,650	173,000	9,227	1.04	F0
	Britannia Blvd. to La Media Rd.	+H	3	8,650	154,000	8,213	.92	D
I-805	Main St. to Palm Ave,	+2H	4+AUX	14,400	248,000	13,227	.92	D
	Palm Ave. to SR-905	+2H	4+AUX	14,400	222,000	11,840	.82	D

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

F0 = Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (07-26-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

A comparison of the 3B Without La Media Road Scenario significantly impacted freeway segments to the Adopted Community Plan Scenario is provided below, based on the listing of impacted freeway segments shown in **Table ES III-5**.

The Adopted Community Plan Scenario has six freeway segments that would remain significantly impacted after mitigation.

The 3B Without La Media Road Scenario has three freeway segments that would remain significantly impacted after mitigation.

The following three freeway segments would remain significantly impacted under both scenarios:

- SR-905 (I-805 to Caliente Avenue);
- SR-905 (Caliente Avenue to Heritage Road);
- SR-905 (Heritage Road to Britannia Boulevard).

The following three freeway segments would remain significantly impacted under the Adopted Community Plan Scenario but not the 3B Without La Media Road Scenario:

- SR-905 (Picador Boulevard to I-805);
- SR-905 (Britannia Boulevard to La Media Road);
- I-805 (Main Street to Palm Avenue).

TABLE ES III-5

Comparison of Buildout 3B Without La Media Road To Adopted Community Plan Freeway Segment Significant Impacts After Mitigation (With HOV Lanes Added)

Segment		ADD HOV	Lanes (1Way)	LOS (1)	LOS (2)
SR-905	Picador Blvd. to I-805	+H	2 + AUX	E	D
	I-805 to Caliente Ave.	+H	3 + CL	F1	F0
	Caliente Ave. to Heritage Rd.	+H	3	F2	F0
	Heritage Rd. to Britannia Blvd.	+H	3	F0	F0
	Britannia Blvd. to La Media Rd.	+H	3	F0	D
I-805	Main St. to Palm Ave,	+2H	4+AUX	E	D

Legend
LOS = Level of Service

(1) = Adopted Community Plan land use scenario.

(2) = 3B Without La Media Road land use scenario.

F = Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:
SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

Intersections

Intersections operating at level of service "E" or "F" are considered to be significantly impacted by implementation of the land use plan. **Table ES III-6** shows intersection levels of service. Of the 52 intersections evaluated at Buildout in the 3B Without La Media Road scenario, four would be at level of service "E" and ~~38~~ 37 would be at level of service "F" during the AM peak hour. During the PM peak hour, four would be at level of service "E" and 40 would be at level of service "F". A total of ~~47~~ 48 intersections would operate at level of service "E" or "F" during the morning and / or evening peak hour. In comparison, the No Project Scenario would have a total of 49 intersections at level of service "E" or "F" before mitigation.

With mitigation, six would be at level of service "E" and 22 would be at level of service "F" during the AM peak hour. During the PM peak hour, three would be at level of service "E" and 26 would be at level of service "F'. With mitigation, a total of ~~36~~ 33 intersections would operate at level of service "E" or "F' during the morning and / or evening peak hour. In comparison, the No Project Scenario would have a total of 40 intersections at level of service "E" or "F" after mitigation.

Several interchange intersections that can be designed for acceptable levels of service are included as significantly impacted due to upstream queues extending through the intersection causing increased delay and a degraded level of service, as footnoted in this table.

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TABLE ES III-6

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
1	Palm Ave. / I-805 SB Ramps	48.9	D	51.3	D	24.8	C	35.7	D
2	Palm Ave. / I-805 NB Ramps	116.1	F	122.6	F	4.6	A	5.5	A
3	Palm Ave. / Dennery Rd.	33.5	C	67.2	E	-	-	-	-
4	Otay Mesa Rd. / Caliente Ave.	263.5	F	146.0	F	205.9	F	87.2	F
5	Caliente Ave. / SR-905 WB Ramps	83.1	F	43.2	(1) D	34.0	(1) C	34.0	(1) C
6	Caliente Ave. / SR-905 EB Ramps	165.7	F	150.5	F	55.0	E	70.2	E
7	Caliente Ave. / Airway Rd.	228.5	F	223.0	F	143.0	F	200.5	F
8	Caliente Ave. / Beyer Blvd.	252.0	F	429.8	F	212.7	F	122.4	F
9	Otay Mesa Rd. / Heritage Rd.	367.5	F	257.4	F	272.0	F	161.2	F
10	Heritage Rd. / SR-905 WB Ramps	69.9	E	81.1	F	15.9	(1) B	28.4	(1) C
11	Heritage Rd. / SR-905 EB Ramps	113.0	F	86.4	F	39.5	(1) D	25.5	(1) C
12	Heritage Rd. / Airway Rd.	162.7	F	402.8	F	144.5	F	88.3	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	437.9	F	290.5	F	139.6	F	199.7	F
15	Airway Rd. / Cactus Rd.	361.5	F	437.7	F	188.6	F	306.2	F
16	Siempre Viva Rd. / Cactus Rd.	48.7	D	127.7	F	47.6	D	117.3	F
17	Otay Mesa Rd. / Britannia Blvd.	108.5	F	117.2	F	63.1	E	47.5	D
18	Britannia Blvd. / SR-905 WB Ramps	240.5	F	577.4	F	65.0	E	547.1	F
19	Britannia Blvd. / SR-905 EB Ramps	353.3	F	235.1	F	305.9	F	67.1	E
20	Britannia Blvd. / Airway Rd.	618.2	F	615.8	F	184.9	F	241.1	F
21	Siempre Viva Rd. / Britannia Blvd.	363.3	F	362.8	F	177.5	F	143.2	F
22	Otay Mesa Rd. / La Media Rd.	457.1	F	443.8	F	131.9	F	126.2	F

Legend
CD = Control Delay
LOS = Level of Service
(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.
F = Shading indicates significant impact.

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TABLE ES III-6 (Continued)

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
23	La Media Rd. / SR-905 WB Ramps	266.1	F	227.2	F	129.8	F	112.7	F
24	La Media Rd. / SR-905 EB Ramps	234.7	F	84.7	F	162.2	F	48.5	(1) D
25	La Media Rd. / Airway Rd.	496.6	F	507.9	F	182.5	F	212.5	F
26	La Media Rd. / Siempre Viva Rd.	244.0	F	112.1	F	81.6	F	37.1	D
27	La Media Rd. / Lone Star Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28	Lone Star Rd. / SR-125 SB Off Ramp	63.6	E	96.8	F	-	-	-	-
29	Lone Star Rd. / SR-125 NB On Ramp	2.1	(1) A	147.8	F	-	-	-	-
30	Lone Star Rd. / Piper Ranch Rd.	8.1	A	9.3	(1) A	-	-	-	-
31	Otay Mesa Rd. / Piper Ranch Rd.	129.2	F	166.2	F	44.6	D	47.5	D
32	Otay Mesa Rd. / SR-125 SB Off Ramp	82.9	F	13.0	(1) B	30.4	C	11.0	(1) B
33	Otay Mesa Rd. / SR-125 NB On Ramp	4.8	A	22.0	C	-	-	-	-
34	Otay Mesa Rd. / Harvest Rd.	37.9	D	133.7	F	11.8	B	38.9	(1) D
35	Siempre Viva Rd. / Otay Center Dr.	276.0	F	213.0	F	83.0	F	85.4	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	29.0	(1) C	146.2	F	-	-	-	-
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	(2) 2,641	F	(2) 205.7	F	382.0	F	16.3	(1) B
37	Siempre Viva Rd. / SR-905 NB Ramps	47.2	(1) D	262.7	F	39.3	(1) D	250.4	F
38	Siempre Viva Rd. / Paseo de las Americas	188.8	F	367.1	F	78.8	E	159.5	F
39	Dennery Rd. / Del Sol Blvd.	49.3	D	49.4	D	-	-	-	-
40	Ocean View Hills Pkwy. / Del Sol Blvd.	67.8	E	67.3	E	50.5	D	53.3	D
41	Ocean View Hills Pkwy. / Street A	48.2	D	57.9	E	35.5	D	34.6	C
42	Old Otay Mesa Rd. / Beyer Blvd.	381.2	F	396.5	F	194.3	F	181.8	F
43	Otay Mesa Rd. / Corporate Center Dr.	119.3	F	184.3	F	78.6	E	140.6	F
44	Otay Mesa Rd. / Innovative Dr.	114.4	F	108.9	F	113.7	F	89.8	F

Legend
CD = Control Delay
LOS = Level of Service
(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.
(2) = Unsignalized: SB to WB right turn at LOS F (AM and PM Peak Hours)
F = Shading indicates a significant impact.

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TABLE ES III-6 (Continued)

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
45	Harvest Rd. / Airway Rd.	116.7	F	13.8	B	42.5	D	13.5	B
46	Harvest Rd. / Siempre Viva Rd.	76.6	E	69.2	E	28.7	C	51.5	D
47	Otay Mesa Rd. / Sanyo Ave.	263.3	F	276.6	F	106.7	F	89.0	F
48	Airway Rd. / Sanyo Ave.	225.6	F	229.8	F	49.7	D	38.6	D
49	Paseo de las Americas / Heinrich Hertz Dr.	(3) 988.3	F	(3) 244.6	F	8.9	A	13.0	B
50	Paseo de las Americas / Marconi Dr.	(4) 869.6	F	(4) 108.0	F	11.5	B	13.4	B
51	Heritage Rd. / Otay Valley Rd.	516.4	F	837.9	F	178.7	F	382.7	F
52	Aviator Rd. / La Media Rd.	105.1	F	38.0	D	27.7	C	18.3	B
53	Otay Valley Rd. / Avenida De Las Vistas	764.4	F	298.6	F	-	-	-	-

Note: Control delay results should be considered unreliable at delay volumes higher than two times the LOS E delay of 80.0 seconds.

Legend

CD = Control Delay

LOS = Level of Service

(3) Unsignalized: eastbound left turn at LOS F(AM Peak Hour); eastbound left and right turns at LOS F (PM Peak Hour).

(4) Unsignalized: westbound left turn at LOS F (AM and PM Peak Hours); westbound right turn at LOS F (PM Peak Hour).

F = Shading indicates a significant impact.

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F
Source: 2000 Highway Capacity Manual	

Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches. The Design Manual requires widening for an additional 10 feet at approaches to intersecting four or six lane streets for a two lane left turn, and this additional width is not considered mitigation. Therefore, dual left turns are to be assumed at all four or six lane major and primary arterials, before mitigation, unless a supporting traffic study documents that a single left turn would be sufficient. Overlapping left-turn / right-turn phases are recommended at the high volume right turns during the traffic signal design stage.

Separate single or dual right turn lanes at new intersections should be designed with appropriate right of way widths. At retrofit locations additional lanes have been reviewed for initial feasibility by on-site observations and aerial photography. In some cases additional right of way will be needed, but only during the design phase will the required widths be determined.

Improvements are recommended at the interchange ramps for SR-905 / Caliente Avenue, SR-905 / Future Heritage Road, SR-905 / Britannia Boulevard; SR-905 / La Media Rd.; SR-905 / Siempre Viva Road. Subsequent design requirements from Caltrans may change the recommended lane configurations.

All intersections are planned to be signalized. Lane configurations with and without mitigation are shown in **Figure ES III-3**

Figure ES III-4 shows graphically the intersection levels of service after mitigation.

Refer to Chapter 7 page 7-30 for the discussion of the proposed mitigations and / or explanation of why the significant impact is not proposed to be fully mitigated.

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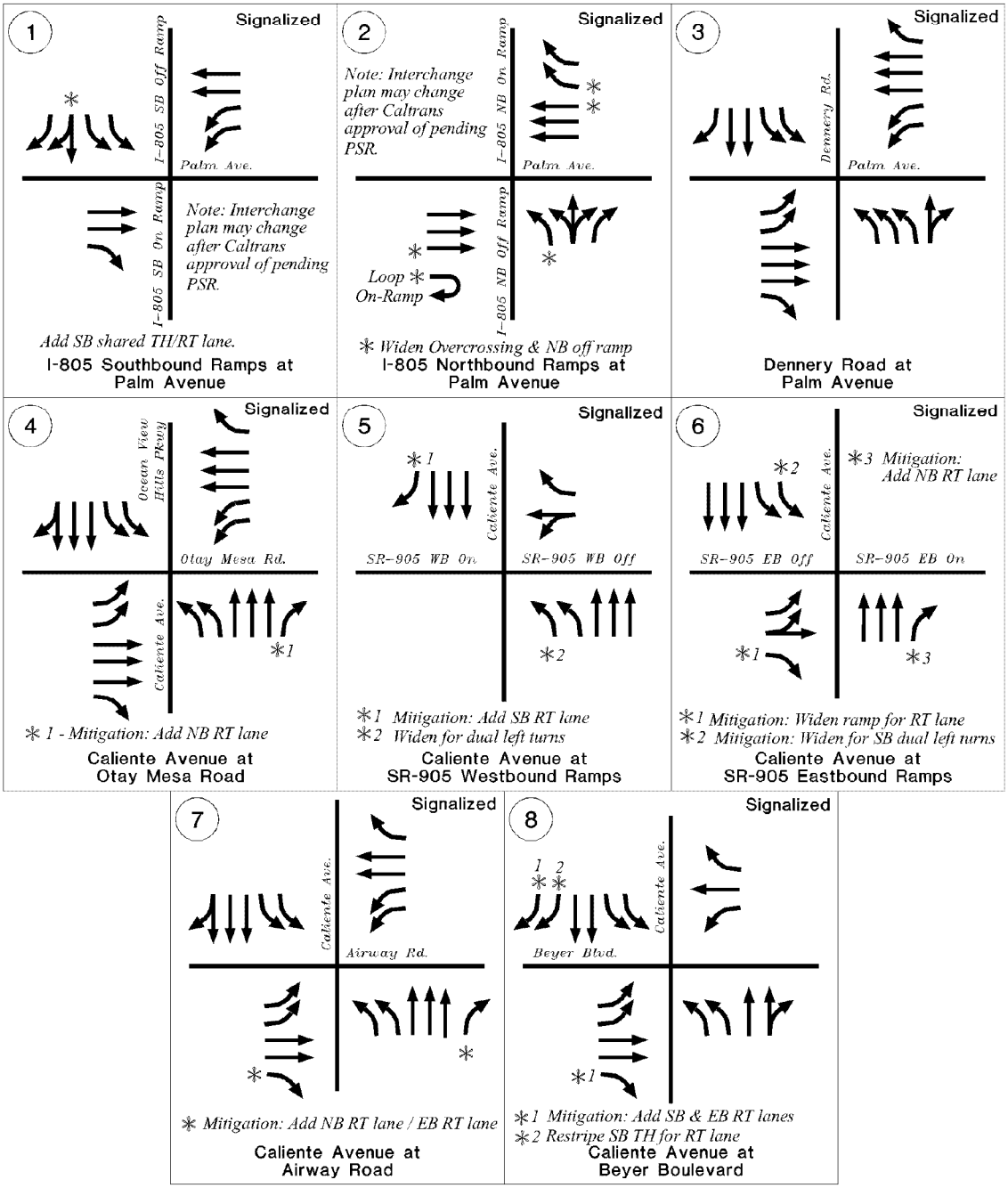

FIGURE ES-III-3

Buildout Recommended Lane Configurations - Alternative 3-B

Without La Media Road (With Mitigation)

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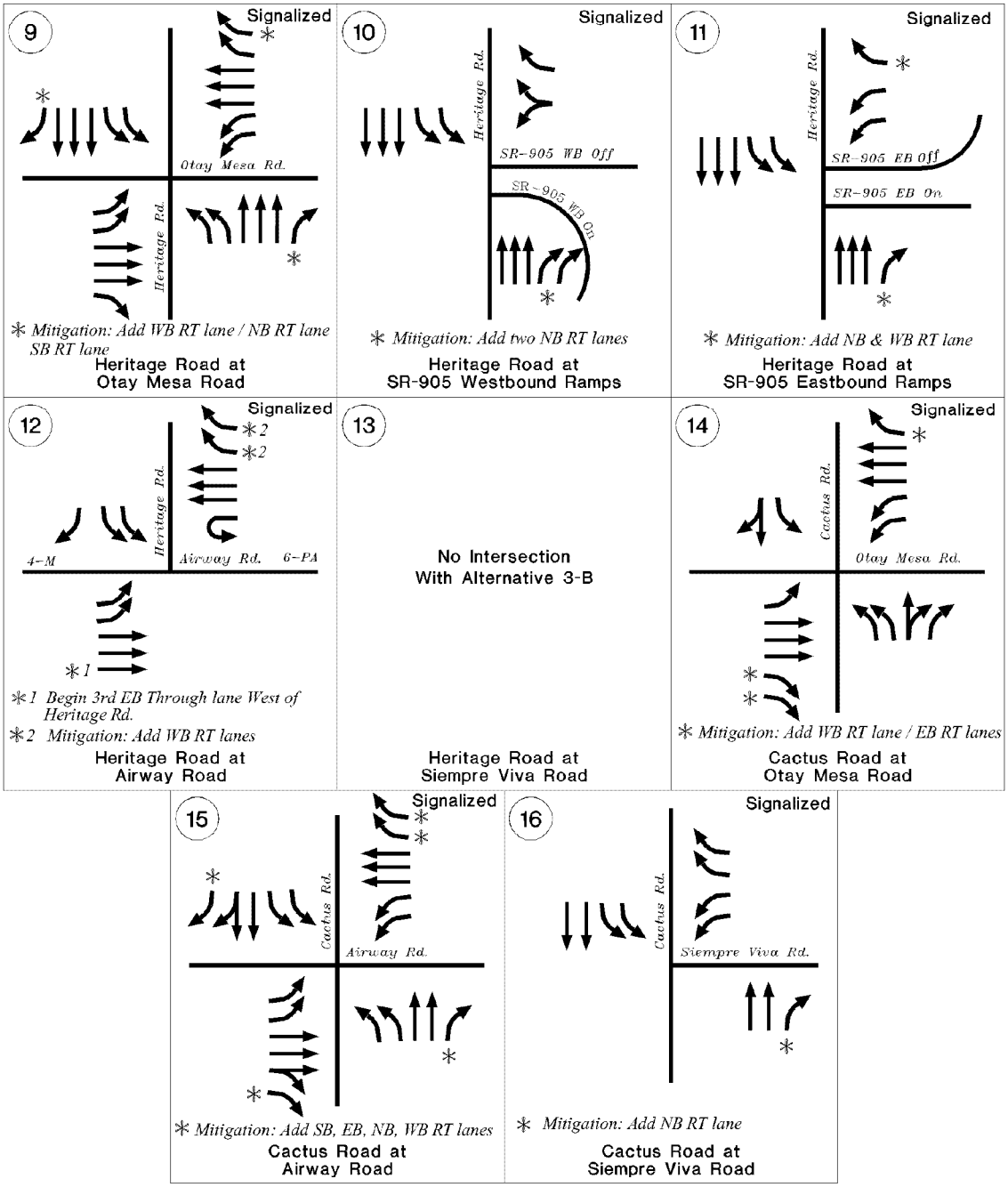

FIGURE ES-III-3

Buildout Recommended Lane Configurations - Alternative 3-B

Without La Media Road (With Mitigation)

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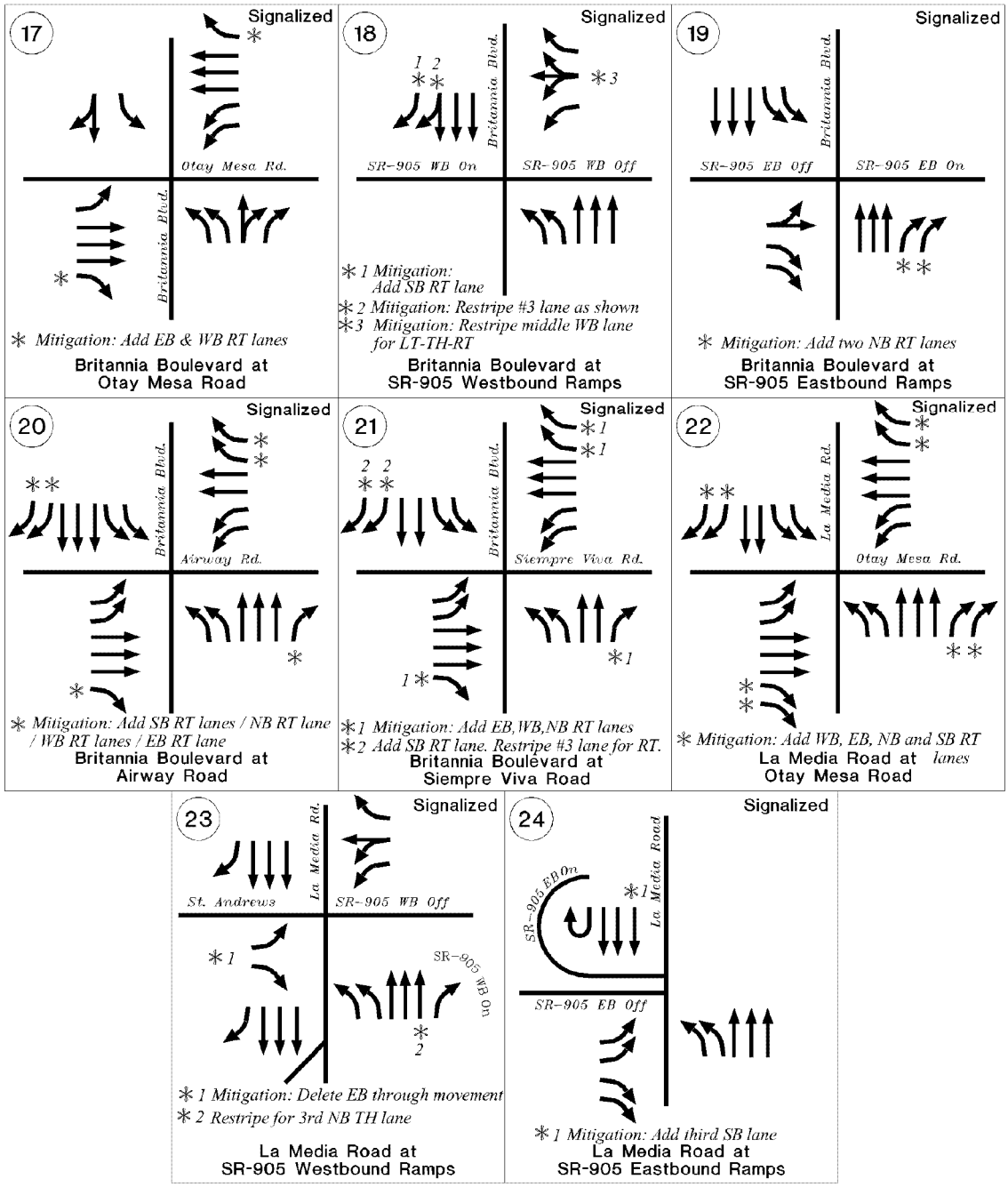

FIGURE ES-III-3

Buildout Recommended Lane Configurations - Alternative 3-B

Without La Media Road (With Mitigation)

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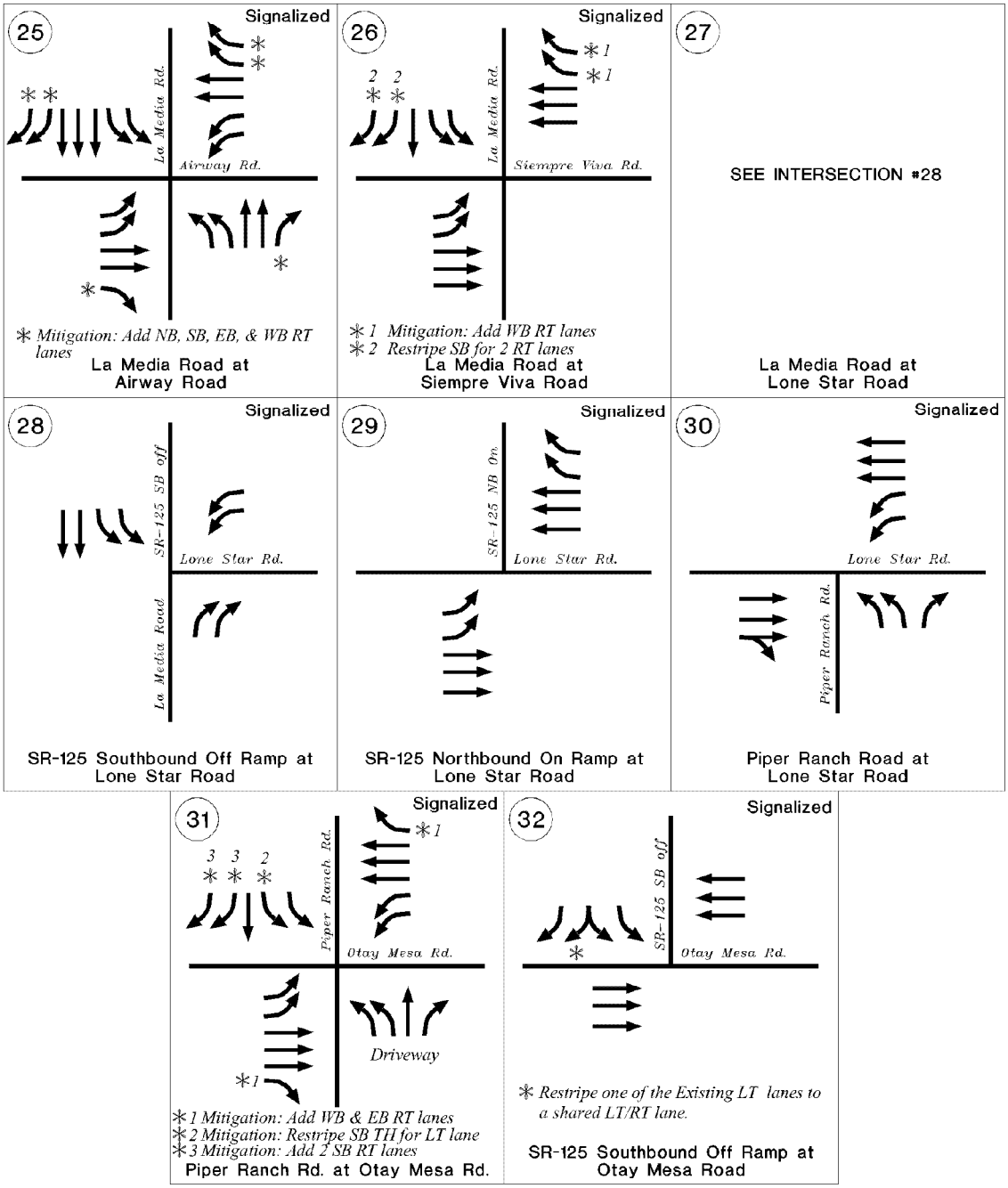

FIGURE ES-III-3

Buildout Recommended Lane Configurations - Alternative 3-B

Without La Media Road (With Mitigation)

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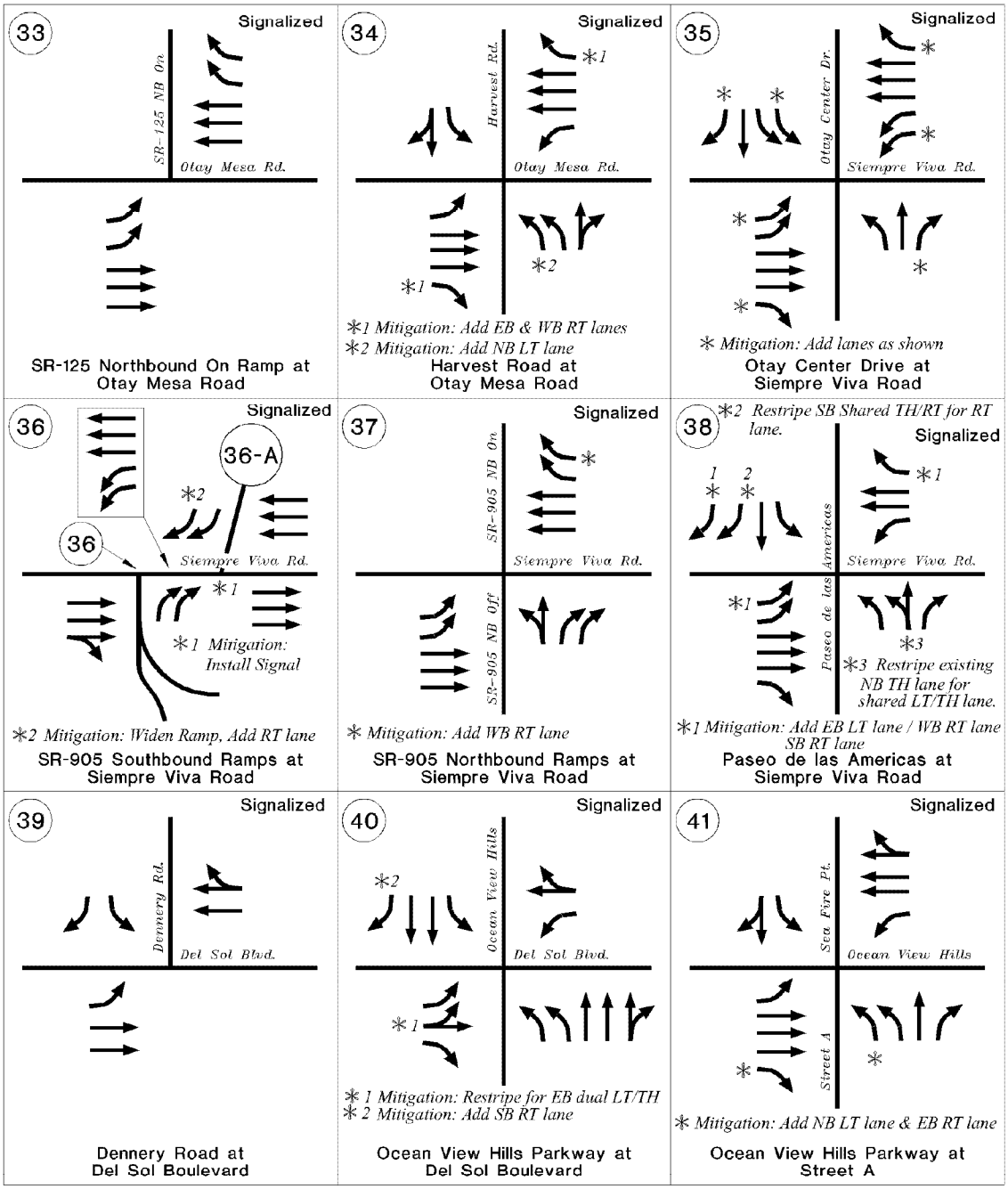

FIGURE ES-III-3

Buildout Recommended Lane Configurations - Alternative 3-B

Without La Media Road (With Mitigation)

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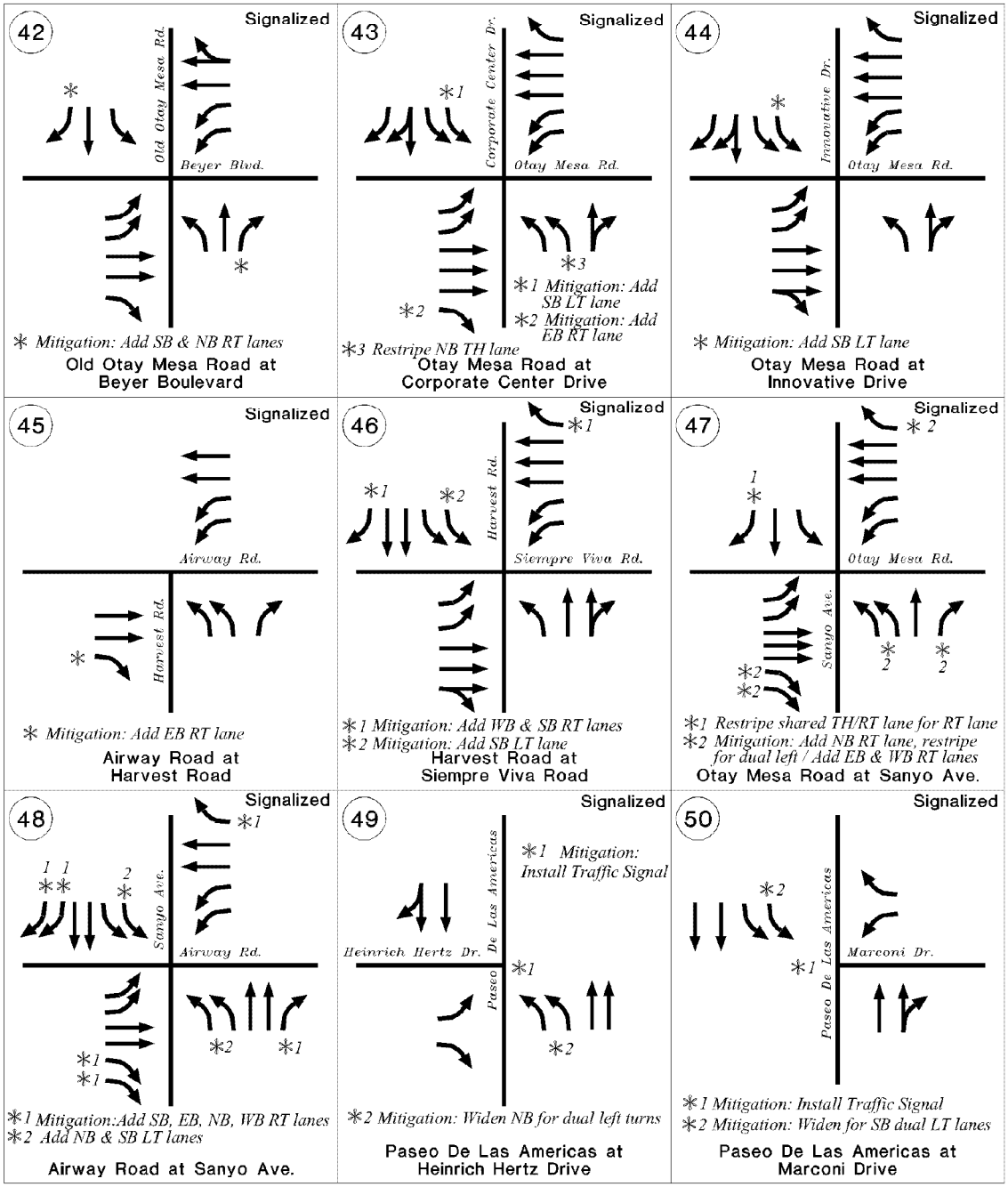

FIGURE ES-III-3

Buildout Recommended Lane Configurations - Alternative 3-B

Without La Media Road (With Mitigation)

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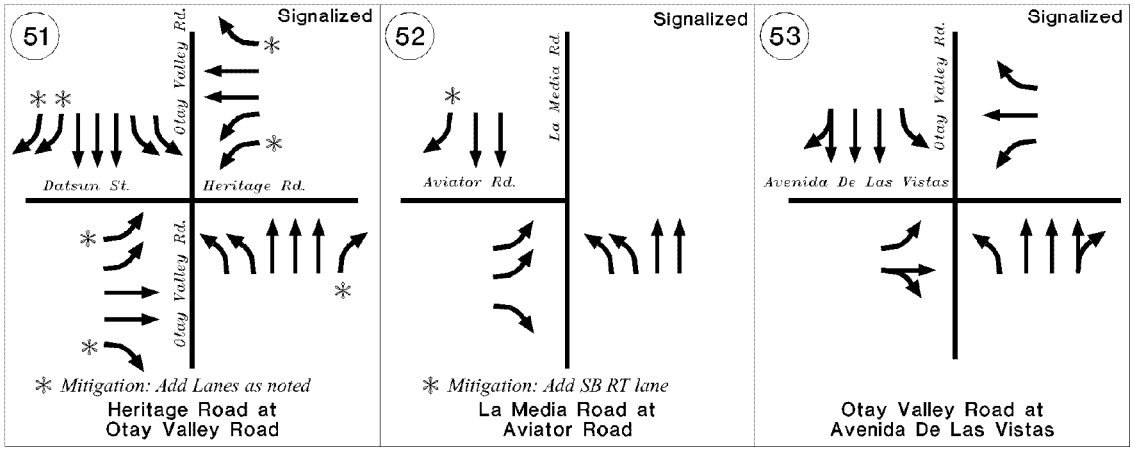
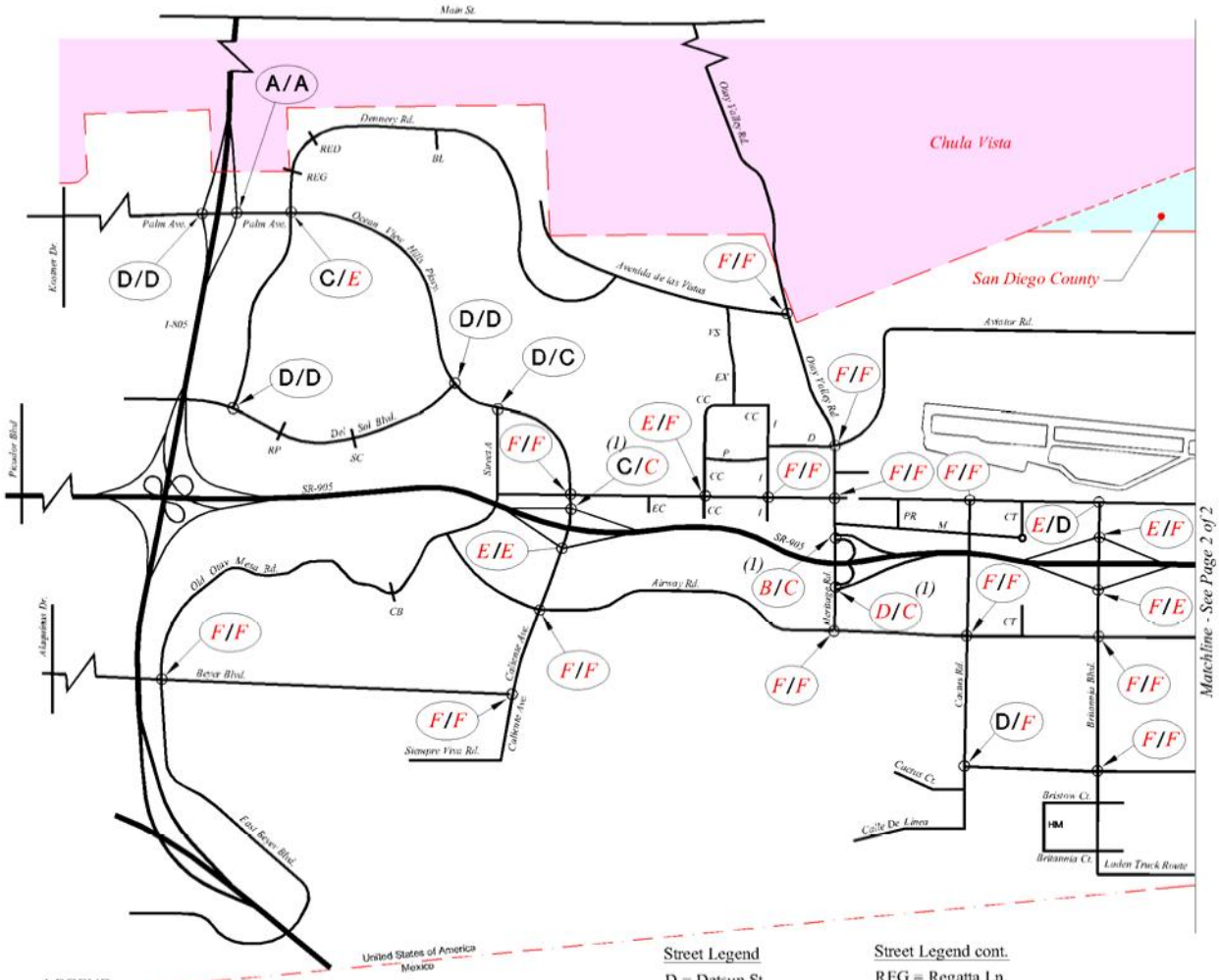


FIGURE ES-III-3

Buildout Recommended Lane Configurations - Alternative 3-B

Without La Media Road (With Mitigation)

Page 1 of 2



LEGEND

D/D = AM/PM

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F/F = Red LOS indicates a significant impact.

— — = City of San Diego Boundary

⊕ = Traffic Signal

Street Legend

D = Datsun St.
P = Progressive Ave.
EC = Emerald Crest Dr.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
VS = Vista Santo Domingo

Street Legend cont.

REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.
CT = Continental St.
HM = Hixson Mesa Way

FIGURE ES - III -4

Buildout 3B Without La Media Road Scenario
Intersection Levels of Service (With Mitigation)

N
NO SCALE

Page 2 of 2

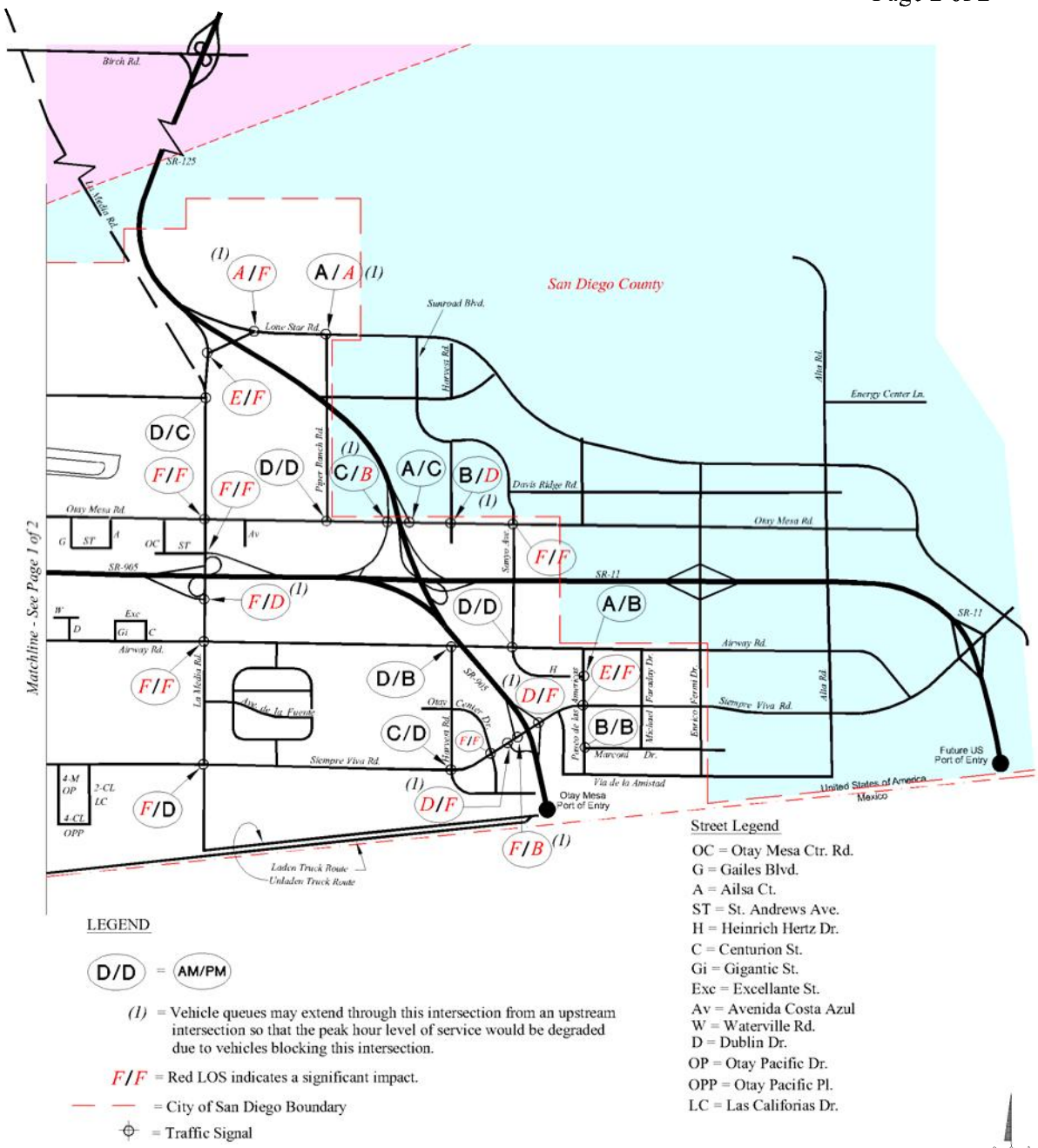


FIGURE ES - III -4

Buildout 3B Without La Media Road Scenario
Intersection Levels of Service (With Mitigation)

A comparison of the Buildout 3B Without La Media Road Scenario significantly impacted intersections after mitigation to the Adopted Community Plan Scenario is provided below, based on the listing of remaining significantly impacted intersections shown in **Table III-7.**

The 3B Without La Media Road Scenario has 34 intersections during the AM peak hour and 37 during the PM peak hour that would remain significantly impacted after mitigation.

The Adopted Community Plan Scenario has 42 intersections during the AM peak hour and 44 during the PM peak hour that would remain significantly impacted after mitigation.

The following 36 intersections would remain significantly impacted under both scenarios:

- Palm Avenue / Dennery Road (PM);
- Otay Mesa Road / Caliente Avenue (AM & PM);
- Caliente Avenue / SR-905 WB Ramps (AM & PM);
- Caliente Avenue / SR-905 EB Ramps (AM &PM);
- Caliente Avenue / Airway Road (AM & PM);
- Caliente Avenue / Siempre Viva Road (AM & PM);
- Otay Mesa Road / Heritage Road (AM & PM);
- Heritage Road / SR-905 WB Ramps (AM & PM);
- Heritage Road / SR-905 EB Ramps (AM & PM);
- Heritage Road / Airway Road (AM & PM);
- Otay Mesa Road / Cactus Road (AM & PM);
- Airway Road / Cactus Road (AM & PM);
- Siempre Viva Road / Cactus Road (PM);
- Otay Mesa Road / Britannia Boulevard (AM);
- Britannia Boulevard / SR-905 WB Ramps (AM & PM);

TABLE ES III-7

Comparison Of
Buildout 3B Without La Media Road To
Buildout Adopted Community Plan
Intersection Significant Impacts After Mitigation

		Adopted Community Plan			3B Without La Media Road	
		AM Peak Hour	PM Peak Hour		AM Peak Hour	PM Peak Hour
	Intersection	LOS	LOS		LOS	LOS
1	Palm Ave. / I-805 SB Ramps	D	E		C	D
2	Palm Ave. / I-805 NB Ramps	A	(1) A		A	A
3	Palm Ave. / Dennery Rd.	D	E		C	E
4	Otay Mesa Rd. / Caliente Ave.	F	F		F	F
5	Caliente Ave. / SR-905 WB Ramps	E	E		(1) C	(1) C
6	Caliente Ave. / SR-905 EB Ramps	F	E		E	E
7	Caliente Ave. / Airway Rd.	F	F		F	F
8	Caliente Ave. / Siempre Viva Rd.	F	F		F	F
9	Otay Mesa Rd. / Heritage Rd.	F	F		F	F
10	Heritage Rd. / SR-905 WB Ramps	B	B		(1) B	(1) C
11	Heritage Rd. / SR-905 EB Ramps	(1) D	(1) D		(1) D	(1) C
12	Heritage Rd. / Airway Rd.	F	F		F	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A		N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	F	F		F	F
15	Airway Rd. / Cactus Rd.	F	F		F	F
16	Siempre Viva Rd. / Cactus Rd.	F	F		D	F
17	Otay Mesa Rd. / Britannia Blvd.	(1) C	(1) D		E	D
18	Britannia Blvd. / SR-905 WB Ramps	(1) D	F		E	F
19	Britannia Blvd. / SR-905 EB Ramps	F	F		F	E
20	Britannia Blvd. / Airway Rd.	F	F		F	F
21	Siempre Viva Rd. / Britannia Blvd.	F	F		F	F
22	Otay Mesa Rd. / La Media Rd.	F	F		F	F

Note: #13 is a right angle intersection (as assumed in the traffic model) with only two approaches.

Legend

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact

TABLE ES III-7 (Continued)

Comparison Of
Buildout 3B Without La Media Road To
Buildout Adopted Community Plan
Intersection Significant Impacts After Mitigation

		Adopted Community Plan		3B Without La Media Road	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Intersection	LOS	LOS	LOS	LOS
23	La Media Rd. / SR-905 WB Ramps	F	F	F	F
24	La Media Rd. / SR-905 EB Ramps	F	F	F	(1) D
25	La Media Rd. / Airway Rd.	F	F	F	F
26	La Media Rd. / Siempre Viva Rd.	F	F	F	D
27	La Media Rd. / Lone Star Rd.	F	F	N/A	N/A
28	Lone Star Rd. / SR-125 SB Off Ramp	(1) D	(1) B	E	F
29	Lone Star Rd. / SR-125 NB On Ramp	(1) A	(1) A	(1) A	F
30	Lone Star Rd. / Piper Ranch Rd.	D	B	A	(1) A
31	Otay Mesa Rd. / Piper Ranch Rd.	F	F	D	D
32	Otay Mesa Rd. / SR-125 SB Off Ramp	(1) B	A	C	(1) B
33	Otay Mesa Rd. / SR-125 NB On Ramp	(1) A	B	A	C
34	Otay Mesa Rd. / Harvest Rd.	C	(1) D	B	(1) D
35	Siempre Viva Rd. / Otay Center Dr.	F	F	F	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	F	F	(1) C	F
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	F	(1) D	F	(1) B
37	Siempre Viva Rd. / SR-905 NB Ramps	F	F	(1) D	F
38	Siempre Viva Rd. / Paseo de las Americas	F	F	E	F
39	Dennery Rd. / Del Sol Blvd.	F	E	D	D
40	Ocean View Hills Pkwy. / Del Sol Blvd.	E	F	D	D
41	Ocean View Hills Pkwy. / Street A	D	D	D	C
42	Old Otay Mesa Rd. / Beyer Blvd.	D	D	F	F
43	Otay Mesa Rd. / Corporate Center Dr.	F	F	E	F
44	Otay Mesa Rd. / Innovative Dr.	F	D	F	F

Legend

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact.

TABLE ES III-7 (Continued)

Comparison Of
Buildout 3B Without La Media Road To
Buildout Adopted Community Plan
Intersection Significant Impacts After Mitigation

		Adopted Community Plan			3B Without La Media Road	
		AM Peak Hour	PM Peak Hour		AM Peak Hour	PM Peak Hour
	Intersection	LOS	LOS		LOS	LOS
45	Harvest Rd. / Airway Rd.	D	F		D	B
46	Harvest Rd. / Siempre Viva Rd.	F	F		C	D
47	Otay Mesa Rd. / Sanyo Ave.	F	F		F	F
48	Airway Rd. / Sanyo Ave.	F	F		D	D
49	Paseo de las Americas / Heinrich Hertz Dr.	B	B		A	B
50	Paseo de las Americas / Marconi Dr.	A	E		B	B
51	Heritage Rd. / Otay Valley Rd. / Datsun St.	F	F		F	F
52	Aviator Rd. / La Media Rd.	F	D		C	B
53	Otay Valley Rd. / Avenida De Las Vistas	F	F		F	F

Legend

F = Shading indicates a significant impact.

- Britannia Boulevard / SR-905 EB Ramps (AM & PM);
- Britannia Boulevard / Airway Road (AM & PM);
- Siempre Viva Road / Britannia Boulevard (AM & PM);
- Otay Mesa Road / La Media Road (AM & PM);
- La Media Road / SR-905 WB Ramps (AM & PM);
- La Media Road / SR-905 EB Ramps (AM);
- La Media Road / Airway Road (AM & PM);
- La Media Road / Siempre Viva Road (AM);
- Lone Star Road / SR-125 SB Off Ramp (PM);
- Lone Star Road / SR-125 NB On Ramp (PM);
- Otay Mesa Road / Harvest Road (PM);
- Siempre Viva Road / Otay Center Drive (AM & PM);
- Siempre Viva Road / SR-905 SB to EB Ramp(PM);
- Siempre Viva Road / SR-905 SB to WB Ramp (AM & PM):
- Siempre Viva Road / SR-905 NB Ramps (PM);
- Siempre Viva Road / Paseo de las Americas (AM & PM);
- Otay Mesa Road / Corporate Center Drive (AM & PM);
- Otay Mesa Road / Innovative Drive (AM);
- Otay Mesa Road / Sanyo Avenue (AM & PM);
- Heritage Road / Otay Valley Road / Datsun Street (AM & PM);
- Otay Valley Road / Avenida De Las Vistas (AM & PM).

The following 11 intersections would remain significantly impacted under the Adopted Community Plan Scenario, but not the 3B Without La Media Road Scenario:

- Palm Avenue / I-805 SB Ramps;
- Palm Avenue / I-805 NB Ramps;
- Otay Mesa Road / SR-125 NB On-Ramp;
- Otay Mesa Road / Piper Ranch Road;
- Dennery Road / Del Sol Boulevard;
- Ocean View Hills Parkway / Del Sol Boulevard;
- Harvest Road / Airway Road;
- Harvest Road / Siempre Viva Road;
- Airway Road / Sanyo Avenue;
- Paseo de las Americas / Marconi Drive;
- Aviator Road / La Media Road.

The following three intersections would remain significantly impacted under the 3B Without La Media Road Scenario, but not the Adopted Community Plan Scenario:

- Heritage Road / SR-905 WB Ramps;
- Lone Star Road / Piper Ranch Road;
- Old Otay Mesa Road / Beyer Boulevard.

Ramp Meters

There are currently no freeway on-ramp traffic metering signals in operation at the 14 locations evaluated. Future freeway on-ramp meter operations were evaluated for the 3B Without La Media Road scenario at the fourteen future on-ramp meters. The likely most restrictive ramp meter rate as provided by Caltrans was used for this evaluation.

The City of San Diego Traffic Impact Study Manual and the Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service do not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. The 14 future ramp meters were evaluated for the AM and PM peak hours. Ramp meter delays above 15 minutes would occur at five ramps during the AM peak hour and 11 ramps during the PM peak hour. Ramp meter delays above 15 minutes would occur during a total of 16 peak hours.

Ramp meter delays above 15 minutes are considered significant impacts if downstream freeways are operating at level of service "E" or "F". The following five ramp locations would be significantly impacted using this significance criteria:

- SR-905 / Caliente Avenue Westbound on-ramp (AM and PM);
- SR-905 / Heritage Road Westbound on-ramp (AM and PM);
- SR-905 Britannia Boulevard Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound on-ramp (PM);
- SR-905 / La Media Road Westbound on-ramp (AM and PM).

Figure ES III-5 shows the intersections that would be significantly impacted by ramp meter delays.

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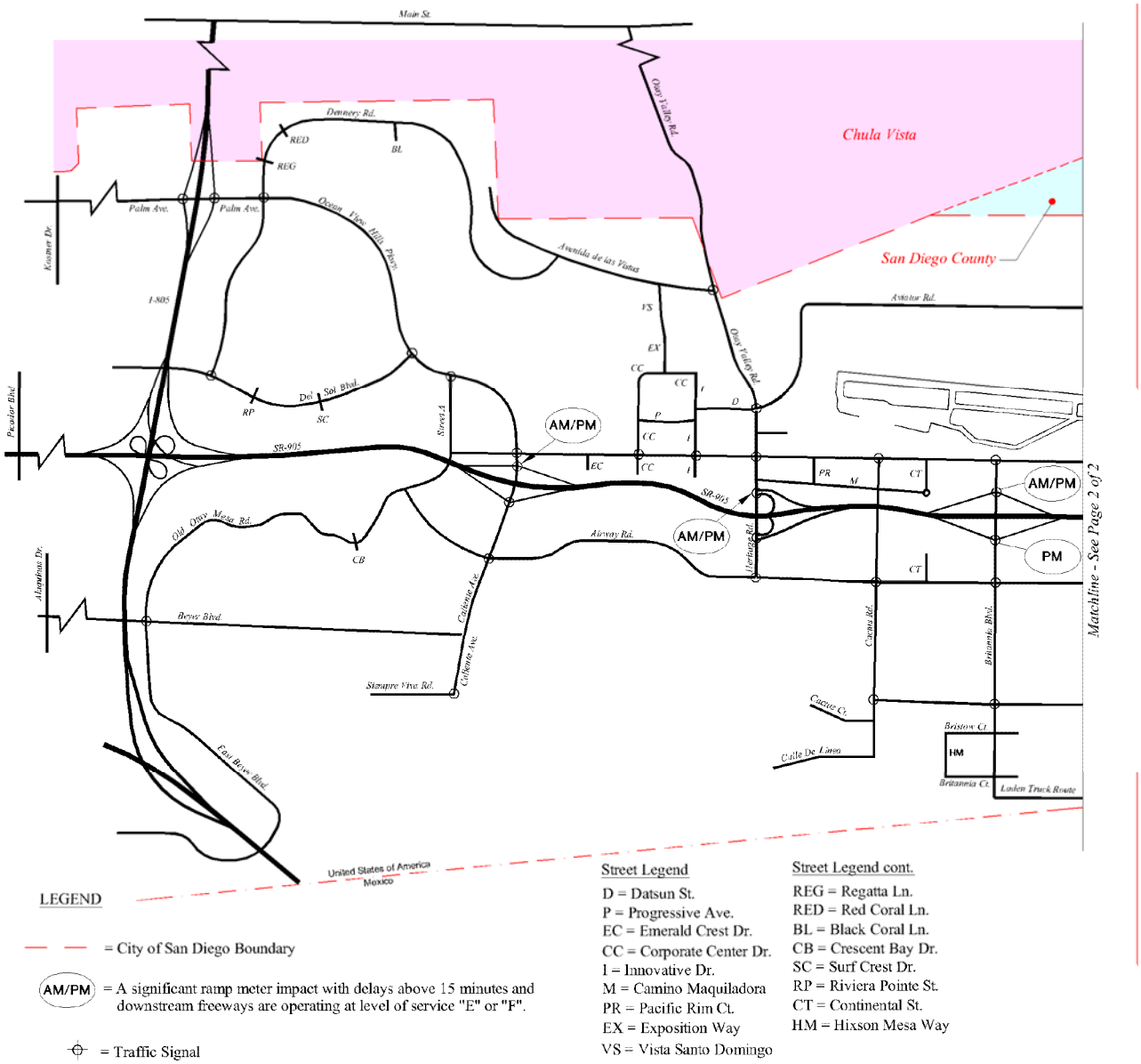

LEGEND

= City of San Diego Boundary

AM/PM = A significant ramp meter impact with delays above 15 minutes and downstream freeways are operating at level of service "E" or "F".

= Traffic Signal

Street Legend

D = Datsun St.
P = Progressive Ave.
EC = Emerald Crest Dr.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
VS = Vista Santo Domingo

Street Legend cont.

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BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.
CT = Continental St.
HM = Hixson Mesa Way

FIGURE ES - III -5

Buildout 3B Without La Media Road Scenario
Significant Ramp Meter Delays

N
NO SCALE

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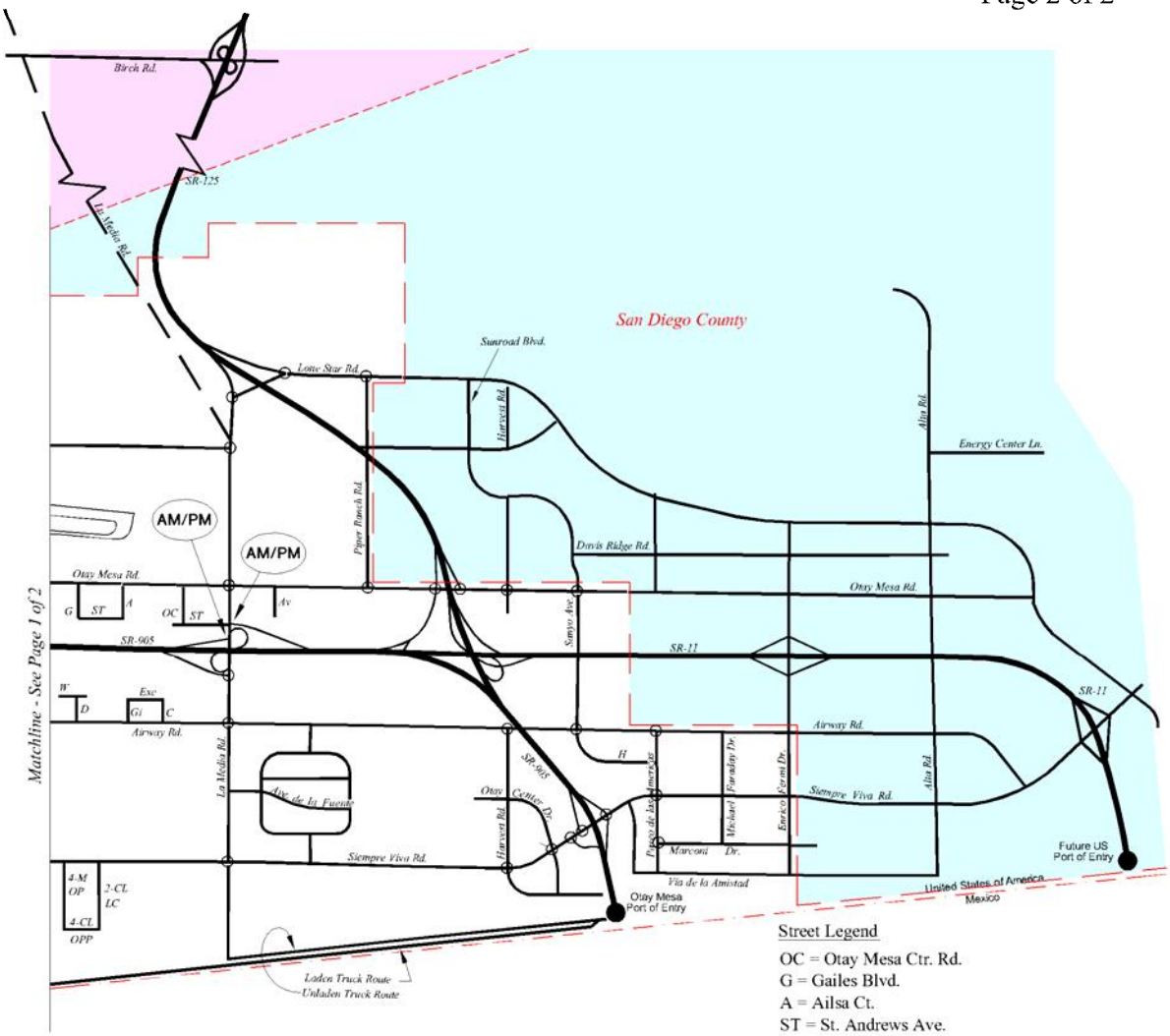

FIGURE ES - III -5

Buildout 3B Without La Media Road Scenario
Significant Ramp Meter Delays

Ramp meter queues are also tabulated. Considering the queues that would exceed the ramp storage length, there are estimated to be 18 times queues would exceed the ramp storage length during the 28 peak hours evaluated, at the 11 ramps listed below:

I-805 / Palm Avenue Northbound On-Ramp (From Westbound) (AM and PM);

SR-905 / Caliente Avenue Westbound On-Ramp (AM and PM);

SR-905 / Heritage Road Westbound On-Ramp (AM and PM);

SR-905 / Britannia Boulevard Westbound On-Ramp (AM and PM);

SR-905 / Britannia Boulevard Eastbound On-Ramp (PM);

SR-905 / La Media Road Westbound On-Ramp (AM and PM);

SR-905 / La Media Road Eastbound On-Ramp (PM);

SR-905 / Siempre Viva Road Northbound On-Ramp (AM and PM);

SR-905 / Siempere Viva Road Southbound On-Ramp (PM);

SR-125 / Otay Mesa Road Northbound On-Ramp (AM and PM);

SR-125 / Lone Star Road Northbound On-Ramp (PM).

A comparison of the 3B Without La Media Road land use scenario to the Adopted Community Plan land use scenario indicates the locations would be the same for each scenario, but the peak hours would change with the Adopted Community Plan Scenario as listed below:

- SR-905 / Heritage Road Westbound On-Ramp (PM Only);
- SR-125 / Otay Mesa Road Northbound On-Ramp (PM Only);
- SR-125 / Lone Star Road Northbound On-Ramp (AM & PM).

Freeway Interchange Queues

A queue analysis was prepared at the interchange ramp intersections plus closely spaced adjacent intersections within the study area, without and with the recommended intersection mitigation.

The queue analysis was provided to indicate the locations that might need queue storage enhancements, such as extending right or left turn storage lengths, if feasible, during design and to ensure that any intersection with excessive queues was not report as operating acceptably. The interchange intersections that are designed to operate acceptably, but will have excessive queues due to upstream queues, have been footnoted accordingly in the intersection levels of service tables.

Of the 158 queues evaluated without intersection mitigation, during AM and PM peak hours, 80 are expected to exceed the available vehicle storage between these closely spaced intersections at freeway interchange ramps. With intersection mitigation, 188 queues were evaluated and 63 are expected to exceed available storage, extending through the adjacent intersection. **Table ES III-8** lists the locations of the excessive queues.

Figure ES III-6 shows interchange intersection locations that would be affected by excessive queues. Vehicle queues will extend through these intersections from an upstream intersection so that any acceptable peak hour level of service will be at a degraded level of service due to vehicles blocking the intersection.

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Table ES III-8

Alternative 3B Without La Media Road

Buildout Queue Analysis With Mitigation

Queue Locations North / South	AM PEAK HOUR					
Location	Excess Queue (Feet) Southbound			Excess Queue (Feet) Northbound		
	RT	TH	LT	LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	None	None	2,425
Caliente Ave. / SR-905 WB Ramps	35	None	-	155	1135	-
Caliente Ave. / SR-905 EB Ramps	-	None	45	-	395	None
Caliente Ave. / Airway Rd.	None	50	1,273	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	None	None	510
Heritage Rd. / SR-905 WB Ramps	-	None	None	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	None	None	-	893	None
Heritage Rd. / Airway Rd.	None	-	2,225	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	None	90	185
Britannia Blvd. / SR-905 WB Ramps	None	None	-	805	None	-
Britannia Blvd. / SR-905 EB Ramps	-	710	None	-	None	none
Britannia Blvd. / Airway Rd.	2,100	2,225	895	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	1,183	520	423
La Media Rd. / SR-905 WB Ramps	None	1,120	-	None	None	-
La Media Rd. / SR-905 EB Ramps	None	1,775	-	188	None	-
La Media Rd. / Airway Rd.	470	715	2,375	-	-	-

Queue Locations North / South	PM PEAK HOUR					
Location	Excess Queue (Feet) Southbound			Excess Queue (Feet) Northbound		
	RT	TH	LT	LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	160	None	None
Caliente Ave. / SR-905 WB Ramps	None	48	-	None	745	-
Caliente Ave. / SR-905 EB Ramps	-	None	None	-	685	None
Caliente Ave. / Airway Rd.	None	1,330	185	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	None	393	-	None	398
Heritage Rd. / SR-905 EB Ramps	-	None	None	-	450	None
Heritage Rd. / Airway Rd.	None	-	2,425	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	None	None	None
Britannia Blvd. / SR-905 WB Ramps	None	None	-	6,975	None	-
Britannia Blvd. / SR-905 EB Ramps	-	None	None	-	1,725	None
Britannia Blvd. / Airway Rd.	None	None	330	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	340	None	150
La Media Rd. / SR-905 WB Ramps	None	2,125	-	None	None	-
La Media Rd. / SR-905 EB Ramps	None	410	-	263	None	-
La Media Rd. / Airway Rd.	None	None	None	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane
= Shading indicates excess queue.

Page 2 of 2

Table ES III-8

Alternative 3B Without La Media Road

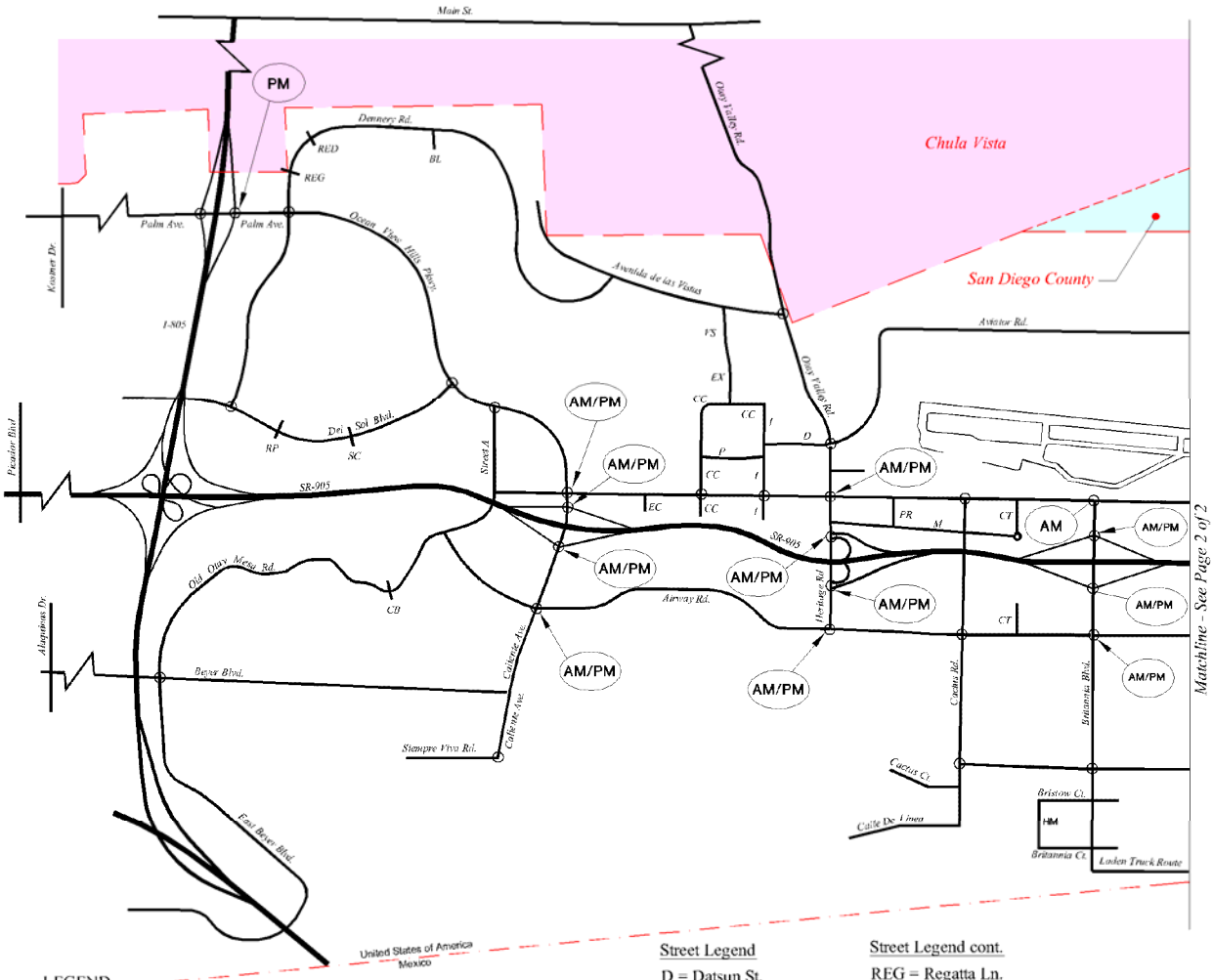
Buildout Queue Analysis With Mitigation

Queue Locations East / West	AM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Eastbound			Westbound		
	RT	TH	LT	LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	None	None	-
Palm Ave. / I-805 NB Ramps	None	None	-	-	None	None
Palm Ave. Dennery Rd.	None	None	None	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	None	2,350	1,298
Siempre Viva Rd. / SR-905 SB Ramps	-	383	-	None	-	None
Siempre Viva Rd. / SR-905 NB Ramps	-	None	143	-	None	180
Siempre Viva Rd. / Paseo de las Americas	1,020	None	None	-	-	-
Lone Star Rd. / SR-125 SB Off Ramp	-	-	-	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	None	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	50	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	None	-	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	None	None	-	None	None
Otay Mesa Rd. / Harvest Rd.	None	None	None	-	-	-

Queue Locations East / West	PM PEAK HOUR					
Location	Excess Queue (Feet)			Excess Queue (Feet)		
	Eastbound			Westbound		
	RT	TH	LT	LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	None	None	-
Palm Ave. / I-805 NB Ramps	None	None	-	-	None	None
Palm Ave. Dennery Rd.	1,383	None	None	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	None	15	None
Siempre Viva Rd. / SR-905 SB Ramps	-	3,375	-	835	-	-
Siempre Viva Rd. / SR-905 NB Ramps	-	None	3,825	-	None	1,750
Siempre Viva Rd. / Paseo de las Americas	None	None	None	-	-	-
-						
Lone Star Rd. / SR-125 SB Off Ramp	-	-	-	508	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	1,615	-	None	2,150
Lone Star Rd. / Piper Ranch Rd.	-	None	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	None	-	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	None	225	-	None	618
Otay Mesa Rd. / Harvest Rd.	None	None	None	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane
= Shading indicates excess queue.

Page 1 of 2



LEGEND

= City of San Diego Boundary

AM/PM = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

= Traffic Signal

Street Legend

D = Datsun St.
P = Progressive Ave.
EC = Emerald Crest Dr.
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RP = Riviera Pointe St.
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HM = Hixson Mesa Way

FIGURE ES - III -6

Buildout 3B Without La Media Road Scenario
Interchange and Adjacent Intersection Queueing Impacts

N
NO SCALE

Page 2 of 2

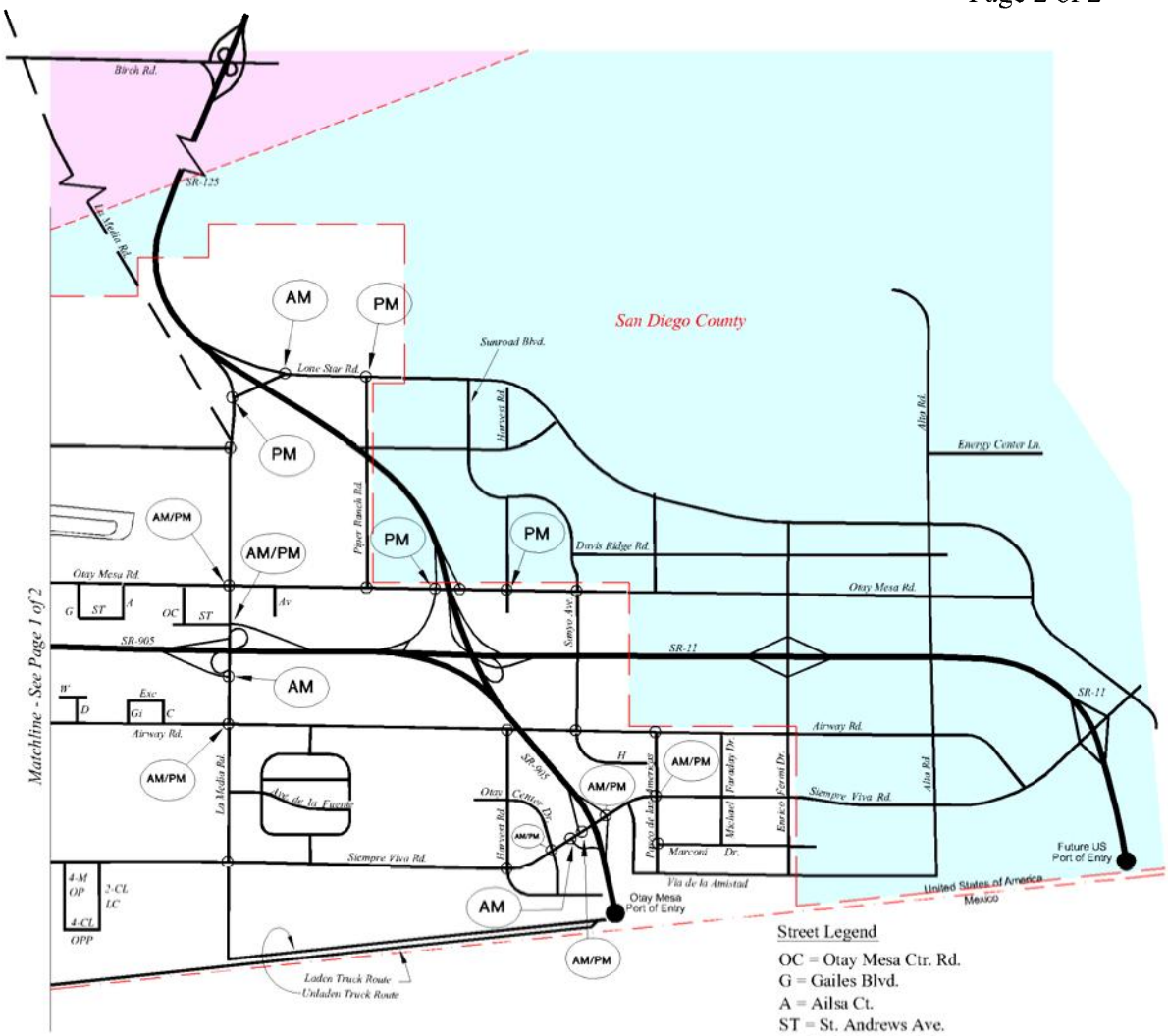


FIGURE ES - III -6

Buildout 3B Without La Media Road Scenario
Interchange and Adjacent Intersection Queueing Impacts

1.0 INTRODUCTION

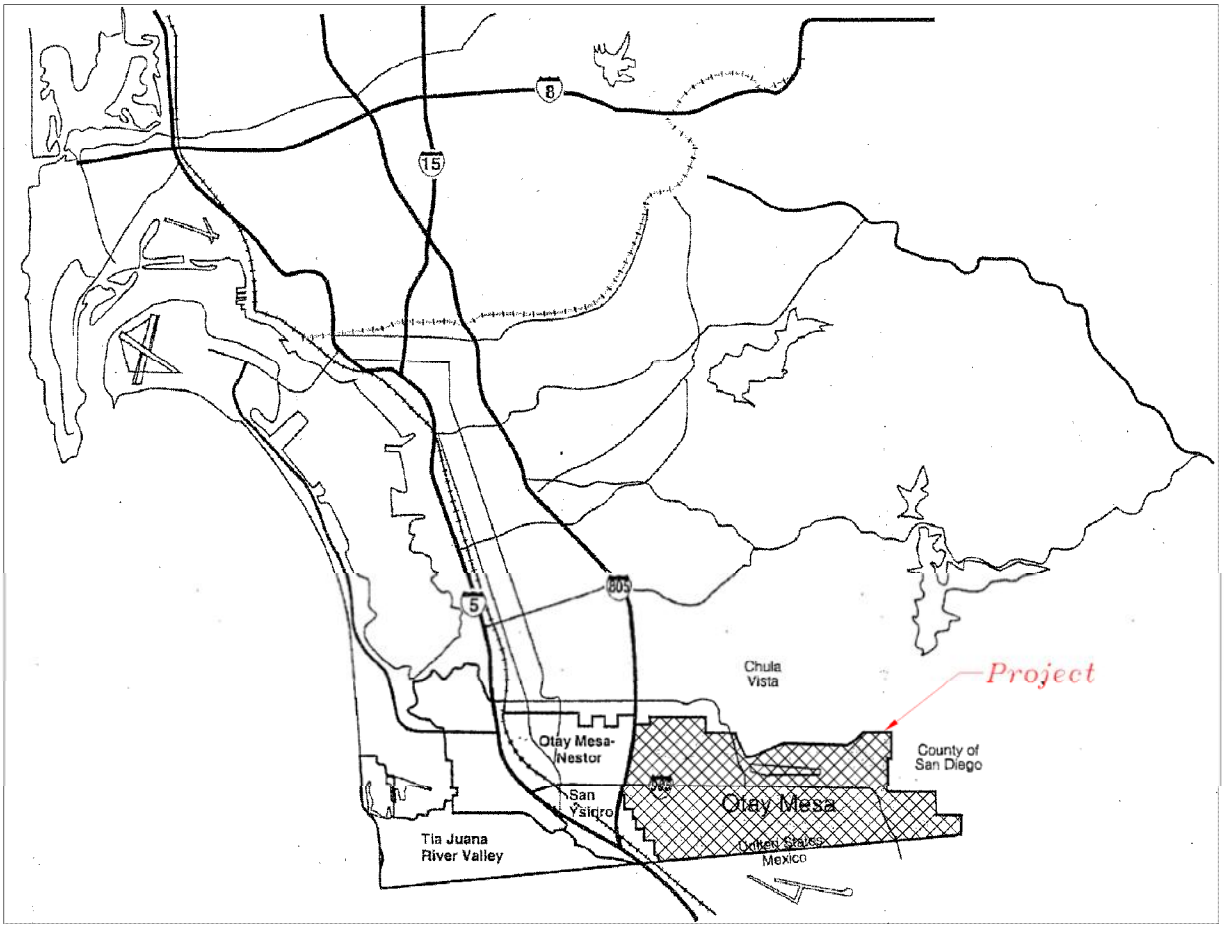
The City of San Diego is responsible for transportation planning activities related to all dedicated, non-freeway facilities within San Diego City limits. The Mobility Planning Section identifies future travel demand for both urbanized and urbanizing communities in an ongoing effort to ensure an adequate circulation system for future development.

A community plan is a comprehensive plan for development which consists of many elements such as land use, open space, public facilities, and mobility. This Traffic Study is the supporting documentation for the Mobility Element of the Otay Mesa Community Plan. This Study identifies the roadway network throughout the community necessary to accommodate traffic generated by existing and future land uses on the street system.

Otay Mesa is bounded by the city Chula Vista to the north, the Mexican border to the south, Interstate 805 to the west and the San Diego County limits to the east. **Figure 1-1** shows the Otay Mesa vicinity map.

Much of the land in Otay Mesa is undeveloped. The current land use is primarily residential on the western portion of the community and industrial on the eastern portion. A significant amount of land is dedicated to the Multiple Species Conservation Program (MSCP). Private parties have also purchased land in Otay Mesa as mitigation for their development projects elsewhere.

The border crossing between the U.S. and Mexico is located at the southeast corner of Otay Mesa and where State Route 905 terminates. A second border crossing facility also exists east of Enrico Fermi Drive. This point of entry is primarily used by commercial truck traffic that is predominant throughout the community.



SOURCE

Base Map Provided By:
City of San Diego Planning Department
Otay Mesa Existing Conditions Report

N
NO SCALE

FIGURE 1-1

Project Location Map

2.0 IMPACT ANALYSIS

2.1 Forecast Model

The travel forecast model used for this traffic study was calibrated in Otay Mesa from the San Diego Association of Governments (SANDAG) Series 11 Regional Transportation Model. The SANDAG model incorporates land use, population, and employment data estimated for the year 2030 in the future. Land uses within the Otay Mesa Community Planning area are assumed to be built out within the traffic model. The SANDAG regional transportation network includes the future improvements that are in the Adopted Community Plan and are assumed to be completed, and includes Year 2030 Regional Transportation Plan "Reasonably Expected" projects in the region. The Otay Mesa model has been modified to include a half-diamond interchange at SR-125 / Lone Star Road. Also, a portion of SR-125 has been assumed as a toll facility and modeled to approximate toll conditions.

2.2 Study Area

The study area is defined by the Otay Mesa Community Plan area boundaries and extends to those areas immediately outside the Community Plan boundary to roads that are common to other jurisdictions such as the City of Chula Vista to the north and the County of San Diego to the east.

Intersections within the Otay Mesa Community Plan boundary identified for evaluation are based on the following criteria:

1) Any new/future major intersections (not existing today);
2) All freeway on/off ramps;
3) All intersections adjacent to freeway on/off ramps;
4) Intersections of arterial and major circulation element roadways.

2.3 Methodologies

The following describes the analytical techniques used to derive study findings, conclusions, and recommendations. These evaluations were performed in accordance with Caltrans and City of San Diego requirements. Definitions of level of service, peak traffic hours, and detailed information on roadway segments and intersection analysis methods, standards, and thresholds are discussed in the following sections.

2.3a Roadway Segment Level of Service Standards

The roadway level of service standards and thresholds the City of San Diego incorporates within its jurisdiction provide the basis for analyzing arterial roadway segment performance. The analysis of roadway segment level of service is based on the functional classification of the roadway, the maximum desirable capacity, roadway geometrics, and existing or forecasted average daily traffic (ADT) volumes. **Table 2-1** presents the roadway segment capacity and level of service standards used to analyze arterial roadways.

These standards are generally used as long-range planning guidelines to determine the functional classifications of roadways. The actual capacity of roadway facilities can vary due to a number of actual characteristics including, but not limited to, pavement width, access to cross streets and driveways, intersection signal timing, geometry, and on-street parking. The actual functional capacity is based on the ability of arterial intersections to accommodate peak hour volumes. Level of service D is considered acceptable for roadway segments.

TABLE 2-1

Roadway Classifications, Levels of Service (LOS) and Average Daily Traffic (ADT)

		LEVEL OF SERVICE				
Street Classification	**Lanes**	**A**	**B**	**C**	**D**	**E**
Expressway	6	30,000	42,000	60,000	70,000	80,000
Prime Arterial	6	25,000	35,000	50,000	55,000	60,000
Major Arterial	6	20,000	28,000	40,000	45,000	50,000
Major Arterial	4	15,000	21,000	30,000	35,000	40,000
Collector	4	10,000	14,000	20,000	25,000	30,000
Collector (no center lane) (continuous left turn lane)	4 2	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2	4,000	5,500	7,500	9,000	10,000
Collector (commercial-industrial fronting)	2	2,500	3,500	5,000	6,500	8,000
Collector (multi-family)	2	2,500	3,500	5,000	6,500	8,000
Sub-Collector (single-family)	2	--	--	2,200	--	--

Approximate recommended ADT based on the City of San Diego Street Design Manual. 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 to carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

2.3b Peak Hour Intersection Level of Service Standards

The analysis of peak hour intersection performance was conducted using the Highway Capacity Manual analysis software program, which uses the "operational analysis" procedure for signalized intersections as defined in the Highway Capacity Manual (HCM). These procedures establish 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 (i.e., percent of trucks) and shared lane movements (e.g., through and right-turn movements from the same lane). Level of service for signalized intersections is based on the average time (seconds) that vehicles entering an intersection are delayed by intersection controls. **Table 2-2** lists the HCM level of service/delay criteria for signalized intersections.

TABLE 2-2

Signalized Intersection Level of Service

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

Average Control Delay Per Vehicle (seconds)	Level of Service (LOS) Characteristics
<10.0	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.
10.1-20.0	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.
20.1-35.0	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.
35.1-55.0	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.
55.1-80.0	LOS E is considered the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>80.0s	LOS F describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the LOS D capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: 2000 Highway Capacity Manual, TRB Special Report 209

2.3c Impact Significance Criteria

For program level traffic analysis, a project is considered to generate a significant impact if intersections or street segments operate at level of service E or F.

2.3d Freeway Level of Service

Freeway segments were analyzed using standard Caltrans methodologies. The procedures for calculating freeway level of service involved estimating a peak hour volume to capacity (V/C) ratio. Peak hour volumes are estimated from the application of design hour ("K"), directional ("D") and truck ("T") factors to Average Daily Traffic (ADT) volumes. The truck factors (percent trucks) were obtained from the historical Caltrans data, local truck counts, and projections of future volumes at the border crossings. The resulting V/C ratio is then compared with accepted ranges of V/C values corresponding to the various levels of service. The corresponding level of service represents an approximation of existing or forecasted freeway operating conditions during the peak hour.

Table 2-3 shows the Freeway segment analysis methods used by Caltrans District 11. As the table shows, Caltrans has developed four levels of freeway congestion within level of service F, ranging from F (0) (considered congestion) to F (3) (gridlock). Any facility operating at level of service E or F is considered to have a significant impact.

TABLE 2-3

Freeway Segment Level of Service Definition

Caltrans District 11 **Freeway Level of Service Definitions**			
LOS	***V/C***	***Congestion/Delay***	***Traffic Description***
Used for freeways, expressways, and conventional highways			
A	≤0.41	None	Free Flow
B	0.42-0.62	None	Free to stable flow, light to moderate volumes
C	0.63-0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.81-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver
E	0.93-1.00	Significant	Extremely unstable slow, maneuverability and psychological comfort extremely poor
Used for freeways and expressways			
F0	1.01-1.25	Considerable 0-1 hour delay	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go
F1	1.26-1.35	Severe 1-2 hour delay	Very heavy congestion, very long queues
F2	1.36-1.45	Very severe 2-3 hour delay	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods
F3	>1.46	Extremely severe 3+ hours of delay	Gridlock

Source: Caltrans, 1992

2.4 Mitigation

Mitigation for significant traffic impacts would be in the form of either the Otay Mesa Community Plan Public Facilities Financing Plan (PFFP) or a fair share contribution to improvements identified, full funding, or construction of improvements deemed project related. However, some improvements identified may not fully mitigate traffic operations to acceptable levels of service. In this instance, significant traffic impacts would remain unmitigated.

3.0 EXISTING CONDITIONS

This section of the report evaluates existing average daily traffic (ADT) volumes on important study area street segments (between intersections) and at major intersections during AM and PM peak hours. Traffic volumes are based on recent daily roadway traffic counts and peak period manual traffic counts at intersections.

3.1 Existing Circulation System

Much of the land in Otay Mesa is undeveloped. As a result, the street system is disjointed and incomplete. Interstate 805 and SR-125, known as the South Bay Expressway, provide major access to and from the north of Otay Mesa.

State Route 905 and Palm Avenue provide east-west connections from the community to Interstate 805. Conventional highway SR-905 / Otay Mesa Road provides connection from the Otay Mesa Port of Entry (POE) and community surface streets with regional freeway I-805. Freeway SR-905 is under construction parallel to conventional highway SR-905 / Otay Mesa Road. Phase 1-A of the project has been partially completed which includes segments from the Otay Mesa POE to Britannia Boulevard. The Phase 1-B connection to I-805 is currently under construction. Although the partial interchanges at La Media Road and Britannia Boulevard have recently been open for use, traffic counts at those locations are not included in this section.

State Route 125 toll highway is a privately operated toll highway extending from the State Route 54 / State Route 125 junction to Otay Mesa Road.

The following are general descriptions of key roadways within the community divided into three categories; roads that provide access to and from the community, roads within residential area, and roads within industrial areas.

Community Access Roads

Old Otay Mesa Road – a two-lane Collector (without left turn lane) connecting Otay Mesa with San Ysidro. It extends along the rim of a canyon and intersects with SR-905 / Otay Mesa Road.

SR-905 – a four-lane freeway that extends into Otay Mesa for a mile from its interchange with I-805 and transitions into Otay Mesa Road, a six-lane Primary Arterial.

Del Sol Boulevard – a four-lane Collector (with left turn lane) as it crosses under I-805 from Otay Mesa-Nestor. It intersects Dennery Road and then continues for approximately a quarter-mile as a two-lane Collector (with left turn lane).

Palm Avenue – crosses over I-805 from Otay Mesa-Nestor on a four-lane bridge with double left-turn-lanes at the interchange of Palm Avenue and I-805. Palm Avenue transitions to a six-lane Primary Arterial, and intersects with Dennery Road.

Otay Valley Road – a six-lane major road, Main Street, at I-805 in the City of Chula Vista. Otay Valley Road crosses at the Otay River on a two-lane bridge with a center turn lane and continues as a two-lane Collector (without left turn lane) into the City of San Diego.

Otay Mesa Road – From the terminus of SR-905, Otay Mesa Road is constructed as a six-lane Primary Arterial to Otay Center Road. It is constructed as a seven-lane Major Arterial between Otay Center Road and La Media Road. It transitions to a four-lane Major Arterial east of La Media Road and intersects with the SR-125 southbound off-ramp and northbound on-ramp, and continues east into County of San Diego lands.

Otay Mesa Border Crossing and Port of Entry – a second border crossing between the U.S. and Mexico located at the southeast corner of Otay Mesa. This point of entry allows automobiles but is primarily used for truck traffic which is predominant throughout the community of Otay Mesa.

Roads within Residential Areas

Dennery Road – is constructed as a four-lane Major Arterial between Del Sol Boulevard and Palm Avenue. North of Palm Avenue, the road transitions to a four-lane Collector (with left turn lane) and eventually transitions to a 2-lane Collector (without fronting property).

Ocean View Hills Parkway – is a four-lane Major Arterial road extending from Dennery Road to Del Sol Boulevard. South of Del Sol Boulevard this roadway is constructed as a six-lane Major Arterial and intersects with conventional highway SR-905 / Otay Mesa Road.

Avenida de las Vistas – is a two-lane Collector (without fronting property) extending west of Otay Valley Road. The residential development along Avenida de las Vistas can be accessed via Otay Valley Road to the north or Otay Mesa Road from the south.

Caliente Avenue – is a partially built four-lane Major Arterial extending south from Otay Mesa Road, intersecting with Airway Road. This segment will be constructed as six-lanes as part of the SR-905 interchange currently under construction at this location.

Beyer Boulevard – is a four-lane Major Arterial extending from Old Otay Mesa Road westerly into the San Ysidro community plan area, and provides access to the nearby Beyer Blvd. transit station.

Roads Within Industrial Areas

Airway Road – is an east-west, partially built roadway varying in width that runs parallel with Otay Mesa Road from Britannia Boulevard to the County boundary. The western segment of Airway Road is a three-lane Collector (2 lanes eastbound, 1 lane westbound) between Old Otay Mesa Road and Caliente Avenue, and provides access to San Ysidro High School.

Siempre Viva Road – is an east-west, partially built roadway varying in width between Cactus Road and and La Media Road. East of La Media Road, Seimpre Viva Road is a six-lane Primary Arterial with an interchange at SR-905 and then transitions to a four-lane Major Arterial from Paseo de las Americas to the County boundary.

Heritage Road – is a north-south, partially built roadway varying in width from Otay Valley Road to its terminus south of Gateway Park Drive.

Cactus Road – is a north-south, four-lane Collector (with left turn lane) south of Otay Mesa Road, ending at the SR-905 right of way. South of SR-905 it is partially constructed with two lanes.

Britannia Boulevard – is a north-south, partially built Major Arterial roadway extending between Otay Mesa Road and Siempre Viva Road. The SR-905 interchange is under construction between Otay Mesa Road and Airway Road. South of Airway Road, portions are built as a four-lane Major Arterial, while some segments are only constructed to half-width.

La Media Road – is a north-south, partially built Major Arterial extending from north of Otay Mesa Road to Siempre Viva Road. The SR-905 interchange is under construction between Otay Mesa Road and Airway Road. South of Airway Road only two lanes are built, extending to a truck only road extending to the east Otay Mesa inspection facility. This road is currently the designated southbound truck route for laden (carrying cargo) trucks from conventional highway SR-905 / Otay Mesa Road to the east Otay Mesa inspection facility.

3.2 Street Segments

Figure 3-1 shows existing average daily traffic volumes on street segments within the study area. These volumes were taken from recent traffic counts conducted by Caltrans, the City of San Diego, or recently counted for other project study purposes, but were obtained before the opening of SR-905 Phase 1-A improvements from the partial Britannia Boulevard interchange to east of the La Media Road partial interchange.

Figure 3-2 shows the intersection number key.

Table 3-1 includes existing street segment levels of service based on the City of San Diego Traffic Impact Study Manual, **Table 2**. The current functional roadway classifications are listed. As shown, most street segments operate acceptably (at LOS "D" or better) except Otay Mesa Road, which operates at level of service "E" or "F" between the terminus of freeway SR-905 and Heritage Road, and level of service "E" between Otay Mesa Center Road and La Media Road.

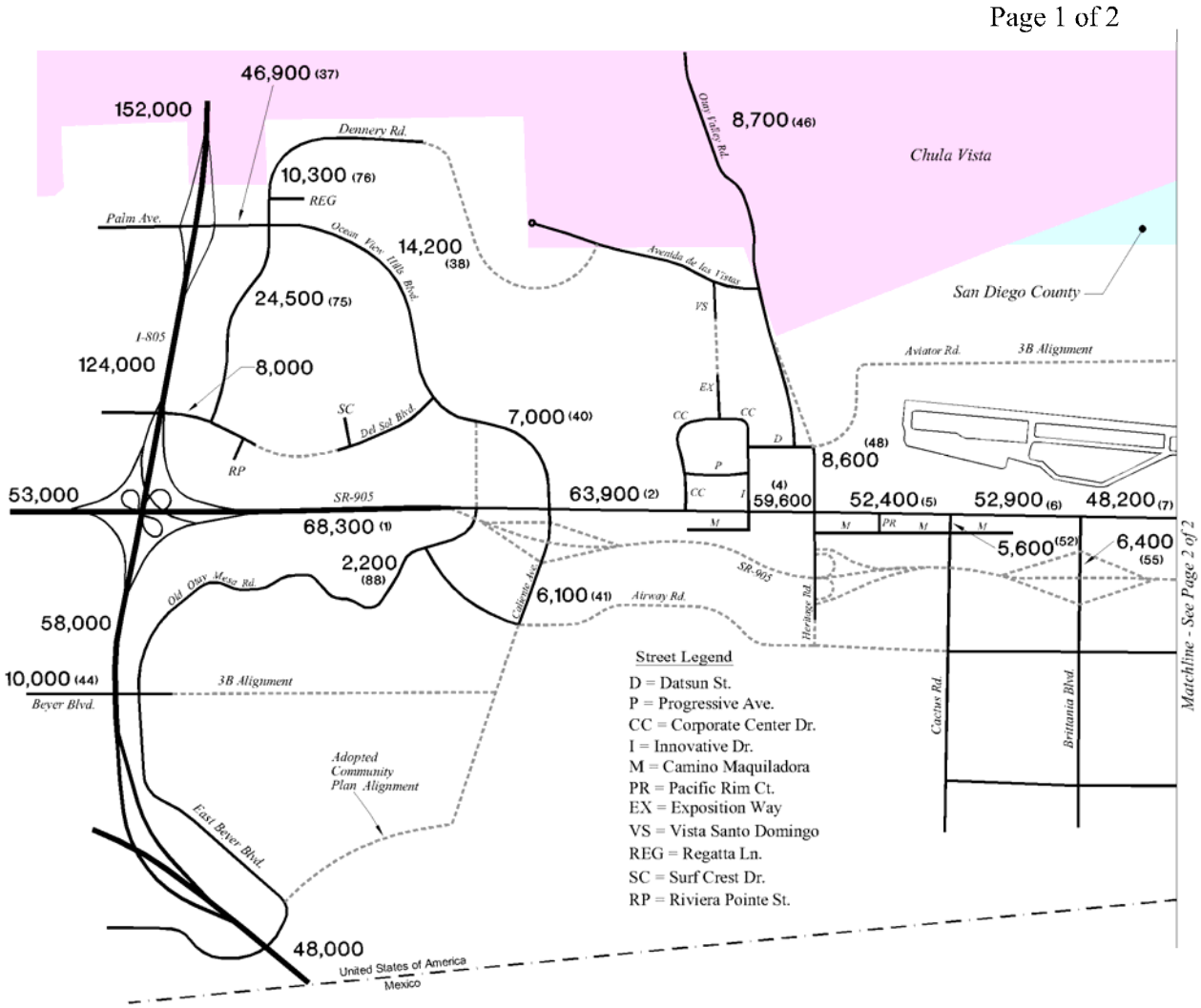


FIGURE 3-1

Existing Average Daily Traffic Volumes (2005 - 2010)

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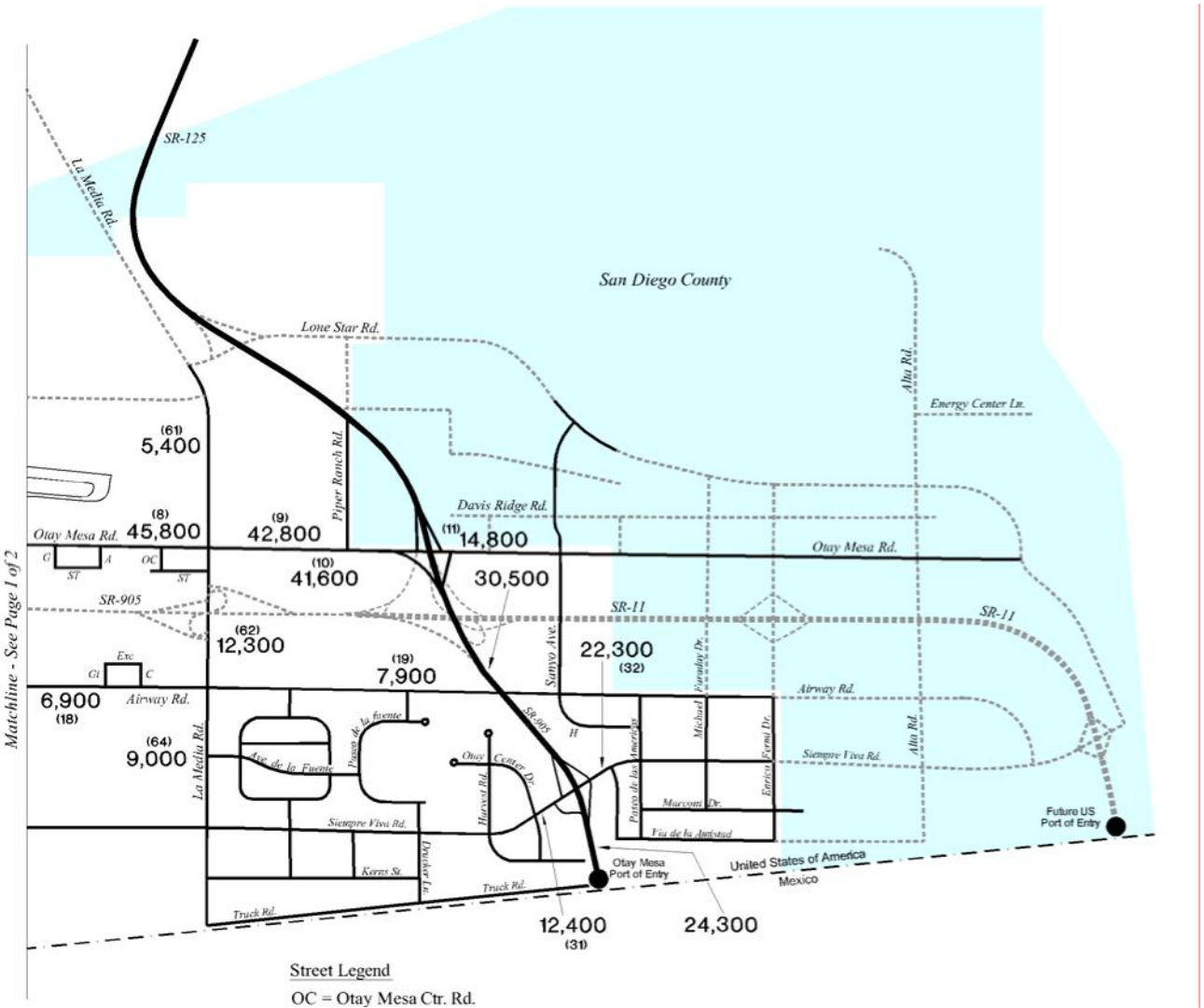
Page 2 of 2



Street Legend

OC = Otay Mesa Ctr. Rd.
G = Gailes Blvd.
A = Ailsa Ct.
ST = St. Andrews Ave.
H = Heinrich Hertz Dr.
C = Centurion St.
Gi = Gigantic St.
Exc = Excellante St.

(XX) = Segment number, coincides with Buildout segment numbers.

N
NO SCALE

FIGURE 3-1
Existing Average Daily Traffic Volumes (2005 - 2010)

Page 1 of 2

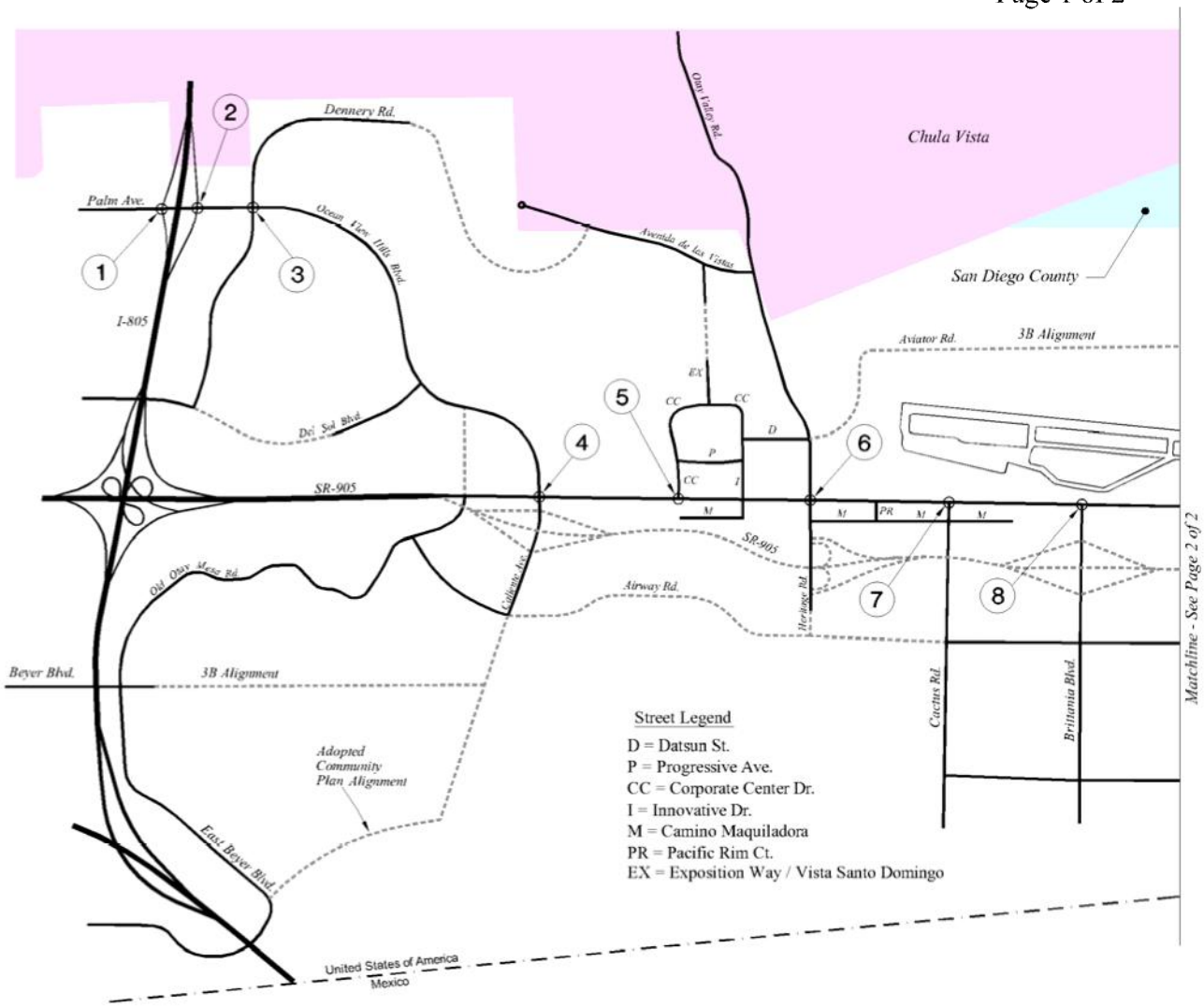


FIGURE 3-2
Existing Intersection Key

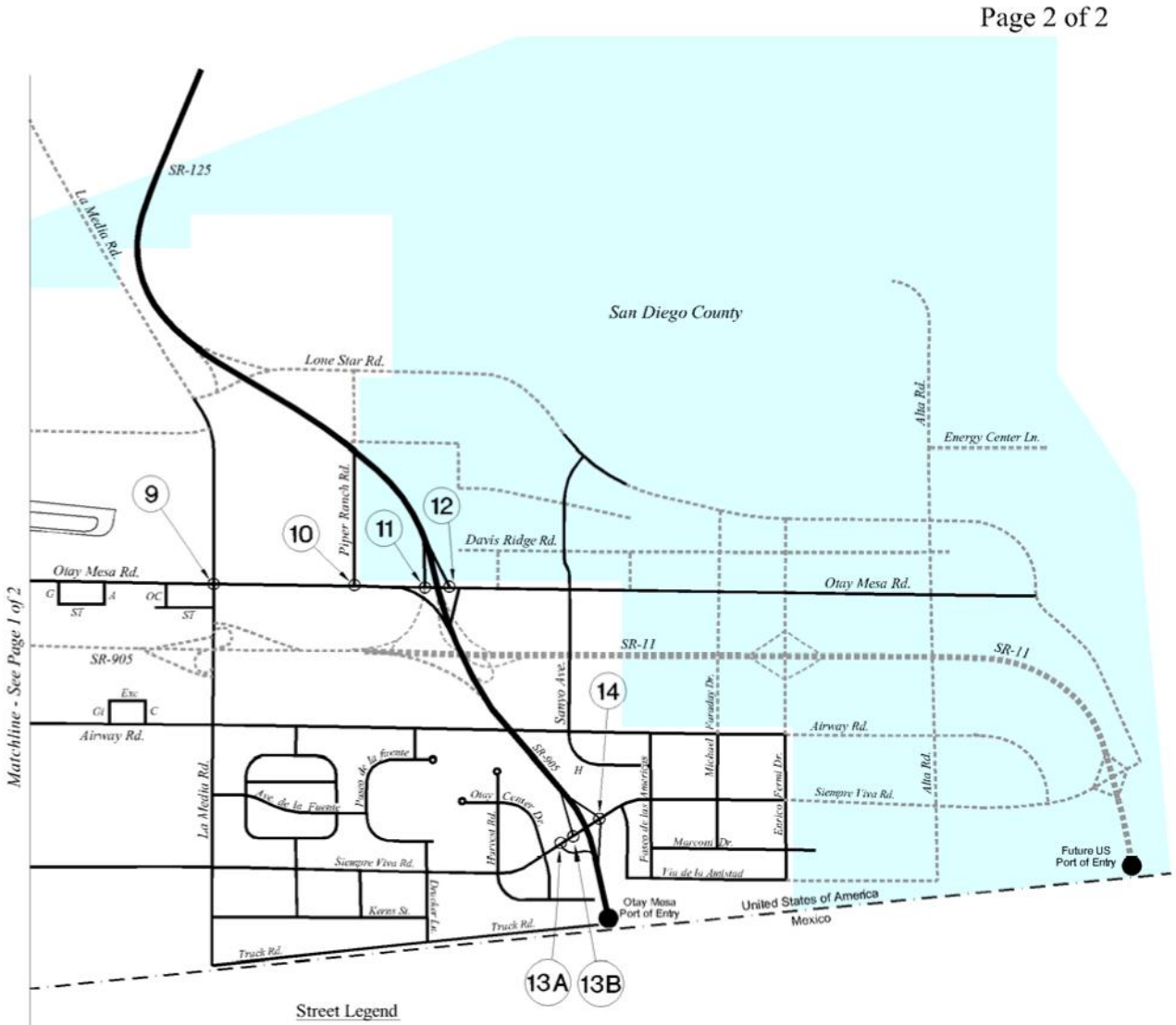


FIGURE 3-2
Existing Intersection Key

Page 1 of 2

TABLE 3-1

Existing (2005 to 2010) Average Daily Traffic & Level of Service

Street	Segment	#	Class (1)	LOS E ADT (2)	Segment ADT	V/C	LOS	Traffic Count Date
Otay Mesa Road	SR-905 to Caliente Ave.	1	6-PA	60,000	68,300	1.14	F	2009 ①
	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	63,900	1.07	F	2009 ①
	Corporate Center Dr. to Heritage Rd.	4	6-PA	60,000	59,600	0.99	E	2009 ①
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	52,400	0.87	D	2009 ①
	Cactus Rd. to Britannia Blvd.	6	6-PA	60,000	52,900	0.88	D	2009 ①
	Britannia Blvd. to Otay Mesa Center Rd.	7	6-PA	60,000	48,200	0.80	C	2009 ①
	Otay Mesa Center Rd. to La Media Rd.	8	7-M	55,000	45,800	0.84	E	2009 ①
	La Media Rd. to SR-125 SB Ramps	9	5-PA	55,000	42,800	0.78	C	2009 ①
	SR-125 NB Ramps to Sanyo Ave.	11	4-M	40,000	14,800	0.37	A	2009 ①
Airway Road	Britannia Blvd. to La Media Rd.	18	2-CL	15,000	6,900	0.46	B	2010①
	La Media Rd. to Sanyo Ave.	19	2-CL	15,000	7,900	0.53	C	2010①
Siempre Viva Rd. Road	Harvest Rd. to SR-905 SB Ramps	31	6-PA	60,000	12,400	0.21	A	2009 ②
	SR-905 NB Ramps to Paseo de las Americas	32	6-PA	60,000	22,300	0.37	A	2009 ②
Palm Ave.	I-805 NB Ramps to Dennery Rd.	37	6-PA	60,000	46,900	0.78	C	2010 ③
Ocean View Hills Pkwy.	Dennery Rd. to Del Sol Blvd.	38	4-M	40,000	14,200	0.36	A	2010 ③
	Del Sol Blvd. to Otay Mesa Rd.	40	6-M	50,000	7,000	0.14	A	2010①
Caliente Avenue	Otay Mesa Rd. to Airway Rd.	41	4-M	40,000	6,100	0.15	A	2010①
Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	88	2-C	8,000	2,200	0.28	A	2009 ②
Beyer Boulevard	Smythe Ave. to Old Otay Mesa Rd.	44	4-M	40,000	10,000	0.24	A	2007③
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas	46	2-C	8,000	8,700	1.09	F	2010①
	Avenida De Las Vistas to Otay Mesa Rd.	48	2-C	8,000	8,600	1.08	F	2010①
Cactus Road	Otay Mesa Rd. to SR-905.	52	4-CL	30,000	5,600	0.19	A	2010①
Britannia Boulevard	Otay Mesa Rd. to Airway Rd.	55	4-M	40,000	6,400	0.16	A	2009①

TABLE 3-1 (Cont.)

Street	Segment	#	Class (1)	LOS E ADT (2)	Segment ADT	V/C	LOS	Traffic Count Date
La Media Road	North of to Otay Mesa Rd.	61	2-CL	15,000	5,400	0.36	B	2010①
	Otay Mesa Rd. to Airway Rd.	62	2-CL	15,000	12,300	0.82	D	2010①
	Airway Rd. to Siempre Viva Rd.	64	2-C	8,000	9,000	1.13	F	2010①
Dennery Road	Palm Ave. to Regatta Ln.	76	4-M	40,000	10,300	0.26	A	2005④
	Palm Ave. to Walmart Dr.	75	4-M	40,000	24,500	0.61	C	2005④
Del Sol Boulevard	West of Dennery Rd.	85	4-C	15,000	8,000	0.53	C	2010①

(1) Functional Classification, as currently built.

(2) Source: City of San Diego Traffic Impact Study Manual, Table 2.

= Segment number, coincides with buildout segment number.

Legend

7-M = 7-Lane Major Arterial

6-PA = 6-Lane Primary Arterial

6-M = 6-Lane Major

4-M = 4-Lane Major

5-PA = Lane Primary Arterial

4-CL = 4-Lane Collector (With Left Lane Turn Lane).

4-C = 4-Lane Collector (Without Left Turn Lane).

2-CL = 2-Lane Collector (With Left Turn Lane).

2-C = 2-Lane Collector (Without Left Turn Lane, Industrial Fronting).

Sources of Traffic Volumes

① = Rick Engineering Company

② = LSA Associates, Inc.

③ = Kimley-Horn & Associates, Inc.

④ = Urban Systems Associates, Inc. / TSI

The segments of Otay Valley Road / Heritage Road between Main Street in Chula Vista and Otay Mesa Road are at levels of service "F". La Media Road between Airway Road and Siempre Viva Road is at level of service "F".

Table 3-2 shows freeway segment levels of service. Freeway segments of I-805 and SR-905 are shown to operate acceptably at LOS "D" or better.

3.3 Intersections

Figure 3-3 includes existing lane configurations at major intersections.

Figure 3-4 shows existing AM and PM peak hour traffic volumes at the study area intersections. Intersection levels of service for the AM and PM peak hours were calculated using Highway Capacity Manual procedures. **Table 3-3** includes the results of the intersection level of service evaluation for existing conditions. **Figure 3-5** also shows intersection levels of service graphically. The study area intersections are shown to be operating at acceptable levels of service ("D" or better LOS) for existing conditions, except at one location. The Otay Mesa Road / Heritage Avenue intersection operates at level of service "E" during the AM peak hour.

3.4 Ramp Meters

Currently, the I-805 / Palm Avenue and SR-905 / Siempre Viva Road interchange freeway on ramps do not have ramp meters installed.

Appendix A includes additional existing conditions information, traffic counts, traffic signal timing sheets, and levels of service worksheets.

TABLE 3-2

Existing Freeway Segment Levels of Service

Freeway Segment	Lanes (1-Way)	Cap.	ADT (1)	Peak Hour %	Direction Split	Truck Factor	Peak Volume	V/C	LOS (2)
Interstate 805									
Otay Valley Rd. - Palm Ave.	4+AUX	11,200	152,000	0.08	0.60	0.90	8,107	0.72	C
Palm Ave. - SR-905	4	9,400	124,000	0.08	0.60	0.90	6,613	0.70	C
SR-905 - San Ysidro Blvd.	4	9,400	58,000	0.08	0.60	0.90	3,093	0.33	A
SR-905									
Picador Blvd. - I-805	2	4,700	53,000	0.08	0.60	0.90	2,827	0.60	B
I-805 – Caliente Ave.	2	4,700	58,300	0.08	0.60	0.90	3,109	0.66	C
Otay Mesa Rd. - Siempre Viva Rd.	2	4,700	30,500	0.08	0.60	0.90	1,600	0.34	A
Siempre Viva Rd. - Border	3	4,700	24,300	0.08	0.60	0.90	1,296	0.28	A

LEGEND:

Cap. = Capacity in one direction

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Peak Hour % = % of ADT in Peak Hour

Freeway Mainlane Capacity = 2,350 VPHPL

Auxillary Lane Capacity (AUX) = 1,800 VPHPL

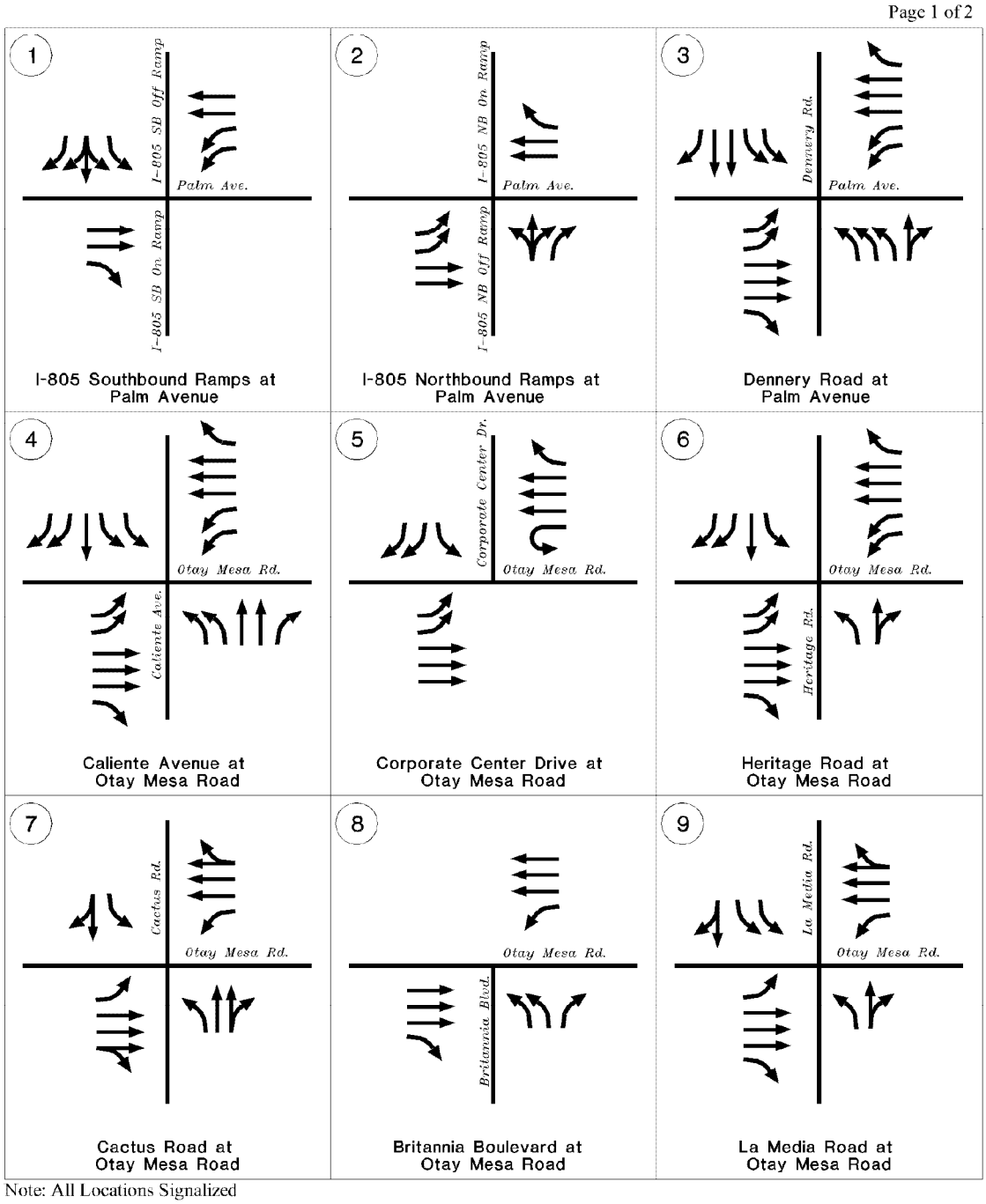
Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles (Trucks at 10% of ADT)

NOTES:

(1) Caltrans District 11, 2009.

(2) Caltrans District 11 LOS Estimation Procedures, See Appendix A



Note: All Locations Signalized

FIGURE 3-3
Existing Lane Configurations

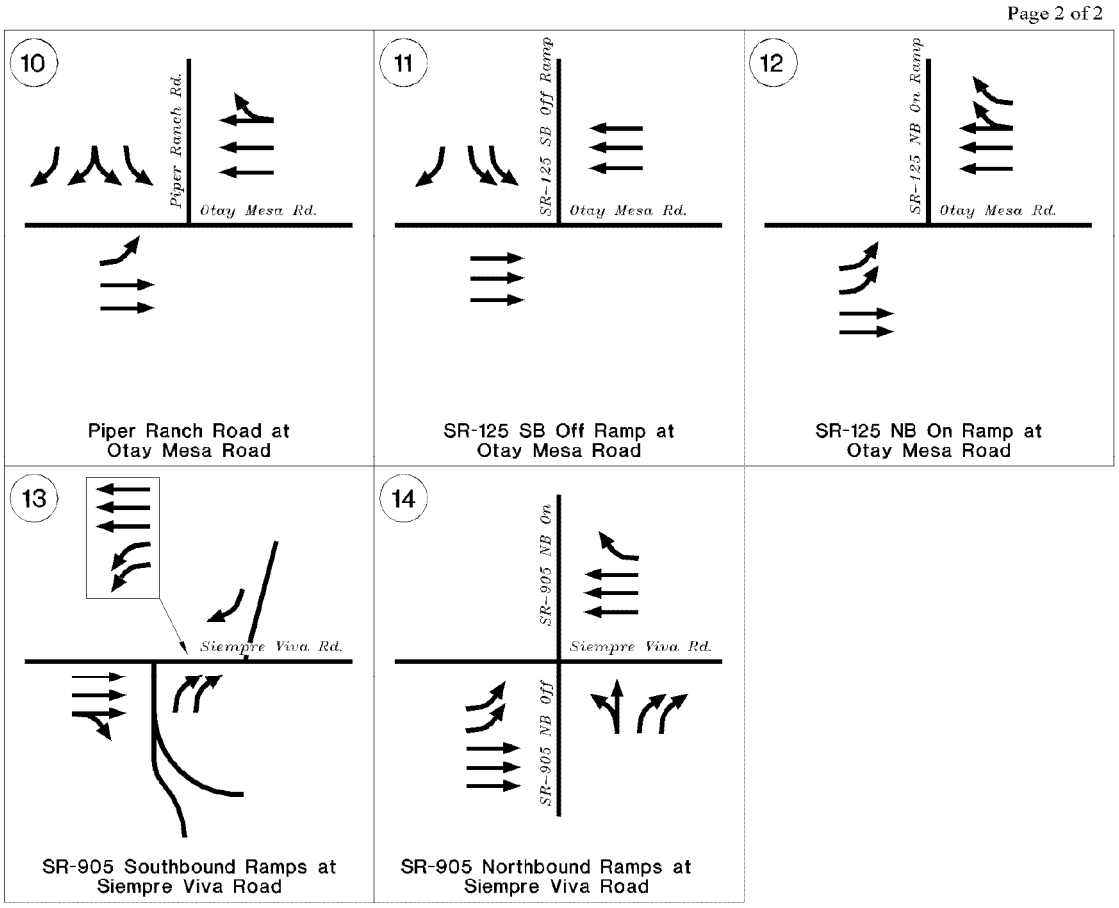


FIGURE 3-3
Existing Lane Configurations

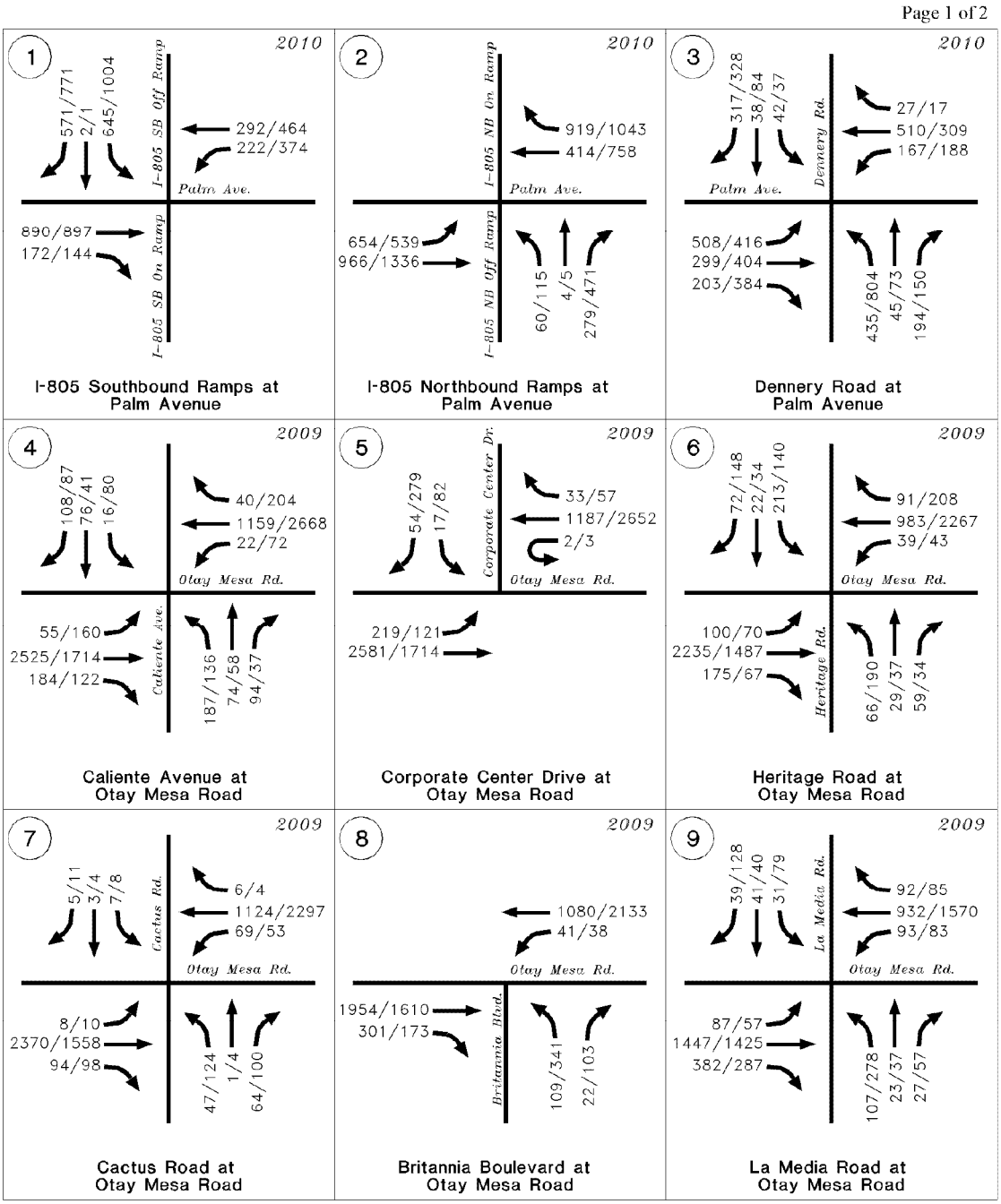


FIGURE 3-4
Existing AM/PM Peak Hour Traffic Volumes

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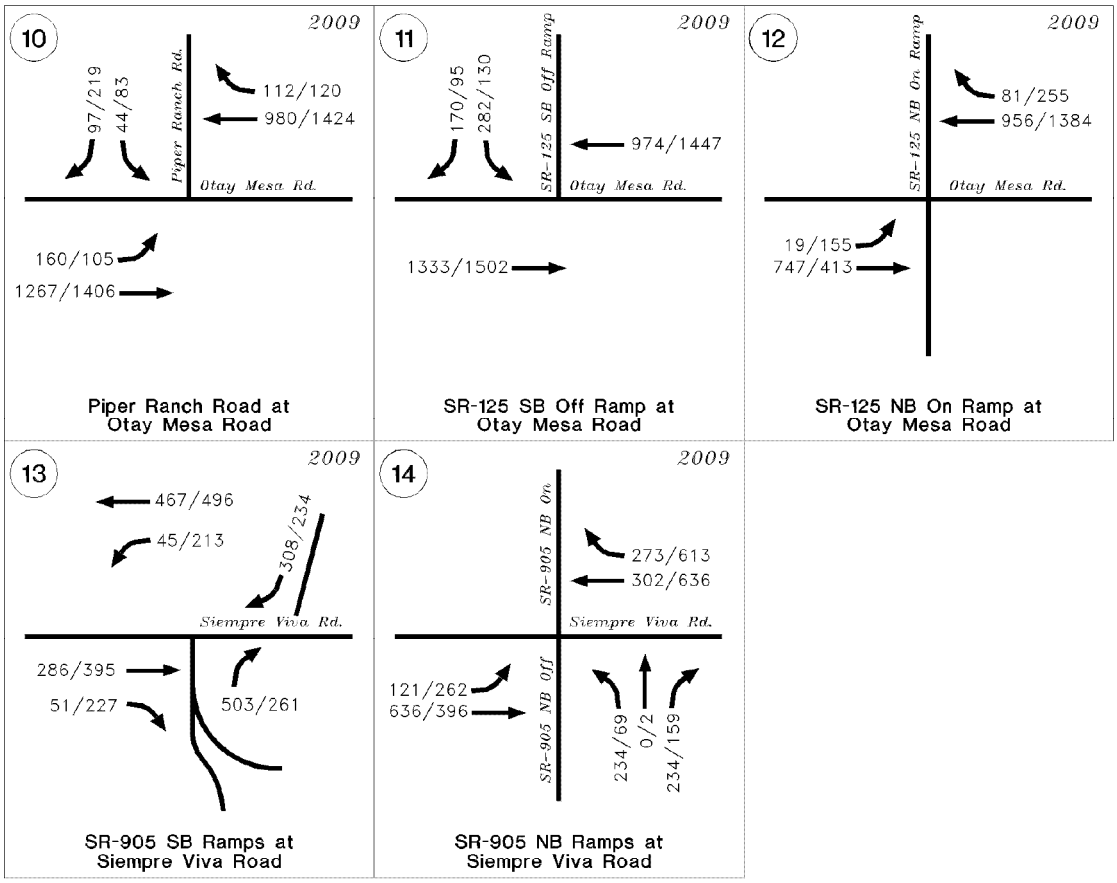


FIGURE 3-4

Existing AM/PM Peak Hour Traffic Volumes

TABLE 3-3

Existing 2010 Intersection Levels of Service

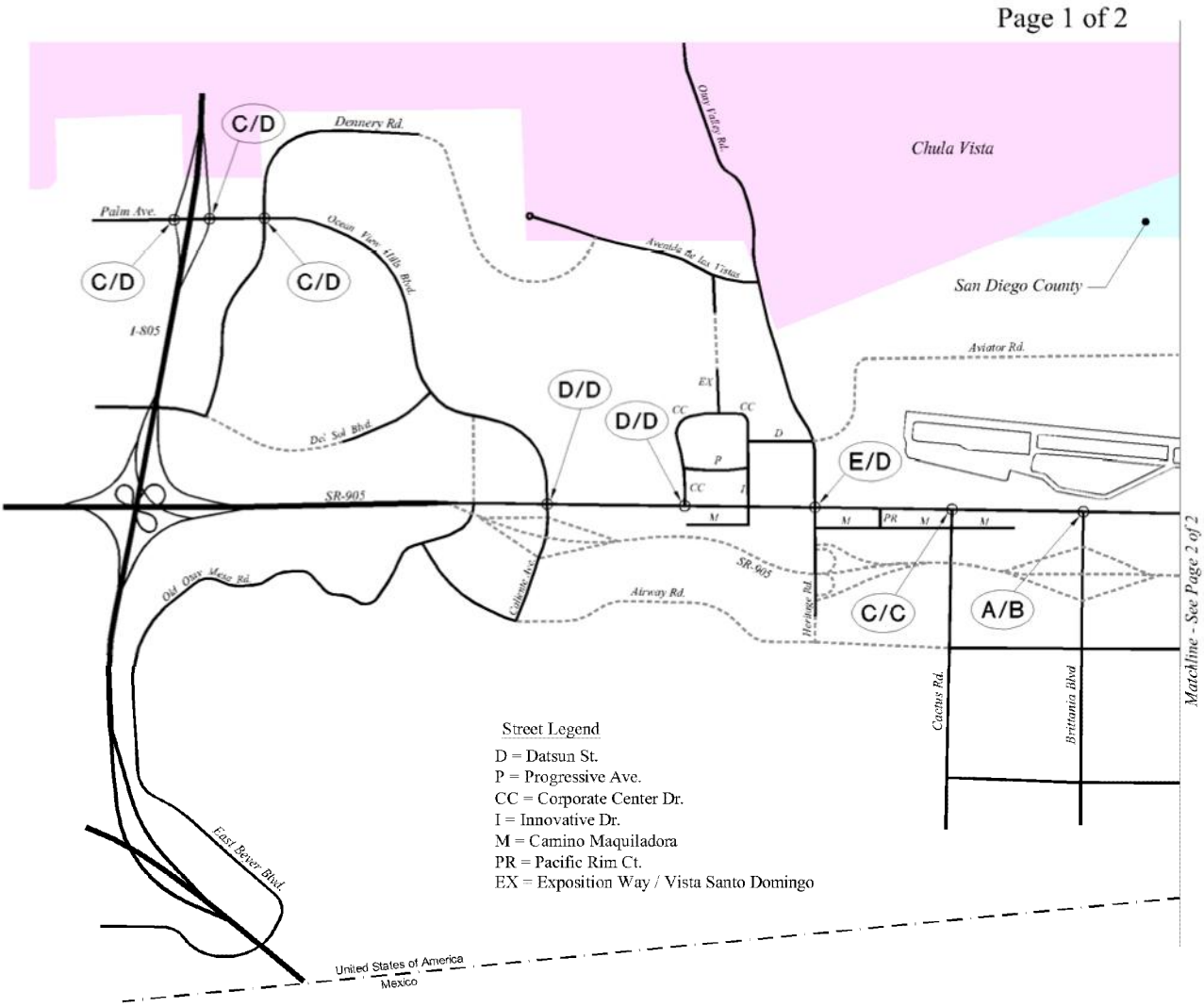
		AM Peak Hour		PM Peak Hour	
Intersection		**CD**	**LOS**	**CD**	**LOS**
1	Palm Ave. / I-805 SB Ramps	27.5	C	45.4	D
2	Palm Ave. / I-805 NB Ramps	33.4	C	51.0	D
3	Palm Ave. / Dennery Rd.	34.9	C	37.9	D
4	Otay Mesa Rd. / Caliente Ave.	44.4	D	40.2	D
5	Otay Mesa Rd. / Corporate Center Dr.	35.7	D	35.0	D
6	Otay Mesa Rd. / Heritage Rd.	60.5	E	42.6	D
7	Otay Mesa Rd. / Cactus Rd.	33.4	C	31.6	C
8	Otay Mesa Rd. / Britannia Blvd.	7.3	A	11.4	B
9	Otay Mesa Rd. / La Media Rd.	15.8	B	43.2	D
10	Otay Mesa Rd. / Piper Ranch Rd.	8.3	A	9.4	A
11	Otay Mesa Rd. / SR-125 SB Off-Ramp.	7.6	A	3.7	A
12	Otay Mesa Rd. / SR-125 NB On-Ramp	0.8	A	3.2	A
13A	Siempre Viva Rd. / SR-905 SB Ramps	16.1	B	11.6	B
13B	SR-905 SB Off Ramp to WB Siempre Viva Rd. ①	14.3	B	14.4	B
14	Siempre Viva Rd. / SR-905 NB Ramps	14.5	B	14.6	B

Legend **Note:** All locations signalized, except 13B.

CD = Control Delay in seconds
LOS = Level of Service
① = Stop sign facing SB to WB traffic. LOS is for the SB to WB righ-turn.

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F

Source: 2000 Highway Capacity Manual



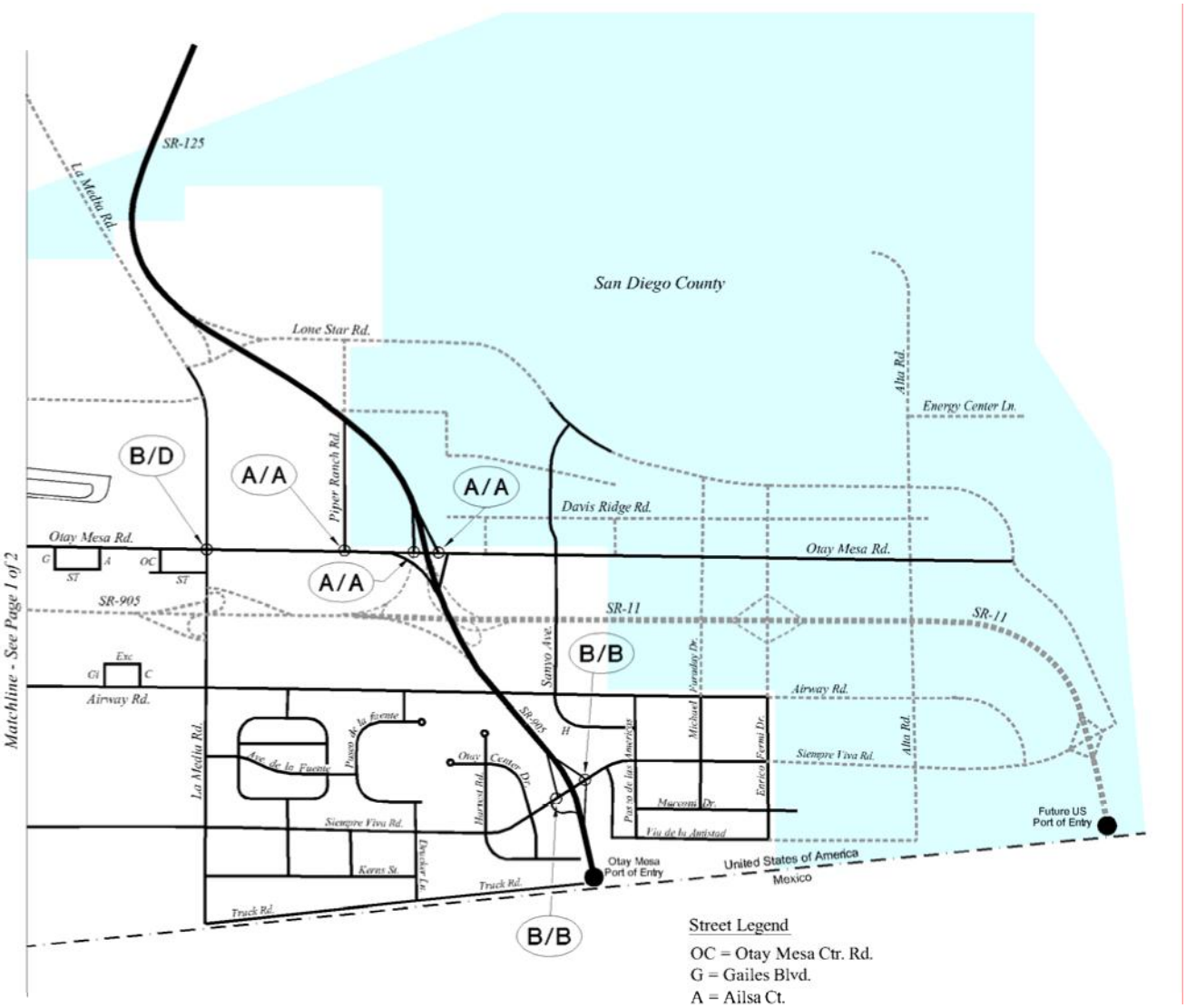
LEGEND

A/A = AM / PM Peak Hour Intersection Level Of Service

N
NO SCALE

FIGURE 3-5
Existing AM/PM Intersection Levels of Service

Page 2 of 2



Street Legend

OC = Otay Mesa Ctr. Rd.
G = Gailes Blvd.
A = Ailsa Ct.
ST = St. Andrews Ave.
H = Heinrich Hertz Dr.
C = Centurion St.
Gi = Gigantic St.
Exc = Excellante St.

LEGEND

A/A = AM / PM Peak Hour Intersection Level Of Service

N
NO SCALE

FIGURE 3-5
Existing AM/PM Intersection Levels of Service

4.0 OVERVIEW

The two land use scenarios, the Adopted Community Plan and Land Use Scenario 3B, analyzed for this study include different levels of land use intensity of future residential, commercial (retail and office), and industrial uses. Some of the principal ideas portrayed in the scenario 3B land use include multiple land uses to induce interaction with one another to create a single interconnected community. In both project scenarios, residential development would be concentrated in the western portion of Otay Mesa with some new residential areas located in other areas of the community. Different from the Adopted Community Plan a mixed-use designation – which typically allows residential, office, retail, recreational and/or civic uses - has been applied in areas of the community for the Scenario 3B land use.

No Project Scenario/Adopted Community Plan: The adopted Otay Mesa Community Plan concentrates residential development in the western third of Otay Mesa with industrial uses planned for the central and eastern portions of the community. The original 1981 land use map anticipated the development of 18,200 dwelling units in Otay Mesa. However, a 1997 community plan amendment to incorporate the Multiple Species Conservation Program (MSCP) reduced the potential residential build-out units resulting in 12,206 currently being anticipated by the Otay Mesa Community Plan. The traffic forecast for this alternative assumed 5,776,000 square feet of commercial uses and 64,465,000 square feet of industrial uses. The buildout of this plan would generate a total of 1,165,103 average daily vehicle trips.

Land Use Scenario 3B With La Media Road: Approximately 18,774 dwelling units could be developed under this plan by increasing the housing unit yield in the southwestern residential areas, creating Community Villages south of Airway Road, west of Cactus Road and in an area south of SR-905 and west of Britannia Boulevard. This plan would retain industrial and commercial uses between Otay Mesa

Road and SR-905. The traffic forecast for this alternative assumed 3,917,000 square feet of commercial uses and 54,461,000 square feet of industrial uses. A cross border facility is included in this plan. The buildout of this plan would generate 1,045,025 average daily vehicle trips.

The City of Chula Vista is preparing a General Plan Amendment, anticipated in Spring 2012, that would delete the La Media Road bridge crossing the Otay River Valley from their General Plan, and has deleted this project from their facilities financing plan. Therefore, the "With La Media Road" connection to Chula Vista is no longer a viable alternative.

Land Use Scenario 3B Without La Media Road: The Adopted Community Plan includes the extension of La Media Road north of Lone Star Road to cross the Otay River Valley on a bridge. However, the City of Chula Vista has indicated that they will be deleting this crossing from their General Plan Circulation Element. The Scenario 3B land use assumptions remain unchanged, but the segment of La Media Road crossing the Otay River Valley has been deleted for this analysis.

5.0 NO PROJECT

5.1 Assumed Land Use and Transportation Network

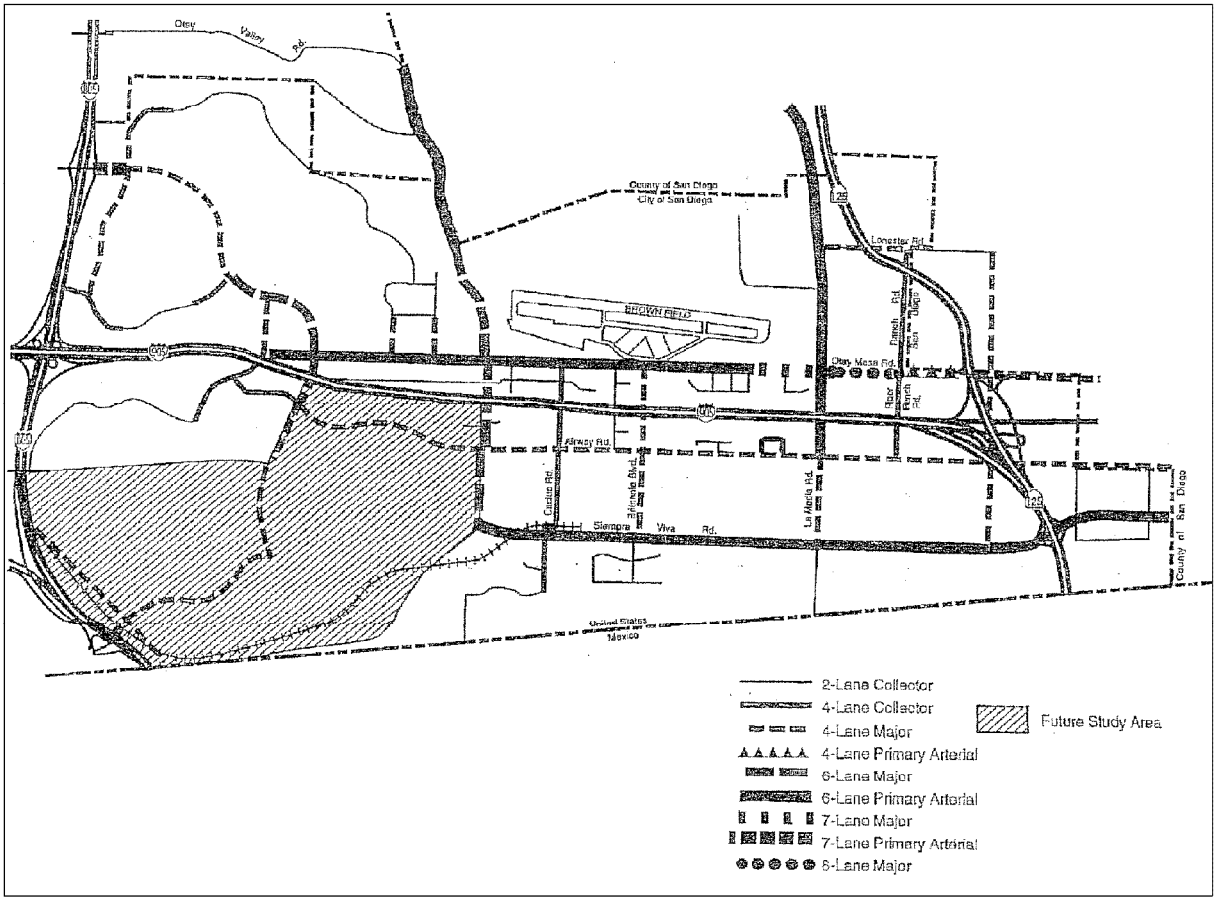
The circulation element roadways and land use for this scenario remains consistent with the existing adopted Otay Mesa Community Plan (November 23, 1999), shown in **Figure 5-1**. Adopted updates on land uses and transportation improvements as of 2004 were also included in this scenario. **Appendix B** includes the detailed land uses assumed in the traffic model for this scenario. Under this scenario, the circulation network was updated in the transportation model to more accurately represent the latest amendments, additions and changes made to the street system since the latest Community Plan approval. Some of the updates from the latest Community Plan amendments include the following roadway additions to the traffic model circulation network. These roadway classifications are not necessarily the recommended classifications after the evaluation of the traffic model results for each scenario.

-Addition of Sanyo Avenue/Heinrich Hertz Drive as a four-lane collector, between Otay Mesa Road and Paseo De las Americas.

-Addition of Via de la Amistad as a two-lane Collector (without left turn lane), between Paseo de las Americas to Enrico Fermi Drive.

-Addition of Marconi Drive as a two-lane Collector (without left turn lane) from Paseo de las Americas east to Enrico Fermi Drive

-Deletion of Harvest Road from north of Airway Road to north of the SR-905 right of way.



SOURCE

City of San Diego Planning Department
Otay Mesa Existing Conditions Report
Approved November 23, 1999

FIGURE 5-1

Adopted Circulation Plan

-Addition of Otay Center Drive as a four-lane Collector (without left turn lane) east from Harvest Road, south to Siempre Viva Road, and south of Siempre Viva Road to Custom House Plaza.

-Addition of Custom House Plaza as a four-lane Collector (without left turn lane) extending south from Siempre Viva Road and curving east to Otay Center Drive.

-Addition of Avenida de la Fuente, Avenida Costa Norte, Avenida Costa Sur, Avenida Costa Este, Avenida Blanca, and Avenida del Sol which form a self-contained street system as two-lane Collectors (without left turn lane) with access to Airway Road, La Media Road, and Siempre Viva Road.

-Addition of Saint Andrews Avenue as a two-lane Collector (without left turn lane) connecting Otay Mesa Center Drive to La Media Road.

-Addition of Avenida de las Vistas as a two-lane Collector (without left turn lane)connecting to Otay Valley Road.

5.2 Segment Level of Service

Figure 5-2 shows the projected buildout average daily traffic trips generated on the street system due to the land uses assumed under the "No Project" scenario. **Table 5-1** indicates the roadway segment level of service for numerous roadway segments as a result of the projected average daily traffic and the capacity of the roadway. The highest forecasted volumes between circulation element roads were used for analysis. Also shown are recommended reclassifications of roadways. The initial "without mitigation"

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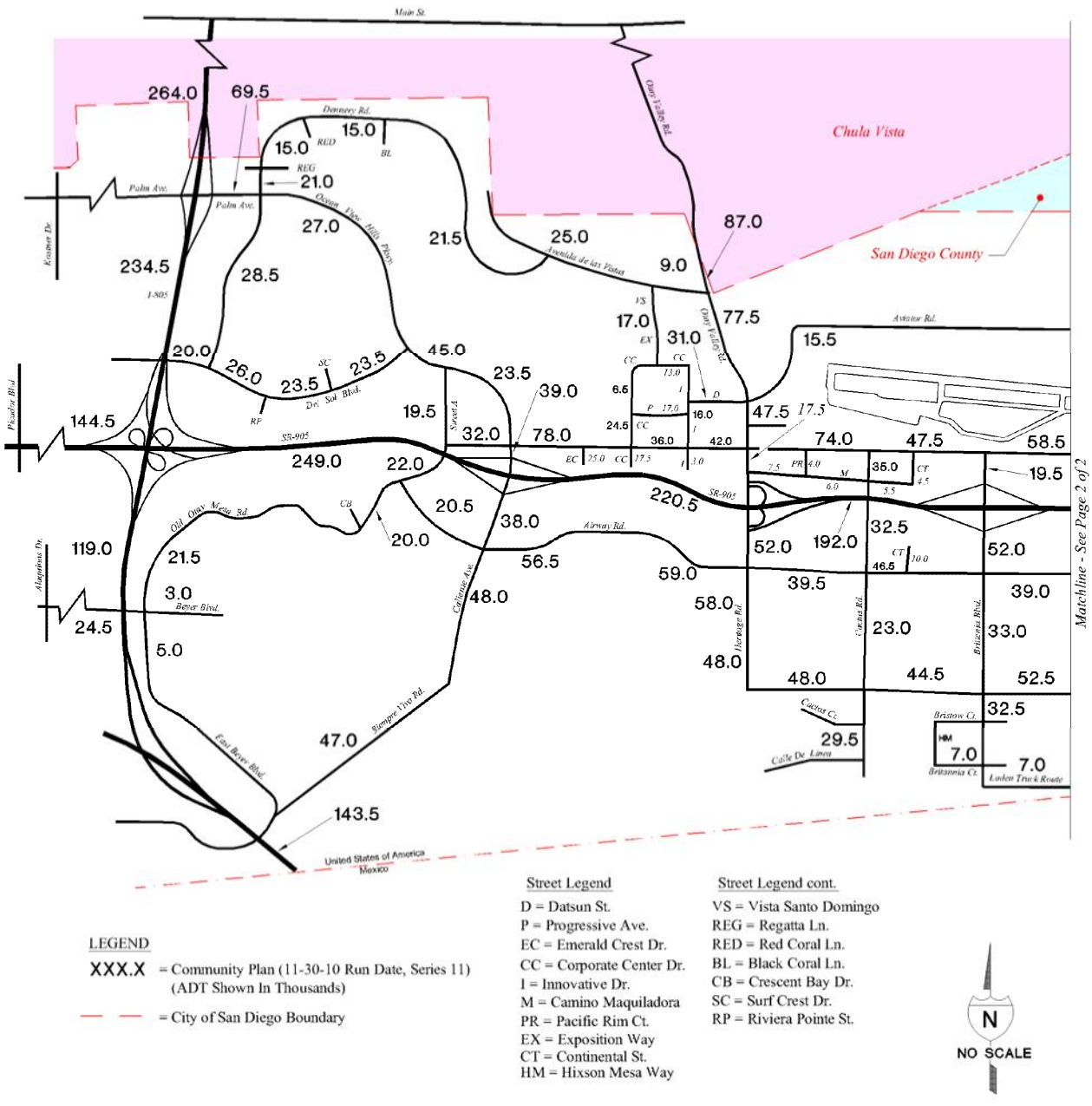

LEGEND

XXX.X = Community Plan (11-30-10 Run Date, Series 11) (ADT Shown In Thousands)

— — = City of San Diego Boundary

Street Legend

D = Datsun St.
P = Progressive Ave.
EC = Emerald Crest Dr.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
CT = Continental St.
HM = Hixson Mesa Way

Street Legend cont.

VS = Vista Santo Domingo
REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.

N
NO SCALE

FIGURE 5-2

Buildout Community Plan Average Daily Traffic

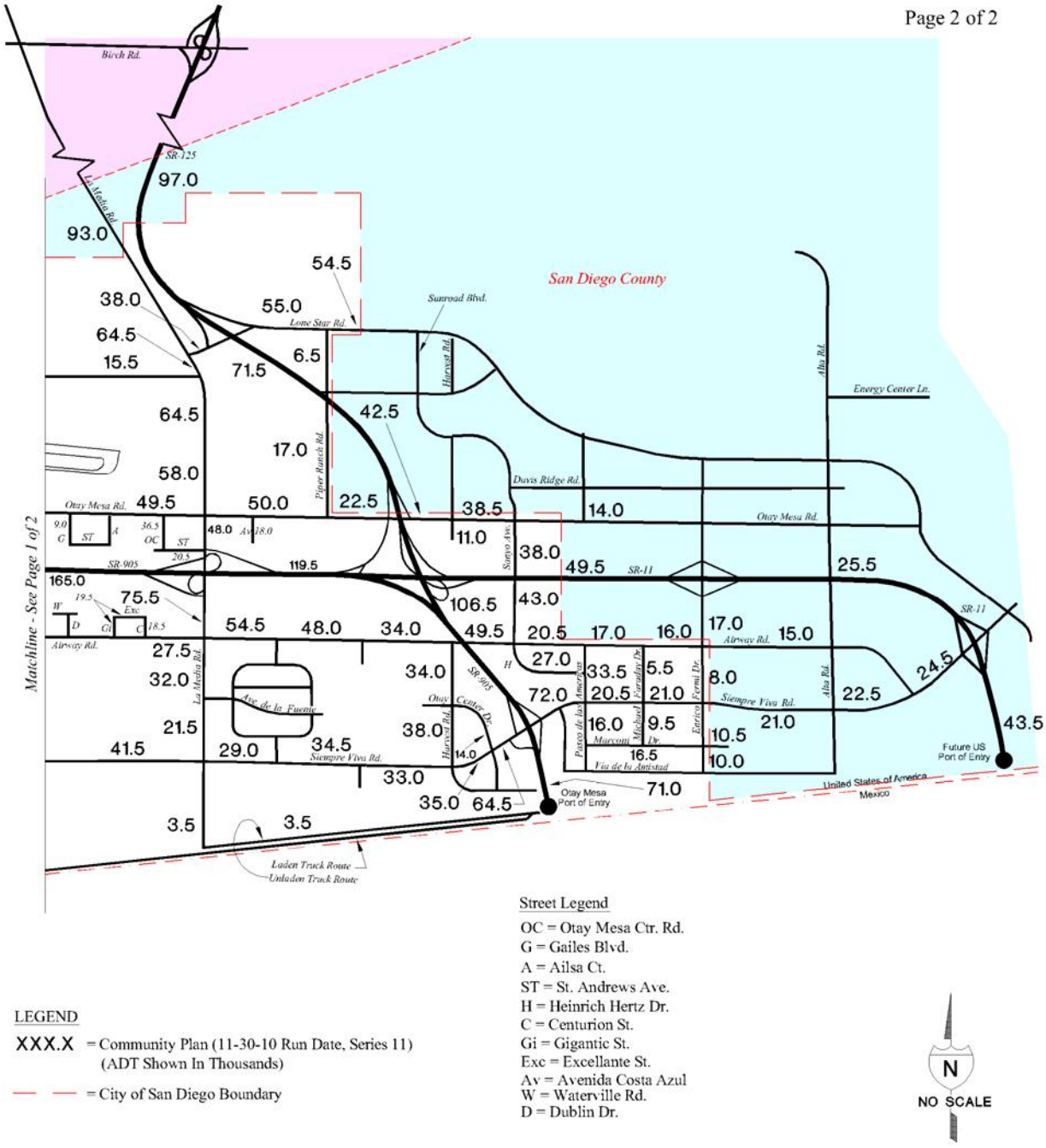

FIGURE 5-2
Buildout Community Plan Average Daily Traffic

TABLE 5-1

Buildout Adopted Community Plan

Average Daily Traffic & Levels of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Otay Mesa Road	Street A to Caliente Ave.	1	6-PA	60,000	32,000	0.53	B	6-M	0.64	C	N
	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	78,000	1.30	F	N	-	-	Y
	Corporate Center Dr. to Innovative Dr.	3	6-PA	60,000	36,000	0.60	C	N	-	-	N
	Innovative Dr. to Heritage Rd.	4	6-PA	60,000	42,000	0.70	C	N	-	-	N
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	74,000	1.23	F	N	-	-	Y
	Cactus Rd. to Britannia Blvd.	6	6-PA	60,000	47,500	0.78	C	N	-	-	N
	Britannia Blvd. to Ailsa Ct.	7	6-PA	60,000	58,500	0.98	E	N	-	-	Y
	Ailsa Ct. to La Media Rd.	8	7-M	55,000	49,500	0.90	E	6-PA	0.83	C	N
	La Media Rd. to Piper Ranch Rd.	9	8-M	70,000	50,000	0.71	C	6-PA	0.83	C	N
	Piper Ranch Rd. to SR-125	10	4-P	45,000	22,500	0.50	C	6-PA	0.38	A	N
	SR-125 to Harvest Rd.	11	4-M	40,000	42,500	1.06	F	6-PA	0.71	C	N
	Harvest Rd. to Sanyo Ave.	12	4-M	40,000	38,500	0.96	E	6-PA	0.64	C	N
	Sanyo Ave. to Enrico Fermi Dr.	13	4-M	40,000	14,000	0.35	A	6-PA	0.23	A	N
Airway Road	Old Otay Mesa Rd. to Caliente Ave.	14	4-CL	30,000	20,500	68.00	D	N	-	-	N
	Caliente Ave. to Heritage Rd.	15	4-M	40,000	59,000	1.48	F	6-PA	0.98	E	Y
	Heritage Rd. to Cactus Rd.	16	4-M	40,000	39,500	0.99	E	6-M	0.79	C	N
	Cactus Rd. to Britannia Blvd.	17	4-M	40,000	46,500	1.16	F	6-M	0.93	E	Y
	Britannia Blvd. to La Media Rd.	18	4-M	40,000	39,000	0.98	E	6-M	0.78	C	N
	La Media Rd. to Harvest Rd.	19	4-M	40,000	54,500	1.36	F	6-M	1.09	F	Y
	Harvest Rd. to Sanyo Ave.	20	4-M	40,000	49,500	1.24	F	6-M	0.99	E	Y
	Sanyo Ave. to Paseo de las Americas	21	4-M	40,000	20,500	0.51	B	N	-	-	N
	Paseo de las Americas to Michael Faraday Dr.	22	4-M	40,000	17,000	0.43	B	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	23	4-M	40,000	16,000	0.40	B	N	-	-	N
	Enrico Fermi Dr. to Siempre Viva Rd.*	24	4-M	40,000	15,000	0.38	A	N	-	-	N
Siempre Viva Road	Caliente Ave. to East Beyer Blvd.	25	4-M	40,000	47,000	1.18	F	N	-	-	Y
	Heritage Rd. to Cactus Rd.	26	6-PA	60,000	48,000	0.80	C	N	-	-	N
	Cactus Rd. to Britannia Blvd.	27	6-PA	60,000	44,500	0.74	C	N	-	-	N
	Britannia Blvd. to La Media Rd.	28	6-PA	60,000	52,500	0.88	D	N	-	-	N
	La Media Rd. to Harvest Rd.	29	6-PA	60,000	34,500	0.58	B	N	-	-	N
	Harvest Rd. to Otay Center Dr.	30	6-PA	60,000	35,000	0.58	B	N	-	-	N
	Otay Center Dr. to SR-905	31	6-PA	60,000	64,500	1.08	F	N	-	-	Y
	SR-905 to Paseo de las Americas	32	6-PA	60,000	72,000	1.20	F	N	-	-	Y
	Paseo de las Americas to Michael Faraday Dr.	33	4-M	40,000	20,500	0.51	B	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	34	4-M	40,000	21,000	0.53	B	N	-	-	N
	Enrico Fermi Dr. to SR-11*	35	4-M	40,000	21,000	0.53	B	N	-	-	N

*Segment in County of San Diego

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

N = New classification is not proposed.

New LOS = LOS after change in classification.

Y = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB / 2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

TABLE 5-1 (Continued)

Buildout Adopted Community Plan

Average Daily Traffic & Levels of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Palm Avenue	I-805 to Dennery Rd.	37	7-PA	65,000	69,500	1.07	F	N	-	-	Y
Ocean View Hills Parkway	Dennery Rd. to Del Sol Blvd.	38	4-M	40,000	27,000	0.68	C	N	-	-	N
	Del Sol Blvd. to Street "A"	39	6-M	50,000	45,000	0.90	D	N	-	-	N
	Street "A" to Otay Mesa Rd.	40	6-M	50,000	23,500	0.47	B	N	-	-	N
Caliente Avenue	Otay Mesa Rd. to SR-905	41	6-M	50,000	39,000	0.78	C	6-PA	0.65	C	N
	SR-905 to Airway Rd.	42	6-M	50,000	38,000	0.76	C	6-PA	0.63	C	N
	Airway Rd. to Siempre Viva Rd.	43	4-M	40,000	48,000	1.20	F	6-M	0.96	E	Y
Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	44	4-M	40,000	24,500	0.61	C	N	-	-	N
	Old Otay Mesa Rd. to East End	45	4-M	40,000	3,000	0.08	A	2-CL	0.2	A	N
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	6-PA	60,000	87,000	1.45	F	N	-	-	Y
	Avenida De Las Vistas to Datsun St.	47	6-M	50,000	77,500	1.55	F	6-PA	1.29	F	Y
	Datsun St. to Otay Mesa Rd.	48	6-M	50,000	47,500	0.95	E	6-PA	0.79	C	N
	Otay Mesa Rd. to SR-905	49	6-M	50,000	17,500	0.35	A	6-PA	0.29	A	N
	SR-905 to Airway Rd.	50	6-M	50,000	52,000	1.04	F	6-PA	0.87	D	N
	Airway Rd. to Siempre Viva Rd.	51	6-M	50,000	58,000	1.16	F	6-PA	0.97	E	Y
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	4-CL	30,000	35,000	1.16	F	4-M	0.88	D	N
	Airway Rd. to Siempre Viva Rd.	53	4-CL	30,000	23,000	0.77	D	N	-	-	N
	Siempre Viva Rd. to South End	54	4-CL	30,000	29,500	0.98	E	N	-	-	Y
Britannia Boulevard	Otay Mesa Rd. to SR-905	55	4-M	40,000	19,500	0.49	B	6-PA	0.33	A	N
	SR-905 to Airway Rd.	56	4-M	40,000	52,000	1.30	F	6-PA	0.87	D	N
	Airway Rd. to Siempre Viva Rd.	57	4-M	40,000	33,000	0.83	D	6-M	0.66	C	N
	Siempre Viva Rd. to South End	58	2-C	8,000	32,500	4.01	F	4-M	0.81	D	N
La Media Road	Birch Rd. to Lone Star Rd.**	59	6-PA	60,000	93,000	1.55	F	N	-	-	Y
	Lone Star Rd. to Aviator Rd.	60	6-PA	60,000	64,500	1.08	F	N	-	-	Y
	Aviator Rd. to Otay Mesa Rd.	61	6-PA	60,000	64,500	1.08	F	N	-	-	Y
	Otay Mesa Rd. to SR-905	62	6-PA	60,000	48,000	0.80	C	N	-	-	N
	SR-905 to Airway Rd.	63	6-PA	60,000	75,500	1.26	E	N	-	-	Y
	Airway Rd. to Siempre Viva Rd.	64	4-M	40,000	32,000	0.81	D	5-M	0.71	C	N
Harvest Road	South of Otay Mesa Rd.	65	4-M	40,000	11,000	0.28	A	2-CL	0.73	D	N
	Airway Rd. to Otay Center Dr.	66	4-M	40,000	34,000	0.85	D	N	-	-	N
	Otay Center Dr. to Siempre Viva Rd.	67	4-M	40,000	38,000	0.95	E	N	-	-	Y

*Segment in County of San Diego

Note: There is no segment #36.

**Segment in Chula Vista

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

N = New classification is not proposed.

New LOS = LOS after change in classification.

Y = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arte

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB / 2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

TABLE 5-1 (Continued)

Buildout Adopted Community Plan

Average Daily Traffic & Levels of Service

Street	Segment	#	(1)Class	LOS E ADT (2)	Segment ADT	V/C	LOS		New Class	New V/C	NEW LOS	S?
Enrico Fermi Drive	SR-11 to Airway Rd.*	68	4-M	40,000	17,000	0.43	B		N	-	-	N
	Airway Rd. to SiempreViva Rd.	69	4-M	40,000	8,000	0.20	A		4-CL	0.27	A	N
	Siempre Viva Rd. to Via de la Amistad	70	4-M	40,000	10,500	0.26	A		4-CL	0.35	B	N
Lone Star Road	La Media Rd. to SR-125	71	4-M	40,000	38,000	0.95	E		6-PA	0.63	C	N
	SR-125 to Piper Ranch Rd.	72	4-M	40,000	55,000	1.38	F		6-PA	0.92	D	N
	Piper Ranch Rd. to City / County Boundary	73	4-M	40,000	54,500	1.36	F		6-PA	0.91	D	N
Aviator Road	Heritage Rd. to La Media Rd. (3)	74	2-C	8,000	15,500	1.94	F		4-CL	0.52	C	N
Dennery Road	Palm Ave. to Del Sol Blvd.	75	4-M	40,000	28,500	0.71	C		N	-	-	N
	Palm Ave. to Regatta Ln.	76	4-M	40,000	21,000	0.53	B		N	-	-	N
	Regatta Ln. to Red Coral Ln.	77	4-CL	30,000	15,000	0.50	C		N	-	-	N
	Red Coral Ln. to Black Coral Ln.	78	2-CL	15,000	15,000	1.00	E		N	-	-	Y
	Black Coral Ln. to East End	79	2-CN	10,000	21,500	2.15	F		N	-	-	Y
Avendia De Las Vistas	Otay Valley Rd. to Vista Santo Domingo	80	2-CN	10,000	9,000	0.90	D		N	-	-	N
	Vista Santo Domingo to Dennery Rd.	81	2-CN	10,000	25,000	2.50	F		N	-	-	Y
Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	82	4-CL	30,000	23,500	0.78	D		N	-	-	N
	Surf Crest Dr. to Riviera Pointe	83	2-CN	10,000	26,000	2.60	F		N	-	-	Y
	Riviera Pointe to Dennery Rd.	84	2-CL	15,000	26,000	1.73	F		N	-	-	Y
	Dennery Rd. to I-805	85	4-CL	30,000	20,000	0.66	C		N	-	-	N
Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	86	4-M	40,000	19,500	0.49	B		N	-	-	N
Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	87	4-CL	30,000	22,000	0.73	D		N	-	-	N
	Airway Rd. to Crescent Bay Dr.	88	4-CL	30,000	20,000	0.67	C		N	-	-	N
	Crescent Bay Dr. to Beyer Blvd.	89	2-C	8,000	21,500	2.69	F		N	-	-	Y
Emerald Crest Drive	Otay Mesa Rd. to South End (3)	90	4-CL	30,000	25,000	0.83	D		N	-	-	N
Corporate Center Drive	South End to Otay Mesa Rd. (3)	91	4-CL	30,000	17,500	0.58	C		N	-	-	N
	Otay Mesa Rd. to Progressive Ave.	92	4-CL	30,000	24,500	0.82	D		N	-	-	N
	Progressive Ave. to Innovative Dr.	93	2-C	8,000	13,000	1.63	F		2-CL	0.87	D	N
Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	94	4-CL	30,000	16,000	0.53	C		N	-	-	N
Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	96	4-CL	30,000	17,000	0.57	C		N	-	-	N

*Segment in County of San Diego

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

N = New classification is not proposed.

New LOS = LOS after change in classification.

Y = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB / 2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

TABLE 5-1 (Continued)

Buildout Adopted Community Plan

Average Daily Traffic & Levels of Service

Street	Segment	#	(1)Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	New LOS	S?
Sanyo Avenue	Otay Mesa Rd. to Airway Rd. (4)	97	4-C	15,000	43,000	2.87	F	4-M	1.08	F	Y
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas (4)	98	2-CL	15,000	27,000	1.80	F	N	-	-	Y
Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	99	2-C	8,000	33,500	4.18	F	4-M	0.84	D	N
	Siempre Viva Rd. to Marconi Dr.	100	2-C	8,000	16,000	2.00	F	4-CL	0.53	C	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	2-C	8,000	16,500	2.06	F	2-CL	1.10	F	Y
Otay Center Drive	Harvest Rd. to Siempre Viva Rd. (4)	102	4-C	15,000	14,000	0.93	E	4-CL	0.47	B	N
Michael Faraday Drive	Airway Rd. to Siempre Viva Rd. (4)	103	2-CL	15,000	9,500	0.63	C	N	-	-	N
	Siempre Viva Rd. to Marconi Dr. (4)	104	2-CL	15,000	5,500	0.37	B	N	-	-	N
St. Andrews Avenue	Otay Mesa Center Rd. To La Media Rd.	105	2-C	8,000	20,500	2.56	F	4-CL	0.68	D	N
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	107	2-C	8,000	9,000	1.13	F	4-C	0.60	C	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	2-C	8,000	7,500	0.94	E	N	-	-	Y
	Pacific Rim Ct. to Cactus Rd.	109	2-C	8,000	6,000	0.75	D	N	-	-	N
	Cactus Rd. to Continental St.	110	2-C	8,000	5,500	0.69	D	N	-	-	N
Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	111	2-C	8,000	4,000	0.50	A	N	-	-	N
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	2-C	8,000	17,000	2.13	F	N	-	-	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	2-C	8,000	36,500	4.56	F	4-M	0.91	E	Y
Datsun Drive	Innovative Dr. to Heritage Rd. (4)	114	2-C	8,000	31,000	3.88	F	4-CL	1.03	F	Y
Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave.(3)	115	2-CL	15,000	18,000	1.20	F	4-CL	0.60	C	N
Excellante Street	Airway Rd. to Gigantic St.	116	4-C	15,000	19,500	1.30	F	N	-	-	Y
Gigantic Street	Excellante St. to Centurion St.	117	4-C	15,000	19,500	1.30	F	N	-	-	Y
Centurion Street	Airway Rd. to Gigantic St.	118	4-C	15,000	18,500	1.23	F	N	-	-	Y
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr. (4)	119	2-CN	10,000	17,000	1.70	F	N	-	-	Y
Continental Street	South of Otay Mesa Rd.	120	2-C	8,000	4,500	0.56	C	N	-	-	N
	North of Airway Rd.	121	2-CL	15,000	10,000	0.67	C	N	-	-	N

*Segment in County of San Diego
= Segment Number
(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.
(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.
(3) = Add to Circulation Plan.
(4) = Functional classification shown, not currently classified.
S? = Significant impact, Yes (Y) or No (N).
N = New classification is not proposed.
New LOS = LOS after change in classification.
Y = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial
7-PA = 7-lane Primary Arterial
7-M = 7-lane Major Arterial
6-PA = 6-lane Primary Arterial
6-M = 6-lane Major Arterial
5-M = 5-lane Major Arterial (3SB / 2NB)
4-P = 4-lane Primary Arterial
4-M = 4-lane Major Arterial
4-CL = 4-lane Collector (with continuous left turn lane)
4-C = 4-lane Collector (without continuous left turn lane)
2-CL = 2-lane Collector (with continuous left turn lane)
2-CN = 2-lane Collector (no fronting property)
2-C = 2-lane Collector (without continuous left turn lane)

classification of roadways is based on the existing functional classification. Or, if the street did not exist in the existing conditions assessment, or if analyzing the projected volumes on the existing facility would not be meaningful because it would not be possible to carry those volumes on the existing sized facility due to its capacity, then the Adopted Community Plan classification was used. Failing roadway segments at level of service "E" or "F" with significant traffic impacts are summarized below. All other roadway segments are projected to operate at a level of service "D" or better, without significant traffic impacts

Otay Mesa Road

-Caliente Avenue to Corporate Center Drive: level of service "F".

-Heritage Road to Cactus Road: level of service "F".

-Britannia Boulevard to Ailsa Court: level of service "E".

A reclassification of these segments from a six lane Primary Arterial to eight lanes is not recommended. Widening to eight lanes would be costly, and intersections would be wider and less pedestrian friendly. Right turn only lanes at intersections are recommended to be lengthened to serve as auxiliary lanes between intersections. Without reclassification the significant impact would remain unmitigated.

-Ailsa Court to La Media Road: level of service "E".

This segment is currently classified as a seven lane Major Arterial. A reclassification to a six lane Primary Arterial is recommended. As the property on the south side is redeveloped, parking and access will be restricted. The significant impact would be mitigated by this reclassification.

- Piper Ranch Road to State Route 125 Northbound Ramp intersection: level of service "C".

A reclassification from a four lane Primary Arterial to a six lane Primary Arterial is recommended. Segments to the west and to the east are recommended to be six lanes. To maintain traffic lane continuity and to reduce congestion that could be caused by merging lanes, a continuous six lane roadway is recommended.

-State Route 125 Northbound Ramp intersection to Harvest Road: level of service "F".

A reclassification to a six lane Primary Arterial is recommended. There are few driveways and developed parcels along this segment so restricting parking and access would have a minimal impact. The level of service would improve from "F" to "C", and the significant impact would be fully mitigated.

-Harvest Road to Sanyo Avenue: level of service "E".

A reclassification from a four lane Major Arterial to six lane Primary Arterial is recommended. There are few driveways and developed parcels along this segment so restricting parking and access would have a minimal impact. The significant impact would be mitigated by this reclassification. A reclassification to a six lane Primary Arterial is recommended for the entire length of Otay Mesa Road east of Sanyo Avenue to match the six lane classification within the County of San Diego, and maintain consistency in lane configurations.

Airway Road

-Airway Road is classified as a four lane Major Arterial from Caliente Avenue to the east City limit. The segments between Caliente Avenue and Sanyo Road are expected to be at levels of service "E" or "F", and with significant traffic impacts.

The segment between Caliente Avenue and Heritage Road would have the highest volume along these segments. A reclassification to a six lane Primary Arterial for this segment is recommended. This reclassification results in improving the level of service from "F" to "E", however, the significant impact

would remain unmitigated. This segment includes a bridge crossing an open space canyon so that a six lane bridge would be costly and an eight lane bridge obviously more costly, so is not recommended.

Of the remaining six segments between Heritage Road and Sanyo Avenue, a reclassification to a six lane Major Arterial is recommended. A Primary Arterial reclassification is not recommended since restricting parking and access would possibly discourage full development of adjacent light industrial uses. Two of the six significant impacts to segments would be mitigated and four would be partially mitigated.

Siempre Viva Road

-Caliente Avenue to East Beyer Boulevard: level of service "F".

This segment of Siempre Viva Road would extend through the MSCP open space area. Retaining the four lane major arterial classification rather than reclassifying to six lanes would minimize costs and infringement into the MSCP area. The significant impact would remain unmitigated.

-Segments from Otay Center Drive to Paseo de las Americas: level of service "F".

A reclassification from six to eight lanes is not recommended since a costly widening of the SR-905 / Siempre Viva Road interchange would be needed. The significant impact to these segments would be unmitigated.

Palm Avenue

-I-805 to Dennery Road: level of service "F".

Both sides of this segment are built out, with medical offices and commercial to the north and a major shopping center to the south. In addition considerable residential development exists nearby to the east, north, and south. A reclassification to eight lanes is not recommended since a widening would be costly and a wider roadway would be less pedestrian friendly. In addition a FBA / PFFP project will widen the I-805 overcrossing adding lanes to the northbound ramp intersection. Ramp intersection levels of service are expected to be acceptable at level of service "D" with completion of this project, through buildout of the community. However, the segment significant impact would be unmitigated.

Caliente Avenue

-Otay Mesa Road to Airway Road:

Although not at level of service "E" or "F", Caliente Avenue between Otay Mesa Road and Airway Road is recommended to be reclassified from a six lane Major Arterial to a six lane Primary Arterial, restricting access and parking adjacent to the closely spaced intersections, including SR-905 on and off ramp intersections with Caliente Avenue.

-Caliente Avenue between Airway Road and Siempre Viva Road: level of service "F".

A reclassification from a four lane to a six lane Major Arterial is recommended. This segment extends through a future residential area so that a Prime Arterial restricting access is not recommended. The significant impact would be only partially mitigated.

Heritage Road / Otay Valley Road

-Otay Valley Road between Main Street in Chula Vista and Avenida de las Vista: level of service "F".

A reclassification to more than the current six lane Primary Arterial would be a decision to be made by the City of Chula Vista. A wider roadway and bridge over the Otay River Valley would be costly and increase environmental impacts to the Otay River Valley and is not recommended. The significant impact to this segment would be unmitigated.

-Avenida de las Vistas to Datsun Street: level of service "F".

A reclassification from a six lane Major Arterial to a six lane Primary Arterial is recommended. A wider classification would be costly to construct and is not recommended. The segment significant impact would be partially mitigated.

-Datsun Street to Otay Mesa Road: level of service "F".

A reclassification from a six lane Major Arterial to a six lane Primary Arterial is recommended. There are few developed driveways along this segment so that restricting parking and access would have minimal impacts to adjacent parcels. The segment significant impact would be mitigated.

-Otay Mesa Road to SR-905 is expected to operate acceptably as a six lane Major Arterial.

There will be close spacing between intersections from Datsun Street, crossing Otay Mesa Road, through the SR-905 interchange, and to Airway Road. A reclassification to a six lane Primary Arterial restricting parking and access is recommended for the entire length of Heritage Road. However, segment significant impacts south of Airway Road would be only partially mitigated.

-SR-905 to Airway Road: level of service "F".

A reclassification to a six lane Primary Arterial mitigates the significant segment impact.

-Airway Road to Siempre Viva Road: level of service "F".

A reclassification to a six lane Primary Arterial does not fully mitigate the significant segment impact. A wider roadway would be costly and is not recommended.

Cactus Road

- Otay Mesa Road to Airway Road: level of service "F".

A reclassification to a four lane Major Arterial is recommended. The significant segment impact would be mitigated.

- Siempre Viva Road to the southend: level of service "E".

A higher classification than the current four lane collector is not recommended. This extension will serve local traffic only, not through traffic. The significant segment impact would be unmitigated.

Britannia Boulevard

- SR-905 to Airway Road: level of service "F".

Britannia Boulevard has been constructed with six lanes between Otay Mesa Road and the SR-905 eastbound ramps, and five lanes between the eastbound ramps and Airway Road. The Cross Border Facility project includes reclassifying and construction of this segment to six lanes as project mitigation. The SR-905 on and off ramp intersections are closely spaced so that parking and access should be restricted along these segments.

In addition Britannia Boulevard will also be the designated truck route for southbound laden trucks between SR-905 and the planned truck road parallel to the border.

Therefore, a reclassification to a six lane Primary Arterial is recommended for the segments between Otay Mesa Road and Airway Road. Between Airway Road and Siempre Viva Road, a six lane Major Arterial is recommended. The significant impact to these segments would be mitigated.

- Siempre Viva Road to Southend: level of service "F".

A reclassification to a four lane Major Arterial is recommended. The significant impact to this segment would be mitigated.

La Media Road

-Birch Road to Lone Star Road: level of service "F".

The City of Chula Vista is planning to remove the segment of La Media Road crossing the Otay River Valley within Chula Vista from the City of Chula Vista General Plan Circulation Element. However, the traffic volumes for this segment for this scenario are based on including this segment in the traffic model. Due to the need to constraint a lengthy bridge through the Otay River Valley, the cost of this segment may be prohibitive so that a reclassification from six lanes to a wider roadway is not recommended. The significant impact to this segment would be unmitigated.

-Lone Star Road to Otay Mesa Road: level of service "F".

Construction as an eight lane facility rather than six lanes would require encroachment into environmentally sensitive land and the Brown Field Airport on the west side, and is not recommended. The segment significant impact would be unmitigated.

- SR-905 to Airway Road: level of service "F".

The addition of lanes to this currently classified six lane Primary Arterial would require a costly modification to the SR-905 interchange and is not recommended. The segment significant impact would be unmitigated.

- Airway Road to Siempre Viva Road: level of service "D".

The northerly segment is recommended to be classified as a five lane Major Arterial. Three southbound lanes would transition to two lanes, with two northbound lanes. The southerly segment would remain as currently classified, a four lane Major Arterial.

Harvest Road

- Otay Center Drive to Siempre Viva Road: level of service "E".

A reclassification from a four lane Major Arterial is not recommended for this segment. Widening to six lanes would not be cost effective. The significant impact to this segment would be unmitigated.

Lone Star Road

- La Media Road to SR-125: level of service "E".
- SR-125 to City / County Boundary: level of service "F"

A reclassification to a six lane Primary Arterial is recommended. The significant segment impact would be mitigated.

Aviator Road

- Heritage Road to La Media Road: level of service "F".

This segment is recommended to be added to the circulation element as a four lane Collector (without left turn lane). The significant segment impact would be mitigated.

Dennery Road

-Red Coral Lane to Black Coral Lane: level of service "E".

-Black Coral Lane to East End: level of service "F".

This street is completely constructed adjacent to residential areas.

A reclassification is not recommended. Retaining a two lane Collector (with left turn lane) classification between Red Coral and Black Coral Lanes, and a two lane Collector (with no fronting property) from Black Coral Lane to the east end would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impact would be unmitigated.

Avenida De Las Vistas

- Vista Santo Domingo to Dennery Road: level of service "F".

A reclassification is not recommended. This street is fully constructed and has adjacent single family residences. Retaining a two lane Collector (without fronting property) classification would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impact would be unmitigated.

Del Sol Boulevard

- Surf Crest Drive to Riviera Pointe: level of service "F".

This segment will pass through environmentally sensitive lands and is on a slope. Retaining the two lane Collector (without fronting property) classification would minimize impacts to the MSCP land and discourage speeding and through traffic not destined to the adjacent residential development.

- Riviera Pointe to Dennery Road: level of service "E**".**

This segment is fully constructed and surrounded by environmentally sensitive land and single family development. A reclassification to four lanes is not recommended. This significant segment would be unmitigated.

Old Otay Mesa Road

- Crescent Bay Drive to Beyer Boulevard: level of service "F".

This segment of Old Otay Mesa Road is situated on a steep, rocky hillside that would be costly to widen. Therefore, no reclassification is recommended. The significant segment impact would remain unmitigated.

Corporate Center Drive

- Progressive Avenue to Innovative Drive: level of service "F".

A reclassification is not recommended. This street is fully constructed with adjacent developments. Retaining a two lane industrial Collector (without left turn lane) classification would discourage through traffic not destined to / from the adjacent uses. The significant segment impact would be unmitigated.

Sanyo Avenue

- Otay Mesa Road to Airway Road: level of service "F".

This segment is constructed as a four lane Collector (without left turn lane) and is to be added to the circulation plan. Widening to a four lane Major Arterial width would adversely affect adjacent development, but minor widening to accommodate a central left turn lane and a reclassification to a four lane Collector (with left turn lane) is recommended. The segment significant impact would remain significant and unmitigated.

Heinrich Hertz Drive

- Airway Road to Paseo de las Americas: level of service "E".

This segment is constructed as a two lane Collector with left turn lanes at intersections and is to be added to the circulation plan as a two lane Collector (with left turn lane). Widening to a four lane Major Arterial

would adversely affect adjacent properties. The segment significant impact would remain significant and unmitigated.

Paseo De Las Americas

- Airway Road to Siempre Viva Road: level of service "F".
- Siempre Viva Road to Marconi Drive: level of service "F".

These segments are currently classified as a two lane Collector but are fully constructed with four lanes, including raised medians from Heinrich Hertz Drive to Siempre Viva Road and from Siempre Viva Road to Via de la Amistad. A reclassification to a four lane Major Arterial is recommended for the segment north of Siempre Viva Road and four lane Collector (with left turn lane) south of Siempre Viva Road. The significant segment impacts would be mitigated.

Marconi Drive

- Paseo de las Americas to Enrico Fermi Drive: level of service "F".

This segment is constructed as a two lane industrial Collector, and is wide enough to be striped with two lanes and a continuous central left turn lane. Widening to a four lane Collector width would adversely affect adjacent properties. A two lane Collector (with left turn lane) classification is recommended. Although this restriping would add capacity, the segment significant impact would remain significant and unmitigated.

St. Andrews Avenue

- Otay Mesa Center Road to La Media Road: level of service "F".

Although currently classified as a two lane Collector, this segment is constructed with four lanes. The segment significant impact would be mitigated with a change in classification to a four lane Collector (with left turn lane).

Gailes Boulevard

- Otay Mesa Road to St. Andrews Avenue: level of service "F".

This street is constructed with four lanes and a raised median. A reclassification from a two lane Collector to a four lane Collector (without two-way left turn lane) is recommended and would mitigate the significant segment impact.

Camino Maquiladora

- Heritage Road to Pacific Rim Ct.: level of service "E".

This segment serves adjacent industrial uses, but has diverted traffic from Otay Mesa Road. This segment is not meant to be a through traffic by-pass route and is not recommended for reclassification. The significant segment impact would be unmitigated.

Progressive Avenue

- Corporate Center Drive to Innovative Drive: level of service "F".

This segment is constructed as a two lane industrial Collector (without left turn lane) and serves adjacent industrial uses, but has diverted traffic from Heritage Road. This segment is not meant to be a through traffic by-pass route. A reclassification to four lanes is not recommended. The significant segment impact would remain unmitigated.

Otay Mesa Center Road

- Otay Mesa Road to St. Andrews Avenue: level of service "F".

This segment is classified as a two lane Collector but is constructed with four lanes without a two way left turn lane. A reclassification to a four lane Major Arterial is recommended. The significant segment impact would be mitigated.

Datsun Street

- Innovative Drive to Heritage Road: level of service "F".

This segment is planned to serve the adjacent industrial uses, but has high volumes due to traffic diverted from Heritage Road. This segment is not meant to be a through traffic by-pass route. A classification as a four lane Collector (with left turn lane) is recommended, rather than a four lane Major Arterial. The significant segment impact would remain unmitigated.

Avenida Costa Azul

- Otay Mesa Road to St. Andrews Avenue: level of service "E".

Add to circulation plan as a four lane Collector (with left turn lane). The significant segment impact would be mitigated by this classification.

Excellante Street / Gigantic Street / Centurion Street

- All segments at level of service "F".

These streets are fully constructed four lane Collector (without left turn lane) loop streets that will serve adjacent development. No reclassification is recommended. The significant segment impacts would remain unmitigated.

Exposition Way / Vista Santo Domingo

- Avenida de las Vistas to Corporate Center Drive: level of service "F".

This segment has high volumes due to diverted traffic from Otay Valley Road. Vista Santo Domingo is constructed as a two lane Collector (no fronting property) within a residential area and is not meant to be a by-pass route for through traffic, so that retaining this classification would discourage speeding, and through traffic not destined for the adjacent residential neighborhoods. A reclassification is not recommended. The significant segment impact would remain unmitigated.

Figure 5-3 shows recommended roadway classifications for the "No Project" buildout Community Plan scenario.

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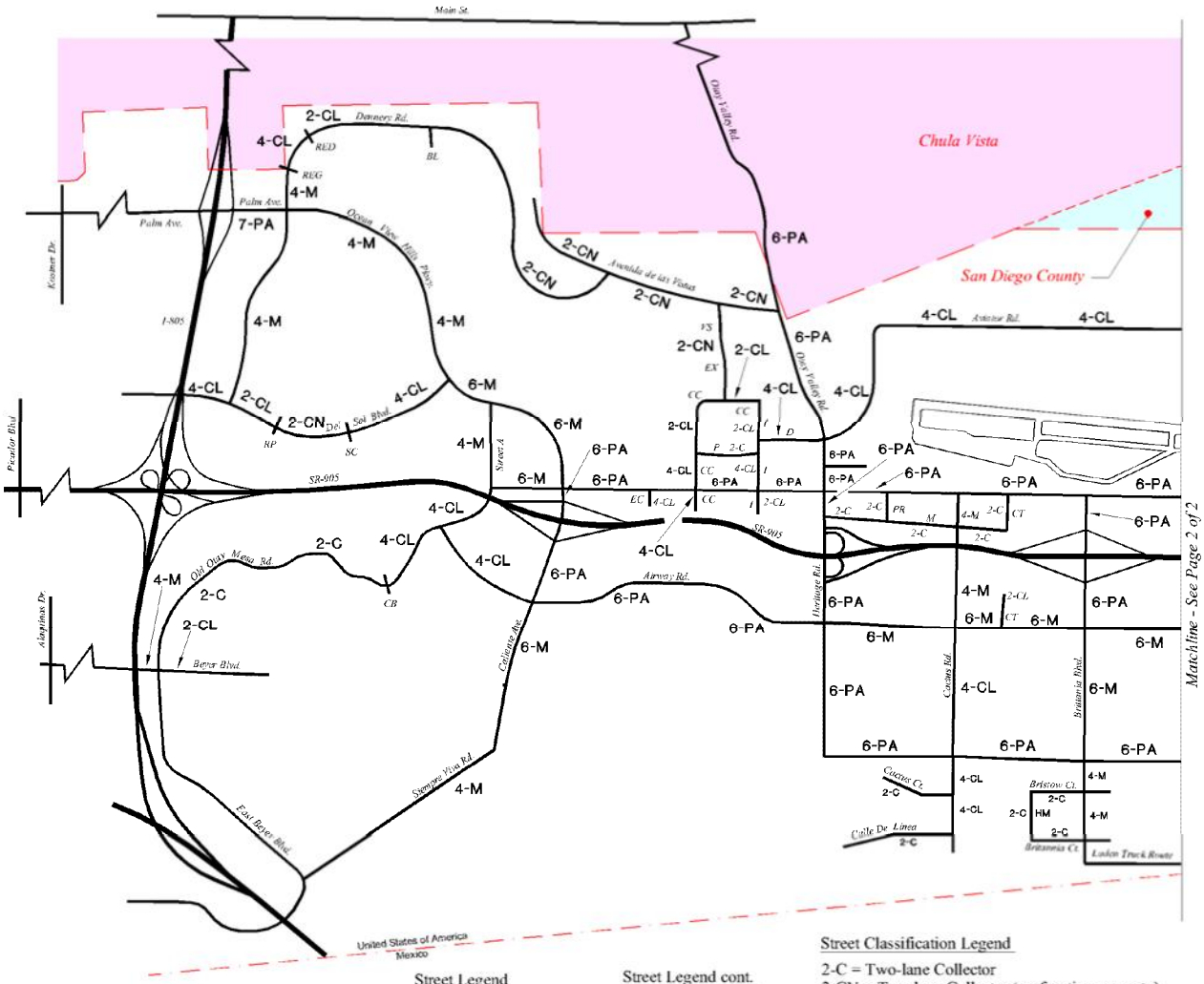


Based on Adopted Community Plan
(11-30-10 Traffic Model Date)

LEGEND

= City of San Diego Boundary

Street Legend

D = Datsun St.
P = Progressive Ave.
EC = Emerald Crest Dr.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
VS = Vista Santo Domingo
CT = Continental St.
HM = Hixson Mesa Way

Street Legend cont.

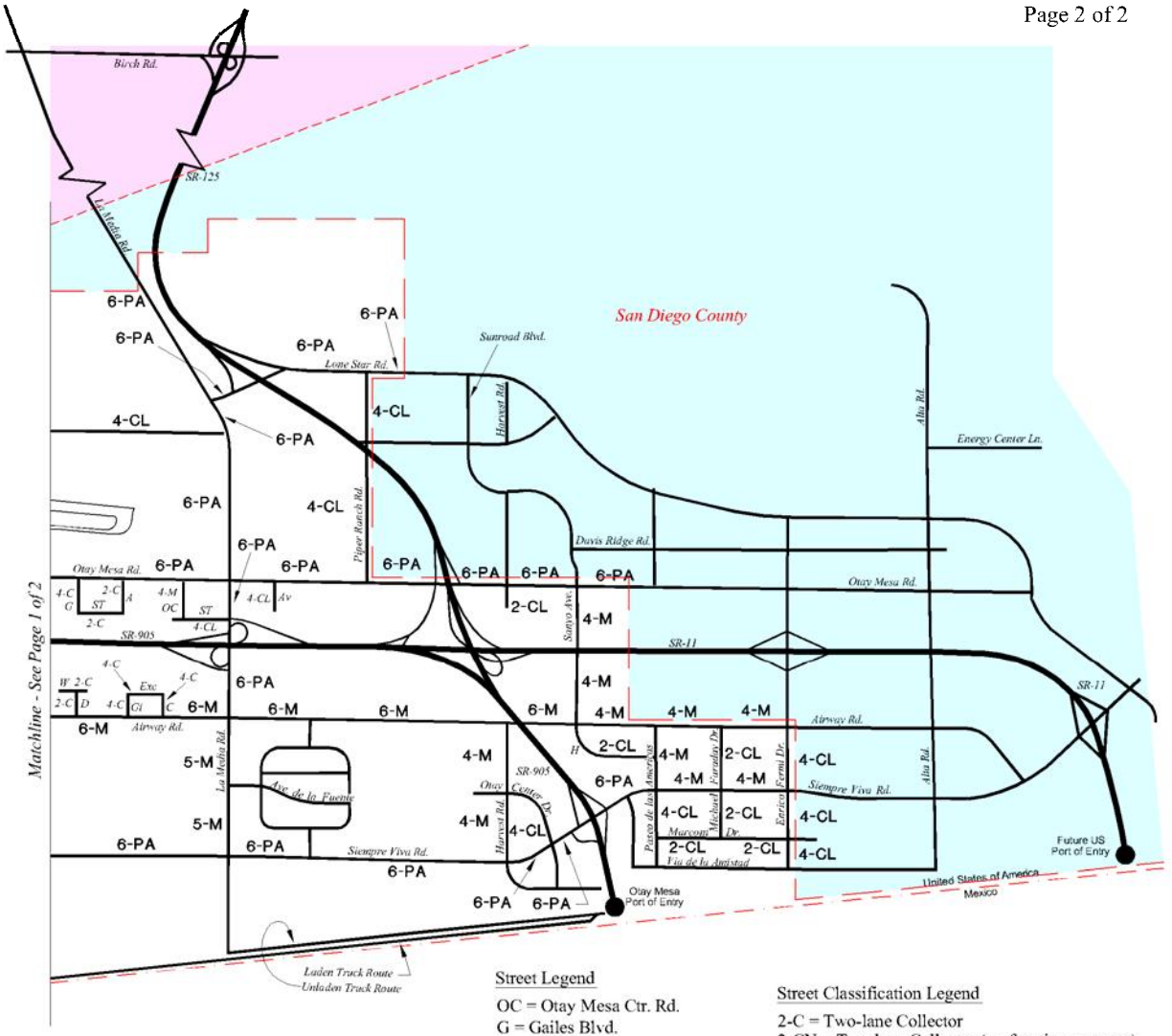
REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.

Street Classification Legend

2-C = Two-lane Collector
2-CN = Two-lane Collector (no fronting property)
2-CL = Two-lane Collector (with left turn lane)
4-C = Four-lane Collector (without left turn lane)
4-CL = Four-lane Collector (with left turn lane)
4-M = Four-lane Major Arterial
5-M = Five-lane Major Arterial (3 SB/2 NB)
6-M = Six-lane Major Arterial
6-PA = Six-lane Primary Arterial
7-PA = Seven-lane Primary Arterial

FIGURE 5-3
Adopted Community Plan Land Use Scenario
With Proposed Roadway Classification Recommendations

Page 2 of 2



Based on Adopted Community Plan
(11-30-10 Traffic Model Date)

LEGEND

— — = City of San Diego Boundary

Street Legend

OC = Otay Mesa Ctr. Rd.
G = Gailes Blvd.
A = Ailsa Ct.
ST = St. Andrews Ave.
H = Heinrich Hertz Dr.
C = Centurion St.
Gi = Gigantic St.
Exc = Excellante St.
Av = Avenida Costa Azul
W = Waterville Rd.
D = Dublin Dr.

Street Classification Legend

2-C = Two-lane Collector
2-CN = Two-lane Collector (no fronting property)
2-CL = Two-lane Collector (with left turn lane)
4-C = Four-lane Collector (without left turn lane)
4-CL = Four-lane Collector (with left turn lane)
4-M = Four-lane Major Arterial
5-M = Five-lane Major Arterial (3 SB/2 NB)
6-M = Six-lane Major Arterial
6-PA = Six-lane Primary Arterial
7-PA = Seven-lane Primary Arterial

N
NO SCALE

FIGURE 5-3
Adopted Community Plan Land Use Scenario
With Proposed Roadway Classification Recommendations

5.3 Freeway Levels of Service

Table 5-2 lists freeway segments evaluated for the "No Project" buildout Community Plan scenario.

Segments of Interstate 805 north of State Route 905 are projected to be significantly impacted by Otay Mesa Community Plan and regional cumulative traffic. With existing lanes and an additional northbound auxillary lane currently being constructed between SR-905 and Palm Avenue, the segment of I-805 north of SR-905 are expected to be at level of service "F". The Adopted SANDAG 2050 Regional Transportation Plan (RTP) includes two managed lanes on I-805 in each direction north of SR-905. With these additional lanes, the segment of I-805 between Main Street and Palm Avenue would be at level of service "E". The segment between Palm Avenue and SR-905 would be at level of service "D" during peak hours.

State Route 905 is assumed with six lanes and auxillary lanes as is being constructed by Caltrans. Impacts would be significant and unmitigated between Picador Boulevard and La Media Road. State Route 905 has been designed so that median High Occupancy Vehicle (HOV) lanes could be installed in the future, but are not currently planned or funded by Caltrans. The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts, but would not provide acceptable levels of service.

Table 5-2-A shows freeway levels of service with HOV lanes added to segments at level of service "F".

TABLE 5-2

Buildout Adopted Community PlanFreeway Segment Levels of Service

Segment		Lanes (1-Way)	Cap.	ADT (1)	Peak Hour %(5)	Direction Split(5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	2 + AUX	6,300	144,500	0.08	0.6	0.90	7,707	1.22	F0
	I-805 to Caliente Ave. (4)	3 + CL	8,650	253,500	0.08	0.6	0.90	13,520	1.56	F3
	Caliente Ave. to Heritage Rd.	3	7,050	224,000	0.08	0.6	0.90	11,947	1.68	F3
	Heritage Rd. to Britannia Blvd.	3	7,050	193,000	0.08	0.6	0.90	10,293	1.46	F3
	Britannia Blvd. to La Media Rd.	3	7,050	167,000	0.08	0.6	0.90	8,907	1.26	F1
	La Media Rd. to SR-125	3	7,050	121,000	0.08	0.6	0.90	6,453	0.92	E
	SR-125 to Siempre Viva Rd.	3	7,050	103,000	0.08	0.6	0.90	5,493	0.78	C
	Siempre Viva Rd. to Border	3	7,050	64,500	0.08	0.6	0.90	3,440	0.48	B
I-805	Main St. to Palm Ave.	4	9,400	263,000	0.08	0.6	0.90	14,027	1.49	F3
	Palm Ave. to SR-905	4	9,400	232,500	0.08	0.6	0.90	12,400	1.32	F1
	SR-905 to I-5	4	9,400	107,500	0.08	0.6	0.90	5,733	0.60	B
	I-5 to Border	6	14,100	127,500	0.08	0.6	0.90	6,800	0.48	B
SR-125	Birch Rd. to Lone Star Rd.	4 (Toll)	9,700	102,500	0.08	0.6	0.90	5,467	0.56	E
	Lone Star Rd. to SR-905	4 (Toll)	9,700	76,000	0.08	0.6	0.90	4,053	0.42	C
SR – 11	SR-905 to Enrico Fermi Dr.	2	4,700	50,500	0.08	0.6	0.90	2,693	0.57	B
	Enrico Fermi Dr. to Siempre Viva Rd	2	4,700	25,000	0.08	0.6	0.90	1,333	0.28	A
	Siempre Viva Rd. to Border	2	4,700	39,500	0.08	0.6	0.90	2,107	0.45	B

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

Note:

(1) Year 2030 Forecast Volume, Average Daily Traffic Volume (9-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source:Caltrans Traffic Volumes, Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) Highway Capacity Manual (2000) EQN. (3-2); assume 10% trucks plus RV's.

F = Shading indicates a significant impact.

TABLE 5-2-A

Buildout Adopted Community Plan

Freeway Segment Levels of Service

(With HOV Lanes Added To LOS F Segments)

Segment		ADD HOV	Lanes (1Way)	Cap.	ADT (1)	Peak Hour %(5)	Direction Split (5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	+H	2 + AUX	8,100	144,500	0.08	0.6	0.90	7,707	0.95	E
	I-805 to Caliente Ave. (4)	+H	3 + CL	10,150	249,000	0.08	0.6	0.90	13,280	1.31	F1
	Caliente Ave. to Heritage Rd.	+H	3	8,650	220,500	0.08	0.6	0.90	11,760	1.36	F2
	Heritage Rd. to Britannia Blvd.	+H	3	8,650	192,000	0.08	0.6	0.90	10,240	1.18	F0
	Britannia Blvd. to La Media Rd.	+H	3	8,650	165,000	0.08	0.6	0.90	8,800	1.02	F0
I-805	Main St. to Palm Ave,	+2H	4+AUX	14,400	264,000	0.08	0.6	0.90	14,080	0.98	E
	Palm Ave. to SR-905	+2H	4+AUX	14,400	234,500	0.08	0.6	0.90	12,507	0.87	D

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

F = Shading indicates a significant impact.

+H = Add HOV lane in each direction.
+2H = Add two HOV lanes in each direction.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (11-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source:Caltrans Traffic Volumes, Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) Highway Capacity Manual (2000) EQN. (3-2); assume 10% trucks plus RV's.

SR-905 HOV lanes are not currently in the Regional Transportation Plan and are not funded.

5.4 Intersection Levels of Service

Table 5-3 shows the "No Project" buildout Community Plan scenario intersection levels of service with and without recommended mitigation. **Figure 5-4** is the intersection number key showing locations of the listed intersections.

Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches. All intersections will be signalized. Lane configurations at intersections with mitigation identified are included in **Appendix B**. Also included are peak hour volumes at each intersection and intersection levels of service worksheets.

Mitigation beyond the lane configurations required in the City of San Diego Street Design Manual or at freeway ramps is recommended at 45 of 53 intersections evaluated.

Of the 53 intersections evaluated, 46 intersections are expected to be at level of service "E" or "F" during the AM peak hour and 48 during the PM peak hour. With feasible mitigation, 35 intersections would remain to operate unacceptably in the AM peak hour and ~~36~~ 37 intersections would remain to operate unacceptably in the PM peak hour. Several interchange intersections that can be designed for acceptable levels of service are included as significantly impacted due to upstream queues extending through the intersection causing increased delay and a degraded level of service, as footnoted in Table 5-3. **Table 5-4** shows lane configurations at each intersection and also shows lanes to be added after mitigation.

The SR-905 interchanges at Caliente Avenue and at La Media Road are recommended for major improvements. The Caltrans designs of these interchanges are based on forecasts of future traffic from the build out of only approximately fifty percent of Otay Mesa land uses. The Heritage Road interchange currently does not have a final, funded design, so that the lane configurations at the ramp intersections included in this report should be incorporated into the final design.

TABLE 5-3

Buildout Adopted Community Plan
Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
1	Palm Ave. / I-805 SB Ramps	64.8	E	111.7	F	36.6	D	71.5	E
2	Palm Ave. / I-805 NB Ramps	167.1	F	172.8	F	5.6	A	8.9	(1) A
3	Palm Ave. / Dennery Rd.	36.0	D	69.4	E	-	-	-	-
4	Otay Mesa Rd. / Caliente Ave.	359.8	F	201.6	F	236.3	F	102.0	F
5	Caliente Ave. / SR-905 WB Ramps	154.1	F	162.7	F	64.7	E	57.4	E
6	Caliente Ave. / SR-905 EB Ramps	225.9	F	214.7	F	92.9	F	56.8	E
7	Caliente Ave. / Airway Rd.	347.1	F	510.6	F	326.2	F	396.2	F
8	Caliente Ave. / Siempre Viva Rd.	86.4	F	82.0	F	-	-	-	-
9	Otay Mesa Rd. / Heritage Rd.	350.5	F	286.1	F	285.8	F	155.8	F
10	Heritage Rd. / SR-905 WB Ramps	36.8	(1) D	240.9	F	14.6	B	13.2	B
11	Heritage Rd. / SR-905 EB Ramps	64.3	E	127.7	F	50.4	(1) D	(1) 45.7	(1) D
12	Heritage Rd. / Airway Rd.	457.0	F	555.0	F	143.3	F	225.6	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	481.3	F	302.6	F	249.9	F	166.0	F
15	Airway Rd. / Cactus Rd.	212.3	F	319.4	F	115.2	F	100.7	F
16	Siempre Viva Rd. / Cactus Rd.	269.6	F	290.1	F	127.9	F	108.2	F
17	Otay Mesa Rd. / Britannia Blvd.	63.8	E	72.0	E	24.0	(1) C	54.1	(1) D
18	Britannia Blvd. / SR-905 WB Ramps	191.8	F	298.2	F	46.7	(1) D	187.9	F
19	Britannia Blvd. / SR-905 EB Ramps	290.0	F	283.7	F	276.0	F	124.5	F
20	Britannia Blvd. / Airway Rd.	453.3	F	490.5	F	218.1	F	206.7	F
21	Siempre Viva Rd. / Britannia Blvd.	502.4	F	494.6	F	208.2	F	302.3	F
22	Otay Mesa Rd. / La Media Rd.	484.5	F	495.7	F	148.3	F	128.0	F

Note: #13 is a right angle intersection (as assumed in the traffic model) with only two approaches.

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact.

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TABLE 5-3 (Continued)

Buildout Adopted Community Plan
Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
23	La Media Rd. / SR-905 WB Ramps	257.6	F	335.2	F	117.7	F	195.7	F
24	La Media Rd. / SR-905 EB Ramps	319.2	F	224.8	F	218.5	F	157.6	F
25	La Media Rd. / Airway Rd.	786.8	F	654.3	F	236.9	F	338.7	F
26	La Media Rd. / Siempre Viva Rd.	303.0	F	238.6	F	90.6	F	102.7	F
27	La Media Rd. / Lone Star Rd.	547.7	F	755.8	F	399.5	F	492.2	F
28	Lone Star Rd. / SR-125 SB Off Ramp	52.4	(1) D	14.4	(1) B	-	-	-	-
29	Lone Star Rd. / SR-125 NB On Ramp	3.3	(1) A	7.2	(1) A	-	-	-	-
30	Lone Star Rd. / Piper Ranch Rd.	67.5	E	15.4	B	43.2	D	15.2	B
31	Otay Mesa Rd. / Piper Ranch Rd.	274.0	F	284.6	F	89.7	F	165.7	F
32	Otay Mesa Rd. / SR-125 SB Off Ramp	40.2	(1) D	7.9	(1) A	16.5	(1) B	7.3	A
33	Otay Mesa Rd. / SR-125 NB On Ramp	3.3	(1) A	14.9	(1) B	-	-	-	-
34	Otay Mesa Rd. / Harvest Rd.	132.3	F	87.2	F	34.1	C	41.9	(1) D
35	Siempre Viva Rd. / Otay Center Dr.	298.0	F	471.8	F	235.5	F	225.9	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	149.3	F	248.1	F	-	-	-	-
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	(2) 4,196	F	(2) 899.3	F	292.5	F	40.4	(1) D
37	Siempre Viva Rd. / SR-905 NB Ramps	150.8	F	431.7	F	144.1	F	355.8	F
38	Siempre Viva Rd. / Paseo de las Americas	648.7	F	751.0	F	352.0	F	430.7	F
39	Dennery Rd. / Del Sol Blvd.	104.7	F	72.2	E	-	-	-	-
40	Ocean View Hills Pkwy. / Del Sol Blvd.	172.7	F	192.2	F	68.2	E	132.4	F
41	Ocean View Hills Pkwy. / Street A	162.6	F	258.4	F	49.8	D	51.9	D
42	Old Otay Mesa Rd. / Beyer Blvd.	623.1	F	638.2	F	47.7	D	46.0	D
43	Otay Mesa Rd. / Corporate Center Dr.	146.2	F	125.8	F	103.7	F	96.5	F
44	Otay Mesa Rd. / Innovative Dr.	96.4	F	64.8	E	82.8	F	36.2	D

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

(2) Unsignalized: SB to WB Right Turn at LOS F (AM and PM Peak Hours);

F = Shading indicates a significant impact.

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TABLE 5-3 (Continued)

Buildout Adopted Community Plan
Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
45	Harvest Rd. / Airway Rd.	41.1	D	238.9	F	38.1	D	101.5	F
46	Harvest Rd. / Siempre Viva Rd.	239.9	F	230.4	F	203.8	F	221.1	F
47	Otay Mesa Rd. / Sanyo Ave.	296.7	F	424.5	F	109.9	F	113.5	F
48	Airway Rd. / Sanyo Ave.	740.3	F	371.4	F	178.8	F	131.1	F
49	Paseo de las Americas / Heinrich Hertz Dr.	(3) 196.9	F	(3) 440.2	F	10.4	B	15.0	B
50	Paseo de las Americas / Marconi Dr.	(4) 57.8	F	(4) 268.1	F	4.6	A	60.6	E
51	Heritage Rd. / Otay Valley Rd. / Datsun St.	531.8	F	676.7	F	181.3	F	290.3	F
52	Aviator Rd. / La Media Rd.	159.9	F	79.4	E	102.4	F	54.4	D
53	Otay Valley Rd. / Avenida De Las Vistas	850.4	F	361.8	F	-	-	-	-

Note: Control delay results should be considered unreliable at delay values higher than two times the LOS E value of 80.0 seconds.

Legend
CD = Control Delay
LOS = Level of Service
(3) Unsignalized: Northbound Left, Eastbound Left and Right Turns at LOS F (AM and PM Peak Hours)
(4) Unsignalized: Southbound Left, Westbound Left Turns at LOS F (AM Peak Hour);
Westbound Right Turn at LOS F (PM Peak Hour).
For unsignalized intersections, LOS F is at greater than 50.0 seconds delay / vehicle.
F = Shading indicates a significant impact.

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F

Source: 2000 Highway Capacity Manual

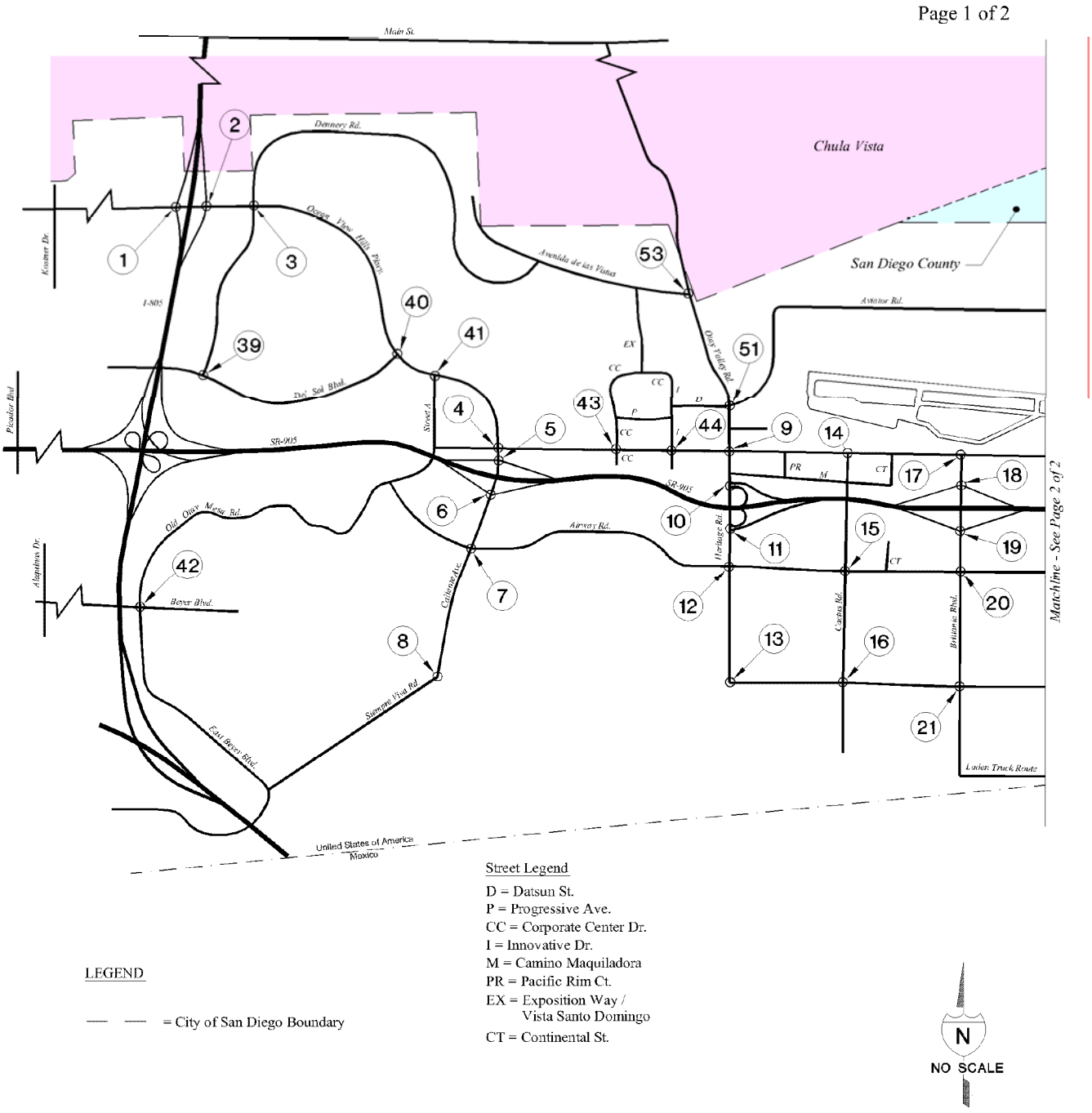

FIGURE 5-4
Adopted Community Plan
Intersection Number Key

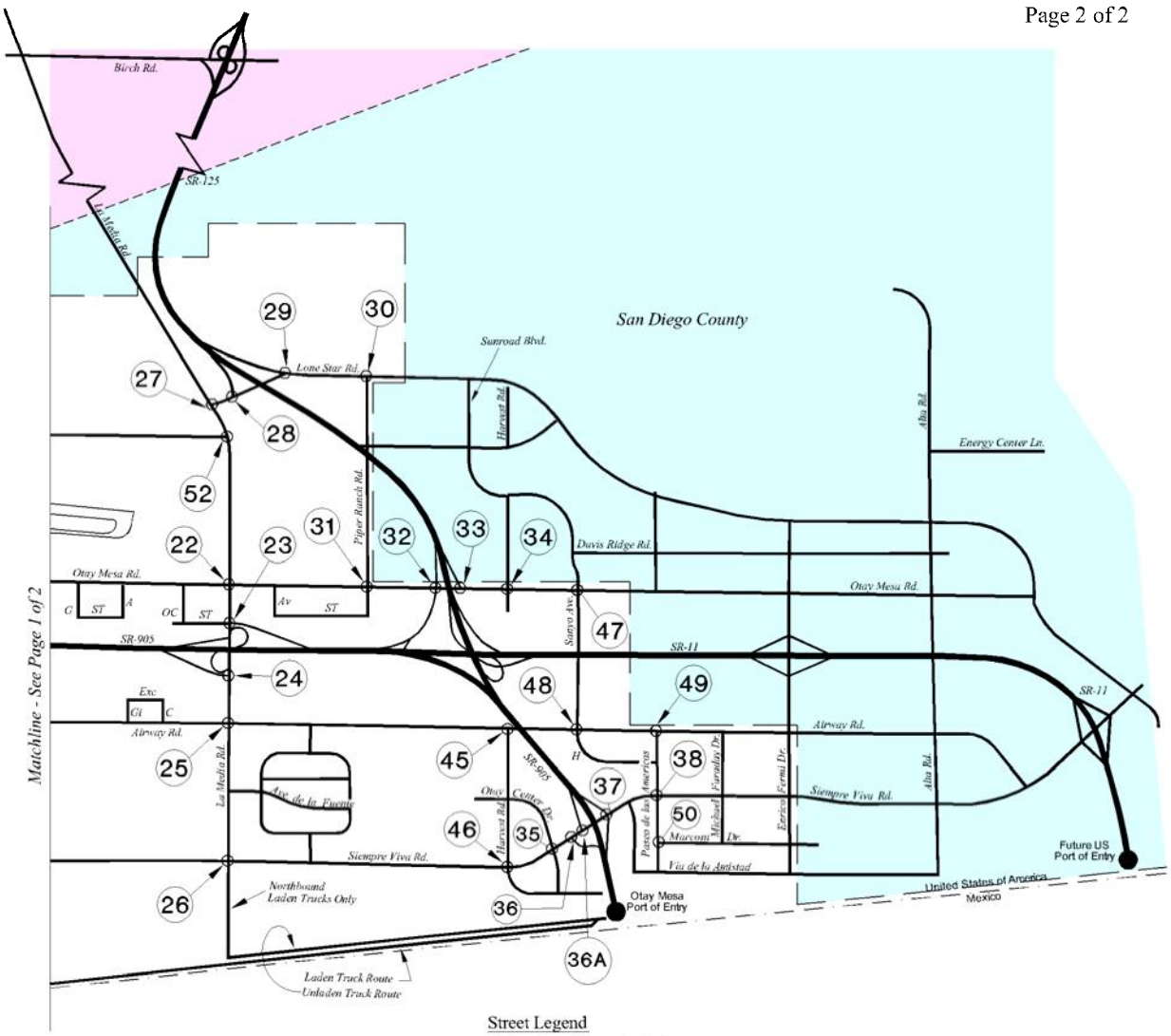

FIGURE 5-4
Adopted Community Plan
Intersection Number Key

TABLE 5-4

Intersection Mitigation Buildout Adopted Community Plan

		Without Mitigation												With Mitigation											
		NB			SB			EB			WB			NB			SB			EB			WB		
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
1	Palm Ave. / I-805 SB Ramps				1	1*	1		2	1	2	2					1	1*	2		2	1	2	2	
2	Palm Ave. / I-805 NB Ramps	S	1*	1				2	2			2	1	1	1*	1					3	1		3	2
3	Palm Ave. / Dennery Rd.	3	1	S	2	2	1	2	3	1	2	3	1												
4	Otay Mesa Rd. / Caliente Ave.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	S	2	3	1	2	3	1
5	Caliente Ave. / SR-905 WB Ramps	1	3			3*	S				S	1	1	2	3			3	1				S	1	1
6	Caliente Ave. / SR-905 EB Ramps		3	S	1	3		1	1*	S					3	1	2	3		1	1*	1			
7	Caliente Ave. / Airway Rd.	2	3	S	2	3	S	2	2	S	2	2	1	2	3	1	2	3	S	2	2	1	2	2	1
8	Caliente Ave. / Siempre Viva Rd.				1		2	2	1			1	1												
9	Otay Mesa Rd. / Heritage Rd.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2
10	Heritage Rd. / SR-905 WB Ramps		3	S	2	3					S		2		3	2	2	3					S		2
11	Heritage Rd. / SR-905 EB Ramps		3	S	2	3					2		S		3	1	2	3					2		1
12	Heritage Rd. / Airway Rd.	2	3	S	2	3	S	2	3	S	2	3	S	2	3	1	2	3	2	2	3	2	2	3*	1
13	Heritage Rd. / Siempre Viva Rd.				2								2												
14	Otay Mesa Rd. / Cactus Rd.	2	1*	1	1	1	S	1	3	S	2	3	S	2	1*	1	1	1	S	1	3	2	2	3	1
15	Airway Rd. / Cactus Rd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2*	1	2	3*	1	2	3	1
16	Siempre Viva Rd. / Cactus Rd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2	1	2	3	1	2	3	2
17	Otay Mesa Rd. / Britannia Blvd.	2		2					3	S	2	3		2		2					3	1	2	3	
18	Britannia Blvd. / SR-905 WB Ramps	2	3			3	S				1	1*	1	2	3			3*	1				1	1*	1
19	Britannia Blvd. / SR-905 EB Ramps		3	S	2	3		S	1	2					3	2	2	3		S	1	2			
20	Britannia Blvd. / Airway Rd.	2	3	S	2	3	S	2	3	S	2	3	S	2	3	2	2	3	2	2	3	1	2	3	2
21	Siempre Viva Rd. / Britannia Blvd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2	2	2	3	2	2	3	2
22	Otay Mesa Rd. / La Media Rd.	2	3	S	2	3	S	2	3	S	2	3	S	2	3	2	2	3	2	2	3	2	2	3	2

Legend
L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

*** Notes:** #1-SB through is shared LTR wihtout mitigation; shared LT with mitigation.
#2-NB through is shared LTR.
#4-WB lanes are restriped for 2T-2R.
#5-SB is 2T-TR-R without mitigation.
#6-EB through is shared LTR without mitigation, shared LT with mitigation.
#12-WB through has shared TR.
#14-NB through is shared TR.
#15-SB through is shared TR.
#15-EB through is shared TR.
#18-WB through is shared TR without mitigation..
#18-WB through is shared LTR with mitigation.
#18-SB RT lanes added, 3rd lane restriped for shared TR.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

TABLE 5-4 (Continued)

Intersection Mitigation Buildout Adopted Community Plan

		Without Mitigation												With Mitigation											
		NB			SB			EB			WB			NB			SB			EB			WB		
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
23	La Media Rd. / SR-905 WB Ramps	2	2	1		3	1	S	1	1	1	1*	1	2	3	1		3	1	1		1	1	1*	1
24	La Media Rd. / SR-905 EB Ramps	2	3			2	1	2		2				2	3			3	1	2		2			
25	La Media Rd. / Airway Rd.	2	2	S	2	3	S	2	3	S	2	3	S	2	2	1	2	3	2	2	3	1	2	3	2
26	La Media Rd. / Siempre Viva Rd.				2	2	S	2	3			3	S				2	1	2	2	3			3	2
27	La Media Rd. / Lone Star Rd.	2	3	S	2	3	S	1	1	1	2	3	S	2	3	1	2	3	1	1	1	1	2	1*	2*
28	Lone Star Rd. / SR-125 SB Off Ramp				2		2		3			3													
29	Lone Star Rd. / SR-125 NB On Ramp							2	3			3	2												
30	Lone Star Rd. / Piper Ranch Rd.	2		1					3	S	1	3		2		1					3	1	1	3	
31	Otay Mesa Rd. / Piper Ranch Rd.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1*	2	1	2*	2	3	1	2	3	1
32	Otay Mesa Rd. / SR-125 SB Off Ramp				1	1*	1		3			3					1	1*	1		3			3	
33	Otay Mesa Rd. / SR-125 NB On Ramp							2	3			3	2												
34	Otay Mesa Rd. / Harvest Rd.	1	1	S	1	1	S	1	3	S	1	3	S	2	1	S	1	1	S	1	3	1	1	3	1
35	Siempre Viva Rd. / Otay Center Dr.	1	1	S	1	2	S	1	3	S	1	3	S	1	1	1	2	1	1	2	3	1	2	3	1
36	Siempre Viva Rd. / SR-905 SB to EB Ramp			2					3	S	2	3													
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp						1					3							2					3	
37	Siempre Viva Rd. / SR-905 NB Ramps	S	1	2				2	3			3*	1	S	1	2				2	3			3	2
38	Siempre Viva Rd. / Paseo de las Americas	1	2	S	1	2	S	1	3	1	1	3	S	1	1*	1*	1	1	2	2	3	1	1	3	1
39	Dennery Rd. / Del Sol Blvd.				1		1	1	2			2	S												
40	Ocean View Hills Pkwy. / Del Sol Blvd.	2	3	S	1	2	S	1	1	1	1	1	S	2	3	S	1	2	1	1*	1*	1	1	1	S
41	Ocean View Hills Pkwy. / Street A	1	1	1	1	1	S	1	3	S	1	3	S	2	1	1	1	1	S	1	3	2	1	3	S
42	Old Otay Mesa Rd. / Beyer Blvd.	1	1	S	1	1	S	2	2	1	2	2	S	1	1	S	1	1	1	2	2	1	2	2	S
43	Otay Mesa Rd. / Corporate Center Dr.	2	1	S	1	1*	1	2	3	S	2	3	1	2	1	S	2	1*	1	2	3	1	2	3	1
44	Otay Mesa Rd. / Innovative Dr.	1	1	S	1	1*	1	2	3	S	2	3	1	1	1	S	2	1*	1	2	3	S	2	3	1

Legend
L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

***Notes:**
#23-WB middle lane is shared LT.
#27-WB lanes restriped for 2L-T-2R.
#31-NB lanes restriped for 2L-1T-Add R.
#31-SB lanes restriped for 2L-1T-Add 2R.
#32-SB middle lane L without mitigation, shared LR with mitigation.
#37-WB lanes striped for 2T-TR-R.
#38-NB lanes restriped for L-LT-R.
#40-EB lanes restriped for L-LT-R.
#43-SB middle lane is shared TR.
#44-SB middle lane is shared TR.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

TABLE 5-4 (Continued)

Intersection Mitigation Buildout Adopted Community Plan

		Without Mitigation												With Mitigation											
		NB			SB			EB			WB			NB			SB			EB			WB		
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
45	Harvest Rd. / Airway Rd.	2		1					3	S	2	3		2		1					3	1	2	3	
46	Harvest Rd. / Siempre Viva Rd.	1	2	S	2	2	S	2	3	S	2	3	S	1	2	S	2	2	1	2	3	S	2	3	1
47	Otay Mesa Rd. / Sanyo Ave.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1	1	1	1	2	3	2	2	3	1
48	Airway Rd. / Sanyo Ave.	1	2	S	1	2	S	2	3	S	2	2	S	2	2	1	2	2	2	2	2	2	2	2	1
49	Paseo de las Americas / Heinrich Hertz Dr.	1	2			2	S	1		1				2	2			2	S	1		2			
50	Paseo de las Americas / Marconi Dr.		2	S	1	2					1		1		2	S	2	2					1		1
51	Heritage Rd. / Otay Valley Rd.	2	3	S	2	3	S	1	2	S	1	2	S	2	3	1	2	3	2	2	2	1	2	2	1
52	Aviator Rd. / La Media Rd.	2	3			3	S	2		1				2	3			3	1	2		1			
53	Otay Valley Rd. / Avenida De Las Vistas	1	3	S	1	3	S	1	1	S	1	1	1												

Legend
L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane
1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

Provided below is a summary of mitigation recommended at the interchanges and major intersections. Some intersection impacts are not proposed to be fully mitigated, usually because it would require excessively wide intersections and turning lanes and non-standard intersection configurations.

#1 & #2. I-805 Southbound and Northbound Ramps / Palm Avenue – The Otay Mesa P.F.F.P includes a bridge widening project at this location. The preliminary design includes a third through lane in each direction, an additional westbound right turn lane (total of two), northbound off- ramp widening for an additional lane (total of three), southbound off-ramp widening for an additional lane (total of four), and the addition of a fourth eastbound lane and a loop on-ramp in the southeast quadrant.

#4. Caliente Avenue / Otay Mesa Road – At this intersection of two six-lane Primary Arterials, a separate right turn only lane in the northbound direction is recommended. Although the northbound right turn volumes are expected to be high enough to warrant dual right turns, this intersection is near San Ysidro High School and in the interest of pedestrian safety and convenience, the dual right turns are not recommended.

#5. Caliente Avenue / SR-905 Westbound Ramps – Overcrossing widening to accommodate northbound dual left turn lanes is recommended. Additionally, a single southbound right turn only lane is recommended. Caliente Avenue is a school pedestrian route to the San Ysidro High School. Although the southbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turns are not recommended.

#6. Caliente Avenue / SR-905 Eastbound Ramps - Overcrossing widening to accommodate dual northbound left turn lanes at the SR-905 westbound ramps also should extend through this intersection, accommodating dual southbound left-turn lanes. A separate northbound right turn lane is recommended. Ramp widening in the eastbound direction for an added right turn lane is recommended. Although the eastbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#7. Caliente Avenue at Airway Road - Separate right turn only lanes are recommended in the eastbound, northbound, and westbound directions. Although the northbound and westbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#9. Heritage Road / Otay Mesa Road - Separate right turn only lanes are recommended in the northbound and southbound directions. Existing right turn lanes are in place eastbound and westbound. A second westbound right turn lane is recommended.

#10. Heritage Road / SR-905 Westbound Ramps - Two right turn only lanes are recommended in the northbound direction onto the westbound on-ramp.

#11. Heritage Road / SR-905 Eastbound Ramps - A separate right turn lane in the northbound direction to the eastbound on-ramp, plus an added right turn lane in the westbound direction on the eastbound off-ramp are recommended.

#12. Heritage Road / Airway Road – Dual right turn lanes are recommended in the southbound and eastbound directions. Separate single right turn lanes are recommended in the northbound and westbound directions. The westbound #3 lane should be a shared through / right turn lane.

#14. Cactus Road / Otay Mesa Road - Dual right turn lanes in the eastbound direction, and one right turn lane in the westbound direction are recommended.

#15. Cactus Road / Airway Road - Dual right turn lanes in the westbound direction, and single right turn lanes are recommended in the south, north, and eastbound directions. The outer through lane eastbound and southbound are recommended to be shared through / right lanes.

#16. Cactus Road / Siempre Viva Road - Dual right turn lanes in the westbound direction and single right turn lanes are recommended in the south, north, and eastbound directions.

#17. Britannia Boulevard / Otay Mesa Road - A single right turn only lane in the eastbound direction is recommended.

#18. Britannia Boulevard / SR-905 Westbound Ramps - A single southbound right turn lane, and also restriping the third southbound through lane as an optional through / right turn is recommended. Restriping the westbound middle lane for a shared left / through / right turn lane is recommended.

#19. Britannia Boulevard / SR-905 Eastbound Ramps - Dual right turn lanes northbound are recommended.

#20. Britannia Boulevard / Airway Road - Dual right turn lanes in the north, south, and westbound directions, and a single right turn lane in the eastbound direction are recommended.

#21. Britannia Boulevard / Siempre viva Road - Dual right turn lanes in the east, west, and southbound directions, and a single right turn lane in the northbound direction are recommended.

#22. La Media Road / Otay Mesa Road – Dual right turn lanes are recommended at all approaches.

#23. La Media Road / SR-905 Westbound Ramps – The Caltrans design for the SR-905 / La Media Road interchange is based on future traffic estimates from the build out of only approximately fifty percent of Otay Mesa land uses and improvements will be needed to accommodate full build out. It is recommended that the eastbound through movement be eliminated so that the northbound right turn to the SR-905 westbound on-ramp can be a continuous movement, without a conflicting movement at the traffic signal. Only a pedestrian signal would cause this traffic to stop. Additionally a third northbound through lane is recommended. These recommended improvements would require widening in the northbound direction along La Media Road.

#24. La Media Road / SR-905 Eastbound Ramps - The addition of a third southbound through lane is recommended. This improvement would require widening La Media Road in the southbound direction.

#25. La Media Road / Airway Road - The addition of dual right turn lanes westbound and southbound, and single right turn lanes eastbound and northbound are recommended.

#26. La Media Road / Siempre Viva Road - The addition of dual right turn lanes westbound, and one right turn lane southbound are recommended. The southbound lanes should be stiped for two lefts / one through / two right turn lanes. The southbound through lane will be restricted to unladen trucks destined to the Border Truck Road.

#27. La Media Road / Lone Star Road - Northbound and southbound right turn lanes are recommended. The three westbound through lanes are recommended to be striped for one through and two right turn lanes.

#30. Piper Ranch Road / Lone Star Road – An eastbound right turn lane is recommended.

#31. Piper Ranch Road / Otay Mesa Road – Single right turn lanes in the east, west, and northbound directions are recommended. Southbound, two right turn lanes are recommended.

#32. SR-125 Southbound Off-Ramp / Otay Mesa Road – No additional lanes are recommended, but restriping the southbound middle lane for optional left / right turns is recommended.

#34. Harvest Road / Otay Mesa Road – Additional east and westbound right turn lanes are recommended. An additional northbound left turn lane is also recommended.

#35. Otay Center Drive / Siempre Viva Road - Added lanes for right turns are recommended at all approaches. Dual left turn lanes are recommended east, west, and southbound.

#36 -36A. SR-905 Southbound Ramps / Siempre Viva Road – The SR-905 southbound off-ramp to westbound Siempre Viva Road is recommended to be signalized, and widened for an additional southbound right turn lane.

#37. SR-905 Northbound Ramps / Siempre Viva Road – A second westbound right turn lane is recommended.

#38. Paseo de las Americas / Siempre Viva Road - Added westbound and southbound right turns are recommended, plus an eastbound left turn lane. The northbound lanes should be restriped for one left, one left /through, one right turn lane.

#40. Ocean View Hills Parkway / Del Sol Boulevard - One added southbound right turn lane is recommended. The eastbound through lane should be restriped for optional left turns / through.

#41. Ocean View Hills Parkway / Street "A" - Eastbound dual right turn lanes and an added northbound left turn lane are recommended.

#42. Old Otay Mesa Road / Beyer Boulevard - A southbound right turn lane is recommended.

#43. Otay Mesa Road / Corporate Center Drive - Northbound and southbound added left turn lanes, and a separate eastbound right turn lane are recommended.

#44. Otay Mesa Road / Innovative Drive - A second southbound left turn lane is recommended.

#45. Airway Road / Harvest Road - An eastbound right turn lane is recommended.

#46. Harvest Road / Siempre viva Road - Separate right turn lanes are recommended westbound and southbound.

#47. Otay Mesa Road / Sanyo Avenue - Eastbound dual right turn lanes, and single right turn lanes northbound and westbound are recommended. Restriping northbound lanes for dual left turns plus one through lane is recommended.

#48. Airway Road / Sanyo Avenue - Dual right turn lanes in the eastbound direction are recommended, to be provided by widening for one lane and restriping the third through lane for right turns only. Added single right turn lanes northbound and westbound are recommended. Northbound and southbound added lanes for dual left turns are recommended.

#49. Paseo de las Americas / Heinrich Hertz Drive - The installation of traffic signal and widening for an added northbound left turn lane and an eastbound right turn lane are recommended.

#50. Paseo de las Americas / Marconi Drive - The installation of a traffic signal and adding a southbound left turn lane are recommended.

#51. Heritage Road / Otay Valley Road - Dual right turn lanes southbound, and single right turn lanes at the other approaches are recommended. East and westbound dual left turn lanes are recommended.

#52. La Media Road / Aviator Road - A southbound right turn lane is recommended.

5.5 Ramp Meter Operations

Table 5-5 shows buildout ramp meter operations at all the freeway on-ramps within the study area.

The likely most restrictive ramp meter rate as provided by Caltrans was used for this evaluation.

Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service does not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. Of the 28 hours ramps meters were evaluated during AM and PM peak hours, ramp meter delays above 15 minutes would occur at six locations during the AM peak hour and at eleven locations during the PM peak hour.

Ramp meter delays above 15 minutes are considered significant impacts if downstream freeways are operating at level of service "E" or "F". The following six ramp locations would be significantly impacted using this significance criteria:

- I-805 / Palm Avenue Northbound (From Westbound) (AM and PM);
- SR-905 / Caliente Avenue Westbound on-ramp (AM and PM);
- SR-905 / Heritage Road Westbound on-ramp (PM);
- SR-905 / Britannia Boulevard Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound on-ramp (PM);
- SR-905 / La Media Road Westbound on-ramp (AM and PM).

The freeway on-ramps evaluated would have ramp lengths from 650 feet to 1,200 feet. Assuming two lanes at the ramp meters, six locations would have queues exceeding the ramp storage length during the AM peak hour, and at eleven locations during the PM peak hour, as footnoted in Table 5-5.

TABLE 5-5

Buildout Community Plan Ramp Meter Operations

Most Restrictive Meter Rate						
Location		**Demand** (Veh/Hr)**	**Meter Rate* (Veh/Hr)**	**Excess Demand**	**Delay (Min)**	**Queue (Feet)**
AM	I-805 / Palm Avenue Northbound (From Westbound)	1,505	960	545	34.1	13,625 (E)
PM	I-805 / Palm Avenue Northbound (From Westbound)	1,620	960	660	41.3	16,500 (E)
AM	I-805 / Palm Avenue Northbound (From Eastbound)	725	960	None	None	None
PM	I-805 / Palm Avenue Northbound (From Eastbound)	595	960	None	None	None
PM	I-805 / Palm Avenue Southbound	690	960	None	None	None

Most Restrictive Meter Rate						
Location		**Demand** (Veh/Hr)**	**Meter Rate* (Veh/Hr)**	**Excess Demand**	**Delay (Min)**	**Queue (Feet)**
AM	SR-905 / Caliente Avenue Westbound	1,780	960	820	51.2	20,500 (E)
PM	SR-905 / Caliente Avenue Westbound	1,895	960	935	58.4	23,375 (E)
AM	SR-905 / Caliente Avenue Eastbound	480	960	None	None	None
PM	SR-905 / Caliente Avenue Eastbound	480	960	None	None	None

.						
Location		**Demand** (Veh/Hr)**	**Meter Rate* (Veh/Hr)**	**Excess Demand**	**Delay (Min)**	**Queue (Feet)**
AM	SR-905 / Heritage Road Westbound	850	960	None	None	None
PM	SR-905 / Heritage Road Westbound	2,130	960	1,170	73.1	29,250 (E)
AM	SR-905 / Heritage Road Eastbound	300	960	None	None	None
PM	SR-905 / Heritage Road Eastbound	510	960	None	None	None

Most restrictive meter rate used, per Caltrans
** = Total hourly volume entering from both directions.
(E) = Exceeds ramp storage length.

TABLE 5-5

Buildout Community Plan Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Britannia Blvd. Westbound	1,200	960	240	15.0	6,000 (E)
PM	SR-905 / Britannia Blvd. Westbound	3,205	960	2,245	140.3	56,125 (E)
AM	SR-905 / Britannia Blvd. Eastbound	450	960	None	None	None
PM	SR-905 / Britannia Blvd. Eastbound	1,350	960	390	24.4	9,750 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / La Media Road Westbound	1,705	960	745	46.6	18,625 (E)
PM	SR-905 / La Media Road Westbound	3,610	960	2,650	165.6	66,250 (E)
AM	SR-905 / La Media Road Eastbound	700	960	None	None	None
PM	SR-905 / La Media Road Eastbound	1,720	960	760	47.8	19,000 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Siempre Viva Rd. Northbound	1,365	960	405	25.3	10,125 (E)
PM	SR-905 / Siempre Viva Rd. Northbound	5,225	960	4,265	266.6	106,375 (E)
AM	SR-905 / Siempre Viva Rd. Southbound	850	960	None	None	None
PM	SR-905 / Siempre Viva Rd. Southbound	1,655	960	695	43.4	17,375 (E)

* = Most restrictive meter rate used, per Caltrans.
** = Total hourly volume entering from both directions.
(E) = Exceeds ramp storage length.

TABLE 5-5

Buildout Community Plan Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand ** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-125 / Otay Mesa Rd. Northbound	865	960	None	None	None
PM	SR-125 / Otay Mesa Rd. Northbound	2,265	960	1,305	81.6	32,625 (E)

Most Restrictive Meter Rate						
Location		Demand* (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-125 / Lone Star Rd. Northbound	1,220	960	260	16.2	6,500 (E)
PM	SR-125 / Lone Star Rd. Northbound	2,000	960	1,040	65.0	26,000 (E)

* = Most restrictive meter rate used, per Caltrans.
** = Total hourly volume entering from both directions.
Excess Demand X 60MIN = Delay (Minutes)
Meter Rate
(E) = Exceeds ramp storage length.

Note: Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available, or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving traffic at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, use another freeway, or stay on surface streets.

Ramp meter queues are also tabulated, but there are no performance criteria regarding excessive queues in the Regional Traffic Impact Study Guidelines. However, the guidelines state the following:

"Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, [if available], use another freeway, or stay on surface streets."

5.6 Freeway Interchange Queue Analysis

A queue analysis was prepared at the interchange ramps within the study area, and queue lengths without intersection mitigation are shown in **Table 5-6,** while **Table 5-7** shows queue lengths with mitigation.

There are no intersection queue length performance criteria within the Regional SANTEC / ITE Traffic Impact Study Guidelines. This queue analysis was provided to primarily evaluate whether interchanges could accommodate the projected traffic volumes and then compare the three scenarios evaluated in this report.

Of the 164 queues evaluated without mitigation, during AM and PM peak hours, 91 are expected to be of excess length for the vehicle storage available between these closely spaced intersections at freeway interchange ramps. With intersection mitigation, 192 queues were evaluated and 78 are expected to be of excess length, extending through the adjacent intersection.

Table 5-6

Adopted Community Plan

Buildout Queue Analysis Without Mitigation

Queue Locations North / South	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	370	4,100	-	450	None	3,650	-
Caliente Ave. / SR-905 WB Ramps	1,383	1,808	-	450	933	1,358	-	1,588	2,725	-	450	1,138	2,275	-
Caliente Ave. / SR-905 EB Ramps	-	173	590	450	-	None	140	-	2,375	-	300	-	2,075	-
Caliente Ave. / Airway Rd.	-	525	2,800	300	-	225	2,500	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	310	1,053	-	750	None	303	-
Heritage Rd. / SR-905 WB Ramps	-	160	218	750	-	None	None	-	1,858	-	750	-	1,108	-
Heritage Rd. / SR-905 EB Ramps	-	825	168	750	-	75	None	-	1,920	-	750	-	1,170	-
Heritage Rd. / Airway Rd.	-	3,825	2,078	750	-	3,075	1,328	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	430	-	688	900	None	-	None
Britannia Blvd. / SR-905 WB Ramps	540	1,163	-	900	None	263	-	1,010	198	-	450	560	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,068	300	450	-	618	None	-	1,595	-	900	-	695	-
Britannia Blvd. / Airway Rd.	-	3,670	2,428	900	-	2,770	1,528	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	2,423	3,375	-	450	1,973	2,225	-
La Media Rd. / SR-905 WB Ramps	105	2,900	-	450	None	2,450	-	248	5,100	4,275	900	None	4,200	3,375
La Media Rd. / SR-905 EB Ramps	63	6,975	-	900	None	6,075	-	510	2,208	-	900	None	1,308	-
La Media Rd. / Airway Rd.	-	5,500	4,375	900	-	4,600	3,475	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

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Table 5-6

Adopted Community Plan

Buildout Queue Analysis Without Mitigation

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	638	2,750	-	450	188	2,300	-
Caliente Ave. / SR-905 WB Ramps	685	1,505	-	450	235	1,055	-	4,325	1,970	-	450	3,875	1,520	-
Caliente Ave. / SR-905 EB Ramps	-	238	498	450	-	None	48	-	2,900	-	300	-	2,600	-
Caliente Ave. / Airway Rd.	-	1,120	1,415	300	-	820	1,115	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	358	490	-	750	None	None	-
Heritage Rd. / SR-905 WB Ramps	-	140	458	750	-	None	None	-	4,700	-	750	-	3,950	-
Heritage Rd. / SR-905 EB Ramps	-	143	163	750	-	None	None	-	3,750	-	750	-	3,000	-
Heritage Rd. / Airway Rd.	-	2,040	408	750	-	1,290	None	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	628	-	None	900	None	-	None
Britannia Blvd. / SR-905 WB Ramps	1,115	1,370	-	900	215	470	-	5,675	65	-	450	5,225	None	-
Britannia Blvd. / SR-905 EB Ramps	-	75	408	450	-	None	None	-	5,625	-	900	-	4,725	-
Britannia Blvd. / Airway Rd.	-	1,650	990	900	-	750	90	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,090	2,875	-	450	640	2,425	-
La Media Rd. / SR-905 WB Ramps	453	2,875	-	450	3	2,425	-	863	2,205	11,175	900	None	1,305	10,275
La Media Rd. / SR-905 EB Ramps	375	4,725	-	900	None	3,825	-	1,260	2,850	-	900	360	1,950	-
La Media Rd. / Airway Rd.	-	1,025	3,225	900	-	125	2,325	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 5-6

Adopted Community Plan

Buildout Queue Analysis Without Mitigation

Queue Locations East / West	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	228	103	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	308	763	600	-	None	163	-	305	5,175	1,000	-	None	4,175
Palm Ave. Dennery Rd.	395	448	613	1,000	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	1,558	6,425	-	600	958	5,825	-
Siempre Viva Rd. / SR-905 SB Ramps	-	1,440	-	300	-	1,140	-	575	-	-	600	None	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	2,925	1,543	600	-	2,325	943	-	2,650	905	1,150	-	1,500	None
Siempre Viva Rd. / Paseo de las Americas	3,450	1,183	10,350	1,150	2,300	33	9,200	-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	785	753	-	300	485	453	-
Lone Star Rd. / SR-125 SB Off Ramp	-	1,788	-	300	-	1,488	-	-	208	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	93	500	-	-	None	-	160	305	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	2,900	-	600	-	2,300	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	210	845	-	2,000	None	None	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	408	-	2,000	-	None	-	-	195	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	63	500	-	-	None	-	250	203	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	-	3,100	195	700	-	2,400	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 5-6

Adopted Community Plan

Buildout Queue Analysis Without Mitigation

Queue Locations East / West	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	503	278	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	940	518	600	-	340	None	-	783	3,930	1,000	-	None	2,930
Palm Ave. Dennery Rd.	2,383	678	923	1,000	1,383	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	3,375	885	-	600	2,775	285	-
Siempre Viva Rd. / SR-905 SB Ramps	-	5,950	-	300	-	5,650	-	2,193	-	-	600	1,593	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	648	6,600	600	-	None	6,000	-	3,875	5,675	1,150	-	2,725	4,525
Siempre Viva Rd. / Paseo de las Americas	648	405	9,325	1,150	None	None	8,175	-	-	-	-	-	-	-
-														
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	493	3,575	-	300	193	3,275	-
Lone Star Rd. / SR-125 SB Off Ramp	-	115	-	300	-	None	-	-	288	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	203	500	-	-	None	-	220	898	600	-	None	298
Lone Star Rd. / Piper Ranch Rd.	-	283	-	600	-	None	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	58	1,613	-	2,000	None	None	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	275	-	2,000	-	None	-	-	143	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	470	500	-	-	None	-	123	1,308	700	-	None	608
Otay Mesa Rd. / Harvest Rd.	-	798	88	700	-	98	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 5-7

Adopted Community Plan

Buildout Queue Analysis With Mitigation

Queue Locations North / South	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	370	400	7,680	450	None	None	7,380
Caliente Ave. / SR-905 WB Ramps	2,925	500	-	450	428	50	-	765	450	-	450	315	None	-
Caliente Ave. / SR-905 EB Ramps	-	155	243	450	-	None	140	-	1,748	268	300	-	1,448	None
Caliente Ave. / Airway Rd.	-	525	2,600	300	-	225	2,500	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	310	315	735	750	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	160	218	750	-	None	None	-	638	70	750	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	825	168	750	-	75	None	-	1,600	170	750	-	650	None
Heritage Rd. / Airway Rd.	195	2,300	2,078	750	None	1,550	1,328	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	430	-	688	900	None	-	None
Britannia Blvd. / SR-905 WB Ramps	513	485	-	900	None	None	-	1,010	133	-	450	560	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,068	300	450	-	618	None	-	1,093	180	900	-	193	None
Britannia Blvd. / Airway Rd.	1,528	2,290	3,650	900	628	1,390	2,750	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	2,423	1,355	585	450	1,973	905	135
La Media Rd. / SR-905 WB Ramps	105	2,900	-	450	None	2,450	-	248	2,448	-	900	None	1,548	-
La Media Rd. / SR-905 EB Ramps	63	4,000	-	900	None	3,100	-	510	2,208	-	900	None	1,308	-
La Media Rd. / Airway Rd.	2,098	2,278	4,550	900	1,198	1,378	3,650	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

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Table 5-7

Adopted Community Plan

Buildout Queue Analysis With Mitigation

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	700	483	3,225	450	250	33	2,775
Caliente Ave. / SR-905 WB Ramps	588	600	-	450	12	150	-	1,455	1,785	-	450	1,005	1,335	-
Caliente Ave. / SR-905 EB Ramps	-	328	305	450	-	None	None	-	1,870	248	300	-	1,570	None
Caliente Ave. / Airway Rd.	-	1,268	2,800	300	-	968	2,500	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	358	158	545	750	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	160	218	750	-	None	None	-	563	498	750	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	138	173	750	-	None	None	-	2,525	73	750	-	1,775	None
Heritage Rd. / Airway Rd.	1,038	403	400	750	288	None	None	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	628	-	None	900	None	-	None
Britannia Blvd. / SR-905 WB Ramps	643	1,010	-	900	None	110	-	4,875	63	-	450	4,425	None	-
Britannia Blvd. / SR-905 EB Ramps	-	75	408	450	-	None	None	-	2,900	560	900	-	2,000	None
Britannia Blvd. / Airway Rd.	368	745	990	900	None	None	90	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,090	1,195	415	450	640	745	None
La Media Rd. / SR-905 WB Ramps	453	2,875	-	450	3	2,425	-	883	340	-	900	None	None	-
La Media Rd. / SR-905 EB Ramps	375	2,625	-	900	None	1,725	-	1,260	2,850	-	900	360	1,950	-
La Media Rd. / Airway Rd.	120	360	3,225	900	None	None	2,325	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 5-7

Adopted Community Plan

Buildout Queue Analysis With Mitigation

Queue Locations East / West	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	253	103	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	288	138	-	600	None	None	-	-	38	53	1,000	-	None	None
Palm Ave. Dennery Rd.	395	448	613	1,000	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	473	5,900	43	600	None	5,300	None
Siempre Viva Rd. / SR-905 SB Ramps	-	1,440	-	300	-	1,140	-	575	-	-	600	None	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	2,925	1,543	600	-	2,325	943	-	2,525	388	1,150	-	1,375	None
Siempre Viva Rd. / Paseo de las Americas	3,500	1,183	4,250	1,150	2,350	33	3,100	-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	785	430	283	300	485	130	None
Lone Star Rd. / SR-125 SB Off Ramp	-	1,788	-	300	-	1,488	-	-	208	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	93	500	-	-	None	-	80	305	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	35	2,475	-	600	None	1,875	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	210	475	110	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	408	-	2,000	-	None	-	-	195	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	63	500	-	-	None	-	250	203	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	270	1,715	195	700	None	1,015	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 5-7

Adopted Community Plan

Buildout Queue Analysis With Mitigation

Queue Locations East / West	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	553	250	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	208	268	-	600	None	None	-	-	80	670	1,000	-	None	None
Palm Ave. Dennery Rd.	2,383	678	923	1,000	1,383	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	1,153	315	190	600	553	None	None
Siempre Viva Rd. / SR-905 SB Ramps	-	5,950	-	300	-	5,650	-	2,193	-	-	600	1,593	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	303	6,600	600	-	None	6,000	-	875	5,375	1,150	-	None	4,225
Siempre Viva Rd. / Paseo de las Americas	668	405	3,900	1,150	None	None	2,750	-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	493	103	4,025	300	193	None	3,725
Lone Star Rd. / SR-125 SB Off Ramp	-	115	-	300	-	None	-	-	288	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	203	500	-	-	None	-	220	898	600	-	None	298
Lone Star Rd. / Piper Ranch Rd.	35	223	-	600	None	None	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	58	1,240	40	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	275	-	2,000	-	-	-	-	143	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	470	500	-	-	None	-	123	1,308	700	-	None	608
Otay Mesa Rd. / Harvest Rd.	55	530	88	700	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

6.0 SCENARIO 3B WITH LA MEDIA ROAD

6.1 3B Scenario Assumed Land Use and Transportation Network

The 3B Scenario land use would allow up to 18,774 dwelling units compared to 12,206 within the Adopted Community Plan. The traffic forecast for this alternative assumed 3,917,000 square feet of commercial uses and 54,461,000 square feet of industrial uses. The buildout of this plan would generate 1,045,025 average daily vehicle trips. The circulation element roadways for this alternative include those assumed in the Adopted Community Plan, No Project scenario. The major change is the extension of Beyer Boulevard to the east from the current existing roadway, and connecting with the southerly extension of Caliente Avenue. Siempre Viva Road is extended southwest of Caliente Avenue, but is disconnected from intersecting with East Beyer Boulevard in San Ysidro.

6.2 Segment Level of Service

Figure 6-1 shows the projected buildout average daily traffic trips generated on the street system due to the land uses assumed under the 3B With La Media Road land use and street network. **Table 6-1** indicates the roadway segment level of service for numerous roadway segments as a result of the projected average daily traffic and the capacity of the roadway. The highest forecasted volumes between circulation element roads were used for analysis. Also shown are recommended reclassifications of roadways. The initial "without mitigation" classification of roadways is based on the existing functional classifications. Or,if the street did not exist in the existing conditions assessment, or if analyzing the projected volumes on the existing facility would not be meaningful because it would not be possible to carry those volumes on the existing sized facility due to its capacity, then the Adopted Community Plan

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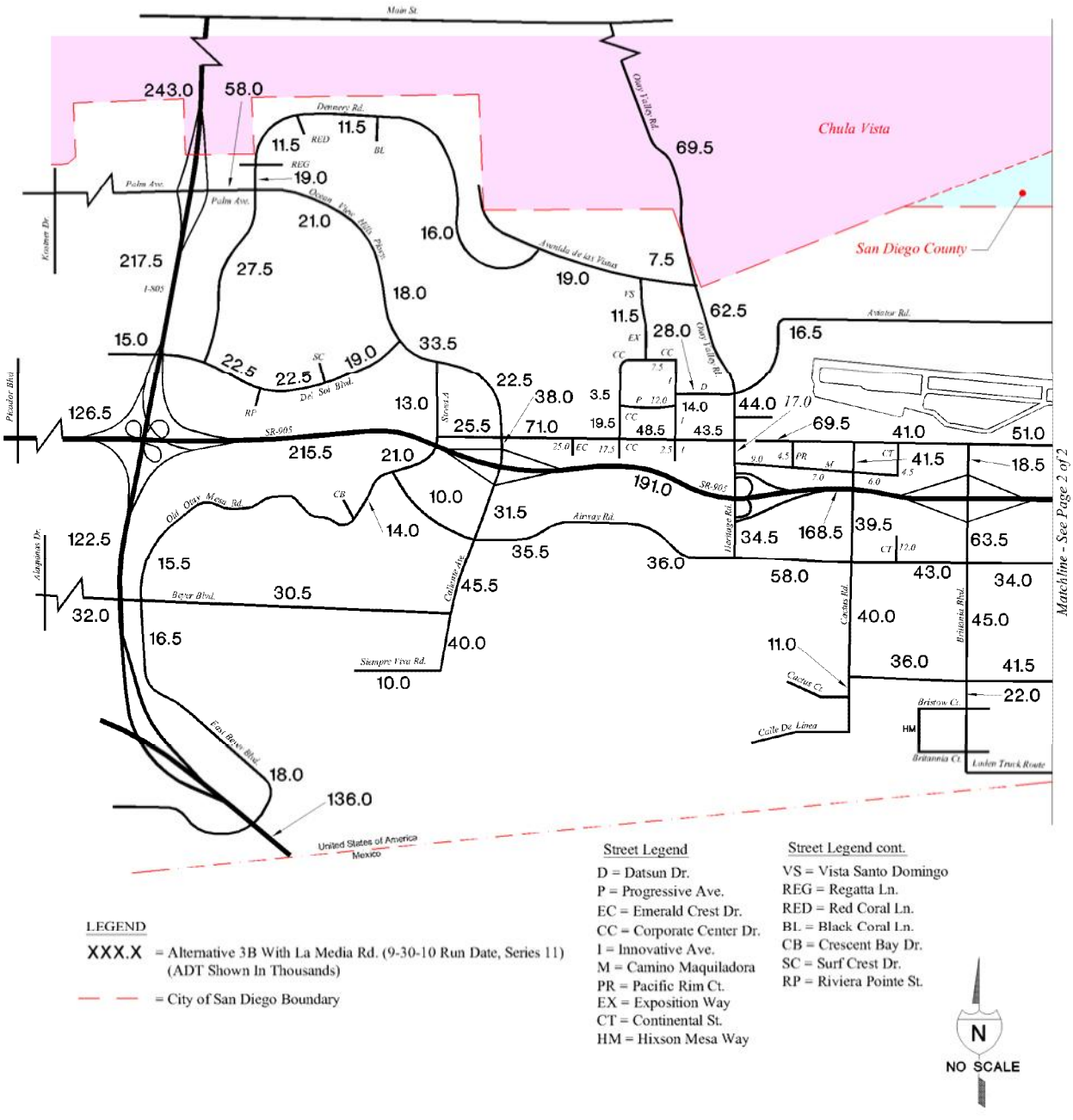

FIGURE 6-1

Scenario 3B With La Media Road Average Daily Traffic

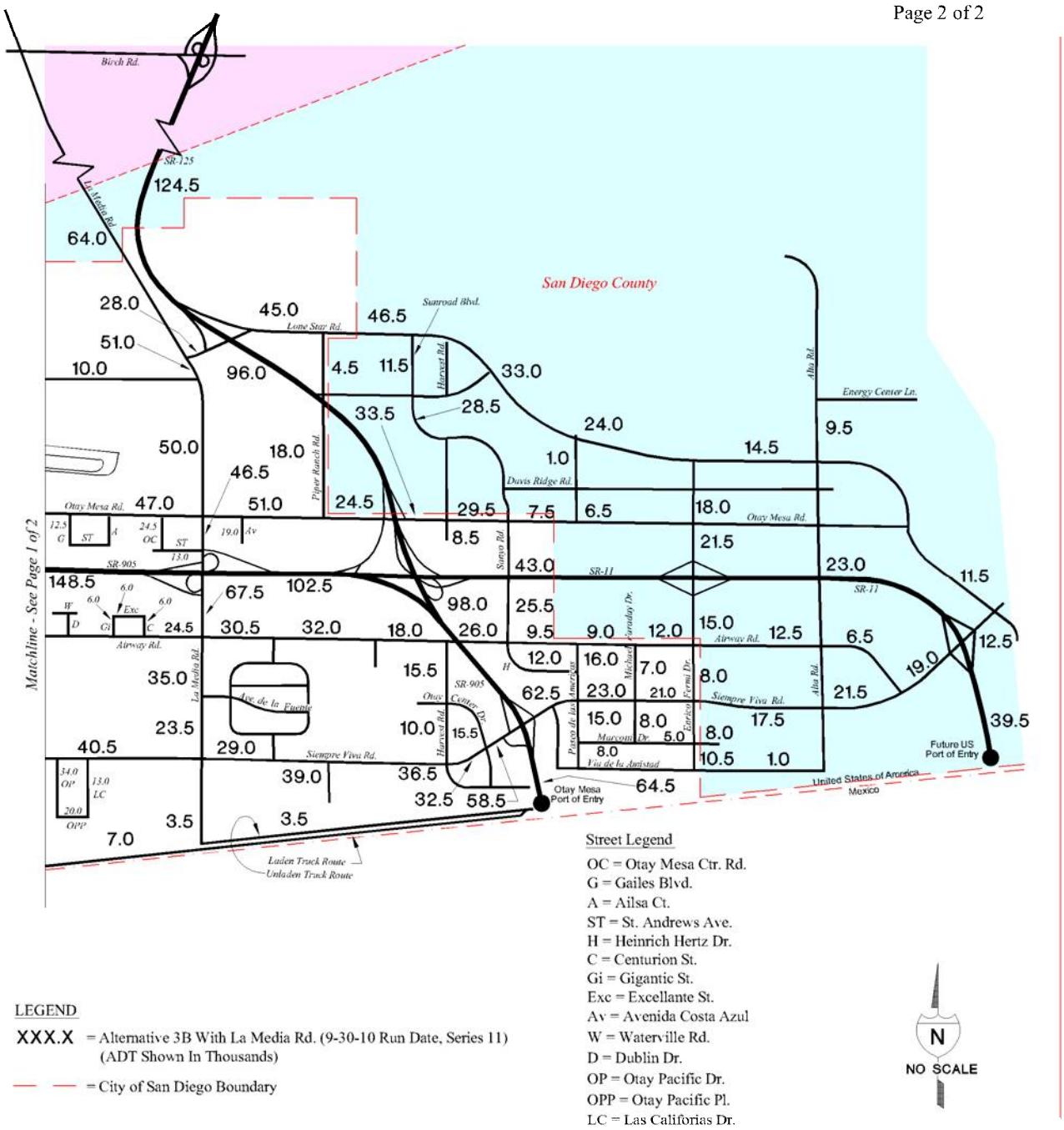

FIGURE 6-1

Scenario 3B With La Media Road Average Daily Traffic

TABLE 6-1

Buildout Scenario 3B With La Media Road

Average Daily Traffic & Levels of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Otay Mesa Road	Street A to Caliente Ave.	1	6-PA	60,000	25,500	0.43	B	6-M	0.64	C	N
	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	71,000	1.18	F	N	-	-	Y
	Corporate Center Dr. to Innovative Dr.	3	6-PA	60,000	48,500	0.81	C	N	-	-	N
	Innovative Dr. to Heritage Rd.	4	6-PA	60,000	43,500	0.73	C	N	-	-	N
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	69,500	1.16	F	N	-	-	Y
	Cactus Rd. to Britannia Blvd.	6	6-PA	60,000	41,000	0.68	C	N	-	-	N
	Britannia Blvd. to Ailsa Ct.	7	6-PA	60,000	51,000	0.85	D	N	-	-	N
	Ailsa Ct. to La Media Rd.	8	7-M	55,000	47,000	0.85	D	6-PA	0.78	C	N
	La Media Rd. to Piper Ranch Rd.	9	8-M	70,000	51,000	0.73	C	6-PA	0.85	D	N
	Piper Ranch Rd. to SR-125	10	4-P	45,000	24,500	0.54	C	6-PA	0.41	A	N
	SR-125 to Harvest Rd.	11	4-M	40,000	33,500	0.84	D	6-PA	0.56	C	N
	Harvest Rd. to Sanyo Ave.	12	4-M	40,000	29,500	0.74	C	6-PA	0.49	C	N
	Sanyo Ave. to Enrico Fermi Dr.	13	4-M	40,000	7,500	0.19	A	6-PA	0.13	A	N
Airway Road	Old Otay Mesa Rd. to Caliente Ave.	14	4-CL	30,000	10,000	0.25	A	N	-	-	N
	Caliente Ave. to Heritage Rd.	15	4-M	40,000	36,000	0.90	E	N	-	-	Y
	Heritage Rd. to Cactus Rd.	16	4-M	40,000	58,000	1.45	F	6-PA	0.97	E	Y
	Cactus Rd. to Britannia Blvd.	17	4-M	40,000	43,000	1.07	F	6-M	0.86	D	N
	Britannia Blvd. to La Media Rd.	18	4-M	40,000	34,000	0.85	D	N	-	-	N
	La Media Rd. to Harvest Rd.	19	4-M	40,000	32,000	0.80	D	N	-	-	N
	Harvest Rd. to Sanyo Ave.	20	4-M	40,000	26,000	0.65	C	N	-	-	N
	Sanyo Ave. to Paseo de las Americas	21	4-M	40,000	9,500	0.24	A	N	-	-	N
	Paseo de las Americas to Michael Faraday Dr.	22	4-M	40,000	9,000	0.23	A	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	23	4-M	40,000	12,000	0.30	A	N	-	-	N
	Enrico Fermi Dr. to Siempre Viva Rd.*	24	4-M	40,000	12,500	0.31	A	N	-	-	N
Siempre Viva Road	Caliente Ave. to West Terminus	25	4-M	40,000	10,000	0.25	A	2-CL	0.67	C	N
	Cactus Rd. to Britannia Blvd.	27	6-PA	60,000	36,000	0.60	C	N	-	-	N
	Britannia Blvd. to La Media Rd.	28	6-PA	60,000	41,500	0.69	C	N	-	-	N
	La Media Rd. to Harvest Rd.	29	6-PA	60,000	39,000	0.65	C	N	-	-	N
	Harvest Rd. to Otay Center Dr.	30	6-PA	60,000	32,500	0.54	B	N	-	-	N
	Otay Center Dr. to SR-905	31	6-PA	60,000	58,500	0.98	E	N	-	-	Y
	SR-905 to Paseo de las Americas	32	6-PA	60,000	62,500	1.04	F	N	-	-	Y
	Paseo de las Americas to Michael Faraday Dr.	33	4-M	40,000	23,000	0.58	C	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	34	4-M	40,000	21,000	0.53	B	N	-	-	N
	Enrico Fermi Dr. to SR-11*	35	4-M	40,000	17,500	0.44	B	N	-	-	N

*Segment in County of San Diego

Note: There is no segment #26 with this alternative.

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial
7-PA = 7-lane Primary Arterial
7-M = 7-lane Major Arterial
6-PA = 6-lane Primary Arterial
6-M = 6-lane Major Arterial
5-M = 5-lane Major Arterial (3SB /2NB)
4-P = 4-lane Primary Arterial
4-M = 4-lane Major Arterial
4-CL = 4-lane Collector (with continuous left turn lane)
4-C = 4-lane Collector (without continuous left turn lane)
2-CL = 2-lane Collector (with continuous left turn lane)
2-CN = 2-lane Collector (no fronting property)
2-C = 2-lane Collector (without continuous left turn lane)

TABLE 6-1 (Continued)

Buildout Scenario 3B With La Media Road

Average Daily Traffic & Levels of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS		New Class	New V/C	NEW LOS	S?
Palm Avenue	I-805 to Dennery Rd.	37	7-PA	65,000	58,000	0.89	D		N	-	-	N
Ocean View Hills Parkway	Dennery Rd. to Del Sol Blvd.	38	4-M	40,000	21,000	0.53	B		N	-	-	N
	Del Sol Blvd. to Street "A"	39	6-M	50,000	33,500	0.67	C		N	-	-	N
	Street "A" to Otay Mesa Rd.	40	6-M	50,000	22,500	0.45	B		N	-	-	N
Caliente Avenue	Otay Mesa Rd. to SR-905	41	6-M	50,000	38,000	0.76	C		6-PA	0.50	B	N
	SR-905 to Airway Rd.	42	6-M	50,000	31,500	0.63	C		6-PA	0.53	B	N
	Airway Rd. to Beyer Blvd.	43	4-M	40,000	45,500	1.14	F		6-M	0.91	E	Y
	Beyer Blvd. to Siempre Viva Rd.	43A	4-M	40,000	41,000	1.03	F		N	-	-	Y
Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	44	4-M	40,000	32,000	0.80	D		N	-	-	N
	Old Otay Mesa Rd. to Caliente Ave (3)	45	4-M	40,000	30,500	0.76	C		N	-	-	N
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	6-PA	60,000	69,500	1.16	F		N	-	-	Y
	Avenida De Las Vistas to Datsun St.	47	6-M	50,000	62,500	1.25	F		6-PA	1.04	F	Y
	Datsun St. to Otay Mesa Rd.	48	6-M	50,000	44,000	0.88	D		6-PA	0.73	C	N
	Otay Mesa Rd. to SR-905	49	6-M	50,000	17,000	0.34	B		6-PA	0.28	A	N
	SR-905 to Airway Rd.	50	6-M	50,000	34,500	0.69	C		6-PA	0.58	B	N
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	4-CL	30,000	41,500	1.38	F		4-M	1.04	F	Y
	Airway Rd. to Siempre Viva Rd.	53	4-CL	30,000	40,000	1.33	F		4-M	1.00	E	Y
	Siempre Viva Rd. to South End	54	2-CL	15,000	11,000	0.73	D		N	-	-	N
Britannia Boulevard	Otay Mesa Rd. to SR-905	55	4-M	40,000	18,500	0.46	B		6-PA	0.31	A	N
	SR-905 to Airway Rd.	56	4-M	40,000	63,500	1.59	F		6-PA	1.06	F	Y
	Airway Rd. to Siempre Viva Rd.	57	4-M	40,000	45,000	1.10	F		6-M	0.90	D	N
	Siempre Viva Rd. to South End	58	2-C	8,000	22,000	2.75	F		4-CL	0.73	D	N
La Media Road	Birch Rd. to Lone Star Rd.**	59	6-PA	60,000	64,000	1.07	F		N	-	-	Y
	Lone Star Rd. to Aviator Rd.	60	6-PA	60,000	51,000	0.85	D		N	-	-	N
	Aviator Rd. to Otay Mesa Rd.	61	6-PA	60,000	50,000	0.83	C		N	-	-	N
	Otay Mesa Rd. to SR-905	62	6-PA	60,000	46,500	0.78	C		N	-	-	N
	SR-905 to Airway Rd.	63	6-PA	60,000	67,500	1.13	F		N	-	-	Y
	Airway Rd. to Siempre Viva Rd.	64	4-M	40,000	35,000	0.88	D		5-M	0.78	D	N
Harvest Road	South of Otay Mesa Rd.	65	4-M	40,000	8,500	0.21	A		2-CL	0.57	A	N
	Airway Rd. to Otay Center Dr.	66	4-M	40,000	15,500	0.39	B		4-CL	0.52	C	N
	Otay Center Dr. to Siempre Viva Rd.	67	4-M	40,000	10,000	0.25	A		4-CL	0.33	A	N

*Segment in County of San Diego

**Segment in Chula Vista

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Note: There is no segment # 51 with this alternative.
Segment #36 was deleted.

Legend

8-M = 8-lane Major Arterial
7-PA = 7-lane Primary Arterial
7-M = 7-lane Major Arterial
6-PA = 6-lane Primary Arterial
6-M = 6-lane Major Arterial
5-M = 5-lane Major Arterial (3SB /2NB)
4-P = 4-lane Primary Arterial
4-M = 4-lane Major Arterial
4-CL = 4-lane Collector (with continuous left turn lane)
4-C = 4-lane Collector (without continuous left turn lane)
2-CL = 2-lane Collector (with continuous left turn lane)
2-CN = 2-lane Collector (no fronting property)
2-C = 2-lane Collector (without continuous left turn lane)

TABLE 6-1 (Continued)

Buildout Scenario 3B With La Media Road

Average Daily Traffic & Levels of Service

Street	Segment	#	(1)Class	LOS E ADT (2)	Segment ADT	V/C	LOS		New Class	New V/C	NEW LOS	S?
Enrico Fermi Drive	SR-11 to Airway Rd.*	68	4-M	40,000	15,000	0.38	A		N	-	-	N
	Airway Rd. to SiempreViva Rd.	69	4-M	40,000	8,000	0.20	A		4-CL	0.27	A	N
	Siempre Viva Rd. to Via de la Amistad	70	4-M	40,000	10,500	0.26	A		4-CL	0.35	B	N
Lone Star Road	La Media Rd. to SR-125	71	4-M	40,000	28,000	0.70	C		N	-	-	N
	SR-125 to Piper Ranch Rd.	72	4-M	40,000	45,000	1.13	F		6-PA	0.75	C	N
	Piper Ranch Rd. to City / County Boundary	73	4-M	40,000	46,500	1.16	F		6-PA	0.78	C	N
Aviator Road	Heritage Rd. to La Media Rd. (3)	74	2-C	8,000	16,500	2.06	F		4-CL	0.55	C	N
Dennery Road	Palm Ave. to Del Sol Blvd.	75	4-M	40,000	27,500	0.69	C		N	-	-	N
	Palm Ave. to Regatta Ln.	76	4-M	40,000	19,000	0.48	B		N	-	-	N
	Regatta Ln. to Red Coral Ln.	77	4-CL	30,000	11,500	0.38	B		N	-	-	N
	Red Coral Ln. to Black Coral Ln.	78	2-CL	15,000	11,500	0.78	D		N	-	-	N
	Black Coral Ln. to East End	79	2-CN	10,000	16,000	1.60	F		N	-	-	Y
Avendia De Las Vistas	Otay Valley Rd. to Vista Santo Domingo	80	2-CN	10,000	7,500	0.75	C		N	-	-	N
	Vista Santo Domingo to Dennery Rd.	81	2-CN	10,000	19,000	1.90	F		N	-	-	Y
Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	82	4-CL	30,000	19,000	0.63	C		N	-	-	N
	Surf Crest Dr. to Riviera Pointe	83	2-CN	10,000	22,500	2.25	F		N	-	-	Y
	Riviera Pointe to Dennery Rd.	84	2-CL	15,000	22,500	1.47	F		N	-	-	Y
	Dennery Rd. to I-805	85	4-CL	30,000	15,000	0.50	C		N	-	-	N
Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	86	4-M	40,000	13,000	0.33	A		N	-	-	N
Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	87	4-CL	30,000	21,000	0.70	D		N	-	-	N
	Airway Rd. to Crescent Bay Dr.	88	4-CL	30,000	14,000	0.47	B		N	-	-	N
	Crescent Bay Dr. to Beyer Blvd.	89	2-C	8,000	15,500	1.94	F		N	-	-	Y
Emerald Crest Drive	Otay Mesa Rd. to South End (3)	90	4-CL	30,000	25,000	0.83	D		N	-	-	N
Corporate Center Drive	South End to Otay Mesa Rd. (3)	91	4-CL	30,000	17,500	0.58	C		N	-	-	N
	Otay Mesa Rd. to Progressive Ave.	92	4-CL	30,000	19,500	0.65	C		N	-	-	N
	Progressive Ave. to Innovative Dr.	93	2-C	8,000	8,500	1.06	F		2-CL	0.57	C	N
Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	94	4-CL	30,000	14,000	0.47	B		N	-	-	N
Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	96	4-CL	30,000	18,000	0.60	C		N	-	-	N

*Segment in County of San Diego

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial
7-PA = 7-lane Primary Arterial
7-M = 7-lane Major Arterial
6-PA = 6-lane Primary Arterial
6-M = 6-lane Major Arterial
5-M = 5-lane Major Arterial (3SB /2NB)
4-P = 4-lane Primary Arterial
4-M = 4-lane Major Arterial
4-CL = 4-lane Collector (with continuous left turn lane)
4-C = 4-lane Collector (without continuous left turn lane)
2-CL = 2-lane Collector (with continuous left turn lane)
2-CN = 2-lane Collector (no fronting property)
2-C = 2-lane Collector (without continuous left turn lane)

TABLE 6-1 (Continued)

Buildout Scenario 3B With La Media Road

Average Daily Traffic & Levels of Service

Street	Segment	#	(1)Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	New LOS	S?
Sanyo Avenue	Otay Mesa Rd. to Airway Rd. (4)	97	4-C	15,000	25,500	1.70	F	4-CL	0.85	E	Y
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas (4)	98	2-CL	15,000	11,000	0.73	D	N	-	-	N
Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	99	2-C	8,000	16,000	2.00	F	4-CL	0.53	C	N
	Siempre Viva Rd. to Marconi Dr.	100	2-C	8,000	15,000	1.88	F	4-CL	0.50	C	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	2-C	8,000	8,000	1.00	E	2-CL	0.53	C	N
Otay Center Drive	Harvest Rd. to Siempre Viva Rd. (4)	102	4-C	15,000	15,500	1.03	F	4-CL	0.52	C	N
Michael Faraday Drive	Airway Rd. to Siempre Viva Rd. (4)	103	2-CL	15,000	7,000	0.47	B	N	-	-	N
	Siempre Viva Rd. to Marconi Dr. (4)	104	2-CL	15,000	8,000	0.53	C	N	-	-	N
St. Andrews Avenue	Otay Mesa Center Rd. To La Media Rd.	105	2-C	8,000	13,000	1.30	F	4-CL	0.43	B	N
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	107	2-C	8,000	12,500	1.56	F	4-C	0.83	D	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	2-C	8,000	9,000	1.13	F	N	-	-	Y
	Pacific Rim Ct. to Cactus Rd.	109	2-C	8,000	7,000	0.88	E	N	-	-	Y
	Cactus Rd. to Continental St.	110	2-C	8,000	6,000	0.75	D	N	-	-	N
Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	111	2-C	8,000	4,500	0.56	C	N	-	-	N
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	2-C	8,000	12,000	1.50	F	N	-	-	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	2-C	8,000	24,500	3.01	F	4-CL	0.82	D	N
Datsun Street	Innovative Dr. to Heritage Rd. (3)	114	2-C	8,000	28,000	3.50	F	4-CL	0.93	E	Y
Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave.(3)	115	2-CL	15,000	19,000	1.27	F	4-CL	0.63	B	N
Excellante Street	Airway Rd. to Gigantic St.	116	4-C	15,000	6,000	0.40	B	2-C	0.75	D	N
Gigantic Street	Excellante St. to Centurion St.	117	4-C	15,000	6,000	0.40	B	2-C	0.75	D	N
Centurion Street	Airway Rd. to Gigantic St.	118	4-C	15,000	6,000	0.40	B	2-C	0.75	D	N
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Center Dr. (4)	119	2-CN	10,000	11,500	1.15	F	N	-	-	Y
Continental Street	South of Otay Mesa Rd.	120	2-C	8,000	4,500	0.56	C	N	-	-	N
	North of Airway Rd.	121	2-CL	15,000	10,000	0.67	C	N	-	-	N

*Segment in County of San Diego

= Segment Number

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(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial
7-PA = 7-lane Primary Arterial
7-M = 7-lane Major Arterial
6-PA = 6-lane Primary Arterial
6-M = 6-lane Major Arterial
5-M = 5-lane Major Arterial (3SB /2NB)
4-P = 4-lane Primary Arterial
4-M = 4-lane Major Arterial
4-CL = 4-lane Collector (with continuous left turn lane)
4-C = 4-lane Collector (without continuous left turn lane)
2-CL = 2-lane Collector (with continuous left turn lane)
2-CN = 2-lane Collector (no fronting property)
2-C = 2-lane Collector (without continuous left turn lane)

Classification was used. Failing roadway segments at level of service "E' or "F" with significant traffic impacts are summarized below. All other roadway segments are projected to operate at a level of service "D" or better, without significant traffic impacts.

Figure 6-2 shows recommended roadway classifications for the 3B With La Media Road scenario.

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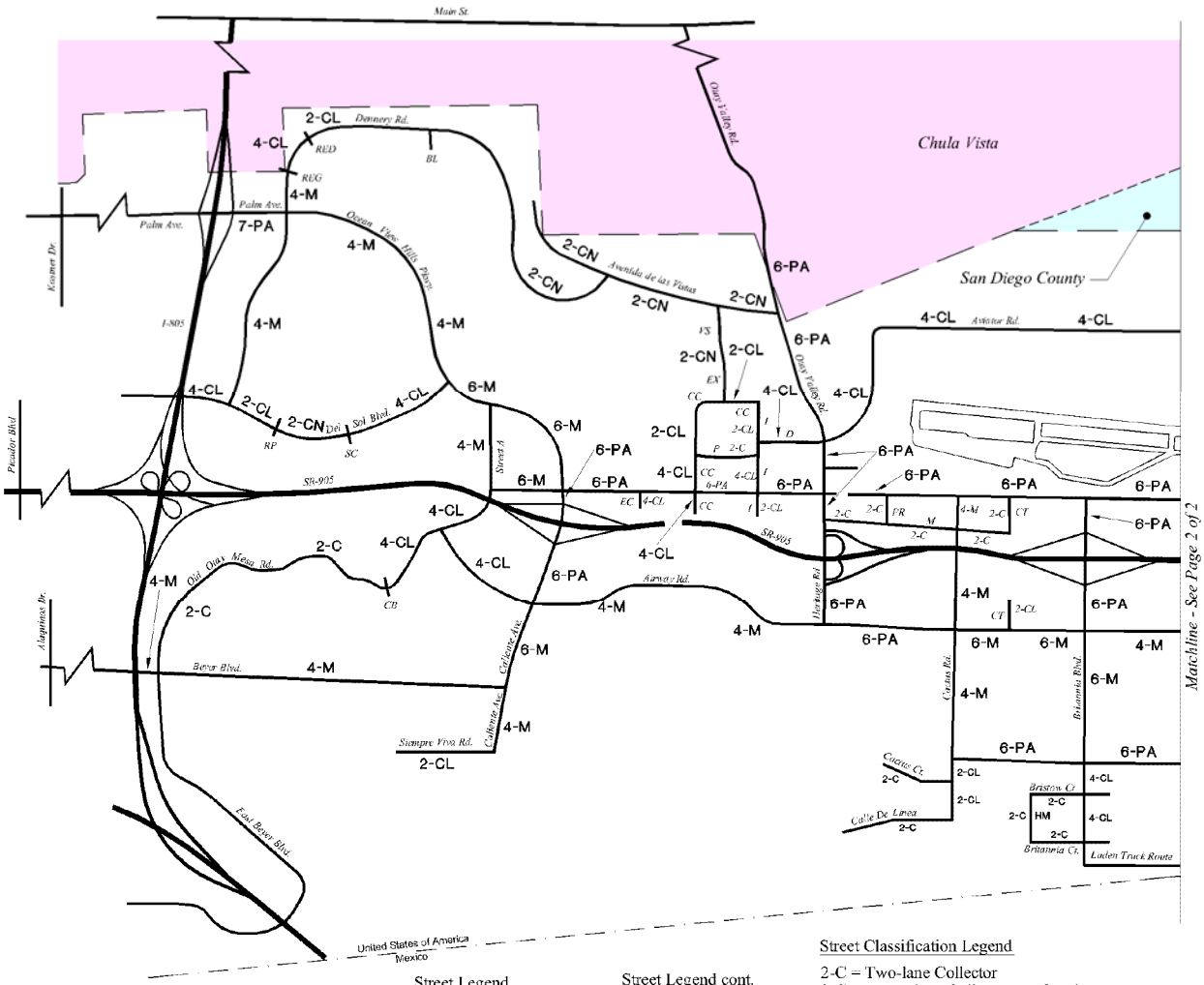

Based on Alternative 3B With La Media Rd.
(9-30-10 Run Date, Series 11)

LEGEND

— — = City of San Diego Boundary

Street Legend

D = Datsun St.
P = Progressive Ave.
EC = Emerald Crest Dr.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
VS = Vista Santo Domingo
CT = Continental St.
HM = Hixson Mesa Way

Street Legend cont.

REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.

Street Classification Legend

2-C = Two-lane Collector
2-CN = Two-lane Collector (no fronting property)
2-CL = Two-lane Collector (with left turn lane)
4-C = Four-lane Collector (without left turn lane)
4-CL = Four-lane Collector (with left turn lane)
4-M = Four-lane Major Arterial
5-M = Five-lane Major Arterial (3 SB/2 NB)
6-M = Six-lane Major Arterial
6-PA = Six-lane Primary Arterial
7-PA = Seven-lane Primary Arterial

N
NO SCALE

FIGURE 6-2

Scenario 3B With La Media Road Land Use Scenario
With Proposed Roadway Classification Recommendations

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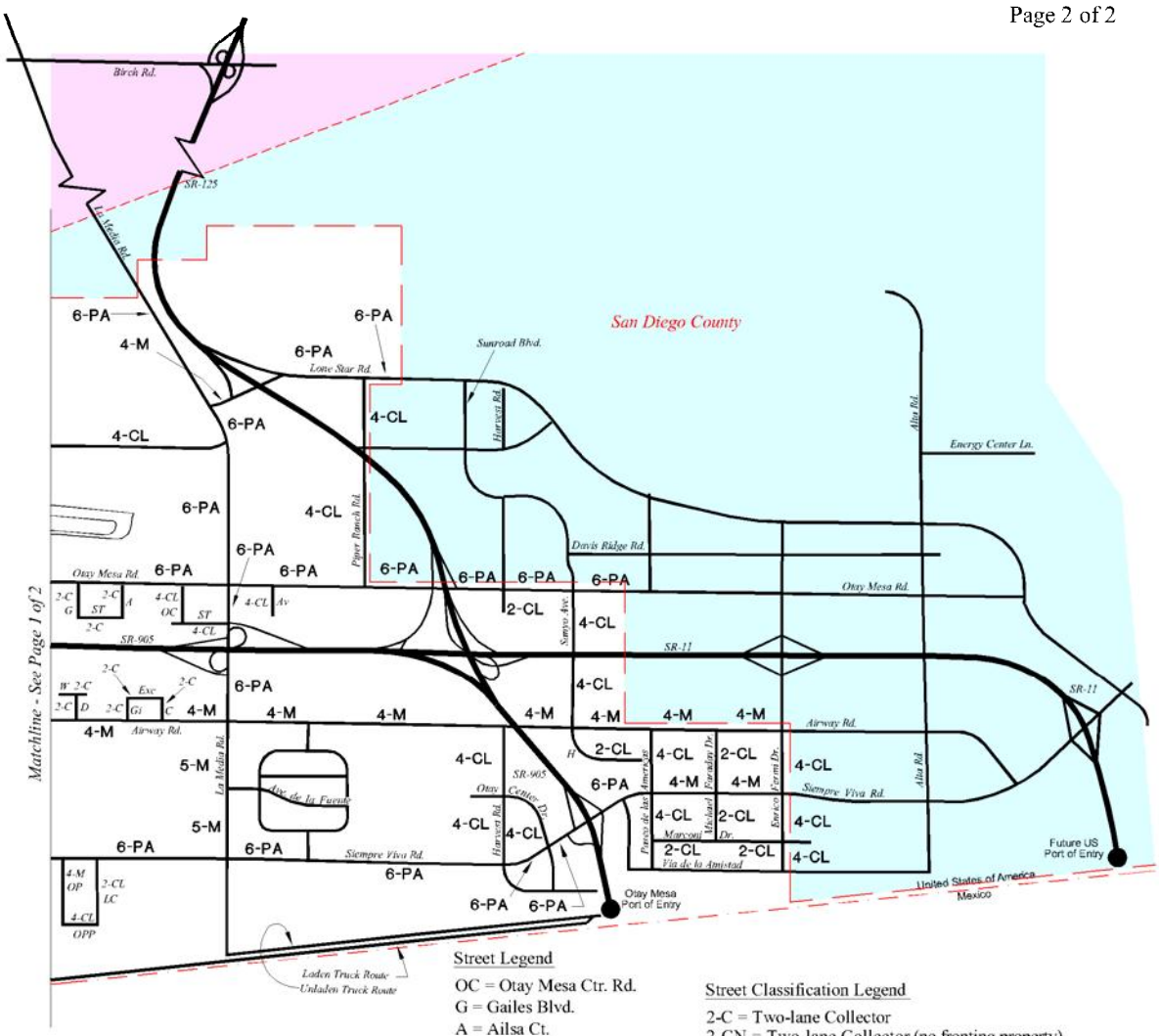

FIGURE 6-2

Scenario 3B With La Media Road Land Use Scenario
With Proposed Roadway Classification Recommendations

Otay Mesa Road

- Caliente Avenue to Corporate Center Drive: level of service "F".
- Heritage Road to Cactus Road: level of service "F".

A reclassification of these segments from a six lane Primary Arterial to eight lanes is not recommended. Widening to eight lanes would be costly, and intersections would be wider and less pedestrian friendly. Right turn only lanes at intersections are recommended to be lengthened to serve as auxiliary lanes between intersections. Without reclassification the significant impact would remain unmitigated.

The seven lane Major and eight lane Major Arterial classification for segments between Ailsa Court and Piper Ranch Road are recommended for a reclassification to a six lane Primary Arterial, restricting parking and access. The impact would be less than significant. These reclassifications are recommended for consistency in lane configurations along Otay Mesa Road.

- Piper Ranch Road to Enrico Fermi Drive:

A reclassification to a six lane Primary Arterial is recommended. There are few driveways and few developed parcels along these segments so that restricting parking and access would have a minimal impact. The levels of service are acceptable through these segments, but the County of San Diego classification is six lanes east of Enrico Fermi Drive, and it is advisable to maintain a continuous classification through these segments to maintain consistency in lane configurations.

Airway Road

- Caliente Avenue to Heritage Road: level of service "E".

This segment is slightly (2.9%) over the level of service "D" volumes for a four lane Major Arterial. This segment includes a bridge crossing an open space canyon so that a six lane bridge would be costly and affect the environment more than four lanes. A six lane reclassification is not recommended. However the significant segment impact would be unmitigated.

- Heritage Road to Cactus Road: level of service "F".
- Cactus Road to Britannia Boulevard: level of service "F".

A reclassification to a six lane Primary Arterial is recommended beginning west of the Heritage Road intersection, so six through lanes can be provided through the intersection in the east and westbound directions, and extending to Cactus Road. The Heritage Road to Cactus Road segment significant impact would be unmitigated. However, added right turn lanes at intersections would enhance the segment capacity. The Cactus Road to Britannia Boulevard segment would be mitigated with a reclassification to a six lane Major Arterial.

Siempre Viva Road

- Otay Center Drive to SR-905: level of service "E".
-SR-905 to Paseo de las Americas: level of service "F"

A reclassification from six to eight lanes is not recommended since a costly widening of the SR-905 / Siempre Viva Road interchange would be needed. The significant impact to these segments would be unmitigated.

Caliente Avenue

- Otay Mesa Road to Airway Road:

Although not at level of service "E" or "F", these segments are recommended to be reclassified from a six lane Major Arterial to a six lane Primary Arterial, restricting access and parking adjacent to the closely spaced intersections, including SR-905 on and off tamp intersections with Caliente Avenue.

- Airway Road to Beyer Boulevard: level of service "F".

A reclassification from a four lane to a six lane Major Arterial is recommended. This segment extends through a future residential area so that a Primary Arterial restricting access is not recommended. The significant segment impact would be only partially mitigated.

- Beyer Boulevard to Siempre Viva Road: level of service "F".

No reclassification is recommended since this segment extends into a future residential area that will need to be designed with Collector loop streets for acceptable access, and local traffic will have additional access to Beyer Boulevard.

Heritage Road / Otay Valley Road

- Otay Valley Road between Main Street in Chula Vista and Avenida de las Vistas: level of service "F".

A reclassification to more than the current six lane Primary Arterial would be a decision to be made by the City of Chula Vista. A wider roadway and bridge over the Otay River Valley would be costly and

increase environmental impacts to the Otay River Valley and is not recommended. The significant impact to this segment would be unmitigated.

- Avenida de las Vistas to Datsun Street: level of service "F".

A reclassification from a six lane Major Arterial to a six lane Primary Arterial is recommended. A wider classification would be costly to construct and is not recommended. There are few developed driveways along this segment so that restricting parking and access would have minimal impacts to adjacent parcels. The significant segment impact would be only partially mitigated.

- Datsun Street to Airway Road: acceptable levels of service.

A reclassification to a six lane Primary Arterial is recommended, restricting access and parking through these closely spaced intersections, including the SR-905 on and off ramp intersections with Heritage Road.

Cactus Road

- Otay Mesa Road to Airway Road: level of service "F".
- Airway Road to Siempre Viva Road: level of service "F".

A reclassification to a four lane Major Arterial is recommended. A higher six lane classification is not recommended. This roadway will extend through the mixed-use village area and excessive through traffic should be discouraged. The significant segment impacts would only be partially mitigated.

Britannia Boulevard

-SR-905 to Airway Road: level of service "F".

-Airway Road to Siempre viva Road: level of service "F".

Britannia Boulevard has been constructed as six lanes between Otay Mesa Road and the SR-905 eastbound ramps, and five lanes between the eastbound ramps and Airway Road. The Cross-Border Facility project includes reclassifying and construction of this segment to six lanes as project mitigation. The SR-905 on and off ramp intersections are closely spaced so that parking and access should be restricted along these segments.

In addition, Britannia Boulevard will also be the designated truck route for southbound laden trucks between SR-905 and the planned truck route parallel to the border.

Therefore, a reclassification to a six lane Primary Arterial is recommended for the segments between Otay Mesa Road and Airway Road. Significant segment impacts would not be fully mitigated. The segment between Airway Road and Siempre Viva Road is recommended as a six lane Major Arterial. The significant segment impact would be fully mitigated.

- Siempre Viva Road to South End: level of service "F".

A reclassification from two to four lane Collector (with left turn lane) is recommended. The significant segment impact would be mitigated.

La Media Road

- Birch Road to Lone Star Road: level of service "F".

The City of Chula Vista is planning to remove the segment of La Media Road crossing the Otay River Valley within Chula Vista from the City of Chula Vista General Plan Circulation Element. However, the traffic volumes for this segment for this scenario are based on including this segment in the traffic model. Due to the need to construct a lengthy bridge through the Otay River Valley, the cost of this segment may be prohibitive so that a reclassification from six lanes to a wider roadway than six lanes is not recommended. Without reclassification the significant segment impact would be unmitigated.

-SR-905 to Airway Road: level of service "F".

The addition of lanes to this currently classified six lane Primary Arterial would require a costly modification to the SR-905 interchange and is not recommended. The significant segment impact would be unmitigated.

Lone Star Road

- SR-125 to Piper Ranch Road: level of service "F".
- Piper Ranch Road to City / County Boundary: level of service 'F".

A reclassification to a six lane Primary Arterial is recommended from west of the SR-125 southbound off-ramp to the City / County Boundary. The significant segment impact would be mitigated.

Aviator Road

- Heritage Road to La Media Road: level of service "F".

This segment is recommended to be added to the circulation element as a four lane Collector (with left turn lane). Future volumes would be accommodated without a significant segment impact.

Dennery Road

-Black Coral Lane to East End: level if service "F".

A reclassification is not recommended. Retaining a two lane Collector (no fronting property) classification would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impact would be unmitigated.

Avenida de las Vistas

-Otay Valley Road to Vista Santo Domingo: level of service "E".
-Vista Santo Domingo to Dennery Road: level of service "F".

A reclassification is not recommended. This street is fully constructed and has adjacent single family residences. Retaining a two lane Collector (no fronting property) classification would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impacts would be unmitigated.

Del Sol Boulevard

- Surf Crest Drive to Riviera Pointe: level of service "F".

This segment will pass through environmentally sensitive lands and is on a slope. Retaining the two lane Collector (no fronting property) classification would minimize impacts to the MSCP land and discourage speeding and though traffic not destined to the adjacent residential development.

-Riviera Pointe to Dennery Road: level of service "F".

This segment is fully constructed and surrounded by environmentally sensitive land and single family development. A reclassification to four lanes is not recommended. The significant segment impact would be unmitigated.

The two lane segment crossing the MSCP canyon is expected to minimally impact the open space, so that four lanes are not recommended. The significant segment impact would not be mitigated.

Old Otay Mesa Road

- Crescent Bay Drive to Beyer Boulevard: level of service "F".

This segment is situated on a steep, rocky hillside that would be costly to widen. Therefore, no reclassification is recommended. The significant segment impact would remain unmitigated.

Corporate Center Drive

-Progressive Avenue to Innovative Drive: level of service "F".

This segment is fully constructed with adjacent developments, as a two lane industrial Collector (without left turn lane). A reclassification as a two lane Collector (with left turn lane) is recommended. The significant impact would be mitigated with restriping for a central left turn lane.

Sanyo Avenue

-Otay Mesa Road to Airway Road: level of service "F".

This segment is constructed as a four lane Collector (without left turn lane) and is to be added to the circulation plan. Widening to a four lane Major Arterial width would adversely affect adjacent development, but minor widening to accommodate a central left turn lane and a classification as a four lane Collector (with left turn lane) is recommended. The significant segment impact would remain unmitigated.

Paseo de las Americas

-Airway Road to Siempre Viva Road: level of service "F".
-Siempre Viva Road to Marconi Drive: level of service "F".

These segments are currently classified as a two lane Collector (with left turn lane) but are constructed fully with four lanes. A reclassification to a four lane Collector roadway is recommended. The reclassification would mitigate the significant segment impacts.

Marconi Drive

-Paseo de las Americas to Enrico Fermi Drive: level of service "E".

This segment is fully constructed as a two lane industrial Collector, and is wide enough to be striped with two lanes and a continuous central left turn lane. The significant segment impact would be mitigated with the reclassification to a two lane Collector (with left turn lane).

Otay Center Drive

-Harvest Road to Siempre Viva Road: level of service "F".

This segment is constructed as a four lane Collector (without left turn lane). A reclassification to four lane Collector (with left turn lane is recommended). The significant segment impact would be mitigated.

St. Andrews Avenue

-Otay Mesa Center Road to La Media Road: level of service "F".

Currently constructed with four lanes, and classified as a two lane Collector, reclassification to a four-lane Collector (with left turn lane) is recommended. The significant segment impact would be mitigated.

Gailes Boulevard

-Otay Mesa Road to St. Andrews Avenue: level of service "F".

This street is constructed with four lanes and a raised median. A reclassification from a two lane Collector to four lane Collector (without left turn lanes) is recommended. The significant segment impact would be mitigated.

Camino Maquiladora

-Heritage Road to Pacific Rim Court: level of service "F"
-Pacific Rim Court to Cactus Road: level of service "E".

These segments serve adjacent industrial uses, but have diverted traffic from Otay Mesa Road. These segments are not mean to be through traffic by-pass routes and are not recommended for reclassification. The significant segment impacts would be unmitigated.

Progressive Avenue

-Corporate Center Drive to Innovative Drive: level of service "F".

This segment is constructed as a two lane industrial Collector and serves adjacent industrial uses, but has diverted traffic from Heritage Road. This segment is not meant as a through traffic by-pass route and is not recommended for reclassification. The significant impact would be unmitigated.

Otay Mesa Center Road

-Otay Mesa Road to St. Andrews Avenue: levels of service "F".

This segment is classified as a two lane Collector, but is constructed with four lanes. A reclassification to a four lane Collector (with left turn lane) mitigates the significant segment impact.

Datsun Street

- Innovative Drive to Heritage Road: level of service "F".

This segment is planned to serve the adjacent industrial uses, but has high volumes due to traffic diverted from Heritage Road. This segment is not meant to be a through traffic bypass route. A classification as a four lane Collector (with left turn lane) is recommended, rather than a four lane Major Arterial. The significant segment impact would be unmitigated.

Avenida Costa Azul

-Otay Mesa Road to St. Andrews Avenue: level of service "F".

Add to circulation plan as a four lane Collector (with left turn lane). The significant segment impact would be mitigated by this classification.

Exposition Way / Vista Santo Domingo

-Avenida de las Vistas to Corporate Center Drive: level of service "F".

This segment has high volumes due to diverted traffic from Otay Valley Road.

Vista Santo Domingo is constructed as a two lane Collector (no fronting property) within a residential area and is not meant to be a by-pass route for through traffic so that retaining this classification would discourage speeding and through traffic not destined for the adjacent residential neighborhoods.. A reclassification is not recommended.

6.3 Freeway Levels of Service

Table 6-2 lists freeway segments evaluated for the 3B With La Media Road scenario, without possible future HOV lanes.

Segments of Interstate 805 and State Route 905 are projected to be significantly impacted by Otay Mesa Community Plan and regional cumulative traffic.

Impacts to Interstate 805 between State Route 905 and Main Street would remain significant and unmitigated without the assumption of High Occupancy Vehicle (HOV) lanes installed, and a northbound auxiliary lane installed with I-805 / SR-905 interchange improvements.

However, the Adopted SANDAG 2050 Regional Transportation Plan includes two managed lanes in each direction on I-805 north of SR-905. With the addition of these managed lanes, peak hour levels of service would be at "D" on I-805 segments between SR-905 and Main Street.

State Route 905 is assumed with six lanes. Impacts would be significant and unmitigated between Picador Boulevard and Britannia Boulevard. State Route 905 has been designed so that median HOV lanes could be installed in the future, but are not currently planned or funded by Caltrans. The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts, but would not provide acceptable levels of service, except between I-805 and Britannia Boulevard. **Table 6-2-A** shows freeway levels of service after HOV lanes are added to segments at level of service "F".

6.4 Intersection Levels of Service

Table 6-3 shows the 3B With La Media Road scenario intersection levels of service with and without recommended mitigation.

Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches. Lane configurations with mitigation identified are included in **Appendix C**. Also included are peak hour volumes at each intersection and intersection levels of service worksheets.

TABLE 6-2

Buildout Scenario 3B With La Media Road Freeway Segment Levels of Service

Segment		Lanes (1-Way)	Cap.	ADT (1)	Peak Hour %(5)	Direction Split(5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	2 + AUX	6,500	126,500	0.08	0.6	0.90	6,747	0.96	E
	I-805 to Caliente Ave. (4)	3 + CL	8,550	215,500	0.08	0.6	0.90	11,493	1.63	F3
	Caliente Ave. to Heritage Rd.	3	7,050	191,000	0.08	0.6	0.90	10,187	1.44	F2
	Heritage Rd. to Britannia Blvd.	3	7,050	168,500	0.08	0.6	0.90	8,987	1.27	F1
	Britannia Blvd. to La Media Rd.	3	7,050	148,500	0.08	0.6	0.90	7,920	1.12	F0
	La Media Rd. to SR-125	3	7,050	102,500	0.08	0.6	0.90	5,467	0.78	C
	SR-125 to Siempre Viva Rd.	3	7,050	98,000	0.08	0.6	0.90	5,227	0.74	C
	Siempre Viva Rd. to Border	3	7,050	64,500	0.08	0.6	0.90	3,440	0.49	B
I-805	Main St. to Palm Ave.	4+AUX	11,200	243,000	0.08	0.6	0.90	12,960	1.16	F0
	Palm Ave. to SR-905	4+AUX	11,200	217,500	0.08	0.6	0.90	11,600	1.04	F0
	SR-905 to I-5	4	9,400	122,500	0.08	0.6	0.90	6,533	0.70	C
	I-5 to Border	6	14,100	136,000	0.08	0.6	0.90	7,253	0.51	B
SR-125	Birch Rd. to Lone Star Rd.	4 (Toll)	9,400	124,500	0.08	0.6	0.90	6,640	0.71	C
	Lone Star Rd. to SR-905	4 (Toll)	9,400	96,000	0.08	0.6	0.90	5,120	0.54	B
SR – 11	SR-905 to Enrico Fermi Dr.	2	4,700	43,000	0.08	0.6	0.90	2,293	0.49	B
	Enrico Fermi Dr. to Siempre Viva Rd.	2	4,700	23,000	0.08	0.6	0.90	1,227	0.26	A
	Siempre Viva Rd. to Border	2	4,700	39,500	0.08	0.6	0.90	2,107	0.48	B

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

F = Shading indicates a significant impact.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (9-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source:Caltrans Traffic Volumes Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) = Highway Capacity Manual (2000) EQN. (3-2);Assume 10% trucks plus RV's.

TABLE 6-2-A

Scenario 3B With La Media Road Freeway Segment Levels of Service

(With HOV Lanes Added To LOS F Segments)

Segment		ADD HOV	Lanes (1Way)	Cap.	ADT (1)	Peak Hour %(5)	Direction Split (5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	+H	2 + AUX	8,100	126,500	0.08	0.6	0.90	6,747	0.83	D
	I-805 to Caliente Ave. (4)	+H	3 + CL	10,150	215,500	0.08	0.6	0.90	11,493	1.13	F1
	Caliente Ave. to Heritage Rd.	+H	3	8,650	191,000	0.08	0.6	0.90	10,187	1.18	F2
	Heritage Rd. to Britannia Blvd.	+H	3	8,650	168,500	0.08	0.6	0.90	8,987	1.04	F0
	Britannia Blvd. to La Media Rd.	+H	3	8,650	148,500	0.08	0.6	0.90	7,920	.92	D
I-805	Main St. to Palm Ave,	+2H	4+AUX	14,400	243,000	0.08	0.6	0.90	12,960	0.90	D
	Palm Ave. to SR-905	+2H	4+AUX	14,400	217,500	0.08	0.6	0.90	11,600	0.81	D

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

F = Shading indicates a significant impact.

+H = Add HOV lane in each direction.
+2H = Add two HOV lanes in each direction.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (09-30-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source:Caltrans Traffic Volumes, Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) Highway Capacity Manual (2000) EQN. (3-2); assume 10% trucks plus RV's.

SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

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TABLE 6-3

Buildout Scenario 3B With La Media Road Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
1	Palm Ave. / I-805 SB Ramps	47.2	D	48.6	D	24.6	C	34.5	C
2	Palm Ave. / I-805 NB Ramps	107.7	F	113.9	F	18.7	B	29.3	C
3	Palm Ave. / Dennery Rd.	34.2	C	67.8	E	-	-	-	-
4	Otay Mesa Rd. / Caliente Ave.	279.2	F	139.5	F	220.6	F	82.1	F
5	Caliente Ave. / SR-905 WB Ramps	74.6	E	41.8	(1) D	35.6	(1) D	32.5	(1) C
6	Caliente Ave. / SR-905 EB Ramps	140.2	F	146.5	F	48.6	D	66.0	E
7	Caliente Ave. / Airway Rd.	240.9	F	204.3	F	184.8	F	181.9	F
8	Caliente Ave. / Beyer Blvd.	238.6	F	411.5	F	173.5	F	111.6	F
9	Otay Mesa Rd. / Heritage Rd.	289.6	F	283.7	F	236.0	F	192.8	F
10	Heritage Rd. / SR-905 WB Ramps	65.1	E	100.4	F	18.7	(1) B	27.8	(1) C
11	Heritage Rd. / SR-905 EB Ramps	127.9	F	86.8	F	34.2	(1) C	23.4	(1) C
12	Heritage Rd. / Airway Rd.	146.3	F	378.4	F	62.6	E	79.5	E
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	391.1	F	265.8	F	118.3	F	185.5	F
15	Airway Rd. / Cactus Rd.	344.9	F	430.8	F	167.4	F	284.9	F
16	Siempre Viva Rd. / Cactus Rd.	43.4	D	119.2	F	42.2	D	108.7	F
17	Otay Mesa Rd. / Britannia Blvd.	113.5	F	125.7	F	68.2	E	51.5	D
18	Britannia Blvd. / SR-905 WB Ramps	239.4	F	452.4	F	61.0	E	417.5	F
19	Britannia Blvd. / SR-905 EB Ramps	357.3	F	237.6	F	306.7	F	69.9	E
20	Britannia Blvd. / Airway Rd.	622.3	F	611.5	F	187.7	F	236.4	F
21	Siempre Viva Rd. / Britannia Blvd.	378.7	F	345.5	F	164.3	F	168.3	F
22	Otay Mesa Rd. / La Media Rd.	391.8	F	448.0	F	128.5	F	107.5	F

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

F = Shading indicates a significant impact.

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TABLE 6-3 (Continued)

Buildout Scenario 3B With La Media Road Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
23	La Media Rd. / SR-905 WB Ramps	242.0	F	134.1	F	96.6	F	94.4	F
24	La Media Rd. / SR-905 EB Ramps	255.5	F	81.6	F	167.4	F	47.5	(1) D
25	La Media Rd. / Airway Rd.	508.2	F	573.5	F	191.4	F	283.3	F
26	La Media Rd. / Siempre Viva Rd.	252.3	F	115.3	F	93.6	F	44.0	D
27	La Media Rd. / Lone Star Rd.	90.1	F	115.9	F	43.0	D	80.6	F
28	Lone Star Rd. / SR-125 SB Off Ramp	23.0	(1) C	13.6	(1) B	-	-	-	-
29	Lone Star Rd. / SR-125 NB On Ramp	3.4	(1) A	7.8	(1) A	-	-	-	-
30	Lone Star Rd. / Piper Ranch Rd.	10.8	B	9.2	A	-	-	-	-
31	Otay Mesa Rd. / Piper Ranch Rd.	140.7	F	218.6	F	57.6	E	84.8	F
32	Otay Mesa Rd. / SR-125 SB Off Ramp	48.9	D	7.1	A	19.0	B	6.2	A
33	Otay Mesa Rd. / SR-125 NB On Ramp	3.2	A	8.0	A	-	-	-	-
34	Otay Mesa Rd. / Harvest Rd.	54.6	D	132.3	F	10.7	B	32.4	C
35	Siempre Viva Rd. / Otay Center Dr.	262.9	F	322.7	F	74.1	E	91.0	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	28.2	(1) C	137.1	F	-	-	-	-
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	(2) 2,531	F	(2) 204.1	F	366.4	F	16.2	B
37	Siempre Viva Rd. / SR-905 NB Ramps	47.4	(1) D	250.4	F	39.4	(1) D	238.0	F
38	Siempre Viva Rd. / Paseo de las Americas	190.2	F	367.1	F	78.5	E	158.1	F
39	Dennery Rd. / Del Sol Blvd.	53.6	(1) D	53.2	D	-	-	-	-
40	Ocean View Hills Pkwy. / Del Sol Blvd.	71.4	E	67.1	E	50.4	D	54.3	D
41	Ocean View Hills Pkwy. / Street A	48.2	D	63.2	E	37.7	D	34.1	C
42	Old Otay Mesa Rd. / Beyer Blvd.	392.8	F	399.1	F	197.4	F	185.6	F
43	Otay Mesa Rd. / Corporate Center Dr.	119.3	F	184.6	F	78.6	E	140.6	F
44	Otay Mesa Rd. / Innovative Dr.	114.5	F	110.5	F	113.8	F	91.4	F

Legend

CD = Control Delay

LOS = Level of Service

(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.

(2) = Unsignalized: SB to WB right turn at LOS F (AM and PM Peak Hours)

F = Shading indicates a significant impact.

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TABLE 6-3 (Continued)

Buildout Scenario 3B With La Media Road Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
45	Harvest Rd. / Airway Rd.	117.5	F	13.8	B	43.9	D	13.5	B
46	Harvest Rd. / Siempre Viva Rd.	67.2	E	67.6	E	32.2	C	49.4	D
47	Otay Mesa Rd. / Sanyo Ave.	284.4	F	265.5	F	81.9	F	63.5	E
48	Airway Rd. / Sanyo Ave.	225.6	F	229.8	F	49.7	D	38.6	D
49	Paseo de las Americas / Heinrich Hertz Dr.	(3) 988.3	F	(3) 231.4	F	26.0	C	14.2	B
50	Paseo de las Americas / Marconi Dr.	(4) 983.1	F	(4) 147.8	F	18.5	B	26.4	C
51	Heritage Rd. / Otay Valley Rd./ Datsun St.	443.8	F	564.4	F	138.0	F	239.1	F
52	Aviator Rd. / La Media Rd.	62.3	E	27.5	C	26.0	C	13.6	B
53	Otay Valley Rd. / Avenida De Las Vistas	659.8	F	291.3	F	-	-	-	-

Note: Control delay results should be considered unreliable at delay values higher than two times the LOS E value of 80.0 seconds.

Legend
CD = Control Delay
LOS = Level of Service
(3) Unsignalized:Eastbound left turn at LOS F (AM peak hour); Eastbound left and right turns at LOS F (PM peak hour).
(4) Unsignalized: Westbound left turn at LOS F (AM and PM peak hours);Westbound right turn at LOS F (PM peak hour).

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F
Source: 2000 Highway Capacity Manual	

Of the 53 intersections evaluated, 40 intersections are expected to be at levels of service "E" or "F" during the AM peak hour and 43 during the PM peak hour. With feasible mitigation, 27 intersections would remain to operate unacceptably in the AM peak hour and 29 intersections would remain to operate unacceptably in the PM peak hour. **Table 6-4** shows lane configurations at each intersections and also shows lanes to be added after mitigation.

The SR-905 interchange at Caliente Avenue and La Media Road are recommended for major improvements for all alternatives. The Caltrans designs of these interchanges are based on forecasts of future traffic from the build out of only approximately fifty percent of Otay Mesa land uses. The Heritage Road interchange currently does not have a final, funded design, so that the lane configurations at the ramp intersections included in this report should be incorporated into the final design.

Provided below is a summary of mitigation recommended at the interchanges and major intersections. Some intersection impacts are not proposed to be fully mitigated, usually because it would require excessively wide intersections and turning lanes and non-standard intersection coonfigurations.

#2. I-805 Northbound Ramps / Palm Avenue – The Otay Mesa P.F.F.P includes a bridge widening project at this location. The preliminary design includes a third through lane in each direction, an additional westbound right turn lane (total of two), northbound off- ramp widening for an additional lane (total of three), southbound off-ramp widening for an additional lane (total of four), and the addition of a fourth eastbound lane and a loop on-ramp in the southeast quadrant.

#4. Caliente Avenue / Otay Mesa Road – At this intersection of two six-lane Primary Arterials, a separate right turn only lane in the northbound direction is recommended. Although the northbound right turn volumes are expected to be high enough to warrant dual right turns, this intersection is near San Ysidro High School and in the interest of pedestrian safety and convenience, the dual right turn lanes are not recommended.

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TABLE 6-4

Buildout 3B With La Media Road Intersection Mitigation

		Without Mitigation												With Mitigation											
		NB			SB			EB			WB			NB			SB			EB			WB		
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
1	Palm Ave. / I-805 SB Ramps				1	1*	1		2	1	2	2					1	1*	2		2	1	2	2	
2	Palm Ave. / I-805 NB Ramps	S	1*	1				2	2			2	1	1	1*	1					3	1		3	2
3	Palm Ave. / Dennery Rd.	3	1	S	2	2	1	2	3	1	2	3	1												
4	Otay Mesa Rd. / Caliente Ave.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	S	2	3	1	2	3	1
5	Caliente Ave. / SR-905 WB Ramps	1	3			3	S				S	1	1	2	3			3	1				S	1	1
6	Caliente Ave. / SR-905 EB Ramps		3	S	1	3		1	1*	S					3	1	2	3		1	1*	1			
7	Caliente Ave. / Airway Rd.	2	3	S	2	3	S	2	2	S	2	2	1	2	3	1	2	3	S	2	2	1	2	2	1
8	Caliente Ave. / Beyer Blvd.	2	2	S	2	3	S	2	2	S	1	1	1	2	2	S	2	2	2	2	2	1	1	1	1
9	Otay Mesa Rd. / Heritage Rd.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2
10	Heritage Rd. / SR-905 WB Ramps		3	S	2	3					S		2		3	2	2	3					S		2
11	Heritage Rd. / SR-905 EB Ramps		3	S	2	3					2		S		3	1	2	3					2		1
12	Heritage Rd. / Airway Rd.				2		1	2	3		2	3	S				2		1	2	3			3	2
13	Heritage Rd. / Siempre Viva Rd.																								
14	Otay Mesa Rd. / Cactus Rd.	2	1*	1	1	1	S	1	3	S	2	3	S	2	1*	1	1	1	S	1	3	2	2	3	1
15	Airway Rd. / Cactus Rd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2*	1	2	3*	1	2	3	2
16	Siempre Viva Rd. / Cactus Rd.		2	S	2	2					2		2		2	1	2	2					2		2
17	Otay Mesa Rd. / Britannia Blvd.	2	1	1	1	1	S	1	3	S	2	3	S	2	1*	1	1	1	S	1	3	1	2	3	1
18	Britannia Blvd. / SR-905 WB Ramps	2	3			3	S				1	1	1	2	3			3*	1				1	1*	1
19	Britannia Blvd. / SR-905 EB Ramps		3	S	2	3		S	1	2					3	2	2	3		S	1	2			
20	Britannia Blvd. / Airway Rd	2	3	S	2	3	S	2	3	S	2	2	S	2	3	1	2	3	2	2	3	1	2	2	2
21	Siempre Viva Rd. / Britannia Blvd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2	2	2	3	1	2	3	2
22	Otay Mesa Rd. / La Media Rd.	2	3	S	2	3	S	2	3	S	2	3	S	2	3	2	2	3	2	2	3	2	2	3	2

Legend
L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

*** Notes:** #1-SB through is shared LTR without mitigation; shared LT with mitigation.
#2-NB through is shared LTR.
#5-SB is 2T-TR-R without mitigation.
#6-EB through is shared LTR without mitigation;shared LT with mitigation.
#14 - NB through is shared TR.
#15-SB through is shared TR.
#15-EB through is shared TR.
#17-NB through is shared TR.
#18- SB add right turn lane; 3rd SB lane striped for shared TR; WB through restriped for LTR.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

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TABLE 6-4 (Continued)

Buildout 3B With La Media Road Intersection Mitigation

		Without Mitigation												With Mitigation											
		NB			SB			EB			WB			NB			SB			EB			WB		
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
23	La Media Rd. / SR-905 WB Ramps	2	2	1		3	1	S	1	1	1	1*	1	2	3	1		3	1	1		1	1	1*	1
24	La Media Rd. / SR-905 EB Ramps	2	3			2	1	2		2				2	3			3	1	2		2			
25	La Media Rd. / Airway Rd.	2	2	S	2	3	S	2	2	S	2	2	S	2	2	1	2	3	2	2	2	1	2	2	2
26	La Media Rd. / Siempre Viva Rd.				2	2	S	2	3			3	S				2	1*	2*	2	3			3	2
27	La Media Rd. / Lone Star Rd.		3	S	2	3					2	2	S		3	1	2	3					2		2*
28	Lone Star Rd. / SR-125 SB Off Ramp				2		2		3			3													
29	Lone Star Rd. / SR-125 NB On Ramp							2	3			3	2												
30	Lone Star Rd. / Piper Ranch Rd.	2		1					3	S	2	3													
31	Otay Mesa Rd. / Piper Ranch Rd.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1	2	1	2	2	3	1	2	3	1
32	Otay Mesa Rd. / SR-125 SB Off Ramp				2		1		3			3					1	1*	1						
33	Otay Mesa Rd. / SR-125 NB On Ramp							2	3			3	2												
34	Otay Mesa Rd. / Harvest Rd.	1	1	S	1	1	S	1	3	S	1	3	S	2	1	S	1	1	S	1	3	1	1	3	S
35	Siempre Viva Rd. / Otay Center Dr.	1	1	S	1	2	S	1	3	S	1	3	S	1	1	1	2	1	1	2	3	1	2	3	1
36	Siempre Viva Rd. / SR-905 SB to EB Ramp			2					3	S	2	3													
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp						1					3							2					3	
37	Siempre Viva Rd. / SR-905 NB Ramps	S	1	2				2	3			3	1	S	1	2				2	3			3	2
38	Siempre Viva Rd. / Paseo de las Americas	1	2	S	1	2	S	1	3	1	1	3	S	1	1*	1*	1	1	2	2	3	1	1	3	1
39	Dennery Rd. / Del Sol Blvd.				1		1	1	2			2	S												
40	Ocean View Hills Pkwy. / Del Sol Blvd.	2	3	S	1	2	S	1	1	1	1	1	S	2	3	S	1	2	1	1*	1*	1	1	1	S
41	Ocean View Hills Pkwy. / Street A	1	1	1	1	1	S	1	3	S	1	3	S	2	1	1	1	1	S	1	3	1	1	3	S
42	Old Otay Mesa Rd. / Beyer Blvd.	1	1	S	1	1	S	2	2	1	2	2	S	1	1	1	1	1	1	2	2	1	2	2	S
43	Otay Mesa Rd. / Corporate Center Dr.	2	1	S	1	1	1	2	3	S	2	3	1	2	1	S	2	1*	1	2	3	1	2	3	1
44	Otay Mesa Rd. / Innovative Dr.	1	1	S	1	1	1	2	3	S	2	3	1	1	1	S	2	1*	1	2	3	S	2	3	1

Legend
L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

***Notes:** #23-WB middle lane is shared LT.
#26-SB lanes restriped for 1T-2R lanes.
#27-WB lanes restriped for 2R lanes.
#32-SB middle lane is striped for shared LR.
#38-NB lanes restriped for L-LT-R.
#40-EB lanes restriped for L-LT-R.
#43-SB is 2L-TR-R.
#44-SB is 2L-TR-R.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

TABLE 6-4 (Continued)

Buildout 3B With La Media Road Intersection Mitigation

		Without Mitigation												With Mitigation											
		NB			SB			EB			WB			NB			SB			EB			WB		
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
45	Harvest Rd. / Airway Rd.	2		1					2	S	2	2		2		1					2	1	2	2	
46	Harvest Rd. / Siempre Viva Rd.	1	2	S	1	2	S	2	3	S	2	3	S	1	2	S	2	2	1	2	3	S	2	3	1
47	Otay Mesa Rd. / Sanyo Ave.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1	1	1	1	2	3	2	2	3	1
48	Airway Rd. / Sanyo Ave.	1	2	S	1	2	S	2	2	S	2	2	S	2	2	1	2	2	2	2	2	2	2	2	1
49	Paseo de las Americas / Heinrich Hertz Dr.	1	2			2	S	1		1				2	2			2	S	1		1			
50	Paseo de las Americas / Marconi Dr.		2	S	1	2					1		1		2	S	2	2					1		1
51	Heritage Rd. / Otay Valley Rd.	2	3	S	2	3	S	1	2	S	1	2	S	2	3	1	2	3	2	2	2	1	2	2	1
52	Aviator Rd. / La Media Rd.	2	3			3	S	2		1				2	3			3	1	2		1			
53	Otay Valley Rd. / Avenida De Las Vistas	1	3	S	1	3	S	1	1	S	1	1	1												

Legend
L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane
1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

#5. Caliente Avenue / SR-905 Westbound Ramps – Overcrossing widening to accommodate northbound dual left turn lanes is recommended. Additionally, a single southbound right turn only lane is recommended. Caliente Avenue is a school pedestrian route to the San Ysidro High School. Although southbound right turn volumes are expected to be high enough to warrant right turn lanes, the dual right turn lanes are not recommended.

#6. Caliente Avenue / SR-905 Eastbound Ramps - Overcrossing widening to accommodate dual northbound left turn lanes at the SR-905 westbound ramps also should extend through this intersection, accommodating dual southbound left-turn lanes. A separate northbound right turn lane and ramp widening for an additional eastbound right turn lane are recommended. Although the eastbound right turn volumes are expected to be high enough for dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#7. Caliente Avenue at Airway Road - Separate right turn only lanes are recommended in the eastbound, northbound, and westbound directions. Although the northbound and westbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysdiro High School.

#8. Caliente Avenue at Beyer Boulevard - Dual right turn lanes southbound to westbound are recommended. A separate eastbound right turn lane is recommended.

#9. Heritage Road / Otay Mesa Road - Separate right turn only lanes are recommended in the northbound and southbound directions. Existing right turn lanes are in place eastbound and westbound. A second westbound right turn lane is recommended.

#10. Heritage Road / SR-905 Westbound Ramps - Two right turn only lanes are recommended in the northbound direction onto the westbound on-ramp.

#11. Heritage Road / SR-905 Eastbound Ramps - A separate right turn lane in the northbound direction to the eastbound on-ramp, plus an additional lane in the westbound direction on the eastbound off-ramp are recommended.

#12. Heritage Road / Airway Road – Dual right turn lanes are recommended in the westbound direction.

#14. Cactus Road / Otay Mesa Road - Dual right turn lanes in the eastbound direction, and one in the westbound direction are recommended.

#15. Cactus Road / Airway Road - Dual right turn lanes in the westbound direction, and single right turn lanes are recommended in the south, north, and eastbound directions. A shared through / right turn lane is recommended southbound and eastbound.

#16. Cactus Road / Siempre Viva Road - Dual right turn lanes in the westbound direction and a single right turn lane are recommended in the northbound direction.

#17. Britannia Boulevard / Otay Mesa Road - A single right turn only lane in the eastbound and westbound directions are recommended.

#18. Britannia Boulevard / SR-905 Westbound Ramps - A single southbound right turn lane, and also restriping the third southbound through lane as an optional through / right turn are recommended. The middle lane in the westbound direction is recommended to be restriped for a shared left / through / right movement.

#19. Britannia Boulevard / SR-905 Eastbound Ramps - Dual right turn lanes northbound are recommended.

#20. Britannia Boulevard / Airway Road - Dual right turn lanes in the south and westbound directions, and a single right turn lane in the eastbound and northbound directions are recommended.

#21. Britannia Boulevard / Siempre viva Road - Dual right turn lanes in the west, and southbound directions, and a single right turn lane in the eastbound and northbound directions are recommended.

#22. La Media Road / Otay Mesa Road – Dual right turn lanes are recommended at all approaches.

#23. La Media Road / SR-905 Westbound Ramps - It is recommended that the eastbound through movement be eliminated so that the northbound right turn to the SR-905 westbound on-ramp can be a continuous movement, without a conflicting movement at the traffic signal. Only a pedestrian signal would cause this traffic to stop. Additionally a third northbound through lane is recommended. These recommended improvements would require widening in the northbound direction along La Media Road.

#24. La Media Road / SR-905 Eastbound Ramps - The addition of a third southbound through lane is recommended. This improvement would require widening La Media Road in the southbound direction.

#25. La Media Road / Airway Road - The addition of dual right turn lanes westbound and southbound, and single right turn lanes eastbound and northbound are recommended.

#26. La Media Road / Siempre Viva Road - The addition of dual right turn lanes westbound, and one right turn lane southbound are recommended. The southbound lanes should be striped for two lefts / one through / two right turn lanes. The southbound through lane will be restricted to unladen trucks destined to the Border Truck Road.

#27. La Media Road / Lone Star Road - A northbound right turn lane is recommended. The westbound through lanes are recommended to be striped for two left and two right turn lanes.

#31. Piper Ranch Road / Otay Mesa Road – Single right turn lanes in the east, west, and northbound directions are recommended. Southbound, two right turn lanes are recommended. Southbound lanes should be striped for two left / one through / two right turn lanes.

#32. SR-125 Southbound Off-Ramp / Otay Mesa Road – No additional lanes are recommended, but restriping the southbound middle lane for optional left-right turns is recommended.

#34. Harvest Road / Otay Mesa Road – An additional eastbound right turn lane is recommended. An additional northbound left turn lane is also recommended.

#35. Otay Center Drive / Siempre Viva Road - Added lanes for single right turn lanes are recommended at all approaches. Dual left turn lanes are recommended east, west, and southbound.

#36 – 36A. SR-905 Southbound Ramps / Siempre Viva Road - The SR-905 southbound off-ramp to westbound Siempre Viva Road is recommended to be signalized, and widened for an additional southbound turn lane.

#37. SR-905 Northbound Ramps / Siempre Viva Road – A second westbound right turn lane is recommended.

#38. Paseo de las Americas / Siempre Viva Road - Added westbound and southbound right turn lanes are recommended, plus an eastbound left turn lane. The northbound lanes should be restriped for one left, one left / through, one right turn lane. The southbound lanes should be restriped for one left / one through / two right turn lanes.

#40. Ocean View Hills Parkway / Del Sol Boulevard - One added southbound right turn lane is recommended. The eastbound through lane should be restriped for optional left turns / through.

#41. Ocean View Hills Parkway / Street "A" - An eastbound single right turn lane and an added northbound left turn lane are recommended.

#42. Old Otay Mesa Road / Beyer Boulevard - Northbound and southbound right turn lanes are recommended.

#43. Otay Mesa Road / Corporate Center Drive - Northbound and southbound added left turn lanes, and a separate eastbound right turn lane are recommended. The southbound through lane should be striped as a shared through / right turn lane.

#44. Otay Mesa Road / Innovative Drive - A second southbound left turn lane is recommended. The southbound through lane should be striped as a shared through / right turn lane.

#45. Airway Road / Harvest Road - An eastbound right turn lane is recommended.

#46. Harvest Road / Siempre viva Road - Separate right turn lanes are recommended westbound and southbound. An additional southbound left turn lane is recommended.

#47. Otay Mesa Road / Sanyo Avenue - Eastbound dual right turn lanes, and single right turn lanes northbound and westbound are recommended. Restriping northbound lanes for dual left turns plus one through lane is recommended.

#48. Airway Road / Sanyo Avenue - Dual right turn lanes in the eastbound and southbound directions are recommended. Single right turn lanes northbound and westbound are recommended. Northbound and southbound added lanes for dual left turns are recommended.

#49. Paseo de las Americas / Heinrich Hertz Drive - The installation of a traffic signal and widening for an added northbound left turn lane are recommended.

#50. Paseo de las Americas / Marconi Drive - The installation of a traffic signal and adding a southbound left turn lane are recommended.

#51. Heritage Road / Otay Valley Road - Dual right turn lanes southbound, and single right turn lanes at the other approaches are recommended. East and westbound dual left turn lanes are recommended.

#52. La Media Road / Aviator Road - A southbound right turn lane is recommended.

6.5 Ramp Meter Operations

Table 6-5 shows buildout ramp meter operations at all freeway on-ramps within the study area.

The likely most restrictive ramp meter rate as provided by Caltrans was used for this evaluation.

Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service does not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. Of the 28 hours ramp meters were evaluated during the AM and PM peak hours, ramp meter delays above 15 minutes would occur at five locations during the AM peak hour and at eleven locations during the PM peak hour.

Ramp meter delays above 15 minutes are considered significant impacts if downstream freeways are operating at level of service "E" or "F". The following five ramp locations would be significantly impacted using this significance criteria:

- SR-905 / Caliente Avenue Westbound on-ramp (AM and PM);
- SR-905 / Heritage Road Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound on-ramp (PM);
- SR-905 / La Media Road Westbound on-ramp (AM and PM).

The freeway on-ramps evaluated would have ramp lengths from 650 feet to 1,200 feet. Assuming two lanes at the ramp meters, seven locations would have queues exceeding the ramp storage during the AM peak hour, and at eleven locations during the PM peak hour.

There are no performance criteria regarding excessive queues in the regional guidelines. However, the guidelines state the following:

TABLE 6-5

Buildout Alternate 3B With La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		**Demand****	**Meter Rate* (Veh/Hr)**	**Excess Demand**	**Delay (Min)**	**Queue (Feet)**
AM	I-805 / Palm Avenue Northbound (From Westbound)	1,250	960	290	18.1	7,250 (E)
PM	I-805 / Palm Avenue Northbound (From Westbound)	1,345	960	385	24.1	9,625 (E)
AM	I-805 / Palm Avenue Northbound (From Eastbound)	655	960	None	None	None
PM	I-805 / Palm Avenue Northbound (From Eastbound)	540	960	None	None	None
AM	I-805 / Palm Avenue Southbound	455	960	None	None	None
PM	I-805 / Palm Avenue Southbound	645	960	None	None	None

Most Restrictive Meter Rate						
Location		**Demand****	**Meter Rate* (Veh/Hr)**	**Excess Demand**	**Delay (Min)**	**Queue (Feet)**
AM	SR-905 / Caliente Avenue Westbound	1,740	960	780	48.75	19,500 (E)
PM	SR-905 / Caliente Avenue Westbound	1,535	960	575	35.9	14,375(E)
AM	SR-905 / Caliente Avenue Eastbound	400	960	None	None	None
PM	SR-905 / Caliente Avenue Eastbound	400	960	None	None	None

Most Restrictive Meter Rate						
Location		**Demand****	**Meter Rate* (Veh/Hr)**	**Excess Demand**	**Delay (Min)**	**Queue (Feet)**
AM	SR-905 / Heritage Road Westbound	1,135	960	175	10.9	4,375 (E)
PM	SR-905 / Heritage Road Westbound	2,515	960	1,555	97.2	38,875 (E)
AM	SR-905 / Heritage Road Eastbound	360	960	None	None	None
PM	SR-905 / Heritage Road Eastbound	800	960	None	None	None

*=Most restrictive meter rate used by Caltrans.
**=Total hourly volume entering from both directions.
(E) = Exceeds ramp storage length.

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TABLE 6-5 (Cont.)

Buildout Alternate 3B With La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Britannia Blvd. Westbound	1,350	960	390	24.4	9,750 (E)
PM	SR-905 / Britannia Blvd. Westbound	3,340	960	2,380	148.8	59,500(E)
AM	SR-905 / Britannia Blvd. Eastbound	710	960	None	None	None
PM	SR-905 / Britannia Blvd. Eastbound	1,400	960	440	27.5	11,000 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / La Media Road Westbound	1,950	960	990	61.9	24,750 (E)
PM	SR-905 / La Media Road Westbound	2,860	960	1,900	118.8	47,500 (E)
AM	SR-905 / La Media Road Eastbound	1,000	960	40	2.5	1,000
PM	SR-905 / La Media Road Eastbound	1,950	960	990	61.9	24,750 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Siempre Viva Rd. Northbound	1,180	960	220	13.8	5,500 (E)
PM	SR-905 / Siempre Viva Rd. Northbound	3,440	960	2,480	155.0	62,000 (E)
AM	SR-905 / Siempre Viva Rd. Southbound	750	960	None	None	None
PM	SR-905 / Siempre Viva Rd. Southbound	1,660	960	700	43.8	17,500 (E)

*=Most restrictive meter rate used by Caltrans.
**=Total hourly volume entering from both directions.
(E) = Exceeds ramp storage length.

TABLE 6-5

Buildout Alternate 3B With La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-125 / Otay Mesa Rd. Northbound	1,680	960	720	45.0	18,000 (E)
PM	SR-125 / Otay Mesa Rd. Northbound	2,455	960	1,490	93.1	37,250 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-125 / Lone Star Rd. Northbound	850	960	None	None	None
PM	SR-125 / Lone Star Rd. Northbound	3,615	960	2,655	165.9	66,375 (E)

* Most restrictive meter rate used, per Caltrans.
** = Total hourly volume entering from both directions.
$\frac{\text{Excess Demand}}{\text{Meter Rate}} \times 60\text{MIN} = \text{Delay (Minutes)}$
(E) = Exceeds ramp storage length.

Note: Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available, or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving traffic at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, use another freeway, or stay on surface streets.

"Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, [if available], use another freeway, or stay on surface streets."

6.6 Freeway Interchange Queue Analysis

A queue analysis was prepared at the interchange ramps within the study area, and queue lengths without intersection mitigation are shown in **Table 6-6,** while **Table 6-7** shows queue lengths with mitigation.

There are no intersection queue intersection queue length performance criteria within the Regional SANTEC / ITE Traffic Impact Study Guidelines. This queue analysis was provided to primarily evaluate whether interchanges could accommodate the projected traffic volumes and then compare the three scenarios evaluated in this report.

Of the 164 queues evaluated without intersection mitigation, during AM and PM peak hours, 77 are expected to be of excess length for the vehicle storage available between these closely spaced intersections at freeway interchange ramps for this scenario. With intersection mitigation, 188 queues were evaluated and 67 are expected to be of excess length, extending through the adjacent intersection.

Table 6-6

Alternative 3B With La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations North / South	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	200	3,475	-	450	None	3,025	-
Caliente Ave. / SR-905 WB Ramps	-	1,073	-	450	-	625	-	2,015	1,743	-	450	1,565	1,293	-
Caliente Ave. / SR-905 EB Ramps	-	118	480	450	-	None	30	-	1,403	-	300	-	1,103	-
Caliente Ave. / Airway Rd.	-	350	1,478	300	-	50	1,178	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	235	2,038	-	750	None	1,288	-
Heritage Rd. / SR-905 WB Ramps	-	30	325	750	-	None	None	-	2,020	-	750	-	1,270	-
Heritage Rd. / SR-905 EB Ramps	-	130	80	750	-	None	None	-	2,038	-	750	-	1,288	-
Heritage Rd. / Airway Rd.	245	-	2,775	750	None	-	2,025	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	713	1,120	1,238	900	None	220	338
Britannia Blvd. / SR-905 WB Ramps	725	678	-	900	None	None	-	1,255	253	-	450	855	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,233	328	450	-	783	None	-	2,750	-	900	-	1,850	-
Britannia Blvd. / Airway Rd.	-	7,600	1,795	900	-	6,700	895	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,633	3,050	-	450	1,183	2,600	-
La Media Rd. / SR-905 WB Ramps	118	2,078	-	450	None	1,628	-	120	2,950	1,093	900	None	2,050	193
La Media Rd. / SR-905 EB Ramps	95	5,925	-	900	None	2,375	-	1,088	1,093	-	900	188	193	-
La Media Rd. / Airway Rd.	-	4,750	3,275	900	-	3,850	2,375	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 6-6

Alternative 3B With La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	610	1,785	-	450	160	1,335	-
Caliente Ave. / SR-905 WB Ramps	-	1,073	-	450	-	623	-	1,548	1,158	-	450	1,098	708	-
Caliente Ave. / SR-905 EB Ramps	-	110	415	450	-	None	None	-	1,303	-	300	-	1,008	-
Caliente Ave. / Airway Rd.	-	1,398	598	300	-	1,098	298	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	228	608	-	750	None	None	-
Heritage Rd. / SR-905 WB Ramps	-	98	1,208	750	-	None	458	-	2,200	-	750	-	1,450	-
Heritage Rd. / SR-905 EB Ramps	-	313	425	750	-	None	None	-	2,145	-	750	-	1,395	-
Heritage Rd. / Airway Rd.	63	-	2,975	750	None	-	2,225	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	460	483	433	900	None	None	None
Britannia Blvd. / SR-905 WB Ramps	1,313	890	-	900	413	None	-	6,950	35	-	450	6,500	None	-
Britannia Blvd. / SR-905 EB Ramps	-	138	268	450	-	None	None	-	3,650	-	900	-	4,750	-
Britannia Blvd. / Airway Rd.	-	1,808	1,230	900	-	None	330	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	790	3,100	-	450	340	2,650	-
La Media Rd. / SR-905 WB Ramps	295	2,675	-	450	None	2,225	-	305	3,000	3,400	900	None	2,100	2,500
La Media Rd. / SR-905 EB Ramps	585	2,650	-	900	None	1,750	-	1,663	1,113	-	900	763	213	-
La Media Rd. / Airway Rd.	-	2,333	873	900	-	1,433	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 6-6

Alternative 3B With La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations East / West	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	183	50	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	188	615	600	-	None	15	-	240	3,600	1,000	-	None	2,600
Palm Ave. Dennery Rd.	395	208	493	1,000	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	960	5,050	-	600	360	4,450	-
Siempre Viva Rd. / SR-905 SB Ramps	-	678	-	300	-	378	-	348	-	-	600	None	-	-
Siempre Viva Rd. / SR-905 NB Ramps	-	475	730	600	-	None	130	-	590	1,395	1,150	-	None	275
Siempre Viva Rd. / Paseo de las Americas	2,125	1,095	3,775	1,150	975	None	2,625	-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	220	-	140	300	None	-	None
Lone Star Rd. / SR-125 SB Off Ramp	-	623	-	300	-	323	-	-	185	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	78	500	-	-	None	-	143	313	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	790	-	600	-	190	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	148	1,613	-	2,000	None	None	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	500	-	2,000	-	None	-	-	110	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	128	500	-	-	None	-	270	60	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	-	2,225	195	700	-	1,525	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 6-6

Alternative 3B With La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations East / West	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	508	50	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	373	473	600	-	None	None	-	548	4,175	1,000	-	None	3,175
Palm Ave. Dennery Rd.	2,383	300	710	1,000	1,383	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	830	803	-	600	230	203	-
Siempre Viva Rd. / SR-905 SB Ramps	-	3,500	-	300	-	3,200	-	1,435	-	-	600	835	-	-
Siempre Viva Rd. / SR-905 NB Ramps	-	88	4,200	600	-	None	3,600	-	2,625	2,283	1,150	-	1,475	1,133
Siempre Viva Rd. / Paseo de las Americas	393	445	2,280	1,150	None	None	1,130	-	-	-	-	-	-	-
-														
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	345	-	1,550	300	45	-	1,250
Lone Star Rd. / SR-125 SB Off Ramp	-	130	-	300	-	None	-	-	153	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	348	500	-	-	None	-	83	543	600	-	None	None
Lone Star Rd. / Piper Racnh Rd.	-	300	-	600	-	None	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	295	2,215	-	2,000	None	215	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	320	-	2,000	-	None	-	-	200	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	330	500	-	-	None	-	535	485	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	-	250	50	700	-	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 6-7

Alternative 3B With La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations North / South	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	200	138	8,100	450	None	None	7,650
Caliente Ave. / SR-905 WB Ramps	1,323	343	-	450	873	None	-	583	1,463	-	450	133	1,012	-
Caliente Ave. / SR-905 EB Ramps	-	185	200	450	-	None	None	-	1,258	223	300	-	958	None
Caliente Ave. / Airway Rd.	-	350	1,478	300	-	50	1,178	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	228	348	223	750	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	30	225	750	-	None	None	-	280	1,525	750	-	None	775
Heritage Rd. / SR-905 EB Ramps	-	130	130	750	-	None	None	-	1,083	135	750	-	333	None
Heritage Rd. / Airway Rd.	168	-	2,650	750	None	-	1,900	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	713	1,120	1,238	900	None	220	338
Britannia Blvd. / SR-905 WB Ramps	418	578	-	900	None	None	-	780	130	-	450	330	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,323	328	450	-	873	None	-	1,583	440	900	-	683	None
Britannia Blvd. / Airway Rd.	1,795	3,200	1,795	900	895	2,300	895	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,633	1,048	600	450	1,183	598	250
La Media Rd. / SR-905 WB Ramps	118	2,070	-	450	None	1,620	-	120	1,038	-	900	None	138	-
La Media Rd. / SR-905 EB Ramps	95	3,275	-	900	None	2,375	-	1,088	1,093	-	900	188	193	-
La Media Rd. / Airway Rd.	1,370	1,805	3,275	900	470	905	2,375	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 6-7

Alternative 3B With La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	610	370	1,760	450	160	None	1,310
Caliente Ave. / SR-905 WB Ramps	978	483	-	450	528	33	-	390	1,158	-	450	None	708	-
Caliente Ave. / SR-905 EB Ramps	-	230	188	450	-	None	None	-	1,173	263	300	-	878	None
Caliente Ave. / Airway Rd.	-	1,398	598	300	-	1,098	298	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	228	348	223	750	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	98	1,208	750	-	None	458	-	280	1,525	750	-	None	775
Heritage Rd. / SR-905 EB Ramps	-	313	425	750	-	None	None	-	1,083	135	750	-	333	None
Heritage Rd. / Airway Rd.	63	-	2,975	750	None	-	2,225	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	460	483	433	900	None	None	None
Britannia Blvd. / SR-905 WB Ramps	385	870	-	900	None	None	-	6,950	35	-	450	6,500	None	-
Britannia Blvd. / SR-905 EB Ramps	-	138	268	450	-	None	None	-	2,700	820	900	-	1,800	None
Britannia Blvd. / Airway Rd.	565	603	1,230	900	None	None	330	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	790	1,085	600	450	340	635	250
La Media Rd. / SR-905 WB Ramps	295	2,675	-	450	None	2,225	-	305	990	-	900	None	90	-
La Media Rd. / SR-905 EB Ramps	585	1,310	-	900	None	410	-	1,663	1,113	-	900	760	213	-
La Media Rd. / Airway Rd.	288	888	850	900	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

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Table 6-7

Alternative 3B With La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations East / West	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	228	78	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	315	128	-	600	None	None	-	-	40	283	1,000	-	None	None
Palm Ave. Dennery Rd.	395	208	493	1,000	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	308	2,750	1,878	600	None	2,150	1,278
Siempre Viva Rd. / SR-905 SB Ramps	-	678	-	300	-	378	-	348	-	-	600	None	-	-
Siempre Viva Rd. / SR-905 NB Ramps	-	475	730	600	-	None	130	-	538	518	1,150	-	None	None
Siempre Viva Rd. / Paseo de las Americas	2,170	1,095	1,138	1,150	1,020	None	None	-	-	-	-	-	-	-
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	220	-	140	300	None	-	None
Lone Star Rd. / SR-125 SB Off Ramp	-	623	-	300	-	323	-	-	185	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	78	500	-	-	None	-	143	513	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	790	-	600	-	190	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	148	958	85	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	500	-	2,000	-	None	-	-	110	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	128	500	-	-	None	-	270	60	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	225	470	195	700	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 6-7

Alternative 3B With La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations East / West	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	553	195	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	173	198	-	600	None	None	-	-	75	338	1,000	-	None	None
Palm Ave. Dennery Rd.	2,383	300	710	1,000	1,383	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	280	610	28	600	None	10	None
Siempre Viva Rd. / SR-905 SB Ramps	-	3,500	-	300	-	3,200	-	1,435	-	-	600	835	-	-
Siempre Viva Rd. / SR-905 NB Ramps	-	88	4,200	600	-	None	3,600	-	910	2,900	1,150	-	None	1,750
Siempre Viva Rd. / Paseo de las Americas	403	445	748	1,150	None	None	None	-	-	-	-	-	-	-
-														
La Media Rd. / Lone Star Rd.	-	-	-	-	-	-	-	345	-	1,550	300	45	-	1,250
Lone Star Rd. / SR-125 SB Off Ramp	-	130	-	300	-	None	-	-	153	-	500	-	None	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	348	500	-	-	None	-	83	543	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	300	-	600	-	None	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	295	1,715	45	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	320	-	2,000	-	None	-	-	200	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	315	500	-	-	None	-	535	485	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	60	453	50	700	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

7.0 SCENARIO 3B WITHOUT LA MEDIA ROAD

7.1 3B Scenario Assumed Land Use and Transportation Network

The 3B Without La Media Road scenario land use assumptions are the same as 3B With La Media Road, allowing 18,774 dwelling units compared to 12,206 within the Adopted Community Plan. The traffic forecast for this alternative assumed 3,917,000 square of commercial uses and 54,461,000 square feet of industrial uses. The buildout of this plan would generate 1,045,025 average daily vehicle trips. The circulation element roadways for this alternative include those assumed in the 3B With La Media Road scenario, with only one change. The street network change compared to 3B With La Media Road is the deletion of the La Media Road connector across the Otay River Valley between Birch Road in Chula Vista and Lone Star Road in San Diego.

7.2 Segment Level of Service

Roadway segment levels of service are similar to 3B With La Media Road, except along La Media Road north of Otay Mesa Road, and Otay Mesa Road east of La Media Road. **Figure 7-1** shows the projected buildout average daily traffic trips generated on the street system due to the land uses assumed under the 3B Without La Media Road land use and street network. The traffic model average daily traffic volume plots from which the volumes shown in this figure are taken are in Appendix D, for reference. Also in the appendix is documentation if volume adjustments made to several segments. **Table 7-1** indicates the roadway segment level of service for numerous roadway segments as a result of the projected average daily traffic and the capacity of the roadway. The highest forecasted volumes between circulation

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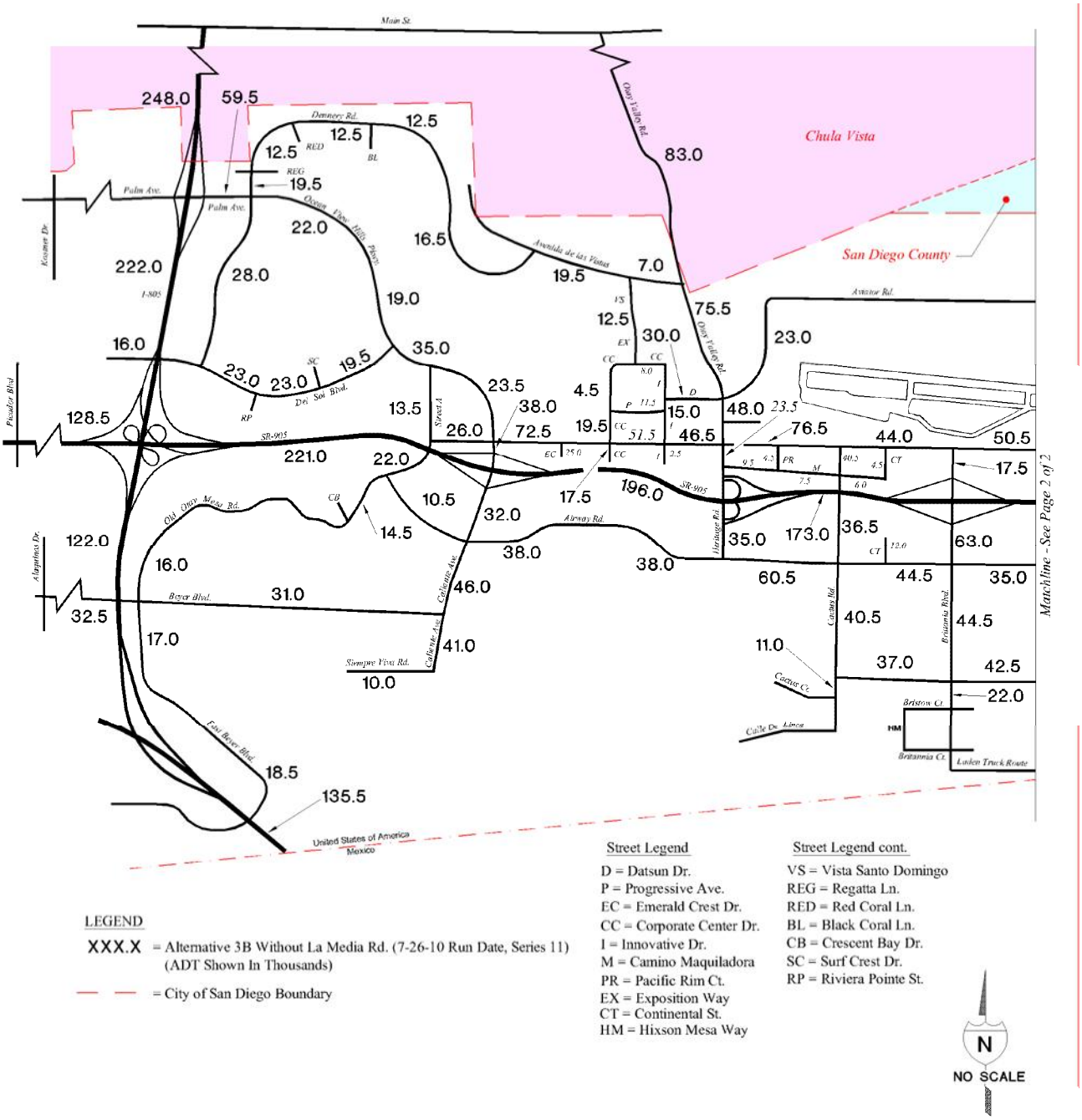

FIGURE 7-1

Scenario 3B Without La Media Road Average Daily Traffic

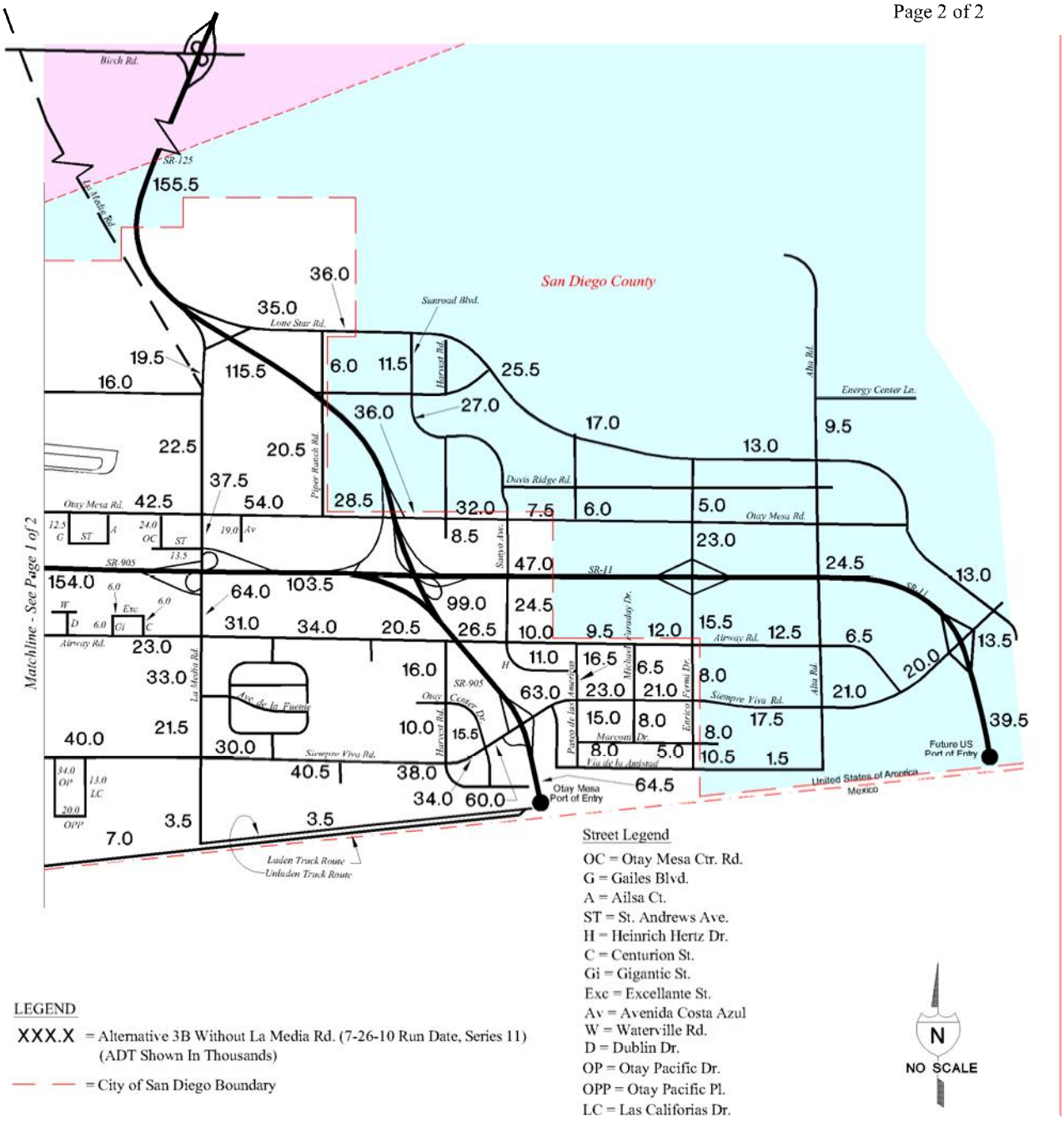

FIGURE 7-1

Scenario 3B Without La Media Road Average Daily Traffic

TABLE 7-1

Buildout Scenario 3B Without La Media Rd.

Average Daily Traffic & Level of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	NEW LOS	S?
Otay Mesa Road	Street A to Caliente Ave.	1	6-PA	60,000	26,000	0.43	B	6-M	0.52	B	N
	Caliente Ave. to Corporate Center Dr.	2	6-PA	60,000	72,500	1.21	F	N	-	-	Y
	Corporate Center Dr. to Innovative Dr.	3	6-PA	60,000	51,500	0.86	D	N	-	-	N
	Innovative Dr. to Heritage Rd.	4	6-PA	60,000	46,500	0.78	C	N	-	-	N
	Heritage Rd. to Cactus Rd.	5	6-PA	60,000	76,500	1.28	F	N	-	-	Y
	Cactus Rd. to Britannia Blvd.	6	6-PA	60,000	44,000	0.73	C	N	-	-	N
	Britannia Blvd. to Ailsa Ct.	7	6-PA	60,000	50,500	0.84	D	N	-	-	N
	Ailsa Ct. to La Media Rd.	8	7-M	55,000	42,500	0.77	C	6-PA	0.71	C	N
	La Media Rd. to Piper Ranch Rd.	9	8-M	70,000	54,000	0.77	C	6-PA	0.90	D	N
	Piper Ranch Rd. to SR-125	10	4-P	45,000	28,500	0.63	C	6-PA	0.48	B	N
	SR-125 to Harvest Rd.	11	4-M	40,000	36,000	0.90	E	6-PA	0.60	C	N
	Harvest Rd. to Sanyo Ave.	12	4-M	40,000	32,000	0.80	D	6-PA	0.53	B	N
	Sanyo Ave. to Enrico Fermi Dr.	13	4-M	40,000	7,500	0.19	A	6-PA	0.13	A	N
Airway Road	Old Otay Mesa Rd. to Caliente Ave.	14	4-CL	30,000	10,500	0.35	A	N	-	-	N
	Caliente Ave. to Heritage Rd.	15	4-M	40,000	38,000	0.95	E	N	-	-	Y
	Heritage Rd. to Cactus Rd.	16	4-M	40,000	60,500	1.52	F	6-PA	1.01	F	Y
	Cactus Rd. to Britannia Blvd.	17	4-M	40,000	44,500	1.11	F	6-M	0.89	D	N
	Britannia Blvd. to La Media Rd.	18	4-M	40,000	35,000	0.88	D	N	-	-	N
	La Media Rd. to Harvest Rd.	19	4-M	40,000	34,000	0.85	D	N	-	-	N
	Harvest Rd. to Sanyo Ave.	20	4-M	40,000	26,500	0.66	C	N	-	-	N
	Sanyo Ave. to Paseo de las Americas	21	4-M	40,000	10,000	0.25	A	N	-	-	N
	Paseo de las Americas to Michael Faraday Dr.	22	4-M	40,000	9,500	0.24	A	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	23	4-M	40,000	12,000	0.30	A	N	-	-	N
	Enrico Fermi Dr. to Siempre Viva Rd.*	24	4-M	40,000	12,500	0.31	A	N	-	-	N
Siempre Viva Road	Caliente Ave. to West Terminus	25	4-M	40,000	10,000	0.25	A	2-CL	0.67	C	N
	Cactus Rd. to Britannia Blvd.	27	6-PA	60,000	37,000	0.62	C	N	-	-	N
	Britannia Blvd. to La Media Rd.	28	6-PA	60,000	42,500	0.71	C	N	-	-	N
	La Media Rd. to Harvest Rd.	29	6-PA	60,000	40,500	0.68	C	N	-	-	N
	Harvest Rd. to Otay Center Dr.	30	6-PA	60,000	34,000	0.57	B	N	-	-	N
	Otay Center Dr. to SR-905	31	6-PA	60,000	60,000	1.00	E	N	-	-	Y
	SR-905 to Paseo de las Americas	32	6-PA	60,000	63,000	1.05	F	N	-	-	Y
	Paseo de las Americas to Michael Faraday Dr.	33	4-M	40,000	23,000	0.58	C	N	-	-	N
	Michael Faraday Dr. to Enrico Fermi Dr.	34	4-M	40,000	21,000	0.53	B	N	-	-	N
	Enrico Fermi Dr. to SR-11*	35	4-M	40,000	17,500	0.44	B	N	-	-	N

*Segment in County of San Diego

Note: There is no segment #26 with this alternative.

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

TABLE 7-1 (Continued)

Buildout Scenario 3B Without La Media Rd.

Average Daily Traffic & Level of Service

Street	Segment	#	(1) Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	New LOS	S?
Palm Ave.	I-805 to Dennery Rd.	37	7-PA	65,000	59,500	0.92	D	N	-	-	N
Ocean View Hills Parkway	Dennery Rd. to Del Sol Blvd.	38	4-M	40,000	22,000	0.55	C	N	-	-	N
	Del Sol Blvd. to Street "A"	39	6-M	50,000	35,000	0.70	C	N	-	-	N
	Street "A" to Otay Mesa Rd.	40	6-M	50,000	23,500	0.42	B	N	-	-	N
Caliente Avenue	Otay Mesa Rd. to SR-905	41	6-M	50,000	38,000	0.76	C	6-PA	0.63	C	N
	SR-905 to Airway Rd.	42	6-M	50,000	32,000	0.64	C	6-PA	0.53	B	N
	Airway Rd. to Beyer Blvd.	43	4-M	40,000	46,000	1.15	F	6-M	0.92	E	Y
	Beyer Blvd. to Siempre Viva Rd.	43A	4-M	40,000	41,000	1.03	F	N	-	-	Y
Beyer Boulevard	Alaquinas Dr. to Old Otay Mesa Rd.	44	4-M	40,000	32,500	0.81	D	N	-	-	N
	Old Otay Mesa Rd. to Caliente Ave. (3)	45	4-M	40,000	31,000	0.78	D	N	-	-	N
Heritage Road/ Otay Valley Road	Main St. to Avenida De Las Vistas**	46	6-PA	60,000	83,000	1.38	F	N	-	-	Y
	Avenida De Las Vistas to Datsun St.	47	6-M	50,000	75,500	1.51	F	6-PA	1.26	F	Y
	Datsun St. to Otay Mesa Rd.	48	6-M	50,000	48,000	0.96	E	6-PA	0.80	C	N
	Otay Mesa Rd. to SR-905	49	6-M	50,000	23,500	0.47	B	6-PA	0.39	A	N
	SR-905 to Airway Rd.	50	6-M	50,000	35,000	0.70	C	6-PA	0.58	B	N
Cactus Road	Otay Mesa Rd. to Airway Rd.	52	4-CL	30,000	40,500	1.35	F	4-M	1.01	F	Y
	Airway Rd. to Siempre Viva Rd.	53	4-CL	30,000	40,500	1.35	F	4-M	1.01	F	Y
	Siempre Viva Rd. to South End	54	2-CL	15,000	11,000	0.73	D	N	-	-	N
Britannia Boulevard	Otay Mesa Rd. to SR-905	55	4-M	40,000	17,500	0.44	B	6-PA	0.29	A	N
	SR-905 to Airway Rd.	56	4-M	40,000	63,000	1.58	F	6-PA	1.05	F	Y
	Airway Rd. to Siempre Viva Rd.	57	4-M	40,000	44,500	1.11	F	6-M	0.89	D	N
	Siempre Viva Rd. to South End	58	2-C	8,000	22,000	2.75	F	4-CL	0.73	D	N
La Media Road	Birch Rd. to Lone Star Rd.**	59	6-PA	60,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Lone Star Rd. to Aviator Rd.	60	6-PA	60,000	19,500	0.33	A	4-M	0.49	B	N
	Aviator Rd. to Otay Mesa Rd.	61	6-PA	60,000	22,500	0.38	A	4-M	0.56	C	N
	Otay Mesa Rd. to SR-905	62	6-PA	60,000	37,500	0.63	C	N	-	-	N
	SR-905 to Airway Rd.	63	6-PA	60,000	64,000	1.06	F	N	-	-	Y
	Airway Rd. to Siempre Viva Rd.	64	4-M	40,000	33,000	0.83	D	5-M	0.73	C	N
Harvest Road	South of Otay Mesa Rd.	65	4-M	40,000	8,500	0.21	A	2-CL	0.57	C	N
	Airway Rd. to Otay Center Dr.	66	4-M	40,000	16,000	0.40	B	4-CL	0.53	C	N
	Otay Center Dr. to Siempre Viva Rd.	67	4-M	40,000	10,000	0.25	A	4-CL	0.33	A	N

*Segment in County of San Diego

**Segment in Chula Vista

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Note: There is no segment #51 with this alternative.
Segment #36 was deleted.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

TABLE 7-1 (Continued)

Buildout Scenario 3B Without La Media Rd.

Average Daily Traffic & Level of Service

Street	Segment	#	(1)Class	LOS E ADT (2)	Segment ADT	V/C	LOS	New Class	New V/C	New LOS	S?
Enrico Fermi Drive	SR-11 to Airway Rd.*	68	4-M	40,000	15,500	0.62	B	N	-	-	N
	Airway Rd. to SiempreViva Rd.	69	4-M	40,000	8,000	0.20	A	4-CL	0.27	A	N
	Siempre Viva Rd. to Via de la Amistad	70	4-M	40,000	10,500	0.26	A	4-CL	0.35	B	N
Lone Star Road	SR-125 to Piper Ranch Rd.	72	4-M	40,000	35,000	0.88	D	6-PA	0.58	B	N
	Piper Ranch Rd. to City / County Boundary	73	4-M	40,000	36,000	0.90	E	6-PA	0.60	C	N
Aviator Road	Heritage Rd. to La Media Rd. (3)	74	2-C	8,000	23,000	2.88	F	4-CL	0.77	D	N
Dennery Road	Palm Ave. to Del Sol Blvd.	75	4-M	40,000	28,000	0.70	C	N	-	-	N
	Palm Ave. to Regatta Ln.	76	4-M	40,000	19,500	0.49	B	N	-	-	N
	Regatta Ln. to Red Coral Ln.	77	4-CL	30,000	12,500	0.42	B	N	-	-	N
	Red Coral Ln. to Black Coral Ln.	78	2-CL	15,000	12,500	0.83	D	N	-	-	N
	Black Coral Ln. to East End	79	2-CN	10,000	16,500	1.65	F	N	-	-	Y
Avendia De Las Vistas	Otay Valley Rd. to Vista Santo Domingo	80	2-CN	10,000	7,000	0.70	C	N	-	-	N
	Vista Santo Domingo to Dennery Rd.	81	2-CN	10,000	19,500	1.95	F	N	-	-	Y
Del Sol Boulevard	Ocean View Hills Pkwy. to Surf Crest Dr.	82	4-CL	30,000	19,500	0.65	C	N	-	-	N
	Surf Crest Dr. to Riviera Pointe	83	2-CN	10,000	23,000	2.30	F	N	-	-	Y
	Riviera Pointe to Dennery Rd.	84	2-CL	15,000	23,000	1.53	F	N	-	-	Y
	Dennery Rd. to I-805	85	4-CL	30,000	16,000	0.53	C	N	-	-	N
Street A	Ocean View Hills Pkwy. to Otay Mesa Rd.	86	4-M	40,000	13,500	0.34	A	N	-	-	N
Old Otay Mesa Road	Otay Mesa Rd. to Airway Rd.	87	4-CL	30,000	22,000	0.73	D	N	-	-	N
	Airway Rd. to Crescent Bay Dr.	88	4-CL	30,000	14,500	0.48	C	N	-	-	N
	Crescent Bay Dr. to Beyer Blvd.	89	2-C	8,000	16,000	2.00	F	N	-	-	Y
Emerald Crest Dr.	Otay Mesa Rd. to South End (3)	90	4-CL	30,000	25,000	0.83	D	N	-	-	N
Corporate Center Drive	South End to Otay Mesa Rd. (3)	91	4-CL	30,000	17,500	0.58	C	N	-	-	N
	Otay Mesa Rd. to Progressive Ave.	92	4-CL	30,000	19,500	0.65	C	N	-	-	N
	Progressive Ave. to Innovative Dr.	93	2-C	8,000	8,000	1.00	E	2-CL	0.53	C	N
Innovative Drive	Otay Mesa Rd. to Corporate Center Dr.	94	4-CL	30,000	15,000	0.50	C	N	-	-	N
Piper Ranch Road	Lone Star Rd. to Otay Mesa Rd.	96	4-CL	30,000	20,500	0.68	D	N	-	-	N

*Segment in County of San Diego

Note: There is no segment #71 with this alternative.

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

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TABLE 7-1 (Continued)

Buildout Scenario 3B Without La Media Rd.

Average Daily Traffic & Level of Service

Street	Segment	#	Class	LOS E ADT (2)	Segment ADT	V/C	LOS		New Class	New V/C	NEW LOS	S?
Sanyo Avenue	Otay Mesa Rd. to Airway Rd. (4)	97	4-C	15,000	24,500	1.63	F		4-CL	0.82	D	N
Heinrich Hertz Drive	Airway Rd. to Paseo de las Americas (4)	98	2-CL	15,000	12,000	0.80	D		N	-	-	N
Paseo de las Americas	Airway Rd. to Siempre Viva Rd.	99	2-C	8,000	16,500	2.06	F		4-CL	0.55	C	N
	Siempre Viva Rd. to Marconi Dr.	100	2-C	8,000	15,000	1.88	F		4-CL	0.50	C	N
Marconi Drive	Paseo de las Americas to Enrico Fermi Dr.	101	2-C	8,000	8,000	1.00	E		2-CL	0.53	C	N
Otay Center Drive	Harvest Rd. to Siempre Viva Rd. (4)	102	4-C	15,000	15,500	1.03	F		4-CL	0.52	C	N
Michael Faraday Drive	Airway Rd. to Siempre Viva Rd. (4)	103	2-CL	15,000	6,500	0.43	B		N	-	-	N
	Siempre Viva Rd. to Marconi Dr. (4)	104	2-CL	15,000	8,000	0.53	C		N	-	-	N
St. Andrews Avenue	Otay Mesa Center Rd. to La Media Rd.	105	2-C	8,000	13,500	1.69	F		4-CL	0.45	C	N
Gailes Boulevard	Otay Mesa Rd. to St. Andrews Ave.	107	2-C	8,000	12,500	1.56	F		4-C	0.83	D	N
Camino Maquiladora	Heritage Rd. to Pacific Rim Ct.	108	2-C	8,000	9,500	1.19	F		N	-	-	Y
	Pacific Rim Ct. to Cactus Rd.	109	2-C	8,000	7,500	0.94	E		N	-	-	Y
	Cactus Rd. to Continental St.	110	2-C	8,000	6,000	0.75	D		N	-	-	N
Pacific Rim Court	Otay Mesa Rd. to Camino Maquiladora	111	2-C	8,000	4,500	0.56	C		N	-	-	N
Progressive Avenue	Corporate Center Dr. to Innovative Dr.	112	2-C	8,000	11,500	1.44	F		N	-	-	Y
Otay Mesa Center Road	Otay Mesa Rd. to St. Andrews Ave.	113	2-C	8,000	24,000	1.60	F		4-CL	0.80	D	N
Datsun Street	Innovative Dr. to Heritage Rd. (3)	114	2-C	8,000	30,000	3.75	F		4-CL	1.00	E	Y
Avenida Costa Azul	Otay Mesa Rd. to St. Andrews Ave. (3)	115	2-CL	15,000	19,000	1.27	F		4-CL	0.63	B	N
Excellante Street	Airway Rd. to Gigantic St.	116	4-C	15,000	6,000	0.40	B		2-C	0.75	D	N
Gigantic Street	Excellante St. to Centurion St.	117	4-C	15,000	6,000	0.40	B		2-C	0.75	D	N
Centurion Street	Airway Rd. to Gigantic St.	118	4-C	15,000	6,000	0.40	B		2-C	0.75	D	N
Exposition Way / Vista Santo Domingo	Avenida De Las Vistas to Corporate Dr. (4)	119	2-CN	10,000	12,500	1.25	F		N	-	-	Y
Continental Street	South of Otay Mesa Rd.	120	2-C	8,000	4,500	0.56	C		N	-	-	N
	North of Airway Rd.	121	2-CL	15,000	12,000	0.80	D		N	-	-	N

*Segment in County of San Diego

= Segment Number

(1) = Current Community Plan Classification, unless footnotes (3) or (4) apply.

(2) = Source: City of San Diego Traffic Impact Study Manual, Table 2.

(3) = Add to Circulation Plan.

(4) = Functional classification shown, not currently classified.

S? = Significant impact, Yes (Y) or No (N).

New LOS = LOS after change in classification.

F = Shading indicates a significant impact.

Legend

8-M = 8-lane Major Arterial

7-PA = 7-lane Primary Arterial

7-M = 7-lane Major Arterial

6-PA = 6-lane Primary Arterial

6-M = 6-lane Major Arterial

5-M = 5-lane Major Arterial (3SB /2NB)

4-P = 4-lane Primary Arterial

4-M = 4-lane Major Arterial

4-CL = 4-lane Collector (with continuous left turn lane)

4-C = 4-lane Collector (without continuous left turn lane)

2-CL = 2-lane Collector (with continuous left turn lane)

2-CN = 2-lane Collector (no fronting property)

2-C = 2-lane Collector (without continuous left turn lane)

element roads were used for analysis. Also shown are recommended reclassifications of roadways. The initial "without mitigation" classification of roadways is based on the existing functional classification. Or, if the street did not exist in the existing conditions assessments, or if analyzing the projected volumes on the existing facility would not be meaningful because it would not be possible to carry those volumes on the existing sized facility due to its capacity, then the Adopted Community Plan classification was used. Failing roadway segments at level of service "E' or "F" with significant traffic impacts are summarized below. All other roadway segments are projected to operate at a level of service "D" or better, without significant traffic impacts.

Figure 7-2 shows recommended roadway classifications for the 3B Without La Media Road scenario.

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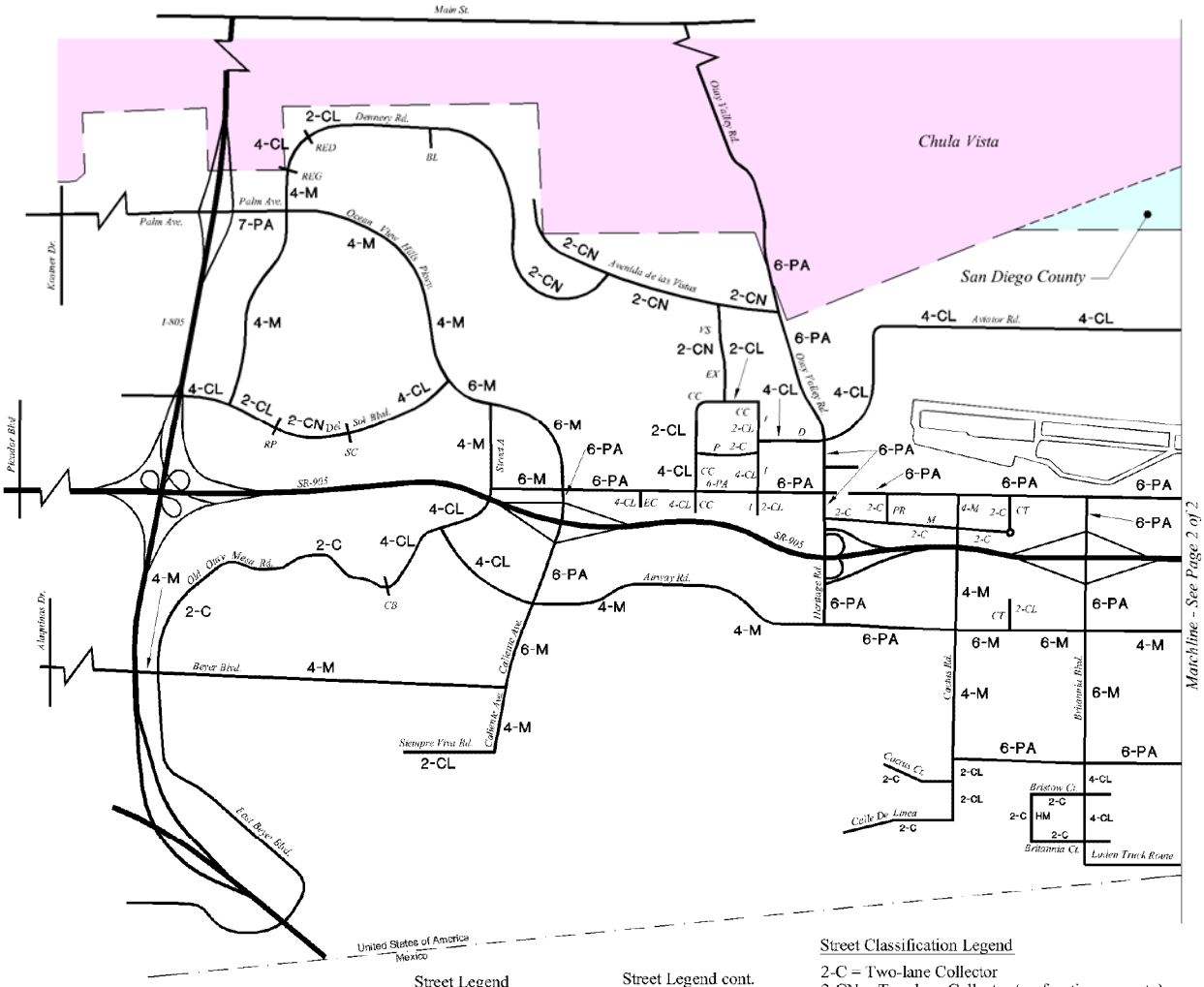

Based on Alternative 3B Without La Media Rd.
(7-26-10 Run Date, Series 11)

LEGEND

— — = City of San Diego Boundary

Street Legend

D = Datsun St.
P = Progressive Ave.
EC = Emerald Crest Dr.
CC = Corporate Center Dr.
I = Innovative Dr.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
VS = Vista Santo Domingo

Street Legend cont.

REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.
CT = Continental St.
HM = Hixson Mesa Way

Street Classification Legend

2-C = Two-lane Collector
2-CN = Two-lane Collector (no fronting property)
2-CL = Two-lane Collector (with left turn lane)
4-C = Four-lane Collector (without left turn lane)
4-CL = Four-lane Collector (with left turn lane)
4-M = Four-lane Major Arterial
5-M = Five-lane Major Arterial (3 SB/2 NB)
6-M = Six-lane Major Arterial
6-PA = Six-lane Primary Arterial
7-PA = Seven-lane Primary Arterial

N
NO SCALE

FIGURE 7-2

Scenario 3B Without La Media Road Land Use Scenario
With Proposed Roadway Classification Recommendations

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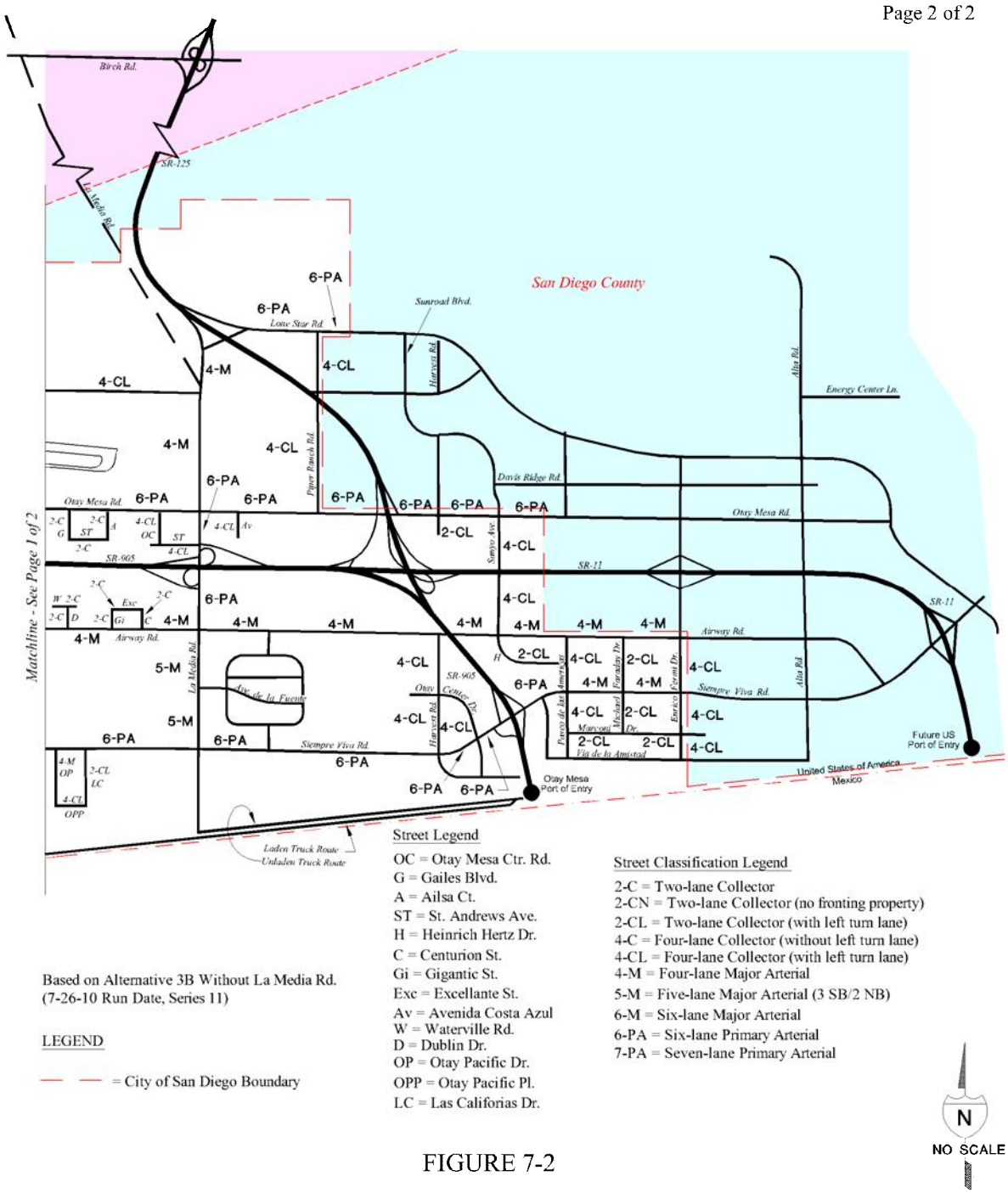

FIGURE 7-2

Scenario 3B Without La Media Road Land Use Scenario
With Proposed Roadway Classification Recommendations

Roadway Segment Impacts and Mitigation

Otay Mesa Road

- Caliente Avenue to Corporate Center Drive: level of service "F".

- Heritage Road to Cactus Road: level of service "F".

A reclassification of these segments from a six lane Primary Arterial to eight lanes is not recommended. Widening to eight lanes would be costly, could cause additional traffic conflicts, and intersections would be wider and less pedestrian friendly. Right turn only lanes at intersections are recommended to be lengthened to serve as auxiliary lanes between intersections. Without reclassification the significant impact would remain unmitigated.

The seven lane Major and eight lane Major Arterial classification for segments between Ailsa Court and Piper Ranch Road are recommended for a reclassification to a six lane Primary Arterial, restricting parking and access. The impact would be less than significant. These reclassifications are recommended for consistency in lane configurations along Otay Mesa Road.

- State Route 125 southbound ramp intersection to Harvest Road: level of service "E".

A reclassification to a six lane Primary Arterial is recommended. There are few driveways and few developed parcels along these segments so that restricting parking and access would have a minimal impact. The level of service would improve from "E" to "C", and the significant impacts would be fully mitigated.

The County of San Diego has a six lane classification of Otay Mesa Road east of Enrico Fermi Drive. A continuous six lane Primary Arterial classification is recommended to extend to the City / County boundary to maintain consistency in lane configurations.

Airway Road

- Caliente Avenue to Heritage Road: level of service "E".

This segment is slightly (8.6%) over the level of service "D" volumes for a four lane Major Arterial. This segment includes a bridge crossing an open space canyon so that a six lane bridge would be costly and affect the environment more than four lanes. A six lane reclassification is not recommended. However, the significant segment impact would be unmitigated.

- Heritage Road to Cactus Road: level of service "F".
- Cactus Road to Britannia Boulevard: level of service "F".

A reclassification to a six lane Primary Arterial is recommended beginning west of the Heritage Road intersection, so six through lanes can be provided through the intersection in the east and westbound directions, and extending to Cactus Road. The Heritage Road to Cactus Road segment significant impact would be unmitigated even with this six-lane reclassification. Added right turn lanes at intersections would enhance the segment capacity. The Cactus Road to Britannia Boulevard segment would be mitigated with a reclassification to a six lane Major Arterial.

Siempre Viva Road

- Otay Center Drive to SR-905: level of service "E".
-SR-905 to Paseo de las Americas: level of service "F"

A reclassification from six to eight lanes is not recommended since a costly widening of the SR-905 / Siempre Viva Road interchange would be needed. The significant impact to these segments would be unmitigated.

Caliente Avenue

- Otay Mesa Road to Airway Road:

Although not at level of service "E" or "F", these segments are recommended to be reclassified from a six lane Major Arterial to a six lane Primary Arterial, restricting access and parking adjacent to the closely spaced intersections, including the SR-905 on and off ramp intersections with Caliente Avenue.

-Airway Road to Beyer Boulevard: level of service "F".

A reclassification from a four lane to a six lane Major Arterial is recommended. This segment extends through a future residential area so that a Primary Arterial restricting access is not recommended. The significant segment impact would be only partially mitigated.

- Beyer Boulevard to Siempre Viva Road: level of service "F".

No reclassification is recommended since this segment extends into a future residential area that will need to be designed with collector loop streets for acceptable access, and local traffic will have additional access to Beyer Boulevard.

Heritage Road / Otay Valley Road

- Otay Valley Road between Main Street in Chula Vista and Avenida de las Vistas: level of service "F".

A reclassification to more than the current six lane Primary Arterial would be a decision to be made by the City of Chula Vista. A wider roadway and bridge over the Otay River Valley would be costly and increase environmental impacts to the Otay River Valley and is not recommended. The significant impact to this segment would be unmitigated.

- Avenida de las Vistas to Datsun Street: level of service "F".

A reclassification from a six lane Major Arterial to a six lane Primary Arterial is recommended. A wider classification would be costly to construct and is not recommended. There are few developed driveways along this segment so that restricting parking and access would have minimal impacts to adjacent parcels. The significant segment impact would be only partially mitigated.

-Datsun Street to Airway Road: acceptable levels of service.

A reclassification to a six lane Primary Arterial is recommended, restricting access and parking through these closely spaced intersections, including the SR-905 on and off ramp intersections with Heritage Road.

Cactus Road

- Otay Mesa Road to Airway Road: level of service "F".
- Airway Road to Siempre Viva Road: level of service "F".

A reclassification to a four lane Major Arterial is recommended. A higher six lane classification is not recommended. This roadway will extend through the mixed-use village area and excessive through traffic should be discouraged. The significant segment impacts would only be partially mitigated.

Britannia Boulevard

-SR-905 to Airway Road: level of service "F".

Britannia Boulevard has been constructed as six lanes between Otay Mesa Road and the SR-905 eastbound ramps, and five lanes between the eastbound ramps and Airway Road. The Cross-Border Facility project includes reclassifying and construction of this segment to six lanes as project mitigation. The SR-905 on and off ramp intersections are closely spaced so that parking and access should be restricted along these segments.

In addition, Britannia Boulevard will also be the designated truck route for southbound laden trucks between SR-905 and the planned truck route parallel to the border.

Therefore, a reclassification to a six lane Primary arterial is recommended for the segments between Otay Mesa Road and Airway Road. The segment between Airway Road and Siempre Viva Road is recommended as a six lane Major Arterial. Segment impacts would be mitigated south of Airway Road, but not on the segment between SR-905 and Airway Road. Additional right-turn lanes would enhance the capacity of this segment.

- Siempre Viva Road to South End: level of service "F".

A reclassification from two to four lane Collector (with left turn lane) is recommended. The significant segment impact would be mitigated.

La Media Road

- Birch Road to Lone Star Road: deleted with this alternative.

The City of Chula Vista is planning to remove the segment of La Media Road crossing the Otay River Valley within Chula Vista from the City of Chula Vista General Plan Circulation Element, so this segment was deleted from the Otay Mesa Community Plan traffic model street network for this alternative. The traffic volumes analyzed in this scenario were based on deleting this segment in the traffic model.

-Lone Star Road to Otay Mesa Road:

Due to the deletion of the connection of La Media Road crossing the Otay River Valley, the volumes on these segments are reduced so that a reclassification from a six lane Primary Arterial to a four lane Major Arterial is recommended.

-SR-905 to Airway Road: level of service "F".

The addition of lanes to this currently classified six lane Primary Arterial would require a costly modification to the SR-905 / La Media Road interchange and is not recommended. The significant segment impact would be unmitigated.

-Airway Road to Siempre Viva Road: level of service "D".

The segment south of Airway Road is recommended to be classified as a five lane Major Arterial, three southbound lanes and two northbound lanes to accommodate southbound unladen trucks on this

designated route from SR-905 to the Border Truck Road providing access to the eastern border crossing. The southbound lanes would transition to two lanes north of Siempre Viva Road.

Lone Star Road

- Piper Ranch Road to City / County Boundary: level of service 'E".

Segments from SR-125 to the City / County Boundary are recommended to be classified as a six lane Primary Arterial to be consistent with the County of San Diego classification. A reclassification to a six lane Primary Arterial is recommended from west of the SR-125 southbound off-ramp to the City / County Boundary. The significant segment impact would be mitigated.

Aviator Road

- Heritage Road to La Media Road: level of service "F".

This segment is recommended to be added to the circulation element as a four lane Collector (with left turn lane). Future volumes would be accommodated without a significant segment impact.

Dennery Road

-Black Coral Lane to East End: level of service "F".

A reclassification is not recommended. Retaining a two lane Collector (no fronting property) classification would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impact would be unmitigated.

Avenida de las Vistas

-Otay Valley Road to Vista Santo Domingo: level of service "E".

-Vista Santo Domingo to Dennery Road: level of service "F".

A reclassification is not recommended. This street is fully constructed and has adjacent single family residences. Retaining a two lane Collector (no fronting property) classification would discourage speeding and through traffic not destined to the adjacent residential developments. The significant segment impacts would be unmitigated.

Del Sol Boulevard

- Surf Crest Drive to Riviera Pointe: level of service "F".

This segment will pass through environmentally sensitive lands and is on a slope. Retaining the two lane Collector (no fronting property) classification would minimize impacts to the MSCP land and discourage speeding and through traffic not destined to the adjacent residential developments.

-Riviera Pointe to Dennery Road: level of service "F".

This segment is fully constructed and surrounded by environmentally sensitive land and single family development. A reclassification to four lanes is not recommended. The significant segment impact would be unmitigated.

Old Otay Mesa Road

- Crescent Bay Drive to Beyer Boulevard: level of service "F".

This segment is situated on a steep, rocky hillside that would be costly to widen. Therefore, no reclassification is recommended. The significant segment impact would remain unmitigated.

Corporate Center Drive

-Progressive Avenue to Innovative Drive: level of service "E".

This segment is fully constructed with adjacent developments, as a two lane industrial Collector (without left turn lane). A reclassification as a two lane Collector (with left turn lane) is recommended. The significant impact would be mitigated with restriping for a central left turn lane.

Sanyo Avenue

-Otay Mesa Road to Airway Road: level of service "F".

This segment is constructed as a four lane Collector (without left turn lane) and is to be added to the circulation plan. Widening to a four lane Major Arterial width would adversely affect adjacent development, but minor widening to accommodate a central left turn lane and a classification as a four lane Collector (with left turn lane) is recommended. The significant segment impact would be mitigated with this widening.

Paseo de las Americas

-Airway Road to Siempre Viva Road: level of service "F".

-Siempre Viva Road to Marconi Drive: level of service "F".

These segments are currently classified as a two lane Collector but are constructed fully with four lanes. A reclassification to four lane Collector (with left turn lane) is recommended. This reclassification would mitigate the significant segment impacts.

Marconi Drive

-Paseo de las Americas to Enrico Fermi Drive: level of service "E".

This segment is fully constructed as a two lane industrial Collector, and is wide enough to be striped with two lanes and a continuous central left turn lane. The significant segment impact would be mitigated with the reclassification to a two lane Collector (with left turn lane).

Otay Center Drive

-Harvest Road to Siempre Viva Road: level of service "F".

This segment is constructed as a four lane Collector (without left turn lane). A reclassification to a four lane Collector (with left turn lane) is recommended. The significant segment impact would be mitigated.

St. Andrews Avenue

-Otay Mesa Center Road to La Media Road: level of service "F".

Currently classified as a two lane Collector, this segment is constructed as a four lane Collector. A reclassification to a four lane Collector (with left turn lane) is recommended. The significant impact would be mitigated.

Gailes Boulevard

-Otay Mesa Road to St. Andrews Avenue: level of service "F".

This street is constructed with four lanes and a raised median. A reclassification from a two lane Collector to four lane Collector (without left turn lanes) is recommended. The significant segment impact would be mitigated.

Camino Maquiladora

-Heritage Road to Pacific Rim Court: level of service "F"
-Pacific Rim Court to Cactus Road: level of service "E".

These segments serve adjacent industrial uses but have diverted traffic from Otay Mesa Road. These segments are not mean to be through traffic by-pass routes, and are not recommended for reclassification. The significant segment impacts would be unmitigated.

Progressive Avenue

-Corporate Center Drive to Innovative Drive: level of service "F".

This segment is constructed as a two lane industrial Collector and serves adjacent industrial uses, but has diverted traffic from Heritage Road. This segment is not meant as a through traffic by-pass route and is not recommended for reclassification. The significant impact would be unmitigated.

Otay Mesa Center Road

-Otay Mesa Road to St. Andrews Avenue: levels of service "F".

This segment is classified as a two lane Collector, but is constructed with four lanes. A reclassification to a four lane Collector (with left turn lane) mitigates the significant segment impact.

Datsun Street

- Innovative Drive to Heritage Road: level of service "F".

This segment is planned to serve the adjacent industrial uses, but has high volumes due to traffic diverted from Heritage Road. This segment is not meant to be a through traffic bypass route. A classification as a four lane Collector (with left turn lane) is recommended, rather than a four lane Major Arterial. The significant segment impact would be unmitigated.

Avenida Costa Azul

-Otay Mesa Road to South End: level of service "F".

Add to circulation plan as a four lane Collector (with left turn lane). The significant segment impact would be mitigated by this classification.

Exposition Way / Vista Santo Domingo

-Avenida de las Vistas to Corporate Center Drive: level of service "F".

This segment has high volumes due to diverted traffic from Otay Valley Road. Vista Santo Domingo is constructed as a two lane Collector within a residential area and is not meant to be a by-pass route for through traffic so that retaining this classification would discourage speeding and through traffic not destined for the adjacent residential neighborhood. A reclassification is not recommended.

7.3 Freeway Levels of Service

Table 7-2 lists freeway segments evaluated for the 3B Without La Media Road scenario.

Segments of Interstate 805 and State Route 905 are projected to be significantly impacted by Otay Mesa Community Plan and regional cumulative traffic.

Impacts to Interstate 805 between State Route 905 and Main Street would remain significant and unmitigated without the assumption of High Occupancy (HOV) lanes installed, and a northbound auxiliary lane installed with I-805 / SR-905 interchange improvements.

However, the adopted SANDAG 2050 Regional Transportation Plan includes two managed lanes in each direction on I-805 north of SR-905. With the addition of these managed lanes, peak hour levels of service would be at "D" on I-805 segments between SR-905 and Main Street.

State Route 905 is assumed with six lanes. Impacts would be significant and unmitigated between Picador Boulevard and Britannia Boulevard. State Route 905 has been designed so that median HOV lanes could be installed in the future, but are not currently planned or funded by Caltrans.

TABLE 7-2

Scenario 3B Freeway Segment Levels of Service Without La Media Road

	Segment	Lanes (1-Way)	Cap.	ADT (1)	Peak Hour %(5)	Direction Split(5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	2 + AUX	6,500	128,500	0.08	0.6	0.90	6,853	1.05	F0
	I-805 to Caliente Ave. (4)	3 + CL	8,550	221,000	0.08	0.6	0.90	11,787	1.38	F2
	Caliente Ave. to Heritage Rd.	3	7,050	196,000	0.08	0.6	0.90	10,453	1.48	F3
	Heritage Rd. to Britannia Blvd.	3	7,050	173,000	0.08	0.6	0.90	9,227	1.31	F1
	Britannia Blvd. to La Media Rd.	3	7,050	154,000	0.08	0.6	0.90	8,213	1.16	F0
	La Media Rd. to SR-125	3	7,050	103,500	0.08	0.6	0.90	5,520	0.78	C
	SR-125 to Siempre Viva Rd.	3	7,050	99,000	0.08	0.6	0.90	5,280	0.75	C
	Siempre Viva Rd. to Border	3	7,050	64,500	0.08	0.6	0.90	3,440	0.49	B
I-805	Main St. to Palm Ave.	4+AUX	11,200	248,000	0.08	0.6	0.90	13,227	1.18	F0
	Palm Ave. to SR-905	4+AUX	11,200	222,000	0.08	0.6	0.90	11,840	1.06	F0
	SR-905 to I-5	4	9,400	122,000	0.08	0.6	0.90	6,507	0.69	C
	I-5 to Border	6	14,100	135,500	0.08	0.6	0.90	7,227	0.51	B
SR-125	Birch Rd. to Lone Star Rd.	4 (Toll)	9,400	155,500	0.08	0.6	0.90	8,293	0.88	D
	Lone Star Rd. to SR-905	4 (Toll)	9,400	115,500	0.08	0.6	0.90	6,160	0.66	C
SR – 11	SR-905 to Enrico Fermi Dr.	2	4,700	47,000	0.08	0.6	0.90	2,507	0.53	B
	Enrico Fermi Dr. to Siempre Viva Rd	2	4,700	24,500	0.08	0.6	0.90	1,307	0.28	A
	Siempre Viva Rd. to Border	2	4,700	39,500	0.08	0.6	0.90	2,107	0.45	B

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

F = Shading indicates a significant impact.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (7-26-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source:Caltrans Traffic Volumes, Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) Highway Capacity Manual (2000) EQN. (3-2); assume 10% trucks plus RV's.

TABLE 7-2-A

Scenario 3B Without La Media Road Freeway Segment Levels of Service

(With HOV Lanes Added To LOS F Segments)

Segment		ADD HOV	Lanes (1Way)	Cap.	ADT (1)	Peak Hour %(5)	Direction Split (5)	(6) Truck Factor	Peak Volume	V/C	LOS (2)
SR-905	Picador Blvd. to I-805 (3)	+H	2 + AUX	8,100	128,500	0.08	0.6	0.90	6,853	0.83	D
	I-805 to Caliente Ave. (4)	+H	3 + CL	10,150	221,000	0.08	0.6	0.90	11,787	1.13	F0
	Caliente Ave. to Heritage Rd.	+H	3	8,650	196,000	0.08	0.6	0.90	10,453	1.18	F0
	Heritage Rd. to Britannia Blvd.	+H	3	8,650	173,000	0.08	0.6	0.90	9,227	1.04	F0
	Britannia Blvd. to La Media Rd.	+H	3	8,650	154,000	0.08	0.6	0.90	8,213	.92	D
I-805	Main St. to Palm Ave,	+2H	4+AUX	14,400	248,000	0.08	0.6	0.90	13,227	0.92	D
	Palm Ave. to SR-905	+2H	4+AUX	14,400	222,000	0.08	0.6	0.90	11,840	0.82	D

Legend

Cap = Capacity of Segment
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
HOV Lane Cap. @ 1,600 VPHPL
Climbing Lane Cap. @ 1,500 VPHPL

ADT = Average Daily Traffic

V/C = Volume to Capacity Ratio

LOS = Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

F = Shading indicates a significant impact.

+H = Add HOV lane in each direction.

+2H = Add two HOV lanes in each direction.

Note:

(1) Buildout Forecast Volume, Average Daily Traffic Volume (07-26-10 Run Date, Series 11)

(2) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

(3) = 2 Mainlanes + Auxillary Lane

(4) = EB: 3 Mainlanes + Climbing Lane
WB: 3 Mainlanes + Auxillary Lane

(5) = Source:Caltrans Traffic Volumes, Peak Hour Volume Data (existing average for I-805 & SR-905).

(6) Highway Capacity Manual (2000) EQN. (3-2); assume 10% trucks plus RV's.

SR-905 HOV lanes are not currently in the Regional Transportation Plan, and are not funded.

The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts, but would not provide acceptable levels of service between I-805 and Britannia Boulevard. **Table 7-2-A** shows freeway levels of service after HOV lanes are added to segments at level of service "F".

7.4 Intersection Levels of Service

Table 7-3 shows the 3B Without La Media Road scenario intersection levels of service without and with recommended mitigation.

Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches. Lane configurations with mitigation identified are included in the Executive Summary and **Appendix D**. Also included in Appendix D are peak hour volumes at each intersection, intersection levels of service worksheets, and descriptions of how peak hour volumes were determined.

There are 29 locations with existing traffic signals, 26 of which are recommended for modification. All other intersections are also recommended for signalization. A listing of existing traffic signals and volume warrants for future intersections are also included in Appendix D.

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TABLE 7-3

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
1	Palm Ave. / I-805 SB Ramps	48.9	D	51.3	D	24.8	C	35.7	D
2	Palm Ave. / I-805 NB Ramps	116.1	F	122.6	F	4.6	A	5.5	A
3	Palm Ave. / Dennery Rd.	33.5	C	67.2	E	-	-	-	-
4	Otay Mesa Rd. / Caliente Ave.	263.5	F	146.0	F	205.9	F	87.2	F
5	Caliente Ave. / SR-905 WB Ramps	83.1	F	43.2	(1) D	34.0	(1) C	34.0	(1) C
6	Caliente Ave. / SR-905 EB Ramps	165.7	F	150.5	F	55.0	E	70.2	E
7	Caliente Ave. / Airway Rd.	228.5	F	223.0	F	143.0	F	200.5	F
8	Caliente Ave. / Beyer Blvd.	252.0	F	429.8	F	212.7	F	122.4	F
9	Otay Mesa Rd. / Heritage Rd.	367.5	F	257.4	F	272.0	F	161.2	F
10	Heritage Rd. / SR-905 WB Ramps	69.9	E	81.1	F	15.9	(1) B	28.4	(1) C
11	Heritage Rd. / SR-905 EB Ramps	113.0	F	86.4	F	39.5	(1) D	25.5	(1) C
12	Heritage Rd. / Airway Rd.	162.7	F	402.8	F	144.5	F	88.3	F
13	Heritage Rd. / Siempre Viva Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	Otay Mesa Rd. / Cactus Rd.	437.9	F	290.5	F	139.6	F	199.7	F
15	Airway Rd. / Cactus Rd.	361.5	F	437.7	F	188.6	F	306.2	F
16	Siempre Viva Rd. / Cactus Rd.	48.7	D	127.7	F	47.6	D	117.3	F
17	Otay Mesa Rd. / Britannia Blvd.	108.5	F	117.2	F	63.1	E	47.5	D
18	Britannia Blvd. / SR-905 WB Ramps	240.5	F	577.4	F	65.0	E	547.1	F
19	Britannia Blvd. / SR-905 EB Ramps	353.3	F	235.1	F	305.9	F	67.1	E
20	Britannia Blvd. / Airway Rd.	618.2	F	615.8	F	184.9	F	241.1	F
21	Siempre Viva Rd. / Britannia Blvd.	363.3	F	362.8	F	177.5	F	143.2	F
22	Otay Mesa Rd. / La Media Rd.	457.1	F	443.8	F	131.9	F	126.2	F

Legend
CD = Control Delay
LOS = Level of Service
(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.
F = Shading indicates a significant impact.

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TABLE 7-3 (Continued)

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
23	La Media Rd. / SR-905 WB Ramps	266.1	F	227.2	F	129.8	F	112.7	F
24	La Media Rd. / SR-905 EB Ramps	234.7	F	84.7	F	162.2	F	48.5	(1) D
25	La Media Rd. / Airway Rd.	496.6	F	507.9	F	182.5	F	212.5	F
26	La Media Rd. / Siempre Viva Rd.	244.0	F	112.1	F	81.6	F	37.1	D
27	La Media Rd. / Lone Star Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28	Lone Star Rd. / SR-125 SB Off Ramp	63.6	E	96.8	F	-	-	-	-
29	Lone Star Rd. / SR-125 NB On Ramp	2.1	(1) A	147.8	F	-	-	-	-
30	Lone Star Rd. / Piper Ranch Rd.	8.1	A	9.3	(1) A	-	-	-	-
31	Otay Mesa Rd. / Piper Ranch Rd.	129.2	F	166.2	F	44.6	D	47.5	D
32	Otay Mesa Rd. / SR-125 SB Off Ramp	82.9	F	13.0	(1) B	30.4	C	11.0	(1) B
33	Otay Mesa Rd. / SR-125 NB On Ramp	4.8	A	22.0	C	-	-	-	-
34	Otay Mesa Rd. / Harvest Rd.	37.9	D	133.7	F	11.8	B	38.9	(1) D
35	Siempre Viva Rd. / Otay Center Dr.	276.0	F	213.0	F	83.0	F	85.4	F
36	Siempre Viva Rd. / SR-905 SB to EB Ramp	29.0	(1) C	146.2	F	-	-	-	-
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp	(2) 2,641	F	(2) 205.7	F	382.0	F	16.3	(1) B
37	Siempre Viva Rd. / SR-905 NB Ramps	47.2	(1) D	262.7	F	39.3	(1) D	250.4	F
38	Siempre Viva Rd. / Paseo de las Americas	188.8	F	367.1	F	78.8	E	159.5	F
39	Dennery Rd. / Del Sol Blvd.	49.3	D	49.4	D	-	-	-	-
40	Ocean View Hills Pkwy. / Del Sol Blvd.	67.8	E	67.3	E	50.5	D	53.3	D
41	Ocean View Hills Pkwy. / Street A	48.2	D	57.9	E	35.5	D	34.6	C
42	Old Otay Mesa Rd. / Beyer Blvd.	381.2	F	396.5	F	194.3	F	181.8	F
43	Otay Mesa Rd. / Corporate Center Dr.	119.3	F	184.3	F	78.6	E	140.6	F
44	Otay Mesa Rd. / Innovative Dr.	114.4	F	108.9	F	113.7	F	89.8	F

Legend
CD = Control Delay
LOS = Level of Service
(1) = Vehicle queues may extend through this intersection from an upstream intersection so that the peak hour level of service would be degraded due to vehicles blocking this intersection.
(2) = Unsignalized: SB to WB right turn at LOS F (AM and PM Peak Hours)
F = Shading indicates a significant impact.

TABLE 7-3 (Continued)

Buildout Scenario 3B Without La Media Road Intersection Levels of Service

		Without Mitigation				With Mitigation			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection	CD	LOS	CD	LOS	CD	LOS	CD	LOS
45	Harvest Rd. / Airway Rd.	116.7	F	13.8	B	42.5	D	13.5	B
46	Harvest Rd. / Siempre Viva Rd.	76.6	E	69.2	E	28.7	C	51.5	D
47	Otay Mesa Rd. / Sanyo Ave.	263.3	F	276.6	F	106.7	F	89.0	F
48	Airway Rd. / Sanyo Ave.	225.6	F	229.8	F	49.7	D	38.6	D
49	Paseo de las Americas / Heinrich Hertz Dr.	(3) 988.3	F	(3) 244.6	F	8.9	A	13.0	B
50	Paseo de las Americas / Marconi Dr.	(4) 869.6	F	(4) 108.0	F	11.5	B	13.4	B
51	Heritage Rd. / Otay Valley Rd.	516.4	F	837.9	F	178.7	F	382.7	F
52	Aviator Rd. / La Media Rd.	105.1	F	38.0	D	27.7	C	18.3	B
53	Otay Valley Rd. / Avenida De Las Vistas	764.4	F	298.6	F	-	-	-	-

Note: Control delay results should be considered unreliable at delay volumes higher than two times the LOS E delay of 80.0 seconds.

Legend

CD = Control Delay

LOS = Level of Service

(3) Unsignalized: eastbound left turn at LOS F(AM Peak Hour); eastbound left and right turns at LOS F (PM Peak Hour).

(4) Unsignalized: westbound left turn at LOS F (AM and PM Peak Hours); westbound right turn at LOS F (PM Peak Hour).

F = Shading indicates a significant impact.

Control Delay	LOS
0.0 - 10.0	A
10.1 - 20.0	B
20.1 - 35.0	C
35.1 - 55.0	D
55.1 - 80.0	E
Over 80.0	F

Source: 2000 Highway Capacity Manual

Of the 52 intersections evaluated, 42 intersections are expected to be at levels of service "E" or "F" during the AM peak hour and 44 during the PM peak hour. With mitigation, 28 intersections would remain to operate unacceptably in the AM peak hour and 29 intersections would remain to operate unacceptably in the PM peak hour. Several interchange intersections that can be designed for acceptable levels of service are included as significantly impacted due to upstream queues extending through the intersection causing increased delay and a level of service "F", as footnoted in this table. **Table 7-4** shows lane configurations at each intersection and also shows lanes to be added after mitigation.

Intersection peak hour volumes, lane configurations with mitigation, and level of service worksheets are included in **Appendix D**.

The SR-905 interchanges at Caliente Avenue and at La Media Road are recommended for major improvements for all alternatives. The Caltrans designs of these interchanges are based on forecasts of future traffic from the build out of only approximately fifty percent of Otay Mesa land uses. The Heritage Road interchange currently does not have a final, funded design, so that the lane configurations at the ramp intersections included in this report should be incorporated into the final design.

Provided below is a summary of mitigation recommended at the interchanges and major intersections. Some intersection impacts are not proposed to be fully mitigated, usually because it would require excessively wide intersections and turning lanes and non-standard intersection configurations.

#1 & #2. I-805 Southbound and Northbound Ramps / Palm Avenue – The Otay Mesa P.F.F.P includes a bridge widening project at this interchange. The preliminary design includes a third through lane in each direction at the northbound ramps, an additional westbound right turn lane (total of two), northbound off-ramp widening for an additional lane (total of three), southbound off-ramp widening for an additional lane (total of four), and the addition of a fourth eastbound lane and a loop on-ramp in the southeast quadrant.

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TABLE 7-4

Buildout 3B Without La Media Road Intersection Mitigation

		Without Mitigation												With Mitigation											
		NB			SB			EB			WB			NB			SB			EB			WB		
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
1	Palm Ave. / I-805 SB Ramps				1	1*	1		2	1	2	2					1	1*	2		2	1	2	2	
2	Palm Ave. / I-805 NB Ramps	S	1*	1				2	2			2	1	1	1*	1					3	1		3	2
3	Palm Ave. / Dennery Rd.	3	1	S	2	2	1	2	3	1	2	3	1												
4	Otay Mesa Rd. / Caliente Ave.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	S	2	3	1	2	3	1
5	Caliente Ave. / SR-905 WB Ramps	1	3			3	S				S	1	1	2	3			3	1				S	1	1
6	Caliente Ave. / SR-905 EB Ramps		3	S	1	3		1	1*	S					3	1	2	3		1	1*	1			
7	Caliente Ave. / Airway Rd.	2	3	S	2	3	S	2	2	S	2	2	1	2	3	1	2	3	S	2	2	1	2	2	1
8	Caliente Ave. / Beyer Blvd.	2	2	S	2	3	S	2	2	S	1	1	1	2	2	S	2	2	2	2	2	1	1	1	1
9	Otay Mesa Rd. / Heritage Rd.	2	3	S	2	3	S	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2
10	Heritage Rd. / SR-905 WB Ramps		3	S	2	3					S		2		3	2	2	3					S		2
11	Heritage Rd. / SR-905 EB Ramps		3	S	2	3					2		S		3	1	2	3					2		1
12	Heritage Rd. / Airway Rd.				2		1	2	3		2	3	S				2		1	2	3			3	2
13	Heritage Rd. / Siempre Viva Rd.																								
14	Otay Mesa Rd. / Cactus Rd.	2	1*	1	1	1	S	1	3	S	2	3	S	2	1*	1	1	1	S	1	3	2	2	3	1
15	Airway Rd. / Cactus Rd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2*	1	2	3*	1	2	3	2
16	Siempre Viva Rd. / Cactus Rd.		2	S	2	2					2		2		2	1	2	2					2		2
17	Otay Mesa Rd. / Britannia Blvd.	2	1*	1	1	1	S	1	3	S	2	3	S	2	1*	1	1	1	S	1	3	1	2	3	1
18	Britannia Blvd. / SR-905 WB Ramps	2	3			3	S				1	1	1	2	3			3*	1				1	1*	1
19	Britannia Blvd. / SR-905 EB Ramps		3	S	2	3		S	1	2					3	2	2	3		S	1	2			
20	Britannia Blvd. / Airway Rd	2	3	S	2	3	S	2	3	S	2	2	S	2	3	1	2	3	2	2	3	1	2	2	2
21	Siempre Viva Rd. / Britannia Blvd.	2	2	S	2	2	S	2	3	S	2	3	S	2	2	1	2	2	2	2	3	1	2	3	2
22	Otay Mesa Rd. / La Media Rd.	2	3	S	2	2	S	2	3	S	2	3	S	2	3	2	2	2	2	2	3	2	2	3	2

Legend
L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

*** Notes:**
#1 - SB through is shared LTR without mitigation; shared LT with mitigation.
#2 - NB through is shared LTR.
#5 - SB is 2T-TR-R without mitigation.
#6 - EB through is shared LTR without mitigation; shared LT with mitigation.
#14 - NB through is shared TR.
#15 - SB through is shared TR.
#15 - EB through is shared TR.
#17 - NB through is shared TR.
#18 - 1 SB right turn lane added, 3rd lane restriped for optional TR; WB middle lane restriped for LTR.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

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TABLE 7-4 (Continued)

Buildout 3B Without La Media Road Intersection Mitigation

		Without Mitigation												With Mitigation											
		NB			SB			EB			WB			NB			SB			EB			WB		
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
23	La Media Rd. / SR-905 WB Ramps	2	2	1		3	1	S	1	1	1	1*	1	2	3	1		3	1	1		1	1	1*	1
24	La Media Rd. / SR-905 EB Ramps	2	3			2	1	2		2				2	3			3	1	2		2			
25	La Media Rd. / Airway Rd.	2	2	S	2	3	S	2	2	S	2	2	S	2	2	1	2	3	2	2	2	1	2	2	2
26	La Media Rd. / Siempre Viva Rd.				2	2	S	2	3			3	S				2	1*	2*	2	3			3	2
27	La Media Rd. / Lone Star Rd.																								
28	Lone Star Rd. / SR-125 SB Off Ramp				2		2		3			3													
29	Lone Star Rd. / SR-125 NB On Ramp							2	3			3	2												
30	Lone Star Rd. / Piper Ranch Rd.	2		1					3	S	2	3													
31	Otay Mesa Rd. / Piper Ranch Rd.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1	2	1	2	2	3	1	2	3	1
32	Otay Mesa Rd. / SR-125 SB Off Ramp				2		1		3			3					1	1*	1		3			3	
33	Otay Mesa Rd. / SR-125 NB On Ramp							2	3			3	2												
34	Otay Mesa Rd. / Harvest Rd.	1	1	S	1	1	S	1	3	S	1	3	S	2	1	S	1	1	S	1	3	1	1	3	S
35	Siempre Viva Rd. / Otay Center Dr.	1	1	S	1	2	S	1	3	S	1	3	S	1	1	1	2	1	1	2	3	1	2	3	1
36	Siempre Viva Rd. / SR-905 SB to EB Ramp			2					3	S	2	3													
36A	Siempre Viva Rd. / SR-905 SB to WB Ramp						1					3							2					3	
37	Siempre Viva Rd. / SR-905 NB Ramps	S	1	2				2	3			3	1	S	1	2				2	3			3	2
38	Siempre Viva Rd. / Paseo de las Americas	1	2	S	1	2	S	1	3	1	1	3	S	1	1*	1*	1	1	2	2	3	1	1	3	1
39	Dennery Rd. / Del Sol Blvd.				1		1	1	2			2	S												
40	Ocean View Hills Pkwy. / Del Sol Blvd.	2	3	S	1	2	S	1	1	1	1	1	S	2	3	S	1	2	1	1*	1*	1	1	1	S
41	Ocean View Hills Pkwy. / Street A	1	1	1	1	1	S	1	3	S	1	3	S	2	1	1	1	1	S	1	3	1	1	3	S
42	Old Otay Mesa Rd. / Beyer Blvd.	1	1	S	1	1	S	2	2	1	2	2	S	1	1	1	1	1	1	2	2	1	2	2	S
43	Otay Mesa Rd. / Corporate Center Dr.	2	1	S	1	1*	1	2	3	S	2	3	1	2	1	S	2	1*	1	2	3	1	2	3	1
44	Otay Mesa Rd. / Innovative Dr.	1	1	S	1	1*	1	2	3	S	2	3	1	1	1	S	2	1*	1	2	3	S	2	3	1

Legend
L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane

***Notes:**
#23 - WB middle lane is shared LT.
#26 - SB lanes restriped for 1T-2R lanes.
#27 - WB lanes restriped for 2R lanes.
#32- SB middle lane is striped for shared LR.
#38 - NB lanes restriped for L-LT-R.
#40 - EB lanes restriped for L-LT-R.
#43 - SB lanes are 2L-TR-R.
#44 - SB lanes are 2L-TR-R.

1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

TABLE 7-4 (Continued)

Buildout 3B Without La Media Road Intersection Mitigation

		Without Mitigation												With Mitigation											
		NB			SB			EB			WB			NB			SB			EB			WB		
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
45	Harvest Rd. / Airway Rd.	2		1					2	S	2	2		2		1					2	1	2	2	
46	Harvest Rd. / Siempre Viva Rd.	1	2	S	1	2	S	2	3	S	2	3	S	1	2	S	2	2	1	2	3	S	2	3	1
47	Otay Mesa Rd. / Sanyo Ave.	1	2	S	1	2	S	2	3	S	2	3	S	2	1	1	1	1	1	2	3	2	2	3	1
48	Airway Rd. / Sanyo Ave.	1	2	S	1	2	S	2	2	S	2	2	S	2	2	1	2	2	2	2	2	2	2	2	1
49	Paseo de las Americas / Heinrich Hertz Dr.	1	2			2	S	1		1				2	2			2	S	1		1			
50	Paseo de las Americas / Marconi Dr.		2	S	1	2					1		1		2	S	2	2					1		1
51	Heritage Rd. / Otay Valley Rd.	2	3	S	2	3	S	1	2	S	1	2	S	2	3	1	2	3	2	2	2	1	2	2	1
52	Aviator Rd. / La Media Rd.	2	2			2	S	2		1				2	2			2	1	2		1			
53	Otay Valley Rd. / Avenida De Las Vistas	1	3	S	1	3	S	1	1	S	1	1	1												

Legend
L = left turn lanes
T = through lanes
R = right turn lanes
S = shared lane
1 Highlighted indicates added lane mitigation or revised lane assignment by restriping, as noted.

#4. Caliente Avenue / Otay Mesa Road – At this intersection of two six-lane Primary Arterials, a separate right turn only lane in the northbound direction is recommended. Although the northbound right turn volumes are expected to be high enough to warrant dual right turns, this intersection is a pedestrian route to nearby San Ysidro High School. In the interest of school pedestrian safety and convenience, dual right turn lanes are not recommended.

#5. Caliente Avenue / SR-905 Westbound Ramps – Overcrossing widening to accommodate northbound dual left turn lanes is recommended. Additionally, a single southbound right turn only lane is recommended. Caliente Avenue is a school pedestrian route to the San Ysidro High School. Although southbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turn lanes are not recommended. Vehicle queues from the upstream intersections are expected to extend through this intersection so that AM and PM peak hour levels of service will be at LOS "F".

#6. Caliente Avenue / SR-905 Eastbound Ramps - Overcrossing widening to accommodate dual northbound left turn lanes at the SR-905 westbound ramps also should extend through this intersection, accommodating dual southbound left-turn lanes. A separate northbound right turn lane and ramp widening for an additional eastbound right turn lane are recommended. Although the eastbound right turn lanes are expected to be high enough for dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#7. Caliente Avenue at Airway Road - Separate right turn only lanes are recommended in the eastbound, northbound, and westbound directions. Although the northbound and westbound right turn volumes are expected to be high enough to warrant dual right turn lanes, the dual right turn lanes are not recommended on this pedestrian route to San Ysidro High School.

#8. Caliente Avenue at Beyer Boulevard - Dual right turn lanes southbound to westbound are recommended. A separate eastbound right turn lane is recommended.

#9. Heritage Road / Otay Mesa Road - Separate right turn only lanes are recommended in the northbound and southbound directions. Existing right turn lanes are in place eastbound and westbound. A second westbound right turn lane is recommended.

#10. Heritage Road / SR-905 Westbound Ramps - Two right turn only lanes are recommended in the northbound direction onto the westbound on-ramp. The vehicle queue from an upstream intersection extends through this intersection so that the AM and PM peak hour level of service will be at LOS "F".

#11. Heritage Road / SR-905 Eastbound Ramps - A separate right turn lane in the northbound direction to the eastbound on-ramp, plus an additional lane in the westbound direction on the eastbound off-ramp are recommended. The vehicle queue from an upstream intersection extends through this intersection so that the AM and PM peak hour level of service will be at LOS "F".

#12. Heritage Road / Airway Road – Dual right turn lanes are recommended in the westbound direction.

#14. Cactus Road / Otay Mesa Road - Dual right turn lanes in the eastbound direction, and one in the westbound direction are recommended.

#15. Cactus Road / Airway Road - Dual right turn lanes in the westbound direction, and single right turn lanes are recommended in the south, north, and eastbound directions. A shared through / right turn lane is recommended southbound and eastbound.

#16. Cactus Road / Siempre Viva Road - Dual right turn lanes in the westbound direction and a single right turn lane are recommended in the northbound direction.

#17. Britannia Boulevard / Otay Mesa Road - A single right turn only lane in the eastbound and westbound directions are recommended.

#18. Britannia Boulevard / SR-905 Westbound Ramps - A single southbound right turn lane, and also restriping the third southbound through lane as an optional through / right turn are recommended. The middle lane in the westbound direction is recommended to be restriped for a shared left / through / right turn movement.

#19. Britannia Boulevard / SR-905 Eastbound Ramps - Dual right turn lanes northbound are recommended.

#20. Britannia Boulevard / Airway Road - Dual right turn lanes in the south and westbound directions, and a single right turn lane in the eastbound and northbound directions are recommended.

#21. Britannia Boulevard / Siempre viva Road - Dual right turn lanes in the west and southbound directions, and a single right turn lane in the eastbound and northbound directions are recommended.

#22. La Media Road / Otay Mesa Road – Dual right turn lanes are recommended at all approaches.

#23. La Media Road / SR-905 Westbound Ramps - It is recommended that the eastbound through movement be eliminated so that the northbound right turn to the SR-905 westbound on-ramp can be a continuous movement, without a conflicting movement at the traffic signal. Only a pedestrian signal would cause this traffic to stop. Additionally a third northbound through lane is recommended. These recommended improvements would require widening in the northbound direction along La Media Road.

#24. La Media Road / SR-905 Eastbound Ramps - The addition of a third southbound through lane is recommended. This improvement would require widening La Media Road in the southbound direction.

#25. La Media Road / Airway Road - The addition of dual right turn lanes westbound and southbound, and single right turn lanes eastbound and northbound are recommended.

#26. La Media Road / Siempre Viva Road - The addition of dual right turn lanes westbound, and one right turn lane southbound are recommended. The southbound lanes should be striped for two left turn lanes / one through / two right turn lanes. The southbound through lane will be restricted to unladen trucks destined to the Border Truck Road.

#31. Piper Ranch Road / Otay Mesa Road – Single right turn lanes in the east, west, and northbound directions are recommended. Southbound, two right turn lanes are recommended. Southbound lanes should be striped for two left / one through / two right turn lanes.

#32. SR-125 Southbound Off-Ramp / Otay Mesa Road – No additional lanes are recommended, but restriping the southbound middle lane for optional left-right turns is recommended. The vehicle queue form the upstream northbound on-ramp will extend through this intersection during the AM and PM peak hours so that the peak hour levels of service will be at LOS "F".

#34. Harvest Road / Otay Mesa Road – An additional eastbound right turn lane is recommended. An additional northbound left turn lane is also recommended.

#35. Otay Center Drive / Siempre Viva Road - Added lanes for right turns are recommended at all approaches. Dual left turn lanes are recommended east, west, and southbound.

#36 – 36A. SR-905 Southbound Ramps / Siempre Viva Road – The SR-905 southbound off-ramp to westbound Siempre Viva Road is recommended to be signalized, and widened for an additional southbound right turn lane.

#37. SR-905 Northbound Ramps / Siempre Viva Road – A second westbound right turn lane is recommended.

#38. Paseo de las Americas / Siempre Viva Road - Added westbound and southbound right turns are recommended, plus an eastbound left turn lane. The northbound lanes should be restriped for one left, one shared left /through, one right turn lane. The southbound lanes should be restriped for one left / one through / two right turn lanes.

#40. Ocean View Hills Parkway / Del Sol Boulevard - One added southbound right turn lane is recommended. The eastbound through lane should be restriped for optional left turns / through.

#41. Ocean View Hills Parkway / Street "A" - An eastbound single right turn lane and an added northbound left turn lane are recommended.

#42. Old Otay Mesa Road / Beyer Boulevard - Northbound and southbound right turn lanes are recommended.

#43. Otay Mesa Road / Corporate Center Drive - Northbound and southbound added left turn lanes, and a separate eastbound right turn lane are recommended. The southbound through lane should be striped as a shared through / right turn lane.

#44. Otay Mesa Road / Innovative Drive - A second southbound left turn lane is recommended. The southbound through lane should be striped as a shared through / right turn lane.

#45. Airway Road / Harvest Road - An eastbound right turn lane is recommended.

#46. Harvest Road / Siempre viva Road - Separate right turn lanes are recommended westbound and southbound. An additional southbound left turn lane is recommended.

#47. Otay Mesa Road / Sanyo Avenue - Eastbound dual right turn lanes, and single right turn lanes northbound and westbound are recommended. Restriping northbound lanes for dual left turns plus one through lane is recommended.

#48. Airway Road / Sanyo Avenue - Dual right turn lanes in the eastbound and southbound directions are recommended. Single right turn lanes northbound and westbound are recommended. Northbound and southbound added lanes for dual left turns are recommended.

#49. Paseo de las Americas / Heinrich Hertz Drive - The installation of a traffic signal and widening for an added northbound left turn lane are recommended.

#50. Paseo de las Americas / Marconi Drive - The installation of a traffic signal and adding a southbound left turn lane are recommended.

#51. Heritage Road / Otay Valley Road - Dual right turn lanes southbound, and single right turn lanes at the other approaches are recommended. East and westbound dual left turn lanes are recommended.

#52. La Media Road / Aviator Road - A southbound right turn lane is recommended.

7.5 Ramp Meter Operations

Table 7-5 shows buildout ramp meter operations at all freeway on-ramps within the study area.

The likely most restrictive ramp meter rate as provided by Caltrans was used for this evaluation.

Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service does not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. Of the 28 peak hour ramp meters that were evaluated during the AM and PM peak hours, ramp meter delays above 15 minutes would occur at five locations during the AM peak hour and at eleven locations during the PM peak hour.

Ramp meter delays above 15 minutes are considered significant impacts if downstream freeways are operating at level of service "E" or "F". The following five ramp locations would be significantly impacted using this significance criteria:

- SR-905 / Caliente Avenue Westbound on-ramp (AM and PM);
- SR-905 / Heritage Road Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Westbound on-ramp (AM and PM);
- SR-905 / Britannia Boulevard Eastbound on-ramp (PM);
- SR-905 / La Media Road Westbound on-ramp (AM and PM).

The freeway on-ramp lengths were estimated using preliminary design or aerial photos as included in Appendix D. The freeway on-ramps evaluated would have ramp lengths from 650 feet to 1,200 feet. Assuming two lanes at the ramp meters, seven locations would have queues exceeding the ramp storage during the AM peak hour and at eleven locations during the PM peak hour.

There are no performance criteria regarding excessive queues in the regional CMP guidelines. However, the guidelines state the following:

TABLE 7-5

Buildout Alternate 3B Without La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate*	Excess Demand	Delay (Min)	Queue (Feet)
AM	I-805 / Palm Avenue Northbound (From Westbound)	1,280	960	320	20.0	8,000 (E)
PM	I-805 / Palm Avenue Northbound (From Westbound)	1,380	960	420	26.3	10,500 (E)
AM	I-805 / Palm Avenue Northbound (From Eastbound)	655	960	None	None	None
PM	I-805 / Palm Avenue Northbound (From Eastbound)	540	960	None	None	None
AM	I-805 / Palm Avenue Southbound	455	960	None	None	None
PM	I-805 / Palm Avenue Southbound	645	960	None	None	None

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate*	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Caliente Avenue Westbound	1,860	960	900	56.3	22,500 (E)
PM	SR-905 / Caliente Avenue Westbound	1,550	960	590	36.9	14,750(E)
AM	SR-905 / Caliente Avenue Eastbound	400	960	None	None	None
PM	SR-905 / Caliente Avenue Eastbound	400	960	None	None	None

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate*	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Heritage Road Westbound	1,135	960	175	10.9	4,375 (E)
PM	SR-905 / Heritage Road Westbound	2,550	960	1,590	99.4	39,750 (E)
AM	SR-905 / Heritage Road Eastbound	360	960	None	None	None
PM	SR-905 / Heritage Road Eastbound	800	960	None	None	None

*= Most restrictive meter rate used, per Caltrans.
** = Total hourly volume entering from both directions.
(E) = Exceeds ramp storage length.

TABLE 7-5

Buildout Alternate 3B Without La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Britannia Blvd. Westbound	1,350	960	390	24.4	9,750 (E)
PM	SR-905 / Britannia Blvd. Westbound	3,355	960	2,395	149.1	59,875 (E)
AM	SR-905 / Britannia Blvd. Eastbound	710	960	None	None	None
PM	SR-905 / Britannia Blvd. Eastbound	1,400	960	440	27.5	11,000 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / La Media Road Westbound	2,050	960	1,090	68.1	27,250 (E)
PM	SR-905 / La Media Road Westbound	3,025	960	2,065	129.0	51,625 (E)
AM	SR-905 / La Media Road Eastbound	1,000	960	40	2.5	1,000
PM	SR-905 / La Media Road Eastbound	1,950	960	990	61.8	24,750 (E)

Most Restrictive Meter Rate						
Location		Demand** (Veh/Hr)	Meter Rate* (Veh/Hr)	Excess Demand	Delay (Min)	Queue (Feet)
AM	SR-905 / Siempre Viva Rd. Northbound	1,185	960	225	14.1	5,625 (E)
PM	SR-905 / Siempre Viva Rd. Northbound	3,510	960	2,550	159.4	63,750 (E)
AM	SR-905 / Siempre Viva Rd. Southbound	750	960	None	None	None
PM	SR-905 / Siempre Viva Rd. Southbound	1,670	960	710	44.4	17,750 (E)

*= Most restrictive meter rate used, per Caltrans.
** = Total hourly volume entering from both directions.
(E) = Exceeds ramp storage length.

TABLE 7-5

Buildout Alternate 3B Without La Media Road Ramp Meter Operations

Most Restrictive Meter Rate						
Location		**Demand** (Veh/Hr)**	**Meter Rate* (Veh/Hr)**	**Excess Demand**	**Delay (Min)**	**Queue (Feet)**
AM	SR-125 / Otay Mesa Rd. Northbound	1,680	960	720	45.0	24,000 (E)
PM	SR-125 / Otay Mesa Rd. Northbound	2,455	960	1,495	93.4	37,375(E)

Most Restrictive Meter Rate						
Location		**Demand** (Veh/Hr)**	**Meter Rate* (Veh/Hr)**	**Excess Demand**	**Delay (Min)**	**Queue (Feet)**
AM	SR-125 / Lone Star Rd. Northbound	850	960	None	None	None
PM	SR-125 / Lone Star Rd. Northbound	3,615	960	2,655	166.0	66,375 (E)

*=Most restrictive meter rate used, per Caltrans.
** = Total hourly volume entering from both directions.
Excess Demand X 60MIN = Delay (Minutes)
Meter Rate
(E) = Exceeds ramp storage length.

Note: Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available, or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving traffic at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, use another freeway, or stay on surface streets.

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7.6 Freeway Interchange Queue Analysis

A queue analysis was prepared at the interchange ramps within the study area, and queue lengths without intersection mitigation are shown in **Table 7-6,** while **Table 7-7** shows queue lengths with mitigation.

This queue analysis was provided primarily to provide an indication of locations that might need queue storage enhancements such as extending right or left turn storage lengths, if feasible during design, and to ensure that any with queues exceeding standard turn pocket lengths was not reported as operating acceptably.

Of the 158 queues evaluated without intersection mitigation, during AM and PM peak hours, 80 are expected to be of excess length for the vehicle storage available between these closely spaced intersections at freeway interchange ramps. With intersection mitigation, 188 queues were evaluated and 63 are expected to be of excess length, extending through the adjacent intersection.

Table 7-6

Alternative 3B Without La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations North / South	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	200	3,325	-	450	None	2,875	-
Caliente Ave. / SR-905 WB Ramps	-	1,105	-	450	-	655	-	2,650	1,623	-	450	2,200	1,173	-
Caliente Ave. / SR-905 EB Ramps	-	120	480	450	-	None	45	-	1,480	-	300	-	1,180	-
Caliente Ave. / Airway Rd.	-	350	1,573	300	-	50	1,273	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	338	1,928	-	750	None	1,178	-
Heritage Rd. / SR-905 WB Ramps	-	33	225	750	-	None	None	-	2,143	-	750	-	1,393	-
Heritage Rd. / SR-905 EB Ramps	-	143	130	750	-	None	None	-	2,175	-	750	-	1,425	-
Heritage Rd. / Airway Rd.	245	-	2,975	750	None	-	2,225	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	665	990	1,085	900	None	90	185
Britannia Blvd. / SR-905 WB Ramps	723	818	-	900	None	None	-	1,255	225	-	450	805	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,160	328	450	-	710	None	-	2,575	-	900	-	1,675	-
Britannia Blvd. / Airway Rd.	-	7,500	1,795	900	-	6,600	895	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,633	3,250	-	450	1,183	2,800	-
La Media Rd. / SR-905 WB Ramps	118	1,570	-	450	None	1,120	-	120	2,575	5,850	900	None	1,675	4,950
La Media Rd. / SR-905 EB Ramps	95	5,050	-	900	None	4,150	-	1,088	880	-	900	188	None	-
La Media Rd. / Airway Rd.	-	4,500	3,275	900	-	3,600	2,375	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 7-6

Alternative 3B Without La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	610	1,835	-	450	160	1,385	-
Caliente Ave. / SR-905 WB Ramps	-	1,078	-	450	-	628	-	1,540	1,195	-	450	1,098	745	-
Caliente Ave. / SR-905 EB Ramps	-	115	415	450	-	None	None	-	1,338	-	300	-	1,038	-
Caliente Ave. / Airway Rd.	-	1,630	485	300	-	1,330	185	-	-	-	-	-	-	-
.														
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	323	543	-	750	None	None	-
Heritage Rd. / SR-905 WB Ramps	-	115	1,143	750	-	None	393	-	2,213	-	750	-	1,463	-
Heritage Rd. / SR-905 EB Ramps	-	213	328	750	-	None	None	-	2,273	-	750	-	1,523	-
Heritage Rd. / Airway Rd.	63	-	3,175	750	None	-	2,425	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	425	418	368	900	None	None	None
Britannia Blvd. / SR-905 WB Ramps	573	963	-	900	None	63	-	7,425	30	-	450	6,975	None	-
Britannia Blvd. / SR-905 EB Ramps	-	123	268	450	-	None	None	-	2,575	-	900	-	1,675	-
Britannia Blvd. / Airway Rd.	-	1,623	1,230	900	-	723	330	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	790	1,870	-	450	340	1,420	-
La Media Rd. / SR-905 WB Ramps	295	2,675	-	450	None	2,125	-	305	1,193	7,250	900	None	293	6,350
La Media Rd. / SR-905 EB Ramps	585	2,650	-	900	None	410	-	1,663	503	-	900	763	None	-
La Media Rd. / Airway Rd.	-	2,333	873	900	-	1,433	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 7-6

Alternative 3B Without La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations East / West	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	183	50	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	623	670	600	-	23	70	-	240	5,775	1,000	-	None	4,775
Palm Ave. Dennery Rd.	395	215	493	1,000	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	960	5,250	-	600	360	4,650	-
Siempre Viva Rd. / SR-905 SB Ramps	-	683	-	300	-	383	-	348	-	-	600	None	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	475	743	600	-	None	143	-	590	1,395	1,150	-	None	245
Siempre Viva Rd. / Paseo de las Americas	-	2,125	3,775	1,150	-	975	2,625	-	-	-	-	-	-	-
Lone Star Rd. / SR-125 SB Off Ramp	-	-	-	-	-	-	-	290	-	-	500	None	-	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	93	500	-	-	None	-	50	108	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	650	-	600	-	50	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	148	918	-	2,000	None	None	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	523	-	2,000	-	None	-	-	60	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	495	500	-	-	None	-	133	223	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	-	1,318	260	700	-	1,058	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 7-6

Alternative 3B Without La Media Road Without Mitigation

Buildout Queue Analysis

Queue Locations East / West	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	508	198	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	-	398	473	600	-	None	None	-	548	4,400	1,000	-	None	3,400
Palm Ave. Dennery Rd.	2,383	323	710	1,000	1,383	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	830	808	-	600	230	208	-
Siempre Viva Rd. / SR-905 SB Ramps	-	3,675	-	300	-	3,375	-	1,435	-	-	600	835	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	88	4,425	600	-	None	3,825	-	2,625	2,283	1,150	-	1,475	1,133
Siempre Viva Rd. / Paseo de las Americas	-	393	2,280	1,150	-	None	1,130	-	-	-	-	-	-	-
-														
Lone Star Rd. / SR-125 SB Off Ramp	-	-	-	-	-	-	-	1,008	-	-	500	508	-	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	3,100	500	-	-	2,600	-	285	2,750	600	-	None	2,150
Lone Star Rd. / Piper Ranch Rd.	-	75	-	600	-	None	-	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	280	1,635	-	2,000	None	None	-
Otay Mesa Rd. / SR-125 SB Off Ramp	-	218	-	2,000	-	None	-	-	138	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	725	500	-	-	225	-	243	1,318	700	-	None	618
Otay Mesa Rd. / Harvest Rd.	-	205	120	700	-	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 7-7

Alternative 3B Without La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations North / South	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	200	138	2,875	450	None	None	2,425
Caliente Ave. / SR-905 WB Ramps	485	415	-	450	35	None	-	605	1,585	-	450	155	1135	-
Caliente Ave. / SR-905 EB Ramps	-	120	198	450	-	None	45	-	695	98	300	-	395	None
Caliente Ave. / Airway Rd.	-	350	1,573	300	None	50	1,273	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	338	663	1,260	750	None	None	510
Heritage Rd. / SR-905 WB Ramps	-	33	225	750	-	None	None	-	548	470	750	-	None	None
Heritage Rd. / SR-905 EB Ramps	-	143	130	750	-	None	None	-	1,643	48	750	-	893	None
Heritage Rd. / Airway Rd.	245	-	2,975	750	None	-	2,225	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	665	990	1,085	900	None	90	185
Britannia Blvd. / SR-905 WB Ramps	368	548	-	900	None	None	-	1,255	225	-	450	805	None	-
Britannia Blvd. / SR-905 EB Ramps	-	1,160	328	450	-	710	None	-	688	440	900	-	None	none
Britannia Blvd. / Airway Rd.	3,000	3,125	1,795	900	2,100	2,225	895	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	1,633	970	873	450	1,183	520	423
La Media Rd. / SR-905 WB Ramps	118	1,570	-	450	None	1,120	-	120	855	-	900	None	None	-
La Media Rd. / SR-905 EB Ramps	48	2,675	-	900	None	1,775	-	1,088	880	-	900	188	None	-
La Media Rd. / Airway Rd.	1,370	1,615	3,275	900	470	715	2,375	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 7-7

Alternative 3B Without La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations North / South	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Southbound			Southbound	Southbound			Northbound			Northbound	Northbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Otay Mesa Rd. / Caliente Ave.	-	-	-	-	-	-	-	610	370	353	450	160	None	None
Caliente Ave. / SR-905 WB Ramps	368	498	-	450	None	48	-	390	1,195	-	450	None	745	-
Caliente Ave. / SR-905 EB Ramps	-	115	188	450	-	None	None	-	985	228	300	-	685	None
Caliente Ave. / Airway Rd.	-	1,630	485	300	None	1,330	185	-	-	-	-	-	-	-
Otay Mesa Rd. / Heritage Rd.	-	-	-	-	-	-	-	323	310	233	750	None	None	None
Heritage Rd. / SR-905 WB Ramps	-	115	1,143	750	-	None	393	-	303	1,148	750	-	None	398
Heritage Rd. / SR-905 EB Ramps	-	213	328	750	-	None	None	-	1,200	138	750	-	450	None
Heritage Rd. / Airway Rd.	63	-	3,175	750	None	-	2,425	-	-	-	-	-	-	-
Otay Mesa Rd. / Britannia Blvd.	-	-	-	-	-	-	-	425	418	368	900	None	None	None
Britannia Blvd. / SR-905 WB Ramps	573	503	-	900	None	None	-	7,425	30	-	450	6,975	None	-
Britannia Blvd. / SR-905 EB Ramps	-	123	268	450	-	None	None	-	2,625	820	900	-	1,725	None
Britannia Blvd. / Airway Rd.	565	525	1,230	900	None	None	330	-	-	-	-	-	-	-
Otay Mesa Rd. / La Media Rd.	-	-	-	-	-	-	-	790	398	600	450	340	None	150
La Media Rd. / SR-905 WB Ramps	153	2,675	-	450	None	2,125	-	305	450	-	900	None	None	-
La Media Rd. / SR-905 EB Ramps	238	1,310	-	900	None	410	-	1,163	503	-	900	263	None	-
La Media Rd. / Airway Rd.	288	888	873	900	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

Table 7-7

Alternative 3B Without La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations East / West	AM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	228	78	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	273	118	-	600	None	None	-	-	35	258	1,000	-	None	None
Palm Ave. Dennery Rd.	395	215	493	1,000	None	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	308	2,950	7,898	600	None	2,350	1,298
Siempre Viva Rd. / SR-905 SB Ramps	-	683	-	300	-	383	-	348	-	-	600	None	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	475	743	600	-	None	143	-	538	518	1,150	-	None	180
Siempre Viva Rd. / Paseo de las Americas	2,170	1,095	1,138	1,150	1,020	None	None	-	-	-	-	-	-	-
Lone Star Rd. / SR-125 SB Off Ramp	-	-	-	-	-	-	-	290	-	-	500	None	-	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	93	500	-	-	None	-	50	108	600	-	None	None
Lone Star Rd. / Piper Ranch Rd.	-	650	-	600	-	50	None	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	148	523	103	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	523	-	2,000	-	None	-	-	60	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	495	500	-	None	None	-	133	223	700	-	None	None
Otay Mesa Rd. / Harvest Rd.	225	313	260	700	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

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Table 7-7

Alternative 3B Without La Media Road With Mitigation

Buildout Queue Analysis

Queue Locations East / West	PM Peak Hour													
Location	Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)			Queue Length Per Lane			Distance Between Intersections	Excess Queue (Feet)		
	Eastbound			Eastbound	Eastbound			Westbound			Westbound	Westbound		
	RT	TH	LT		RT	TH	LT	LT	TH	RT		LT	TH	RT
Palm Ave. / I-805 SB Ramps	-	-	-	-	-	-	-	553	195	-	600	None	None	-
Palm Ave. / I-805 NB Ramps	168	205	-	600	None	None	-	-	75	345	1,000	-	None	None
Palm Ave. Dennery Rd.	2,383	323	710	1,000	1,383	None	None	-	-	-	-	-	-	-
Siempre Viva Rd. / Otay Center Dr.	-	-	-	-	-	-	-	280	615	35	600	None	15	None
Siempre Viva Rd. / SR-905 SB Ramps	-	3,675	-	300	-	3,375	-	1,435	-	-	600	835	None	-
Siempre Viva Rd. / SR-905 NB Ramps	-	88	4,425	600	-	None	3,825	-	910	2,900	1,150	-	None	1,750
Siempre Viva Rd. / Paseo de las Americas	403	445	748	1,150	None	None	None	-	-	-	-	-	-	-
-														
Lone Star Rd. / SR-125 SB Off Ramp	-	338	-	-	-	-	-	1,008	-	-	500	508	-	-
Lone Star Rd. / SR-125 NB On Ramp	-	-	3,100	500	-	-	1,615	-	285	2,750	600	-	None	2,150
Lone Star Rd. / Piper Ranch Rd.	-	75	-	600	-	None	None	-	-	-	-	-	-	-
Otay Mesa Rd. / Piper Ranch Rd.	-	-	-	-	-	-	-	268	1,220	55	2,000	None	None	None
Otay Mesa Rd. / SR-125 SB Off Ramp	-	218	-	2,000	-	None	-	-	138	-	500	-	None	-
Otay Mesa Rd. / SR-125 NB On Ramp	-	-	725	500	-	None	225	-	243	1,318	700	-	None	618
Otay Mesa Rd. / Harvest Rd.	60	370	120	700	None	None	None	-	-	-	-	-	-	-

Note: Based on 95th percentile back of queue. 25 FT. per vehicle.
TH = Through Lanes
LT = Left Turn Lane
RT = Right Turn Lane

8.0 COMPARISON OF SCENARIOS

8.1 Roadway Segments

The table below summarizes roadway segment levels of service for the three scenarios without and with reclassifications.

A comparison of segments at levels of service "E" or "F", indicate the comparative roadway congestion among three alternatives.

Before Reclassification of Segments			
	No Project	**3B With La Media Rd.**	**3B Without La Media Rd.**
Total Segments	118	118	117
LOS E	13	4	9
LOS F	46	37	32
Total (E+F)	**59**	**41**	**41**

After Reclassification of Segments			
	No Project	**3B With La Media Rd.**	**3B Without La Media Rd.**
LOS E	12	5	5
LOS F	26	21	19
Total (E+F)	**38**	**26**	**24**

The 3B With and Without La Media Road scenarios would be less congested overall compared to the No Project scenario when considering roadway segment levels of service at E and F. After reclassification of roadway segments, the No Project scenario would have 12 more segments at levels of service "E" and "F" than scenario 3B With La Media Road and 14 more segments than 3B Without La Media Road.

The No Project scenario would generate more average daily vehicle trips due to higher intensity, non-residential, industrial type uses than the 3B scenario. All three scenarios would have reduced levels of congestion if new development was assumed at lower average floor area ratios than were used to develop the land use intensity inputs for the Otay Mesa Community Plan Update traffic forecasts that were the basis for the evaluation of these land use scenarios.

Other methods to attempt to reduce roadway congestion are outlined in the City of San Diego General Plan Mobility Element Transportation Demand Management (TDM) section. As described in that section, TDM is a general term for strategies that assist in reducing the demand for single-occupant vehicle travel to increase the efficiency of existing transportation resources. Transportation Demand Strategies are primarily directed at weekday commuters and are structured to:

- Reduce single-occupant vehicle trips by encouraging alternative modes of travel such as carpooling, vanpooling, transit use, bicycling, and walking.

- Support the use of alternative modes of travel by encouraging on-site amenities, programs, and incentives such as the use of car sharing vehicles, bicycle lockers, food and child care services, guaranteed ride home programs, and commuter benefits for commercial and industrial uses.

- Alter the timing of travel to less congested time periods, through strategies such as alternative work schedules; or

- Reduce the number of commute trips through strategies such as telework, and alternative work schedules.

In order to reduce community wide roadway segment congestion it is recommended that the Otay Mesa Community Plan encourage the practice of Transportation Demand Management as development occurs.

The updated Otay Mesa Community Plan will provide for transit use, bicycle use, and pedestrian activity through the establishment of transit bus stops, bicycle routes and lanes, and appropriate pedestrian linkages.

8.2 Freeway Segment Levels of Service

The table below shows a comparison of freeway segment levels of service. A review of this table indicates that the 3B With La Media Road scenario is preferable based on levels of service E, F0, F1, F2, and F3.

	No Project	3B With La Media Rd.	3B Without La Media Rd.
LOS E	-	1	-
LOS F0	3	3	4
LOS F1	1	1	1
LOS F2	1	1	1
LOS F3	2	1	1
Total	**7**	**7**	**7**

The No Project scenario would have two segments at level of service "F3" indicating extremely severe congestion and delay, while the 3B scenario would only have one segment at level of service "F3". The 3B With La Media Road scenario would have one segment at level of service "E", while the other two scenarios would have none. Overall, the intensity and duration of delays would be less with the 3B With La Media Road scenario. The No Project scenario has a higher intensity land use generating more vehicle trips. The 3B Without La Media Road scenario, although at the same land use intensity as the 3B With La Media Road scenario, has one less connection to and from outside the Otay Mesa Community, the deletion of La Media Road north of Lone Star Road, so that traffic is diverted to other freeway segments.

The Adopted SANDAG 2050 Regional Transportation Plan includes two managed lanes on I-805 in each direction north of SR-905. The addition of these lanes would improve levels of service between SR-905 and Palm Avenue to level of service "D" for all three scenarios. The segment between Palm Avenue and Main Street would improve to level of service "D" for both of the 3B scenarios and to "E" for the No Project scenario. These added managed lanes should be considered partial mitigation for regional cumulative traffic impacts.

The implementation of Transportation Demand Management Plans for large development projects would also reduce, but not mitigate for, regional cumulative freeway impacts.

State Route 905 traffic impacts would be significant and unmitigated for all three scenarios. State Route 905 has been designed so that median High Occupancy Vehicle lanes could be installed in the future, but are not currently planned or funded by Caltrans. The addition of HOV lanes would provide partial mitigation for local and regional cumulative impacts but would not provide acceptable levels of service on segments of SR-905 projected to be at level of service "F", so that SR-905 traffic impacts would remain significant and unmitigated. The City of San Diego requested that HOV lanes on SR-905 be added to the Regional Transportation Plan as part of comments on the Draft 2050 RTP DEIR. The Unconstructed Network in the 2050 RTP includes 8 freeway lanes on SR-905.

8.3 Intersection Levels of Service

The table below shows a comparison of intersection levels of service among the three scenarios, before and after mitigation, with a tabulation at level of service "E" or "F"

	No Project (53 Total)		3B With La Media Rd. (53 Total)		3B Without La MediaRd. (52 Total)	
	AM	PM	AM	PM	AM	PM
LOS E, F Before Mitigation	46	48	40	43	42	44
LOS E, F After Mitigation	35	37	27	29	28	29

Without mitigation, the No Project alternatives would have 46 intersections operating unacceptably at LOS E or F during the AM peak hour, compared to 40 intersections operating unacceptably for the 3B With La Media Road, and 42 for the 3B Without La Media Road alternatives. During the PM peak hour the No Project alternative would have unacceptable intersection operations at 48 locations, compared to 43 locations for the 3B With La Media Road, and 44 for the Without La Media Road alternatives.

With mitigation recommended in this report, the No Project alternative would have 35 intersections operating unacceptably at LOS E or F during the AM peak hour, compared to 27 intersections for the 3B With La Media Road, and 28 for the 3B Without La Media Road alternatives. During the PM peak hour, the No Project alternative would have 37 intersections operating unacceptably compared to 29 intersections for the 3B With La Media Road alternative, and 29 intersections for the 3B Without La Media Road alternative, which has one less intersection.

High peak hour volumes at intersections are due to the combined peak hour characteristics of manufacturing, industrial park, business park, and office uses. The City of San Diego Trip Generation Manual (Table 1) includes peak hour factors that are used to convert average daily traffic volumes to peak hour volumes for different types of uses. That table shows that the predominant type of uses assumed in the Otay Mesa Community Plan have high peak hour percentages of average daily traffic, ranging from 12% for business park uses to 20% for manufacturing uses.

In addition, the directional peak hour inbound to outbound traffic ratio for peak hours is strong in one direction for these types of uses. Typically, for these uses, AM peak hour inbound traffic flows are 90% to 80% of the total peak hour traffic, while outbound traffic flows are typically 80% of the total PM peak hour traffic.

Since the central and eastern community is planned for primarily employment uses rather than residential uses, traffic volumes into and out of the community during peak hours are high in one direction rather than more balanced as they might be in a mixed use residential / employment type of setting, resulting in high peak hour intersection volumes.

Also contributing to high directional peak hour traffic flow is the influence of the County of San Diego East County Specific Plan, which has land use assumptions that are typically commercial and industrial types of uses with very little residential development planned.

The peak hour flows evaluated in this report are to be considered traffic "demand" volumes, based on the Trip Generation Manual peak hour characteristics for these types of uses, and the high intensity of the land uses assumed in the traffic model. These volumes may not materialize due to capacity constraints of the regional transportation facilities, but the mitigation recommendations in the report are unlikely to change considerably if peak hour volumes are tempered by regional peak spreading.

Although mitigation would probably not change with the spreading out of peak hour volumes, intersection delay could be reduced. The Otay Mesa Community Plan should encourage or require the preparation of a TDM plan for large projects during the development review process, as an effort to incrementally reduce peak hour traffic flows.

8.4 Overall Comparison

The higher land use intensities of the No Project scenario results in more unacceptable intersection levels of service, and subsequently more congestion and delay, than both of the 3B scenarios. The 3B scenarios have the same land use assumptions, but the 3B Without La Media Road scenario has more of a detrimental impact since traffic diverted from the deleted segment of La Media Road would divert to other roadway and freeway segment and incrementally increase peak hour traffic at some freeway interchanges and nearby intersections. However, the City of Chula Vista is preparing a General Plan amendment, anticipated in Spring 2012, that will delete the La Media Road bridge crossing the Otay River Valley from their General Plan, and has deleted this project from their facilities financing plan. Therefore, the "With La Media Road" connection to Chula Vista is no longer a viable alternative.

8.5 Ramp Meter Operations

Regional SANTEC / ITE Traffic Impact Study Guidelines state that levels of service does not apply to ramp meters, but that ramp meter delays above 15 minutes are considered excessive. The likely most restrictive ramp meter rate as provided by Caltrans was used for ramp meter evaluation for comparison of the three scenarios. Ramp meters were assumed at the on-ramps for the eight freeway interchanges within the study area.

Both ramp meter delay and estimated queues were tabulated. The high peak hour volume demand at freeway on-ramps evaluated in this report produce long delays and, in most cases, unrealistic ramp queue lengths. However, the guidelines include the following caution:

"Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths if available or alternative times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern on arriving at ramp meters. First, the peak period is spread out with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp with shorter queues, [if available], use another freeway, or stay on surface streets."

Accommodating ramp meter queues involves approach lane striping to appropriately store queued vehicles within the existing roadways. There are currently no on-ramp meters at the study area interchanges, so that appropriate measures to accommodate ramp meter queues should be applied during ramp meter design.

For purposes of evaluating the alternatives, the summary below shows a comparison of ramp meter delays and queues exceeding the available storage that were estimated in this report. Queue lengths are a total length of estimated queues made up of vehicles approaching the on-ramp from two directions.

ON-RAMP METER DELAYS AND QUEUES						
	No Project		3B With La Media Rd.		3B Without La MediaRd.	
	AM (1)	PM (1)	AM (1)	PM (1)	AM (1)	PM (1)
Delay Above 15 Minutes	6	11	5	11	5	11
(2) Exceed Ramp Storage	6	11	7	11	7	11

Note:
(1) A Toal of 14 On-Ramps Evaluated
Queue lengths exceeding ramp storage length.

The No Project alternative has 17 AM and PM delays above 15 minutes, while the other two alternatives are the same with 16 peak hour delays above 15 minutes. Of the 28 queues evaluated, the No Project scenario would have one less queue exceeding the ramp storage length, a total of 17 AM and PM queues out of 28 evaluated, compared to 18 for the 3B scenarios.

All three scenarios would benefit from efforts to lower peak hour volumes by implementation of Transportation Demand Management Plans, which are recommended to be encouraged or required of large projects during the development review process.

8.6 Freeway Interchange Queue Analysis

A queue analysis was prepared at the eight freeway interchanges within the study area. Vehicle queues within the interchange between ramp intersections and between ramps and adjacent surface street intersections were estimated. The Highway Capacity Manual intersection level of service analysis computer software includes a back-of-queue worksheet for the approaches to the evaluated intersection, and was used for the queue length estimates in this report. There are no intersection queue length performance criteria within the Regional SANTEC / ITE Traffic Impact Study Guidelines. This queue analysis was provided to primarily evaluate whether interchanges could accommodate the projected peak hour traffic volumes and then to compare the three scenarios evaluated in this report.

Queue lengths estimated at locations with high amounts of delay are unreliable since queue estimation is a complex issue and can not be accurately determined by the current software.

Mitigation for lengthy interchange queues should be limited to restriping for maximum turn lane lengths, possibly extending through adjacent upstream intersections, and by adding separate right turn lanes at the approaches to on-ramps when feasible.

The tabulation below shows queue lengths exceeding the storage available between intersections for each alternative, without and with intersection mitigation at certain locations. The mitigation assumed was that previously identified to improve intersection levels of service as determined for each scenario and is not meant specifically for queue length mitigation, although in some cases additional lanes at on-ramp approaches improves levels of service based on delay and, subsequently, shortens some queues.

As shown in this table:

QUEUES EXCEEDING AVAILABLE STORAGE						
	No Project		3B With La Media Rd.		3B Without La MediaRd.	
	AM	PM	AM	PM	AM	PM
Without Mitigation	46 (83)	46 (83)	41 (82)	38 (82)	40 (79)	40 (79)
With Mitigation	41 (96)	35 (96)	37 (94)	32 (94)	34 (94)	29 (94)

Note:
(xx) = Number of Queues Evaluated for Each Scenario

- The No Project scenario would have 92 AM and PM total queues exceeding the available storage between intersections out of 166 evaluated without mitigation, and 76 AM and PM total queues out of 192 evaluated with mitigation. More queues were evaluated with mitigation since in many cases right turn only lanes were added.

- The 3B With La Media Road scenario would have 79 AM and PM total queues exceeding the available storage between intersections out of 164 evaluated without mitigation, and 69 AM and PM total queues out of 188 evaluated with mitigation.

- The 3B Without La Media Road scenario would have 80 AM and PM total queues exceeding the available storage between intersections out of 158 evaluated without mitigation, and 63 AM and PM total queues out of 188 evaluated with mitigation.

The following summarizes the number of queues exceeding the available storage, with intersection mitigations for each scenario:

- No Project (78 queues);
- 3B With La Media Road (69 total queues);
- 3B Without La Media Road (63 total queues).

The implementation of Transportation Demand Management Plans for development projects could potentially reduce peak hour volumes incrementally and subsequently reduce queue lengths at freeway interchanges.

9.0 REFERENCES

1. San Diego Region Traffic Engineer's Council (SANTEC) and Institute of Transportation Engineers (ITE), California Border Section,

- Guidelines for Traffic Impact Studies (TIS) In The San Diego Regions, March 2, 2000 Final Draft

2. Transportation Research Board:

- 1997 Highway Capacity Manual Special Report, Washington, DC (2000 Update)

3. San Diego Association of Governments (SANDAG):

- 2030 Regional Transportation Plan, November 2007
- Draft 2050 Regional Transportation Plan, June 2011

4. City of San Diego:

- Traffic Impact Study Manual, July 1998
- City of San Diego General Plan, Mobility Element, March 2008
- Trip Generation Manual, Revised May 2003
- Street Design Manual 2002
- CEQA Significance Determination Thresholds, January 2011

10.0 URBAN SYSTEMS ASSOCIATES, INC. PREPARERS

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APPENDIX I

SANDAG 2050 REGIONAL TRANSPORTATION PLAN (APPENDIX A)

Appendix A

2050 RTP Projects, Costs, and Phasing

Appendix Contents

2050 RTP Projects, Costs, and Phasing.....A-2

2050 RTP Projects, Costs, and Phasing

This appendix includes information for both the Revenue Constrained Plan and Unconstrained Needs scenario. Detailed highway and transit listings, cost estimates, and phasing are included for the Revenue Constrained Plan. For the Unconstrained Revenue scenario, detailed highway and transit listings and cost estimates are provided. In addition to the projects, costs, and phasing, level of service (LOS) and average daily traffic (ADT) data is included.

Figures A.1 and A.2 depict the 2050 Revenue Constrained transit and highway improvements, respectively. Tables A.1 and A.2 list the capital improvements in the 2050 Revenue Constrained Plan in 2010 and year of expenditure (YOE) dollars, respectively. Tables A.3 and A.4 include highway project phasing with costs shown in 2010 and YOE dollars, respectively. Table A.5 includes transit services phasing and headways for the Revenue Constrained Plan. Tables A.6 and A.7 list major transit expenditures in 2010 and YOE dollars, respectively. Table A.8 lists the phased arterial improvements. In addition to the 2050 Revenue Constrained highway and transit improvements, Figures A.3 through A.6 depict the 2020 and 2035 transit and highway improvements, respectively.

Figure A.7 illustrate the high frequency transit routes in 2035. Figures A.8 and A.9, depict the transit and highway improvements in the 2050 Unconstrained Network, respectively. The 2050 Unconstrained Network is summarized in Tables A.9 through A.11. Table A.9 lists the major capital improvements included in the Unconstrained Network. Tables A.10 and A.11 summarize the differences between the Revenue Constrained and the Unconstrained Networks (transit and highway projects).

Table A.12 lists the projects assumed in the 2050 No Build Scenario.

Figures A.10 and A.11 depict the LOS and ADT volumes for 2008 and for 2050, respectively.

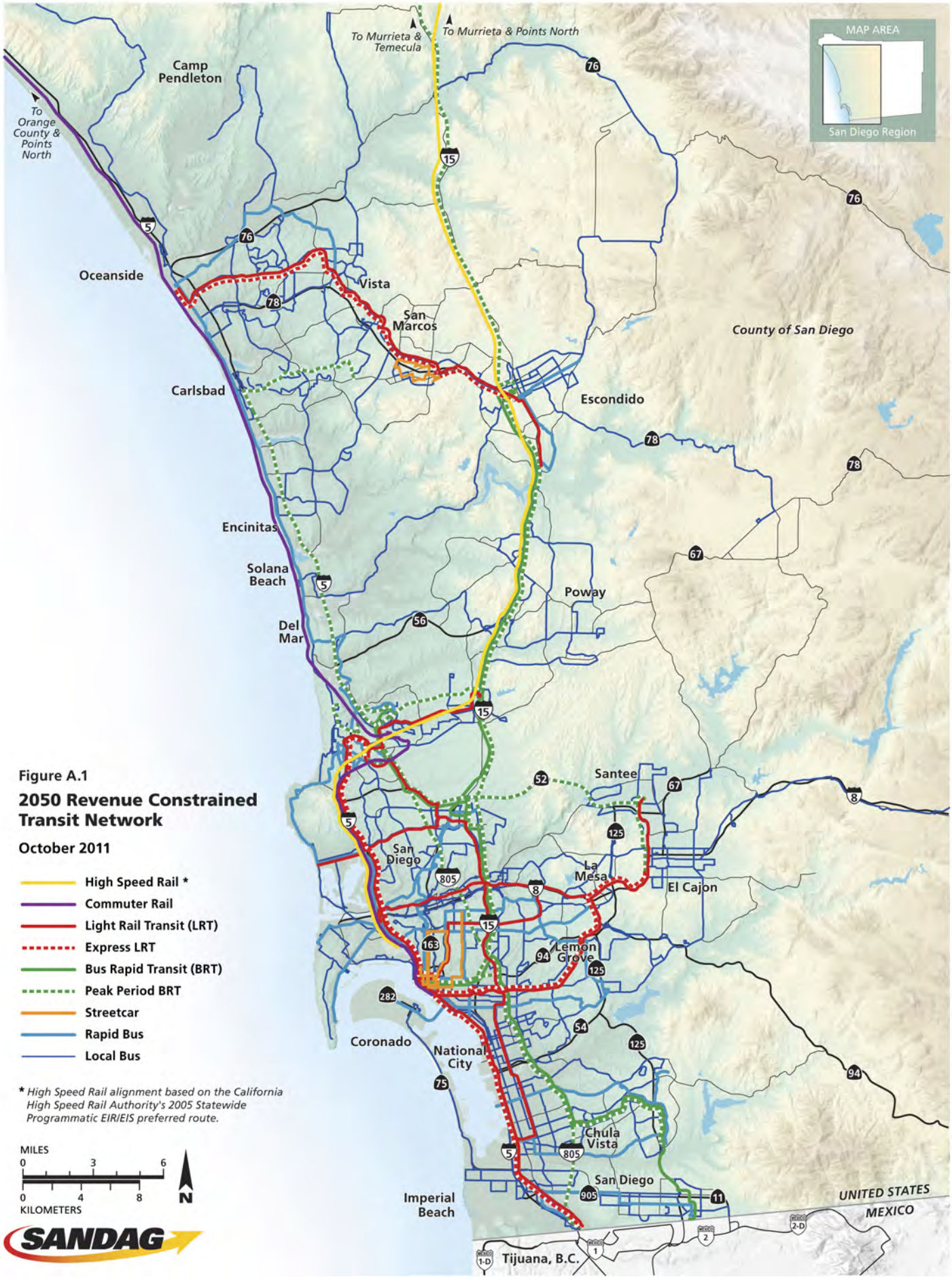

Figure A.1

2050 Revenue Constrained Transit Network

October 2011

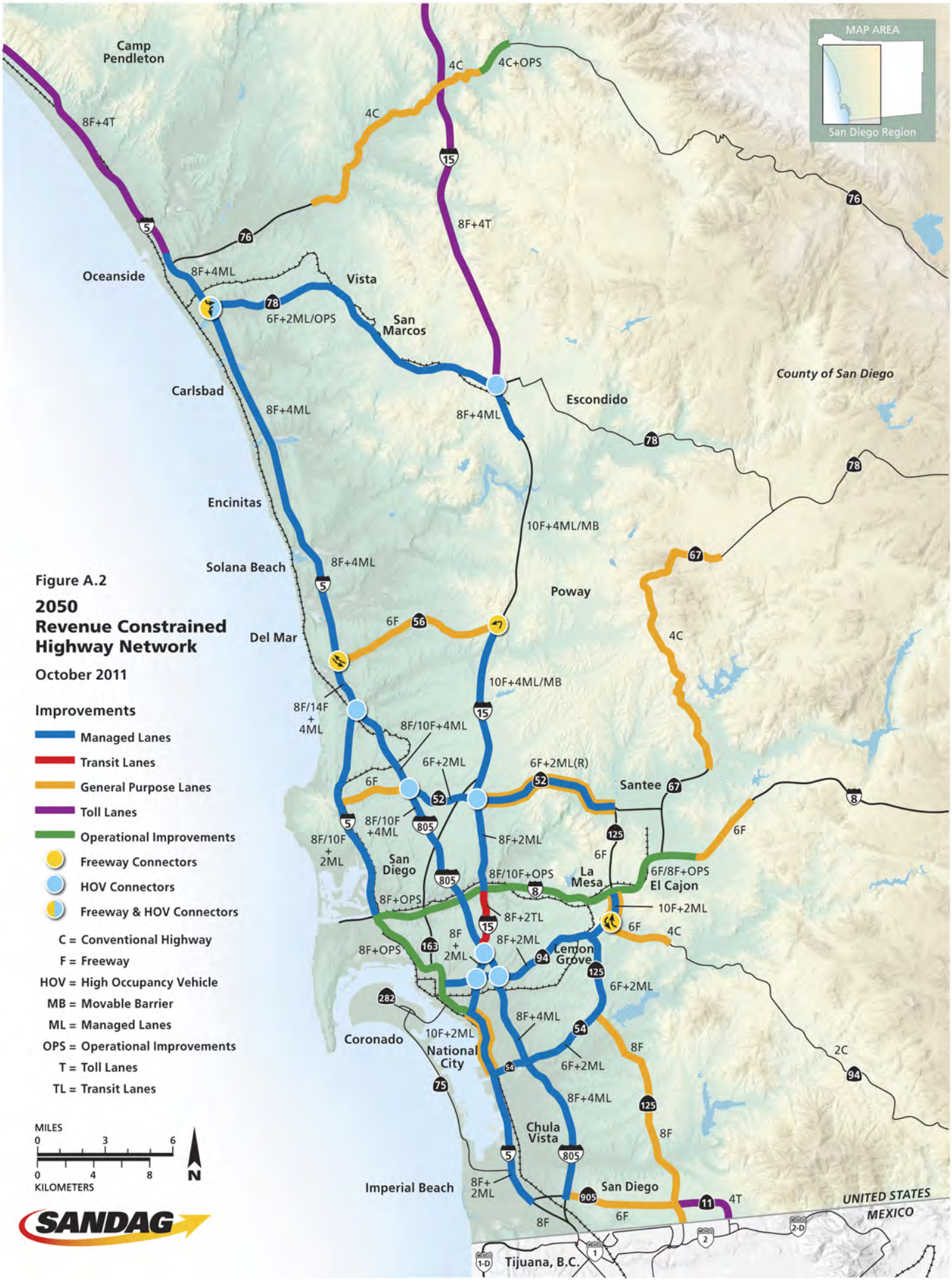
Figure A.2
2050
Revenue Constrained
Highway Network
October 2011
Improvements
Managed Lanes
Transit Lanes
General Purpose Lanes
Toll Lanes
Operational Improvements
Freeway Connectors
HOV Connectors
Freeway & HOV Connectors
C = Conventional Highway
F = Freeway
HOV = High Occupancy Vehicle
MB = Movable Barrier
ML = Managed Lanes
OPS = Operational Improvements
T = Toll Lanes
TL = Transit Lanes
MILES
0 3 6
0 4 8
KILOMETERS
N
SANDAG
MAP AREA
San Diego Region
Camp Pendleton
Oceanside
Vista
San Marcos
Carlsbad
Escondido
County of San Diego
Encinitas
Solana Beach
Poway
Del Mar
Santee
San Diego
La Mesa
El Cajon
Lemon Grove
Coronado
National City
Chula Vista
Imperial Beach
Tijuana, B.C.
UNITED STATES
MEXICO
8F+4T
4C
4C+OPS
8F+4ML
6F+2ML/OPS
10F+4ML/MB
6F
8F/14F + 4ML
8F/10F+4ML
6F+2ML
6F+2ML(R)
8F/10F +4ML
8F/10F + 2ML
8F+2ML
8F/10F+OPS
6F/8F+OPS
10F+2ML
8F+OPS
8F+2TL
8F + 2ML
6F+2ML
8F+4ML
8F
2C
4T

Table A.1 – Capital Improvements – Revenue Constrained Plan ($ millions – 2010 dollars)

Transit Facilities			
Service	**Route**	**Description**	**Cost**
COASTER	398	Double tracking (includes grade separations at Leucadia Blvd and stations/platforms at Convention Center/Petco Park and Del Mar Fairgrounds, Del Mar Tunnel, and quiet zone improvements)	$2,617
SPRINTER	399	Double tracking (includes grade separations at El Camino Real, Vista Village Dr, Melrose Dr, Mission/San Marcos stations and two additional locations)	$970
SPRINTER	588	SPRINTER Express	$284
Trolley	510	Mid-Coast LRT Extension	$1,642
Trolley	510 and 520	Trolley System Rehabilitation (Blue and Orange Lines)	$510
Trolley	510	Blue Line Rail Grade Separations (Taylor St, Washington/ Sassafras St, 28th St, 32nd St, E St, H St, Palomar St)	$550
Trolley	520	Orange Line Rail Grade Separations (Euclid Ave, Broadway/ Lemon Grove Ave, Allison Ave/University Ave/La Mesa Blvd, Severin St)	$312
Trolley	522	Orange Line Express - El Cajon to downtown San Diego	$230
Trolley	540	Blue Line Express - UTC to San Ysidro via downtown	$455
Trolley	560	SDSU to downtown via Mid-City, El Cajon/Park Blvds	$1,921
Trolley	561	UTC to Mira Mesa via Sorrento Mesa/Carroll Canyon	$1,140
Trolley	562	UTC to San Ysidro via Kearny Mesa, Mission Valley, Mid-City, Southeastern San Diego, National City/Chula Vista via Highland Ave/4th Ave	$2,548
Trolley	563	Pacific Beach to El Cajon via Clairemont, Kearny Mesa, Mission Valley, SDSU	$1,262
Trolley	510, 520, 540, 522, and 560	Downtown Trolley Tunnel (12th & Imperial Transit Center to County Center/Little Italy Trolley Station)	$2,592
BRT	90	Santee/El Cajon Transit Centers to downtown via SR 94 (Peak Only)	$0
BRT	470	Escondido – UTC/UCSD via Mira Mesa Blvd	$ 20
BRT	610	Temecula (peak only)/Escondido to downtown	$ 89
BRT	628	South Bay BRT (Otay Mesa-Downtown) via Otay Ranch/Millenia	$200
BRT	640	I-5 - San Ysidro to downtown & Kearny Mesa via I-5 shoulder lanes/HOV lanes, downtown, Hillcrest, Mission Valley	$90
BRT	653	Mid-City to Palomar Airport Road via Kearny Mesa/I-805/I-5	$10
BRT	870	El Cajon to UTC via Santee, SR 52, I-805	$7
BRT	890	El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	$12
BRT	680 and 688/689	Otay Mesa/San Ysidro to Sorrento Mesa via I-805 Corridor, Otay Ranch/Millenia, National City, Southeastern San Diego, Mid-City, Kearny Mesa	$425
BRT	120, 610, and 640	Hillcrest to Mission Valley Transit Priority Measures and I-15 Green Line/BRT transfer station	$400
BRT	-	South Bay Maintenance Facility	$51
BRT	-	Downtown BRT stations/layovers	$110

Table A.1 – Capital Improvements – Revenue Constrained Plan ($ millions – 2010 dollars) (Continued)

Transit Facilities (Continued)			
Service	**Route**	**Description**	**Cost**
Rapid	2	North Park to downtown San Diego via 30th St, Golden Hill	$38
Rapid	10	La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town	$85
Rapid	11	Spring Valley to SDSU via Southeastern San Diego, downtown, Hillcrest, Mid-City	$110
Rapid	15	Mid-City Rapid (downtown to SDSU via Mid-City, El Cajon, and Park Blvds)	$68
Rapid	28	Point Loma to Kearny Mesa via Old Town, Linda Vista	$48
Rapid	30	Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC	$102
Rapid	120	Kearny Mesa to downtown via Mission Valley	$100
Rapid	471	Downtown Escondido to East Escondido	$31
Rapid	473	Oceanside to UTC via Hwy 101 Coastal Communities, Carmel Valley	$127
Rapid	474	Oceanside to Vista via Mission Ave/Santa Fe Road Corridor	$49
Rapid	635	Eastlake/EUC to Palomar Trolley via Main Street Corridor	$54
Rapid	636	SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline	$39
Rapid	637	North Park to 32nd Street Trolley via Golden Hill	$32
Rapid	638	San Ysidro to Otay Mesa via Otay, SR 905 Corridor	$53
Rapid	709	H Street Trolley to Otay Ranch/Millenia via H Street Corridor, Southwestern College	$36
Rapid	910	Coronado to downtown via Coronado Bridge	$25
Streetcar	553	Downtown San Diego: Little Italy to East Village	$277
Streetcar	554	Hillcrest/Balboa Park/downtown San Diego Loop	$249
Streetcar	555	30th St to downtown San Diego via North Park, Golden Hill	$135
Shuttle	448/449	San Marcos Shuttle[1]	$0
Airport Express		Airport Express Routes[2]	$51
Intermodal	-	Airport Intermodal Transit Center	$165
Intermodal	-	San Ysidro Intermodal Transit Center	$50
Other	-	Other Improvements (Vehicles/vehicle replacement, maintenance facilities, transit system rehab, regulatory compliance, park and ride, ITS)	$6,824
		Subtotal	$27,195

[1] Capital cost to be funded by the City of San Marcos

[2] Capital cost to be funded by aviation funds

Table A.1 – Capital Improvements – Revenue Constrained Plan ($ millions – 2010 dollars) (Continued)

Managed Lanes/Highway Projects					
Freeway	**From**	**To**	**Existing**	**Improvements**	**Cost**
I-5	SR 905	SR 54	8F	8F+2ML	$295
I-5	SR 54	SR 15	8F	10F+2ML	$165
I-5	SR 15	I-8	8F	8F+Operational	$1,130
I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML	$530
I-5	La Jolla Village Dr	I-5/I-805 Merge	8F/14F	8F/14F+2ML	$250
I-5	I-5/I-805 Merge	SR 56	8F/14F+2HOV	8F/14F+4ML	$50
I-5	SR 56	Vandegrift Blvd	8F/8F+2HOV	8F+4ML	$3,100
I-5	Vandegrift Blvd	Orange County	8F	8F+4T	$754
I-8	I-5	SR 125	8F/10F	8F/10F+Operational	$565
I-8	SR 125	2nd Street	6F/8F	6F/8F+Operational	$125
I-8	2nd Street	Los Coches	4F/6F	6F	$54
SR 11/Otay Mesa East Port of Entry (POE)	SR 905	Mexico	--	4T & POE	$755
SR 15	I-5	SR 94	6F	8F+2ML	$90
SR 15	SR 94	I-805	8F	8F+2ML	$20
SR 15	I-805	I-8	8F	8F+2TL	$45
I-15	I-8	SR 163	8F	8F+2ML	$850
I-15	SR 163	SR 56	8F+2ML(R)	10F+4ML/MB	$419
I-15	Centre City Parkway	SR 78	8F	8F+4ML	$210
I-15	SR 78	Riverside County	8F	8F+4T	$1,005
SR 52	I-5	I-805	4F	6F	$110
SR 52	I-805	I-15	6F	6F+2ML	$223
SR 52	I-15	SR 125	4F	6F+2ML(R)	$325
SR 54	I-5	SR 125	6F	6F+2ML	$100
SR 56	I-5	I-15	4F	6F	$135
SR 67	Mapleview St	Dye Rd	2C/4C	4C	$570
SR 76	Melrose Drive	I-15	2C	4C	$404
SR 76	I-15	Couser Canyon	2C	4C/6C+Operational	$130
SR 78	I-5	I-15	6F	6F+2ML/Operational	$570
SR 94	I-5	SR 125	8F	8F+2ML	$930
SR 94	SR 125	Avocado Blvd	4F	6F	$90
SR 94	Avocado Blvd	Jamacha Rd	4C	6C	$30
SR 94	Jamacha Rd	Steele Canyon Rd	2C/4C	4C	$20

Table A.1 – Capital Improvements – Revenue Constrained Plan ($ millions – 2010 dollars) (Continued)

Managed Lanes/Highway Projects (Continued)					
Freeway	**From**	**To**	**Existing**	**Improvements**	**Cost**
SR 125	SR 905	San Miguel Rd	4T	8F	$110
SR 125	San Miguel Rd	SR 54	4F	8F	$60
SR 125	SR 54	SR 94	6F	6F+2ML	$100
SR 125	SR 94	I-8	8F	10F+2ML	$285
SR 241	Orange County	I-5	--	4T/6T	$501
I-805	SR 905	Carroll Canyon Rd	8F/10F	8F/10F+4ML	$3,781
I-805	Carroll Canyon Rd	I-5 (north)	8F/10F	8F/10F+2ML	$87
SR 905	I-805	Mexico	--	6F	$595
				Subtotal	$19,568

HOV Connectors			
Freeway	**Intersecting Freeway**	**Movement**	**Cost**
I-5	SR 78	South to East and West to North, North to East and West to South	$240
I-5	I-805	North to North & South to South	$110
I-15	SR 52	West to North and South to East	$140
I-15	SR 78	East to South & North to West	$105
SR 15	SR 94	South to West & East to North	$80
SR 15	I-805	North to North & South to South	$90
I-805	SR 52	West to North & South to East	$90
I-805	SR 94	North to West & East to South	$160
		Subtotal	$1,015

Freeway Connectors			
Freeway	**Intersecting Freeway**	**Movement**	**Cost**
I-5	SR 56	West to North and South to East	$185
I-5	SR 78	South to East and West to South	$106
I-15	SR 56	North to West	$100
SR 94	SR 125	South to East and West to North	$319
		Subtotal	$710

Table A.1 – Capital Improvements – Revenue Constrained Plan ($ millions – 2010 dollars) (Continued)

Non-Highway Goods Movement Projects		
		Cost
Vesta Street Bridge	Mobility Connector over Harbor Drive at Naval Base San Diego	$60
32nd Street	Freeway Access Enhancement	$119
10th Avenue Marine Terminal Entrance	Rail Line Grade Separation/Barrio Logan Enhancement	$67
National City Marine Terminal	Bay Marina Drive, Civic Center Freeway Access Improvements	$7
National City Rail Yard		$7
	Subtotal	$260
	Total	**$48,748**

Key

C = Conventional Highway Lanes	MB = Movable barrier	T = Toll Lanes
F = Freeway Lanes	ML = Managed lanes (HOV & Value Pricing)	TL = Transit Lanes
HOV = High Occupancy Vehicle Lanes	ML(R) = Managed lanes (Reversible)	

Note: All HOV lanes would convert to Managed Lanes by 2035 with an HOV occupancy of 3+ people.

Table A.2 – Capital Improvements – Revenue Constrained Plan ($ millions – YOE dollars)

Transit Facilities			
Service	**Route**	**Description**	**Cost**
COASTER	398	Double tracking (includes grade separations at Leucadia Blvd, stations/platforms at Convention Center/Petco Park and Del Mar Fairgrounds, Del Mar Tunnel, and quiet zone improvements)	$4,979
SPRINTER	399	Double tracking (includes grade separations at El Camino Real, Vista Village Dr, Melrose Dr, Mission/San Marcos stations and two additional locations)	$1,149
SPRINTER	588	SPRINTER Express	$334
Trolley	510	Mid-Coast LRT Extension	$1,642
Trolley	510 and 520	Trolley System Rehabilitation (Blue and Orange Lines)	$456
Trolley	510	Blue Line Rail Grade Separations (Taylor St, Washington/Sassafras St, 28th St, 32nd St, E St, H St, Palomar St)	$861
Trolley	520	Orange Line Rail Grade Separations (Euclid Ave, Broadway/Lemon Grove Ave, Allison Ave/University Ave/La Mesa Blvd, Severin St)	$491
Trolley	522	Orange Line Express - El Cajon to downtown San Diego	$415
Trolley	540	Blue Line Express - UTC to San Ysidro via downtown	$822
Trolley	560	SDSU to downtown via Mid-City, El Cajon/Park Blvds	$4,009
Trolley	561	UTC to Mira Mesa via Sorrento Mesa/Carroll Canyon	$1,556
Trolley	562	UTC to San Ysidro via Kearny Mesa, Mission Valley, Mid-City, Southeastern San Diego, National City/Chula Vista via Highland Ave/4th Ave	$6,043
Trolley	563	Pacific Beach to El Cajon via Clairemont, Kearny Mesa, Mission Valley, SDSU	$1,978
Trolley	510, 520, 540, 522, and 560	Downtown Trolley Tunnel (12th & Imperial Transit Center to County Center/Little Italy Trolley Station)	$4,293
BRT	90	Santee/El Cajon Transit Centers to downtown via SR 94 (Peak Only)	$0
BRT	470	Escondido – UTC/UCSD via Mira Mesa Blvd	$18
BRT	610	Temecula (peak only)/Escondido to downtown	$80
BRT	628	South Bay BRT (Otay Mesa – downtown) via Otay Ranch/Millenia	$181
BRT	640	I-5 - San Ysidro to downtown & Kearny Mesa via I-5 shoulder lanes/HOV lanes, downtown, Hillcrest, Mission Valley	$86
BRT	653	Mid-City to Palomar Airport Road via Kearny Mesa/I-805/I-5	$16
BRT	870	El Cajon to UTC via Santee, SR 52, I-805	$7
BRT	890	El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	$17
BRT	680 and 688/689	Otay Mesa/San Ysidro to Sorrento Mesa via I-805 Corridor, Otay Ranch/Millenia, National City, Southeastern San Diego, Mid-City, Kearny Mesa	$441
BRT	120, 610, and 640	Hillcrest to Mission Valley Transit Priority Measures and I-15 Green Line/BRT transfer station	$518
BRT	-	South Bay Maintenance Facility	$45
BRT	-	Downtown BRT stations/layovers	$97

Table A.2 – Capital Improvements – Revenue Constrained Plan ($ millions – YOE dollars) (Continued)

Transit Facilities (Continued)			
Service	**Route**	**Description**	**Cost**
Rapid	2	North Park to downtown San Diego via 30th St, Golden Hill	$43
Rapid	10	La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town	$90
Rapid	11	Spring Valley to SDSU via Southeastern San Diego, downtown, Hillcrest, Mid-City	$157
Rapid	15	Mid-City Rapid (downtown to SDSU via Mid-City, El Cajon, and Park Blvds)	$63
Rapid	28	Point Loma to Kearny Mesa via Old Town, Linda Vista	$61
Rapid	30	Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC	$142
Rapid	120	Kearny Mesa to downtown via Mission Valley	$131
Rapid	471	Downtown Escondido to East Escondido	$48
Rapid	473	Oceanside to UTC via Hwy 101 Coastal Communities, Carmel Valley	$176
Rapid	474	Oceanside to Vista via Mission Ave/Santa Fe Road Corridor	$76
Rapid	635	Eastlake/EUC to Palomar Trolley via Main Street Corridor	$81
Rapid	636	SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline	$57
Rapid	637	North Park to 32nd Street Trolley via Golden Hill	$48
Rapid	638	San Ysidro to Otay Mesa via Otay, SR 905 Corridor	$84
Rapid	709	H Street Trolley to Otay Ranch/Millenia via H Street Corridor, Southwestern College	$39
Rapid	910	Coronado to downtown via Coronado Bridge	$29
Streetcar	553	Downtown San Diego: Little Italy to East Village	$187
Streetcar	554	Hillcrest/Balboa Park/downtown San Diego Loop	$284
Streetcar	555	30th St to downtown San Diego via North Park, Golden Hill	$397
Shuttle	448/449	San Marcos Shuttle[1]	$0
Airport Express		Airport Express Routes[2]	$55
Intermodal	-	Airport Intermodal Transit Center	$171
Intermodal	-	San Ysidro Intermodal Transit Center	$52
Other	-	Other Improvements (Vehicles/vehicle replacement, maintenance facilities, transit system rehab, regulatory compliance, park and ride, ITS)	$10,022
		Subtotal	$43,027

[1] Capital cost to be funded by the City of San Marcos

[2] Capital cost to be funded by aviation funds.

Table A.2 – Capital Improvements – Revenue Constrained Plan ($ millions – YOE dollars) (Continued)

Managed Lanes/Highway Projects					
Freeway	**From**	**To**	**Existing**	**Improvements**	**Cost**
I-5	SR 905	SR 54	8F	8F+2ML	$500
I-5	SR 54	SR 15	8F	10F+2ML	$393
I-5	SR 15	I-8	8F	8F+Operational	$2,689
I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML	$1,261
I-5	La Jolla Village Dr	I-5/I-805 Merge	8F/14F	8F/14F+2ML	$260
I-5	I-5/I-805 Merge	SR 56	8F/14F+2HOV	8F/14F+4ML	$68
I-5	SR 56	Vandegrift Blvd	8F/8F+2HOV	8F+4ML	$4,286
I-5	Vandegrift Blvd	Orange County	8F	8F+4T	$1,795
I-8	I-5	SR 125	8F/10F	8F/10F+Operational	$1,273
I-8	SR 125	2nd Street	6F/8F	6F/8F+Operational	$226
I-8	2nd Street	Los Coches	4F/6F	6F	$129
SR 11/Otay Mesa East Port of Entry (POE)	SR 905	Mexico	--	4T & POE	$755
SR 15	I-5	SR 94	6F	8F+2ML	$214
SR 15	SR 94	I-805	8F	8F+2ML	$31
SR 15	I-805	I-8	8F	8F+2TL	$47
I-15	I-8	SR 163	8F	8F+2ML	$1,849
I-15	SR 163	SR 56	8F+2ML(R)	10F+4ML/MB	$419
I-15	Centre City Parkway	SR 78	8F	8F+4ML	$210
I-15	SR 78	Riverside County	8F	8F+4T	$2,392
SR 52	I-5	I-805	4F	6F	$262
SR 52	I-805	I-15	6F	6F+2ML	$314
SR 52	I-15	SR 125	4F	6F+2ML(R)	$587
SR 54	I-5	SR 125	6F	6F+2ML	$238
SR 56	I-5	I-15	4F	6F	$244
SR 67	Mapleview St	Dye Rd	2C/4C	4C	$781

Table A.2 – Capital Improvements – Revenue Constrained Plan ($ millions – YOE dollars) (Continued)

Managed Lanes/Highway Projects (Continued)					
Freeway	**From**	**To**	**Existing**	**Improvements**	**Cost**
SR 76	Melrose Drive	I-15	2C	4C	$404
SR 76	I-15	Couser Canyon	2C	4C/6C+Operational	$235
SR 78	I-5	I-15	6F	6F+2ML/Operational	$592
SR 94	I-5	SR 125	8F	8F+2ML	$1,310
SR 94	SR 125	Avocado Blvd	4F	6F	$214
SR 94	Avocado Blvd	Jamacha Rd	4C	6C	$71
SR 94	Jamacha Rd	Steele Canyon Rd	2C/4C	4C	$48
SR 125	SR 905	San Miguel Rd	4T	8F	$262
SR 125	San Miguel Rd	SR 54	4F	8F	$143
SR 125	SR 54	SR 94	6F	6F+2ML	$238
SR 125	SR 94	I-8	8F	10F+2ML	$421
SR 241	Orange County	I-5	--	4T/6T	$522
I-805	SR 905	Carroll Canyon Rd	8F/10F	8F/10F+4ML	$4,764
I-805	Carroll Canyon Rd	I-5 (north)	8F/10F	8F/10F+2ML	$81
SR 905	I-805	Mexico	--	6F	$595
				Subtotal	$31,123

HOV Connectors			
Freeway	**Intersecting Freeway**	**Movement**	**Cost**
I-5	SR 78	South to East and West to North, North to East and West to South	$377
I-5	I-805	North to North & South to South	$114
I-15	SR 52	West to North and South to East	$260
I-15	SR 78	East to South & North to West	$109
SR 15	SR 94	South to West & East to North	$126
SR 15	I-805	North to North & South to South	$94
I-805	SR 52	West to North & South to East	$146
I-805	SR 94	North to West & East to South	$166
		Subtotal	$1,392

Table A.2 – Capital Improvements – Revenue Constrained Plan ($ millions – YOE dollars) (Continued)

Freeway Connectors			
Freeway	**Intersecting Freeway**	**Movement**	**Cost**
I-5	SR 56	West to North and South to East	$253
I-5	SR 78	South to East and West to South	$166
I-15	SR 56	North to West	$186
SR 94	SR 125	South to East and West to North	$391
		Subtotal	$996
Non-Highway Goods Movement Projects			
			Cost
Vesta Street Bridge		Mobility Connector over Harbor Drive at Naval Base San Diego	$59
32nd Street		Freeway Access Enhancement	$117
10th Avenue Marine Terminal Entrance		Rail Line Grade Separation/Barrio Logan Enhancement	$66
National City Marine Terminal		Bay Marina Drive, Civic Center Freeway Access Improvements	$7
National City Rail Yard			$7
		Subtotal	$256
		Total	**$76,794**

KEY

C = Conventional Highway Lanes
F = Freeway Lanes
HOV= High Occupancy Vehicle Lanes
MB = Movable barrier
ML = Managed lanes (HOV & Value Pricing)
ML(R) = Managed lanes (Reversible)
T= Toll Lanes
TL = Transit Lanes

Note: All HOV lanes would convert to Managed Lanes by 2035 with an HOV occupancy of 3+ people.

Table A.3 – Phased Highway Projects – Revenue Constrained Plan ($ millions – 2010 dollars)

Year Built By	Freeway	From	To	Existing	Improvements	($ Millions - 2010 Dollars) Cost	Cumulative Cost
2018	I-5	Manchester Ave	SR 78	8F	8F+2HOV	$480	$480
2018	SR 11/ Otay Mesa East POE	SR 905	Mexico	--	4T	$755	$1,235
2018	I-15	SR 163	SR 56	8F+2ML(R)	10F+4ML/MB	$419	$1,654
2018	I-15	Centre City Parkway	SR 78	8F	8F+4ML	$210	$1,864
2018	SR 76	Melrose Drive	I-15	2C	4C	$404	$2,268
2018	SR 241	Orange County	I-5	--	4T	$443	$2,711
2018	I-805	Palomar St	SR 94	8F	8F+2HOV	$200	$2,911
2018	I-805	SR 52	Carroll Canyon Rd	8F/10F	8F/10F+2HOV	$163	$3,074
2018	I-805	Carroll Canyon Rd	I-5 (north)	8F/10F	8F/10F+2ML	$87	$3,161
2018	SR 905	I-805	Mexico	--	6F	$595	$3,756
2018	Vesta Street Bridge		Mobility Connector over Harbor Drive at Naval Base San Diego			$60	$3,816
2018	32nd Street		Freeway Access Enhancement			$119	$3,935
2018	10th Avenue Marine Terminal Entrance		Rail Line Grade Separation/Barrio Logan Enhancement			$67	$4,002
2018	National City Marine Terminal		Bay Marina Drive, Civic Center Freeway Access Improvements			$7	$4,009
2020	I-5	La Jolla Village Drive	I-5/I-805 Merge	8F/14F	8F/14F+2ML	$250	$4,259
2020	I-5/I-805	North to North & South to South (HOV Connectors)				$110	$4,369
2020	SR 15	I-805	I-8	8F	8F+2TL	$45	$4,414
2020	I-15	I-8	SR 163	8F	8F+2ML	$130	$4,544
2020	SR 15/ I-805	North to North & South to South (HOV Connectors)				$90	$4,634
2020	I-15/SR 78	East to South & North to West (HOV Connectors)				$105	$4,739
2020	SR 78	I-5	I-15	6F	6F+2ML/Operational	$570	$5,309
2020	SR 94	I-5	I-805	8F	8F+2ML	$480	$5,789
2020	SR 94/ SR 125	South to East (Freeway Connector)				$139	$5,928
2020	I-805	Palomar St	SR 15	8F/8F+ 2HOV[1]	8F+4ML	$1,200	$7,128

Table A.3 – Phased Highway Projects – Revenue Constrained Plan ($ millions – 2010 dollars) (Continued)

Year Built By	Freeway	From	To	Existing	Improvements	($ Millions - 2010 Dollars) Cost	Cumulative Cost
2020	I-805/ SR 94	North to West & East to South (HOV Connectors)				$160	$7,288
2020	I-805	SR 52	Carroll Canyon Rd	8F/10F+ 2HOV	8F/10F+4ML	$391	$7,679
2020	National City Rail Yard					$7	$7,686
2030	I-5	Palomar St	SR 15	8F	8F+2ML	$200	$7,886
2030	I-5	I-5/I-805 Merge	SR 56	8F/14F+2HOV	8F/14F+4ML	$50	$7,936
2030	I-5	SR 56	Manchester Ave	8F+2HOV	8F+4ML	$500	$8,436
2030	I-5/SR 56	West to North (Freeway Connector)				$65	$8,501
2030	I-5/SR 56	South to East (Freeway Connector)				$120	$8,621
2030	I-5	Manchester Ave	Palomar Airport Rd	8F+2HOV[2]	8F+4ML	$950	$9,571
2030	SR 67	Mapleview St	Dye Rd	2C/4C	4C	$570	$10,141
2030	SR 94/ SR 125	West to North (Freeway Connector)				$180	$10,321
2030	SR 125	SR 94	I-8	8F	10F	$215	$10,536
2030	SR 241	Orange County	I-5	4T	6T	$58	$10,594
2030	I-805	SR 905	Palomar St	8F	8F+4ML	$350	$10,944
2030	I-805	SR 15	Mission Valley Viaduct	8F	8F+4ML	$230	$11,174
2030	I-805	Mission Valley Viaduct	SR 52	8F/10F	8F/10F+4ML	$637	$11,811
2035	I-5	Palomar Airport Rd	SR 78	8F+2HOV[2]	8F+4ML	$750	$12,561
2035	I-5	SR 78	Vandegrift Blvd	8F	8F+4ML	$420	$12,981
2035	I-5/SR 78	South to East and West to North (HOV Connectors)				$120	$13,101
2035	I-5/SR 78	North to East and West to South (HOV Connectors)				$120	$13,221
2035	I-5/SR 78	South to East (Freeway Connector)				$60	$13,281
2035	I-5/SR 78	West to South (Freeway Connector)				$46	$13,327
2035	SR 15	SR 94	I-805	8F	8F+2ML	$20	$13,347
2035	SR 15/ SR 94	South to West & East to North (HOV Connectors)				$80	$13,427
2035	SR 52	I-805	I-15	6F	6F+2ML	$223	$13,650

Table A.3 – Phased Highway Projects – Revenue Constrained Plan ($ millions – 2010 dollars) (Continued)

Year Built By	Freeway	From	To	Existing	Improvements	($ Millions - 2010 Dollars) Cost	Cumulative Cost
2040	I-8	I-15	SR 125	8F/10F	8F/10F+Operational	$125	$13,775
2040	I-8	SR 125	2nd Street	6F/8F	6F/8F+Operational	$125	$13,900
2040	SR 52	I-15	SR 125	4F	6F+2ML(R)	$325	$14,225
2040	SR 56	I-5	I-15	4F	6F	$135	$14,360
2040	SR 76	I-15	Couser Canyon	2C	4C/6C+Operational	$130	$14,490
2040	SR 94	I-805	College Ave	8F	8F+2ML	$220	$14,710
2040	SR 94	College Ave	SR 125	8F	8F+2ML	$230	$14,940
2040	SR 125	SR 94	I-8	10F	10F+2ML	$70	$15,010
2040	I-805	Mission Valley Viaduct		8F	8F+4ML	$610	$15,620
2040	I-805/ SR 52	West to North & South to East (HOV Connectors)				$90	$15,710
2050	I-5	SR 905	Palomar St	8F	8F+2ML	$95	$15,805
2050	I-5	SR 54	I-15	8F	10F+2ML	$165	$15,970
2050	I-5	I-15	I-8	8F	8F+Operational	$1,130	$17,100
2050	I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML	$530	$17,630
2050	I-5	Vandegrift Blvd	Orange County	8F	8F+4T	$754	$18,384
2050	I-8	I-5	I-15	8F	8F+Operational	$440	$18,824
2050	I-8	2nd Street	Los Coches	4F/6F	6F	$54	$18,878
2050	SR 15	I-5	SR 94	6F	8F+2ML	$90	$18,968
2050	I-15	Viaduct		8F	8F+2ML	$720	$19,688
2050	I-15	SR 78	Riverside County	8F	8F+4T	$1,005	$20,693
2050	I-15/SR 52	West to North and South to East (HOV Connectors)				$140	$20,833
2050	I-15/SR 56	North to West (Freeway Connector)				$100	$20,933
2050	SR 52	I-5	I-805	4F	6F	$110	$21,043
2050	SR 54	I-5	SR 125	6F	6F+2ML	$100	$21,143

Table A.3 – Phased Highway Projects – Revenue Constrained Plan ($ millions – 2010 dollars) (Continued)

Year Built By	Freeway	From	To	Existing	Improvements	($ Millions - 2010 Dollars) Cost	Cumulative Cost
2050	SR 94	SR 125	Avocado Blvd	4F	6F	$90	$21,233
2050	SR 94	Avocado Blvd	Jamacha Rd	4C	6C	$30	$21,263
2050	SR 94	Jamacha Rd	Steele Canyon Rd	2C/4C	4C	$20	$21,283
2050	SR 125	SR 905	San Miguel Rd	4T	8F	$110	$21,393
2050	SR 125	San Miguel Rd	SR 54	4F	8F	$60	$21,453
2050	SR 125	SR 54	SR 94	6F	6F+2ML	$100	$21,553

KEY

C = Conventional Highway Lanes

F = Freeway Lanes

HOV = High Occupancy Vehicle Lanes

MB = Movable barrier

ML = Managed lanes (HOV & Value Pricing)

ML(R) = Managed lanes (Reversible)

T = Toll Lanes

TL = Transit Lanes

[1] Project completed in two phases. See improvement from 8F to 8F+2HOV by 2018.

[2] Project completed in two phases. See improvement from 8F to 8F+2HOV by 2018.

Note: All HOV lanes would convert to Managed Lanes by 2035 with an HOV occupancy of 3+ people.

Table A.4 – Phased Highway Projects – Revenue Constrained Plan ($ millions – YOE dollars)

Year Built By	Freeway	From	To	Existing	Improvements	($ Millions - YOE Dollars) Cost	Cumulative Cost
2018	I-5	Manchester Ave	SR 78	8F	8F+2HOV	$460	$460
2018	SR 11/ Otay Mesa East POE	SR 905	Mexico	--	4T	$755	$1,215
2018	I-15	SR 163	SR 56	8F+2ML(R)	10F+4ML/MB	$419	$1,634
2018	I-15	Centre City Parkway	SR 78	8F	8F+4ML	$210	$1,844
2018	SR 76	Melrose Drive	I-15	2C	4C	$404	$2,248
2018	SR 241	Orange County	I-5	--	4T	$443	$2,691
2018	I-805	Palomar St	SR 94	8F	8F+2HOV	$197	$2,888
2018	I-805	SR 52	Carroll Canyon Rd	8F/10F	8F/10F+2HOV	$160	$3,048
2018	I-805	Carroll Canyon Rd	I-5 (north)	8F/10F	8F/10F+2ML	$81	$3,129
2018	SR 905	I-805	Mexico	--	6F	$595	$3,724
2018	Vesta Street Bridge		Mobility Connector over Harbor Drive at Naval Base San Diego			$59	$3,783
2018	32nd Street		Freeway Access Enhancement			$117	$3,900
2018	10th Avenue Marine Terminal Entrance		Rail Line Grade Separation/Barrio Logan Enhancement			$66	$3,966
2018	National City Marine Terminal		Bay Marina Drive, Civic Center Freeway Access Improvements			$7	$3,973
2020	I-5	La Jolla Village Drive	I-5/I-805 Merge	8F/14F	8F/14F+2ML	$260	$4,233
2020	I-5/I-805	North to North & South to South (HOV Connectors)				$114	$4,347
2020	SR 15	I-805	I-8	8F	8F+2TL	$47	$4,394
2020	I-15	I-8	SR 163	8F	8F+2ML	$135	$4,529
2020	SR 15/ I-805	North to North & South to South (HOV Connectors)				$94	$4,623
2020	I-15/SR 78	East to South & North to West (HOV Connectors)				$109	$4,732
2020	SR 78	I-5	I-15	6F	6F+2ML/Operational	$592	$5,324
2020	SR 94	I-5	I-805	8F	8F+2ML	$499	$5,823
2020	SR 94/ SR 125	South to East (Freeway Connector)				$144	$5,967
2020	I-805	Palomar St	SR 15	8F/8F+2HOV[1]	8F+4ML	$1,247	$7,214

Table A.4 – Phased Highway Projects – Revenue Constrained Plan ($ millions – YOE dollars) (Continued)

Year Built By	Freeway	From	To	Existing	Improvements	($ Millions - YOE Dollars) Cost	Cumulative Cost
2020	I-805/ SR 94	North to West & East to South (HOV Connectors)				$166	$7,380
2020	I-805	SR 52	Carroll Canyon Rd	8F/10F+ 2HOV	8F/10F+4ML	$406	$7,786
2020	National City Rail Yard					$7	$7,793
2030	I-5	Palomar St	SR 15	8F	8F+2ML	$274	$8,067
2030	I-5	I-5/I-805 Merge	SR 56	8F/14F+2HOV	8F/14F+4ML	$68	$8,135
2030	I-5	SR 56	Manchester Ave	8F+2HOV	8F+4ML	$685	$8,820
2030	I-5/SR 56	West to North (Freeway Connector)				$89	$8,909
2030	I-5/SR 56	South to East (Freeway Connector)				$164	$9,073
2030	I-5	Manchester Ave	Palomar Airport Rd	8F+2HOV[2]	8F+4ML	$1,301	$10,374
2030	SR 67	Mapleview St	Dye Rd	2C/4C	4C	$781	$11,155
2030	SR 94/ SR 125	West to North (Freeway Connector)				$247	$11,402
2030	SR 125	SR 94	I-8	8F	10F	$295	$11,697
2030	SR 241	Orange County	I-5	4T	6T	$79	$11,776
2030	I-805	SR 905	Palomar St	8F	8F+4ML	$463	$12,239
2030	I-805	SR 15	Mission Valley Viaduct	8F	8F+4ML	$315	$12,554
2030	I-805	Mission Valley Viaduct	SR 52	8F/10F	8F/10F+4ML	$873	$13,427
2035	I-5	Palomar Airport Rd	SR 78	8F+ 2HOV[2]	8F+4ML	$1,181	$14,608
2035	I-5	SR 78	Vandegrift Blvd	8F	8F+4ML	$661	$15,269
2035	I-5/SR 78	South to East and West to North (HOV Connectors)				$189	$15,458
2035	I-5/SR 78	North to East and West to South (HOV Connectors)				$188	$15,646
2035	I-5/SR 78	South to East (Freeway Connector)				$94	$15,740
2035	I-5/SR 78	West to South (Freeway Connector)				$72	$15,812
2035	SR 15	SR 94	I-805	8F	8F+2ML	$31	$15,843
2035	SR 15/ SR 94	South to West & East to North (HOV Connectors)				$126	$15,969
2035	SR 52	I-805	I-15	6F	6F+2ML	$314	$16,283

Table A.4 – Phased Highway Projects – Revenue Constrained Plan ($ millions – YOE dollars) (Continued)

Year Built By	Freeway	From	To	Existing	Improvements	($ Millions - YOE Dollars) Cost	Cumulative Cost
2040	I-8	I-15	SR 125	8F/10F	8F/10F+Operational	$226	$16,509
2040	I-8	SR 125	2nd Street	6F/8F	6F/8F+Operational	$226	$16,735
2040	SR 52	I-15	SR 125	4F	6F+2ML(R)	$587	$17,322
2040	SR 56	I-5	I-15	4F	6F	$244	$17,566
2040	SR 76	I-15	Couser Canyon	2C	4C/6C+Operational	$235	$17,801
2040	SR 94	I-805	College Ave	8F	8F+2ML	$396	$18,197
2040	SR 94	College Ave	SR 125	8F	8F+2ML	$415	$18,612
2040	SR 125	SR 94	I-8	10F	10F+2ML	$126	$18,738
2040	I-805	Mission Valley Viaduct		8F	8F+4ML	$1,101	$19,839
2040	I-805/ SR 52	West to North & South to East (HOV Connectors)				$146	$19,985
2050	I-5	SR 905	Palomar St	8F	8F+2ML	$226	$20,211
2050	I-5	SR 54	I-15	8F	10F+2ML	$393	$20,604
2050	I-5	I-15	I-8	8F	8F+Operational	$2,689	$23,293
2050	I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML	$1,261	$24,554
2050	I-5	Vandegrift Blvd	Orange County	8F	8F+4T	$1,795	$26,349
2050	I-8	I-5	I-15	8F	8F+Operational	$1,047	$27,396
2050	I-8	2nd Street	Los Coches	4F/6F	6F	$129	$27,525
2050	SR 15	I-5	SR 94	6F	8F+2ML	$214	$27,739
2050	I-15	Viaduct		8F	8F+2ML	$1,714	$29,453
2050	I-15	SR 78	Riverside County	8F	8F+4T	$2,392	$31,845
2050	I-15/SR 52	West to North and South to East (HOV Connectors)				$260	$32,105
2050	I-15/SR 56	North to West (Freeway Connector)				$186	$32,291
2050	SR 52	I-5	I-805	4F	6F	$262	$32,553
2050	SR 54	I-5	SR 125	6F	6F+2ML	$238	$32,791

Table A.4 – Phased Highway Projects – Revenue Constrained Plan ($ millions – YOE dollars) (Continued)

Year Built By	Freeway	From	To	Existing	Improvements	($ Millions - YOE Dollars) Cost	Cumulative Cost
2050	SR 94	SR 125	Avocado Blvd	4F	6F	$214	$33,005
2050	SR 94	Avocado Blvd	Jamacha Rd	4C	6C	$71	$33,076
2050	SR 94	Jamacha Rd	Steele Canyon Rd	2C/4C	4C	$48	$33,124
2050	SR 125	SR 905	San Miguel Rd	4T	8F	$262	$33,386
2050	SR 125	San Miguel Rd	SR 54	4F	8F	$143	$33,529
2050	SR 125	SR 54	SR 94	6F	6F+2ML	$238	$33,767

KEY

C = Conventional Highway Lanes

F = Freeway Lanes

HOV = High Occupancy Vehicle Lanes

MB = Movable barrier

ML = Managed lanes (HOV & Value Pricing)

ML(R) = Managed lanes (Reversible)

T = Toll Lanes

TL = Transit Lanes

[1] Project completed in two phases. See improvement from 8F to 8F+2HOV by 2018.

[2] Project completed in two phases. See improvement from 8F to 8F+2HOV by 2018.

Note: All HOV lanes would convert to Managed Lanes by 2035 with an HOV occupancy of 3+ people.

Table A.5 – Phased Transit Services – Revenue Constrained Plan

Decade	Service	Route	Description	Peak Headway (Minutes)	Off-Peak Headway (Minutes)
2018	COASTER	398	Double tracking/Increased Frequency between Oceanside and downtown San Diego with extension to Convention Center/Petco Park	20	Current
2018	Trolley	510	Mid-Coast LRT Extension (peak frequencies 7.5 to downtown/15 to UTC)	7.5/15	15
2018	Trolley	530	Green Line Extend to downtown – Bayside	15	15
2018	BRT	470	Escondido – UTC/UCSD via Mira Mesa Blvd	10	-
2018	BRT	607	Rancho Bernardo – downtown Express	10	-
2018	BRT	608	Escondido – downtown Express	10	-
2018	BRT	610	Temecula (Peak Only)/Escondido – downtown	10	10
2018	BRT	628	South Bay BRT (Otay Mesa – downtown) via Otay Ranch/Millenia	15	-
2018	BRT	680	Otay Mesa to Sorrento Mesa via I-805 Corridor, Otay Ranch/Millenia, National City, Southeastern San Diego, Kearny Mesa	15	15
2018	BRT	688	San Ysidro to Sorrento Mesa Express	15	-
2018	BRT	689	Millenia/Otay Ranch to UTC/Torrey Pines Express	15	-
2018	Rapid	15	Mid-City Rapid (SDSU – downtown) via Mid-City, El Cajon and Park Blvds	10	10
2018	Rapid	201/202	UTC Area Super Loop	10	15
2018	Rapid	350	Escondido to Del Lago via Escondido Blvd & Bear Valley	10	10
2020	Streetcar	554	Hillcrest/Balboa Park/downtown San Diego Loop	10	10
2020	BRT	90	Santee/El Cajon Transit Centers to downtown via SR 94	15	-
2020	BRT	640	I-5 - San Ysidro to downtown & Kearny Mesa via I-5 shoulder lanes/HOV lanes, downtown, Hillcrest, Mission Valley	15	15
2020	BRT	870	El Cajon to UTC via Santee, SR 52, I-805 (Peak only)	10	-
2020	Rapid	10	La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town	10	10
2020	Shuttle	448/449	San Marcos Shuttle	15	15
2020	Airport Express		I-5 from McClellan-Palomar Airport to San Diego International Airport	30	30
2020	Airport Express		I-15 from Escondido Transit Center to San Diego International Airport	30	30
2020	Airport Express		I-15 from Escondido Transit Center to Cross Border Facility	30	30
2020			Local Bus Routes - 15 minutes in key corridors	15	15

Table A.5 – Phased Transit Services – Revenue Constrained Plan (Continued)

Decade	Service	Route	Description	Peak Headway (Minutes)	Off-Peak Headway (Minutes)
2030	COASTER	398	Additional Double tracking/Increased Frequency	20	60
2030	SPRINTER	399	Double tracking (Oceanside-Escondido) Increased Frequencies	10	10
2030	Trolley	561	UTC to Mira Mesa via Sorrento Mesa/Carroll Canyon (extension of route 510)	7.5	7.5
2030	Trolley	520	Orange Line - Increased Frequency (existing 15/15)	7.5	15
2030	Streetcar	553	Downtown San Diego: Little Italy to East Village	10	10
2030	SPRINTER	588	SPRINTER Express	10	15
2030	BRT	890	El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	10	-
2030	Rapid	2	North Park to downtown San Diego via North Park, Golden Hill	10	10
2030	Rapid	28	Point Loma to Kearny Mesa via Old Town, Linda Vista	10	10
2030	Rapid	30	Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC	10	10
2030	Rapid	120	Kearny Mesa to downtown via Mission Valley	10	10
2030	Rapid	473	Oceanside to UTC via Hwy 101 Coastal Communities, Carmel Valley	10	10
2030	Rapid	709	H Street Trolley to Otay Ranch/Millenia via H Street Corridor, Southwestern College	10	10
2030	Rapid	910	Coronado to downtown via Coronado Bridge	10	10
2035	Trolley	520	Orange Line - Extend to Airport Intermodal Transit Center	7.5	15
2035	Streetcar	555	30th St to downtown San Diego via North Park/Golden Hill	10	10
2035	Trolley	560	Mid-City to downtown (Phase 1) via El Cajon and Park Blvds	7.5	7.5
2035	Trolley	563	Pacific Beach to El Cajon via Clairemont, Kearny Mesa, Mission Valley, SDSU	7.5	10
2035	BRT	653	Mid-City to Palomar Airport Road via Kearny Mesa/I-805/I-5	15	-
2035	Rapid	11	Spring Valley to SDSU via Southeastern San Diego, Downtown, Hillcrest, Mid-City	10	10
2035	Rapid	201/202	UTC Area Super Loop - Increase Frequencies	10	10
2035	Rapid	471	Downtown Escondido to East Escondido	10	10
2035	Rapid	474	Oceanside to Vista via Mission Ave/Santa Fe Road Corridor	10	10
2035	Rapid	635	Eastlake/EUC to Palomar Trolley via Main Street Corridor	10	10
2035	Rapid	636	SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline	10	10
2035	Rapid	637	North Park to 32nd Street Trolley via Golden Hill	10	10

Table A.5 – Phased Transit Services – Revenue Constrained Plan (Continued)

Decade	Service	Route	Description	Peak Headway (Minutes)	Off-Peak Headway (Minutes)
2035	Rapid	638	San Ysidro to Otay Mesa via Otay, SR 905 Corridor	10	10
2035	Shuttle	448/449	San Marcos - Increase Frequencies	10	10
2035			Local Bus Routes - 10 minutes in key corridors	10	10
2040	Trolley	520	Orange Line - Increased Frequencies	7.5	7.5
2040	Trolley	522	Orange Line Express - El Cajon to downtown San Diego	10	10
2040	Trolley	530	Green Line Extend to downtown - Bayside	7.5	7.5
2040	Trolley	540	Blue Line Express - UTC to San Ysidro via downtown	10	10
2050	Trolley	560	SDSU to downtown (Phase 2) via Mid-City, El Cajon and Park Blvds	7.5	7.5
2050	Trolley	562	UTC to San Ysidro via Kearny Mesa, Mission Valley, Mid-City, Southeastern San Diego, National City/Chula Vista via Highland Ave/4th Ave	7.5	10

Table A.6 – Major Transit Expenditures – Revenue Constrained Plan ($ millions – 2010 dollars)

Project Categories	2010 - 2020	2021 - 2030	2031 - 2040	2041 - 2050	Total
Major New Facilities	$4,519	$4,001	$6,345	$5,506	$20,371
Miscellaneous Capital/Rehabilitation/Replacement	$1,368	$1,807	$1,142	$2,507	$6,824
Transit Operations	$3,449	$4,220	$5,840	$6,191	$19,700
ADA, Senior, and Specialized Transportation Services	$345	$422	$584	$619	$1,970
High-Speed Rail	$0	$0	$0	$7,000	$7,000
TOTAL	**$9,681**	**$10,450**	**$13,911**	**$21,823**	**$55,865**

Table A.7 – Major Transit Expenditures - Revenue Constrained Plan ($ millions – YOE dollars)

Project Categories	2010 - 2020	2021 - 2030	2031 - 2040	2041 - 2050	Total
Major New Facilities	$4,512	$5,917	$9,583	$12,993	$33,005
Miscellaneous Capital/Rehabilitation/Replacement	$1,392	$2,511	$1,196	$4,923	$10,022
Transit Operations	$3,993	$6,775	$12,942	$18,977	$42,687
ADA, Senior, and Specialized Transportation Services	$399	$677	$1,294	$1,898	$4,268
High-Speed Rail	$0	$0	$0	$16,644	$16,644
TOTAL	**$10,296**	**$15,880**	**$25,015**	**$55,435**	**$106,626**

Table A.8 – Phased Arterial Projects[1] – Revenue Constrained Plan

Conformity Analysis Year	SANDAG ID	Lead Agency	Project Title	Project Description
2018	CB04A	Carlsbad	El Camino Real Widening - Tamarack Avenue to Chestnut Avenue	In Carlsbad, widen El Camino Real to prime arterial standards with three travel lanes, bike lanes and sidewalks in each direction including intersection improvements at Tamarack Avenue and Chestnut Avenue
2018	CB04B	Carlsbad	El Camino Real and Cannon Road	In Carlsbad, along the eastside of El Camino Real just south of Cannon Road widen to prime arterial standards with three through lanes, a right turn lane and a sidewalk approaching the intersection
2018	CB04C	Carlsbad	El Camino Real - Lisa Street to Crestview Drive	In Carlsbad, along the west side of El Camino Real, roadway widening to provide three southbound through lanes, curb, gutter and sidewalk per Prime Arterial standards
2018	CB12	Carlsbad	College Boulevard Reach A - Badger Lane to Cannon Road	In Carlsbad, from Badger Lane to Cannon Road, construct a new segment of College Blvd. to provide 4-lane roadway with raised median, bike lanes and sidewalks/trails in accordance with Major Arterial standards
2018	CB13	Carlsbad	Poinsettia Lane Reach E - Cassia Drive to Skimmer Court	In Carlsbad, from Cassia Drive to Skimmer Court, construct a new 4-lane roadway with median, bike lanes, and sidewalks/trails to major arterial standards
2018	CB22	Carlsbad	Avenida Encinas - Widen from Palomar Airport Road to EWPCF	In Carlsbad, Avenida Encinas from Palomar Airport Road southerly to existing improvements adjacent to the EWPCF, roadway widening to Secondary Arterial standards
2018	CB24	Carlsbad	College Boulevard and Palomar Airport Road - Intersection Improvements	In Carlsbad, at the intersection of College Blvd. and Palomar Airport Road, roadway widening along southbound College Blvd. to provide dual left turns, one thru lane, one shared thru/right turn lane and one right turn lane and to lengthen right turn lanes on the other approaches to the intersection
2018	CB26	Carlsbad	Melrose and Palomar Airport Road	In Carlsbad, at the intersection of Palomar Airport Road and Melrose Drive, roadway widening along southbound Melrose to provide an additional right turn lane to westbound Palomar Airport Road
2018	CB32	Carlsbad	El Camino Real Widening - Cassia to Camino Vida Roble	In Carlsbad, widen El Camino Real from 900 feet north of Cassia Road to Camino Vida Roble, along the northbound side of the roadway to provide three travel lanes and a bike lane in accordance with Prime Arterial standards
2018	CB30	Carlsbad	El Camino Real – El Camino Real to Tamarack Avenue	In Carlsbad, at the intersection of El Camino Real and Tamarack Avenue construct a second left turn lane from El Camino Real to westbound Tamarack

[1] The arterials listed in this table reflect locally initiated projects that were submitted by local jurisdictions in the 2010 Regional Transportation Improvement Program.

Table A.8 – Phased Arterial Projects – Revenue Constrained Plan (Continued)

Conformity Analysis Year	SANDAG ID	Lead Agency	Project Title	Project Description
2018	CB31	Carlsbad	El Camino Real – La Costa Avenue to Arenal Road	In Carlsbad along El Camino Real from 700 feet north of La Costa Avenue to Arenal Road, widening along the southbound side of the roadway to provide three travel lanes and a bike lane in accordance with Prime Arterial Standards
2018	CB33	Carlsbad	Palomar Airport Road and El Camino Real Right Turn Lane	In Carlsbad, widening along eastbound Palomar Airport Road to provide a dedicated right turn lane to southbound El Camino Real
2018	CB34	Carlsbad	Palomar Airport Road - Palomar Airport Road to Paseo Del Norte	In Carlsbad widening along eastbound Palomar Airport Road to provide a dedicated right turn lane to southbound Paseo Del Norte
2018	CB35	Carlsbad	Palomar Airport Road - Palomar Airport Road to Paseo Del Norte	In Carlsbad lengthen the left turn pocket along eastbound Palomar Airport Road to northbound Paseo Del Norte
2018	CHV08	Chula Vista	Willow Street Bridge Project - Bonita Road to Sweetwater Road	Replace and widen bridge including shoulders
2018	CHV20	Chula Vista	North Fourth Avenue and Brisbane Street	Add additional lane on east side of Fourth Avenue
2018	CNTY14	San Diego County	South Santa Fe Avenue North - Montgomery Drive to South of Woodland Drive	Vista City limits to 700 feet south of Woodland - reconstruct and widen from 2 to 4 lanes including bicycle lane
2018	CNTY21	San Diego County	Bradley Avenue Overpass at SR 67 - Magnolia Avenue to Mollison Avenue	Widen Bradley Avenue including the SR 67 overpass from 2 to 4 lanes plus sidewalks
2018	CNTY24	San Diego County	Cole Grade Road - North of Horse Creek Trail to South of Pauma Heights Road	Widen to accommodate 14-ft traffic lane in both direction, 12-ft center 2-way left turn, 6-ft bike lane & 10-ft pathway
2018	CNTY34	San Diego County	Dye Road Extension - Dye Road to San Vicente Road	In Ramona, study, design and construct a 2-lane community collector road with intermittent turn lanes, bike lanes, curb, gutter, and pathway/walkway
2018	CNTY35	San Diego County	Ramona Street Extension - Boundary Avenue to Warnock Drive	In the community of Ramona, construct new road extension, 2 lanes with intermittent turn lanes, bike lanes and walkway/pathway
2018	CNTY36	San Diego County	San Vicente Road Improvements - Warnock Drive to Wildcat Canyon Road	In Ramona, design and reconstruct road improvements, including 2-lane community collector road with intermittent turn lanes, bike lanes, asphalt concrete dike, and pathway/walkway

Table A.8 – Phased Arterial Projects – Revenue Constrained Plan (Continued)

Conformity Analysis Year	SANDAG ID	Lead Agency	Project Title	Project Description
2018	CNTY39	San Diego County	Bear Valley Parkway North - San Pasqual Valley Road to Boyle Avenue	Widen from 2 to 4 lanes, with a center median, a bike lane and shoulder in each direction of travel
2018	CNTY76	San Diego County	Jamacha Blvd (Phase 1 and 2) - Omega Street to Sweetwater Spring Boulevard	In unincorporated Spring Valley, the current funds programmed are for Phase 1 - between Omega Street and Spring Valley Glen, widen from 2-lane to 4-lane roadway with bicycle and pedestrian improvements
2018	ENC31	Encinitas	I-5/Encinitas Boulevard Interchange Modification	Modify interchange to improve safety and alleviate congestion (design only)
2018	ESC02	Escondido	Bear Valley/East Valley/Valley Center - Citrus Avenue to Beven Drive	Realignment and widening from 2 to 4 lanes
2018	ESC02A	Escondido	East Valley/Valley Center	Widen roadway from 4 to 6 lanes with raised medians and left turn pockets; modify signal at Lake Wohlford and Valley Center Road; widen bridge over Escondido Creek
2018	ESC03	Escondido	Citracado Parkway - Don Lee Place to Vineyard	Widen from 2 to 4 lanes with left turn pockets and new traffic signal at Aero Way and Citracado Parkway
2018	ESC04	Escondido	Citracado Parkway II - West Valley to Harmony Grove	Widen from 2 to 4 lanes with raised medians, construct bridge over Escondido Creek
2018	ESC05	Escondido	El Norte Parkway Phase IV	Widen from 2 to 4 lanes and construct missing section of El Norte Pkwy. with left turn pockets, raised medians and new traffic signals
2018	ESC06	Escondido	El Norte Parkway Bridge at Escondido Creek - Kaile Lane to Key Lime Way	Construct missing 2-lane bridge at Escondido Creek
2018	ESC08	Escondido	Felicita Avenue/ Juniper Street - from Escondido Boulevard to Juniper Street and from Juniper Street to Chestnut Street	Widen from 2 to 4 lanes with left turn pockets, raised medians on Felicita; new traffic signals at Juniper and Chestnut, Juniper and 13th Avenue, Juniper and 15th Avenue; modify traffic signal at Juniper and Felicita
2018	ESC09	Escondido	Ninth Avenue – La Terraza Boulevard to Spruce Street	Widen from 2 to 4 lanes with raised median and modify traffic signals at Ninth Avenue and Tulip Street - design phase
2018	ESC24	Escondido	Centre City Parkway - Mission Road to SR 78	Widen 4 lanes to 6 lanes with intersection improvements

Table A.8 – Phased Arterial Projects – Revenue Constrained Plan (Continued)

Conformity Analysis Year	SANDAG ID	Lead Agency	Project Title	Project Description
2018	ESC25	Escondido	Citracado/Nordahl - Country Club Lane to SR 78	Widen from 4 lanes to 6 lanes with double left turn lanes and exclusive right turn lanes
2018	LG13	Lemon Grove	Street Improvements (Congestion Relief)	Lemon Grove Avenue Realignment Project: A key project in the redevelopment of the city's downtown Village Specific Plan, this project improves access to and from SR 94, reducing motorist delays and emissions, while greatly enhancing the visual appeal of the block adjacent to the trolley station.
2018	NC01	National City	Plaza Boulevard Widening	Widen from 2 to 3 lanes including a new traffic lane in each direction, new sidewalks, sidewalk widening, traffic signal upgrades and interconnection
2018	O06	Oceanside	Melrose Drive	Extension in Oceanside, future construction of 4-lane arterial highway with medians, sidewalks and bike lanes
2018	O26	Oceanside	SR 76 & Rancho Del Oro Boulevard	Widen SR 76 for one additional lane width 1,500 feet west and east of Rancho del Oro Boulevard
2018	O27	Oceanside	Coast Highway and SR 76	Roundabout in Oceanside, construction of a traffic circle at the intersection of North Coast Highway and SR 76; the traffic circle will be unsignalized; free traffic flow at all approaches
2018	POW02	Poway	Espola Road	Widen Espola Road from 2 to 3 lanes with 8-foot bike lanes/shoulders
2018	SD34	San Diego	El Camino Real	In San Diego on El Camino Real from San Dieguito Road to Via de la Valle - reconstruct and widen from 2 to 4 lanes and extend transition lane and additional grading to avoid biological impacts (CIP 52-479.0)
2018	SD70	San Diego	West Mission Bay Drive Bridge	In San Diego, replace bridge and increase from 4- to 6-lane bridge including Class II bike lane (52-643)
2018	SD83	San Diego	SR 163/Friars Road Interchange Modification	Friars Road from Avenida de las Tiendas to Mission Center Road widen and improve Friars Road and overcrossing; reconstruct interchange including improvements to ramp intersections (Phase 1). Construct new connector roadways and structures (Phase 2). Construct auxiliary lanes along northbound and southbound SR 163 (Phase 3)
2018	SD90	San Diego	SR 163/Clairemont Mesa Boulevard Interchange	In San Diego, widen from 4- to 6-lane prime arterial; Phase II of the project - west ramps (CIP 52-745.0)

Table A.8 – Phased Arterial Projects – Revenue Constrained Plan (Continued)

Conformity Analysis Year	SANDAG ID	Lead Agency	Project Title	Project Description
2018	SD102A	San Diego	Otay Truck Route Widening	On Otay Truck Route in San Diego from Drucker Lane to La Media, add one lane (total 3 lanes) for trucks; from Britannia to La Media, add one lane for trucks and one lane for emergency vehicles (Border Patrol/fire department access); along Britannia from Britannia Court to the Otay Truck Route - add one lane for trucks
2018	SD103	San Diego	I-5/Genesee Avenue Interchange	In San Diego, replace Genesee Avenue over crossing from 4-lane bridge with 6-lane bridge; construct auxiliary lanes and replace Voigt Drive bridge; add additional lane at on/off ramp to Sorrento Valley Rd.; add one carpool lane and one general purpose lane to on ramp from Sorrento Valley Road to southbound I-5; install ramp meters at on ramp and construct a southbound auxiliary lane between Sorrento Valley Road and Genesee Avenue
2018	SD133	San Diego	Mira Sorrento Place	Mira Sorrento Place from Scranton Road to Vista Sorrento Parkway in San Diego widen the existing 2-lane 560-foot portion of Mira Sorrento Place (40-foot road width, 55-foot right of way) to a 4-lane collector (72-foot road width, 92-foot right of way), and extend the road to intersect with Vista Sorrento Parkway at the existing on/off ramps to I-805
2018	SM19	San Marcos	Grand Avenue Bridge	In San Marcos, construct 4-lane arterial; between Bent Avenue to Discovery Street construct 6-lane arterial
2018	SM22	San Marcos	South Santa Fe - Bosstick to Smilax	Widen and realign existing road to 4-lane secondary arterial standards
2018	SM24	San Marcos	Woodland Parkway Interchange Improvements – La Moree Road to Rancheros Drive	Modify existing ramps at Woodland Parkway and Barham Drive; widen and realign Barham Drive to accommodate a new eastbound SR 78 on-ramp; widen and realign SR 78 undercrossing and associated work
2018	SM25	San Marcos	Borden Road Street Improvements and Bridge Construction - Twin Oaks to Woodward Street	Construction of approximately 700 lineal feet of a new 4-lane secondary arterial including a bridge
2018	SM30	San Marcos	San Marcos Boulevard Street Improvements - Rancho Santa Fe to Bent Avenue	Widen road to a 6-lane prime arterial
2018	SM31	San Marcos	Discovery Street Improvements - McMahr Rd to Bent Avenue/Craven Road	Widen roadway to 4-lane secondary arterial

Table A.8 – Phased Arterial Projects – Revenue Constrained Plan (Continued)

Conformity Analysis Year	SANDAG ID	Lead Agency	Project Title	Project Description
2018	SM32	San Marcos	Via Vera Cruz Bridge and Street Improvements - San Marcos Boulevard to Discovery Street	Widen to 4-lane secondary arterial and construct a bridge at San Marcos Creek
2018	SM42	San Marcos	Street Improvements: Discovery Street - Craven Road to West of Twin Oaks Valley Road	In the City of San Marcos, on Discovery Street from Craven Road to west of Twin Oaks Valley Road, construct approximately 5,100 lineal feet of a new 6-lane roadway
2018	SM43	San Marcos	Barham Drive - Twin Oaks Valley Road to La Moree Road	In the City of San Marcos, on Barham Drive between Twin Oaks Valley Road and La Moree Road, widen and reconstruct the north side of Barham Drive to a 6-lane prime arterial and associated work
2018	SM44	San Marcos	Eastbound SR 78 Auxiliary lane - Woodland Parkway to Nordahl Road	Construct auxiliary lanes along eastbound SR 78 between Woodland Parkway Interchange and Nordahl Road Interchange; includes widening of Mission Road undercrossing
2018	SM48	San Marcos	Creekside Drive	Construct approximately 3,000 feet of a 2-lane collector road from Via Vera Cruz to Grand Avenue in the City of San Marcos. The road will include two 12-foot lanes, diagonal parking on the north side, and parallel parking on the south side. In addition, the project also will include a 10-foot bike trail meandering along the south side.
2018	VISTA08A	Vista	W. Vista Way - Emerald Drive to Grapevine Road	The scope of this project is to provide right of way acquisition and construction for the widening of W. Vista Way a distance of 1,500 feet from the intersection with Emerald Drive to the intersection with Grapevine Road
2020	CNTY14A	San Diego County	South Santa Fe Avenue South - South of Woodland Drive to Smilax Road	Widening of South Santa Fe Avenue to a 5-lane major road with a center left turn lane, curb, gutter, sidewalk, bike lanes, and drainage improvements from 700 ft. south of Woodland Dr to Smilax Road
2020	O22	Oceanside	College Boulevard - Vista Way to Old Grove Road	In Oceanside, widen from the existing 4 lanes to 6 lanes with bike lanes and raised median
2020	O23	Oceanside	College Boulevard Bridge - San Luis Rey River	In Oceanside, widen from 4 to 6 lanes plus bike lanes and a striped-only median; widening includes the approach roadway and the bridge deck over the San Luis Rey River - Design Phase
2020	SD189	San Diego	Sea World Drive Widening and I- 5 Interchange Improvements	In San Diego, replace existing 4-lane bridge with an 8-lane bridge with new on/off ramps; widen approachways to add right turn lanes to improve access to I-5 (CIP 52-706.0)

Table A.8 – Phased Arterial Projects – Revenue Constrained Plan (Continued)

Conformity Analysis Year	SANDAG ID	Lead Agency	Project Title	Project Description
2020	SD190	San Diego	Palm Avenue/ I-805 Interchange	In San Diego, future widening of Palm Avenue Bridge including providing for repairs to the bridge approaches and abutments, installing sidewalks, signals, and striping ▪ Phase I was work pertaining to re-striping to reconfigure travel lanes; no actual modifications to the physical geometry of the bridge took place ▪ Phase II of the project will widen the bridge on the north side; in addition to this the scope of work will also contain restriping of the lanes and modifications to the on/off ramps ▪ Phase III of the project will widen the bridge on the south side; in addition to this the scope of work will also contain restriping of the lanes and modifications to the on/off ramps ▪ Both Phase II and III will have environmental documentation prepared and all technical studies performed before entering into full design signage modifications: also modify freeway on and off ramps (CIP 52-640.0)
2030	SD81	San Diego	Genesee Avenue - Nobel Drive to SR 52	In San Diego, future widening to 6-lane major street north of Decoro Street and to a 6-lane primary arterial south of Decoro Street and included Class II bicycle lanes (CIP 52-458.0)
2030	SM10	San Marcos	SR 78/Smilax	Construct new interchange at Smilax Road interchange and SR 78 improvements

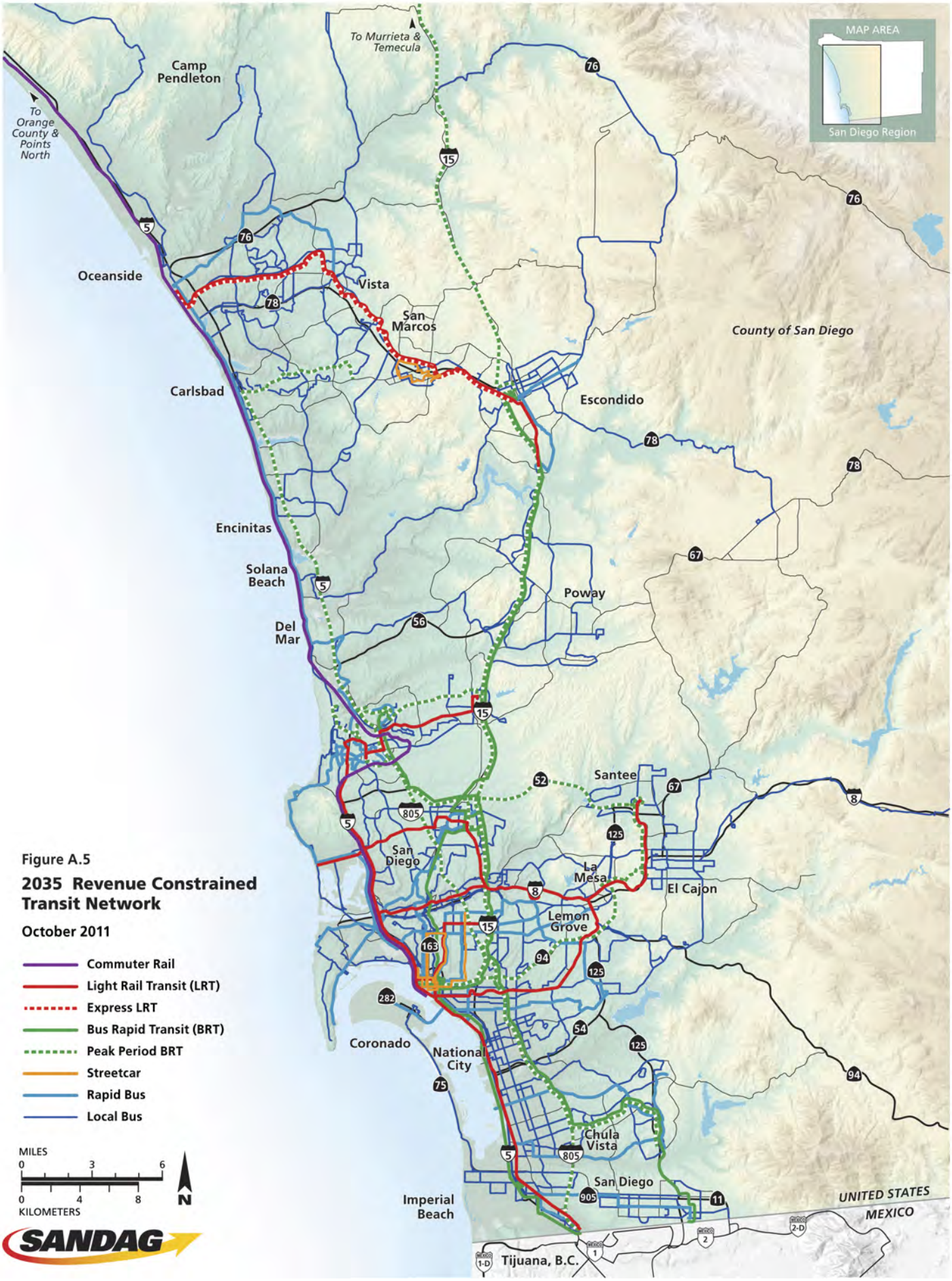

Figure A.5

2035 Revenue Constrained Transit Network

October 2011

Figure A.6
2035
Revenue Constrained
Highway Network
October 2011
Improvements
Managed Lanes
Transit Lanes
General Purpose Lanes
Toll Lanes
Operational Improvements
Freeway Connectors
HOV Connectors
Freeway & HOV Connectors
C = Conventional Highway
F = Freeway
HOV = High Occupancy Vehicle
MB = Movable Barrier
ML = Managed Lanes
OPS = Operational Improvements
T = Toll Lanes
TL = Transit Lanes
MILES
0 3 6
0 4 8
KILOMETERS
N
SANDAG
MAP AREA
San Diego Region
Camp Pendleton
Oceanside
Vista
San Marcos
Carlsbad
Escondido
County of San Diego
Encinitas
Solana Beach
Del Mar
Poway
Santee
San Diego
La Mesa
El Cajon
Lemon Grove
Coronado
National City
Chula Vista
Imperial Beach
Tijuana, B.C.
UNITED STATES
MEXICO
4C
8F+4ML
6F+2ML/OPS
8F+4ML
8F+4ML
8F+4ML
8F+4ML
10F+4ML/MB
8F/14F + 4ML
8F/14F + 2ML
8F/10F+4ML
6F+2ML
8F/10F +4ML
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8F+2TL
10F
8F + 2ML
8F+4ML
8F+ 2ML
8F+4ML
6F
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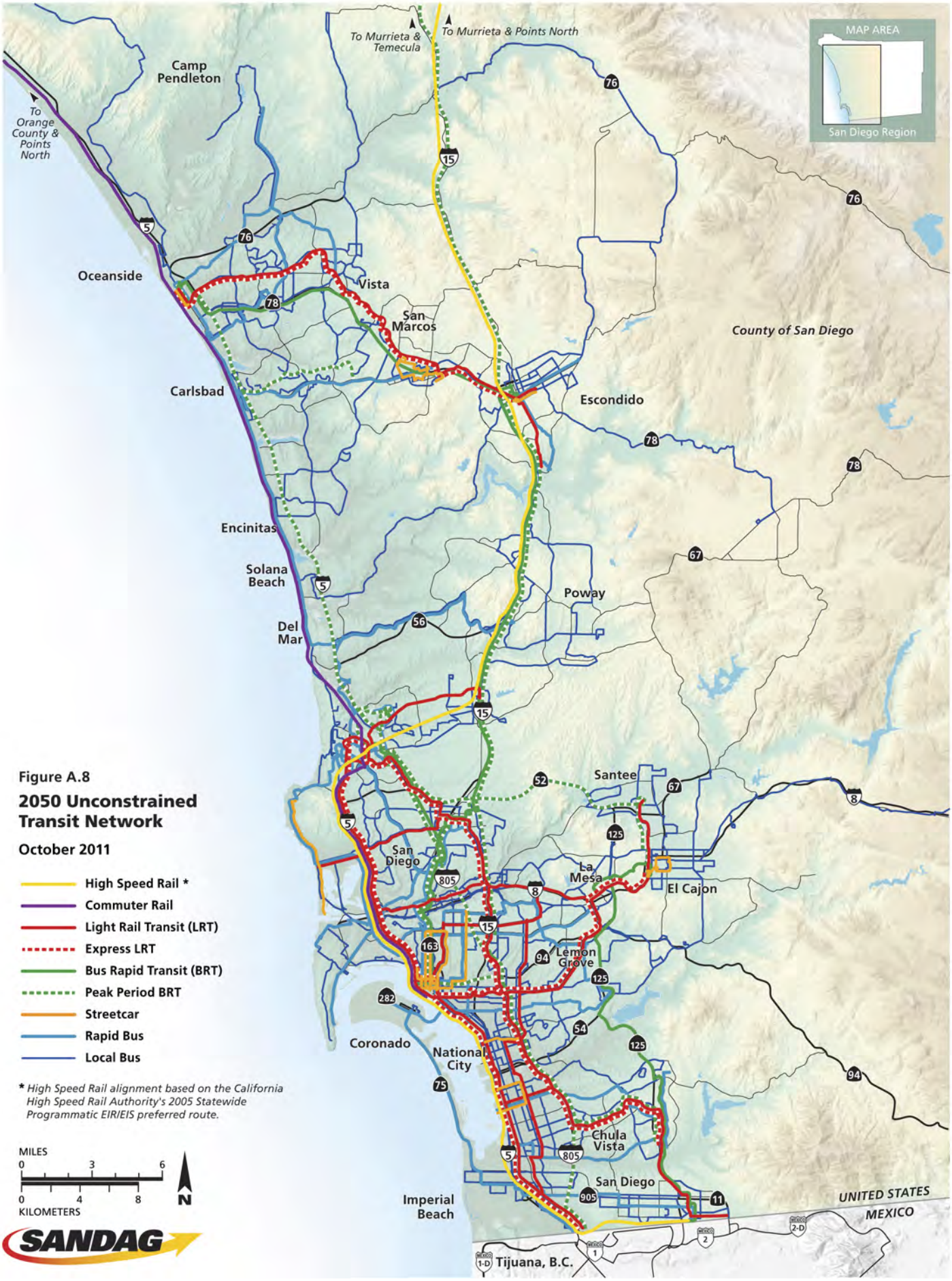


Figure A.8

2050 Unconstrained Transit Network

October 2011

Figure A.9
2050 Unconstrained Highway Network
October 2011
Improvements
Managed Lanes
Transit Lanes
General Purpose Lanes
Toll Lanes
Operational Improvements
Freeway Connectors
HOV Connectors
Freeway & HOV Connectors
C = Conventional Highway
F = Freeway
HOV = High Occupancy Vehicle
MB = Movable Barrier
ML = Managed Lanes
OPS = Operational Improvements
T = Toll Lanes
TL = Transit Lanes
MILES
0 3 6
0 4 8
KILOMETERS
N
SANDAG
MAP AREA
San Diego Region
Camp Pendleton
Oceanside
Vista
San Marcos
Carlsbad
Escondido
County of San Diego
Encinitas
Solana Beach
Del Mar
Poway
Santee
La Mesa
El Cajon
Lemon Grove
San Diego
Coronado
National City
Chula Vista
Imperial Beach
Tijuana, B.C.
UNITED STATES
MEXICO
8F+4T
4C+OPS
2C
4C
6C
6E
10F+4ML
6F+2ML/OPS
10F+4ML/MB
6F+2ML
14F+4ML
8F+4ML
6F+2ML(R)
8F/10F +4ML
8F/10F + 2ML
8F + 2ML
8F+2ML
6F/8F
6F/8F+OPS
8F/10F+OPS
8F+OPS
8F+2TL
10F+2ML
6F
4F
4T
8F

Table A.9 – Major Capital Improvements – Unconstrained Network

Transit Facilities			
			($ Millions – 2010 Dollars)
Service	**Route**	**Description**	**Cost**
High Speed Rail	598	Commuter Rail Overlay (Temecula to Airport ITC)	$330
High Speed Rail	-	Extension from Airport ITC to International border	$3,557
COASTER	398	Double Tracking (includes all COASTER improvements, positive train control, and UTC tunnel)	$5,606
SPRINTER	399	Double Tracking (includes all SPRINTER improvements and extension to South Escondido)	$1,029
SPRINTER	588	SPRINTER Express	$284
Trolley	510	Mid-Coast LRT Extension	$1,642
Trolley	510 and 520	Trolley System Rehabilitation (Blue and Orange Lines)	$510
Trolley	510	Blue Line Rail Grade Separations	$550
Trolley	520	Orange Line Rail Grade Separations	$312
Trolley	522	Orange Line Express - El Cajon to downtown San Diego	$230
Trolley	540	Blue Line Express - UTC to San Ysidro via downtown	$455
Trolley	550	SDSU to San Ysidro via East San Diego, SE San Diego, National City	$1,665
Trolley	560	SDSU to downtown via El Cajon Blvd/Mid-City (transition of Mid-City Rapid to LRT)	$1,921
Trolley	561	UTC to Mira Mesa via Sorrento Mesa/Carroll Cyn (extension of route 510)	$1,140
Trolley	562	UTC to San Ysidro via Kearny Mesa, Mission Valley, Mid-City, National City/Chula Vista via Highland Ave/4th Ave	$2,548
Trolley	563	Pacific Beach to El Cajon via Kearny Mesa, Mission Valley, SDSU	$1,262
Trolley	564	Otay Mesa East Border Crossing to Western Chula Vista via Otay Ranch/Millenia	$854
Trolley	566	Palomar Street Trolley Station to UTC via Mid-City, Kearny Mesa	$327
Trolley	510, 520, 540, 522 and 560	Downtown Trolley Tunnel	$2,592
Trolley	Various	Downtown Bus Tunnel and Hubs	$2,917
BRT	90	Santee/El Cajon Transit Centers to downtown via SR 94 (peak only) (interim service for Route 522 Orange Line Express)	$0
BRT	430	Oceanside to Escondido (peak only)	$234
BRT	470	Escondido to UTC via Mira Mesa Blvd	$20
BRT	610	Temecula (peak only)/Escondido to downtown (Sabre Springs/Mira Mesa PNRs, Mid-City Stations)	$89
BRT	628	South Bay BRT (Otay Mesa-downtown)	$200

Table A.9 – Major Capital Improvements – Unconstrained Network (Continued)

Transit Facilities (Continued)			
			($ Millions – 2010 Dollars)
Service	**Route**	**Description**	**Cost**
BRT	640	I-5 - San Ysidro to downtown & Kearny Mesa via I-5 shoulder lanes/HOV lanes, downtown, Hillcrest/Mission Valley Guideway (interim service for Route 540 Blue Line Express	$90
BRT	650	Chula Vista to Palomar Airport Road Business Park via I-805/I-5 (peak only)	$80
BRT	652	Downtown to UTC via Kearny Mesa Guideway/I-805	$2
BRT	653	Mid-City to Palomar Airport Road via Kearny Mesa/I-805/I-5	$10
BRT	870	El Cajon to UTC via Santee, SR 52, I-805	$7
BRT	890	El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	$12
BRT	680 and 688/689	Otay Mesa/San Ysidro to Sorrento Mesa via I-805 Corridor, Otay Ranch/Millenia, National City, Southeastern San Diego, Mid-City, Kearny Mesa	$425
BRT	120, 610, and 640	Hillcrest to Mission Valley Transit Priority Measures, Full Guideway downtown to Kearny Mesa, and I-15 Green Line transfer station	$3,302
BRT	692	El Cajon to Otay Mesa via Spring Valley, SR 125, Millenia	$6
BRT	940	Oceanside to UTC via I-5, Carlsbad, Encinitas (peak only)	$38
BRT	-	South Bay Maintenance Facility	$51
BRT	-	Downtown BRT stations/layovers	$110
Rapid	2	North Park to downtown San Diego via 30th St	$38
Rapid	10	La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town	$85
Rapid	11	Spring Valley to SDSU via SE San Diego, downtown, Hillcrest, Mid-City	$110
Rapid	15	Mid-City Rapid SDSU to downtown (interim service for Route 560 Trolley)	$68
Rapid	28	Point Loma to Kearny Mesa via Old Town, Linda Vista	$48
Rapid	30	Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC	$102
Rapid	41	Fashion Valley to UTC/UCSD via Linda Vista and Clairemont	$54
Rapid	103	Solana Beach to Sabre Springs BRT station via Carmel Valley	$70
Rapid	120	Kearny Mesa to downtown	$100
Rapid	440	Carlsbad to San Marcos via Palomar Airport Road	$50
Rapid	471	Downtown Escondido to East Escondido	$31
Rapid	473	Oceanside to UTC via Hwy 101 Coastal Communities, Carmel Valley	$127
Rapid	474	Oceanside to Vista via Mission Ave/Santa Fe Road Corridor	$49
Rapid	477	Camp Pendleton to Carlsbad Village via College Blvd, Plaza Camino Real	$78

Table A.9 – Major Capital Improvements – Unconstrained Network (Continued)

Transit Facilities (Continued)			
			($ Millions – 2010 Dollars)
Service	**Route**	**Description**	**Cost**
Rapid	635	Eastlake/EUC to Palomar Trolley via Main Street Corridor	$54
Rapid	636	SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline	$39
Rapid	637	North Park to 32nd Street Trolley via Golden Hill	$32
Rapid	638	San Ysidro to Otay Mesa via Otay, SR 905 Corridor	$53
Rapid	639	Otay to North Island via Imperial Beach and Silver Strand, Coronado	$53
Rapid	709	H Street Trolley to Millenia via H Street Corridor, Southwestern College	$36
Rapid	910	Coronado to downtown via Coronado Bridge	$25
Streetcar	551	Chula Vista downtown	$1,340
Streetcar	552	National City downtown	$400
Streetcar	553	Downtown San Diego: Little Italy to East Village	$277
Streetcar	554	Hillcrest/Balboa Park/downtown San Diego Loop	$249
Streetcar	555	30th St to downtown San Diego via North Park/Golden Hill	$139
Streetcar	557	El Cajon downtown	$1,600
Streetcar	558	Escondido downtown	$500
Streetcar	559	Oceanside downtown	$450
Streetcar	565	Mission Beach to la Jolla via Pacific Beach	$2,390
Shuttle	-	San Marcos Shuttle[1]	$0
Airport Express		Airport Express Routes[2]	$51
Intermodal	-	Airport Intermodal Transit Center	$165
Intermodal	-	San Ysidro Intermodal Transit Center	$50
Intermodal	-	Otay Mesa East Intermodal Transit Center	$0
Other	-	Other Improvements (Vehicles/vehicle replacement, maintenance facilities, transit system rehab, regulatory compliance, park and ride, ITS)	$8,084
		Subtotal	$51,404

[1] Capital cost to be funded by the City of San Marcos

[2] Capital cost to be funded by aviation funds

Table A.9 – Major Capital Improvements – Unconstrained Network (Continued)

Managed Lanes/Highway Projects					
					($ Millions – 2010 Dollars)
Freeway	**From**	**To**	**Existing**	**Improvements**	**Cost**
I-5	SR 905	SR 54	8F	8F+2ML	$295
I-5	SR 54	I-15	8F+2ML	10F+2ML	$165
I-5	I-15	I-8	8F	8F+Operational	$1,130
I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML	$530
I-5	La Jolla Village Drive	I-5/I-805 Merge	8F/14F	8F/14F+2ML	$300
I-5	I-5/I-805 Merge	SR 56	8F/14F+2HOV	8F/14F+4ML	$40
I-5	SR 56	Manchester Ave	8F+2HOV	10F+4ML	$655
I-5	Manchester Ave	Palomar Airport Road	8F	10F+4ML	$1,710
I-5	Palomar Airport Road	Vandegrift	8F	10F+4ML	$1,585
I-5	Vandegrift Blvd	Orange County	8F	8F+4T	$754
I-8	I-5	I-15	8F	8F+Operational	$440
I-8	I-15	SR 125	8F/10F	8F/10F+Operational	$125
I-8	SR 125	2nd Street	6F/8F	6F/8F+Operational	$125
I-8	2nd Street	Los Coches	4F/6F	6F	$54
I-8	Los Coches	Dunbar Rd	4F/6F	6F	$335
SR 11/Otay Mesa East Port of Entry (POE)	SR 905	Mexico	--	4T + POE	$755
SR 15	I-5	SR 94	6F	8F+2ML	$90
SR 15	SR 94	I-805	8F	8F+2ML	$20
SR 15	I-805	I-8	8F	8F+2TL	$45
I-15	Viaduct		8F	8F+2ML	$720
I-15	I-8	SR 163	8F	8F+2ML	$130
I-15	SR 163	SR 56	8F+2ML(R)	10F+4ML/MB	$419
I-15	Centre City Parkway	SR 78	8F+4ML	10F+4ML	$210
I-15	SR 78	Riverside County	8F	8F+4T	$1,005

Table A.9 – Major Capital Improvements – Unconstrained Network (Continued)

Managed Lanes/Highway Projects (Continued)					
					($ Millions – 2010 Dollars)
Freeway	**From**	**To**	**Existing**	**Improvements**	**Cost**
SR 52	I-5	I-805	4F	6F	$110
SR 52	I-805	I-15	6F	6F+2ML	$223
SR 52	I-15	SR 125	4F	6F+3ML(R)	$440
SR 52	SR 125	SR 67	4F	6F	$120
SR 54	I-5	SR 125	6F	6F/8F+2ML	$140
SR 56	I-5	I-15	4F	6F+2ML	$220
SR 67	I-8	Mapleview St	4F/6F	6F/8F	$360
SR 67	Mapleview St	Dye Rd	2C/4C	4C	$570
SR 76	I-5	Melrose Drive	4E	6E	$225
SR 76	Melrose Drive	I-15	2C	4C	$404
SR 76	I-15	Couser Canyon	2C	4C/6C+Operational	$130
SR 78	I-5	I-15	6F	6F+2ML/Operational	$570
SR 94	I-5	I-805	8F	8F+2ML	$480
SR 94	I-805	College Ave	8F	10F+2ML	$290
SR 94	College Ave	SR 125	8F	8F+2ML	$230
SR 94	SR 125	Avocado Blvd	4F	6F	$90
SR 94	Avocado Blvd	Jamacha Rd	4C	6C	$30
SR 94	Jamacha Rd	Steele Canyon Rd	4C	6C	$20
SR 125	SR 905	San Miguel Rd	4T	8F	$110
SR 125	San Miguel Rd	SR 54	4F	8F	$60
SR 125	SR 54	SR 94	6F	8F+2ML	$140
SR 125	SR 94	I-8	8F	10F+2ML	$285
SR 163	I-805	I-15	8F	8F+2ML	$320
SR 241	Orange County	I-5	--	4T/6T	$501
I-805	SR 905	Carroll Canyon Rd	8F/10F	8F/10F+4ML	$3,781
I-805	Carroll Canyon Rd	I-5 (north)	8F/10F	8F/10F+2ML	$87
SR 905	I-5	I-805	4F	8F	$150
SR 905	I-805	Mexico	--	8F	$1,021
				Subtotal	$22,744

Table A.9 – Major Capital Improvements – Unconstrained Network (Continued)

HOV Connectors			
			($ Millions – 2010 Dollars)
Freeway	**Intersecting Freeway**	**Movement**	**Cost**
I-5	SR 15	North to North and South to South	$183
I-5	SR 54	West to South and North to East	$120
I-5	SR 54	South to East and West to North	$120
I-5	SR 56	South to East and West to North	$170
I-5	SR 56	North to East and West to South	$80
I-5	SR 78	South to East and West to North, North to East and West to South	$240
I-5	I-805	North to North & South to South	$116
I-15	SR 52	West to North and South to East	$140
I-15	SR 52	West to South and North to East	$140
I-15	SR 56	East to North and South to West	$180
I-15	SR 78	East to South & North to West	$105
I-15	SR 94	South to West & East to North	$80
I-15	SR 163	North to North and South to South	$160
I-15	I-805	North to North & South to South	$90
SR 52	SR 125	North to West and East to South	$100
SR 94	SR 125	East to North and South to West	$140
I-805	SR 52	West to North & South to East	$90
I-805	SR 54	North to West and East to South	$140
I-805	SR 94	West to South and North to East	$160
I-805	SR 94	East to North and South to East	$160
I-805	SR 163	North to North and South to South	$150
		Subtotal	$2,864

Table A.9 – Major Capital Improvements – Unconstrained Network (Continued)

Freeway Connectors			
			($ Millions – 2010 Dollars)
Freeway	**Intersecting Freeway**	**Movement**	**Cost**
I-5	I-8	East to North and South to West	$320
I-5	SR 56	West to North and South to East	$185
I-5	SR 78	South to East and West to South	$106
I-5	SR 94	North to East	$120
I-15	SR 56	North to West	$100
SR 94	SR 125	South to East and West to North	$319
		Subtotal	$830

Non-Highway Goods Movement		
		($ Millions – 2010 Dollars)
Vesta Street Bridge	Mobility connector over Harbor Drive at Naval Base San Diego	$60
32nd Street	Freeway access enhancement	$119
10th Avenue Marine Terminal Entrance	Rail line grade separation/Barrio Logan enhancement	$67
10th Avenue Marine Terminal Entrance	Enhance military project capacity, expand open storage	$19
National City Marine Terminal	Bay Marina Drive, Civic Center freeway access improvements	$7
National City Marine Terminal	Wharf extension, vehicle processing facility, berths 24-10 and 24-11	$151
National City Rail Yard		$7
Desert Line	Basic Service, rehabilitation	$182
Logistics Center - South County		$180
Logistics Center - North County		$2,130
Logistics Center - Mid County		$166
San Diego International Airport	Access to I-5	$32
San Diego International Airport	Aircraft/ground access, AC facilities, transload	$111
Future Expansion	Freeway/ground access N. field	$173
	Subtotal	$3,404
	Total	$79,986

KEY

C = Conventional Highway Lanes	MB = Movable barrier	T = Toll Lanes
F = Freeway Lanes	ML = Managed lanes (HOV & Value Pricing)	TL = Transit Lanes
HOV = High Occupancy Vehicle Lanes	ML(R) = Managed lanes (Reversible)	

Note: All HOV lanes would convert to Managed Lanes by 2035 with an HOV occupancy of 3+ people.

Table A.10 – Summary of 2050 Revenue Constrained Plan and Unconstrained Scenario – Transit Services and Headways

Service	Route	Description	Revenue Constrained Peak/Off-Peak	Unconstrained Peak/Off-Peak
HSR	598	Temecula to Lindbergh Intermodal Transit Center	N/A	15/15
COASTER	398	Increase in COASTER service (includes all improvements)	20/60	15/15
SPRINTER	399	Increase in SPRINTER Rail (includes all improvements)	10/10	7.5/7.5
SPRINTER	588	SPRINTER Express	10/15	10/10
Trolley	510	Increase in Existing Blue Line Trolley Service (includes all improvements)	7.5/7.5	7.5/7.5
Trolley	520	Increase in Existing Orange Line Trolley Service (includes all improvements)	7.5/7.5	7.5/7.5
Trolley	522	Orange Line Express - El Cajon to downtown San Diego	10/10	10/10
Trolley	530	Increase in Green Line Trolley Service	10/10	7.5/7.5
Trolley	540	Blue Line Express - UTC to San Ysidro via downtown	10/10	10/10
Trolley	550	SDSU to San Ysidro via East San Diego, SE San Diego, National City	N/A	7.5/7.5
Trolley	560	SDSU to downtown via El Cajon Blvd/Mid-City (transition of Mid-City Rapid to LRT)	7.5/7.5	7.5/7.5
Trolley	561	UTC to Mira Mesa via Sorrento Mesa/Carroll Canyon	Note A	7.5/7.5
Trolley	562	UTC to San Ysidro via Kearny Mesa, Mission Valley, Mid-City, National City/Chula Vista via Highland Ave/ 4th Ave	7.5/10	7.5/7.5
Trolley	563	Pacific Beach to El Cajon via Kearny Mesa, Mission Valley, SDSU	7.5/10	7.5/7.5
Trolley	564	Otay Mesa East Border Crossing to Western Chula Vista via Otay Ranch/Millenia	7.5/7.5	7.5/7.5
Trolley	566	Express Palomar Street Trolley Station to UTC via Mid-City, Kearny Mesa	N/A	10/10
BRT	90	Santee/El Cajon Transit Centers to downtown via SR 94 (Peak Only)	Note B	Note B
BRT	430	Oceanside to Escondido via SR 78 Managed Lanes	N/A	10/10
BRT	470	Escondido-UTC via Mira Mesa Blvd	10/NA	10/NA
BRT	610	Temecula (peak only)/Escondido to downtown	10/NA	10/10
BRT	628	South Bay BRT (Otay Mesa-downtown)	15/15	15/15
BRT	640	San Ysidro to Kearny Mesa via I-5 shoulder lanes/HOV lanes, downtown, Hillcrest/Mission Valley Guideway (interim service for Blue Line Express Route 540)	Note C	Note C

Table A.10 – Summary of 2050 Revenue Constrained Plan and Unconstrained Scenario – Transit Services and Headways (Continued)

Service	Route	Description	Revenue Constrained Peak/Off-Peak	Unconstrained Peak/Off-Peak
BRT	650	Chula Vista to Palomar Airport Road Business Park via I-805/I-5 (Peak Only)	N/A	15/15
BRT	652	Downtown to UTC via Kearny Mesa Guideway/I-805	N/A	10/10
BRT	653	Mid-City to Palomar Airport Road via Kearny Mesa/I-805/ I-5	15/NA	15/NA
BRT	870	El Cajon to UTC via Santee, SR 52, I-805	10/NA	10/NA
BRT	890	El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	10/NA	10/NA
BRT	680	Otay Mesa to Sorrento Mesa via I-805	15/15	-
BRT	688	Millenia/San Ysidro to Sorrento Mesa Express	15/NA	15/NA
BRT	689	Millenia/Otay Ranch to UTC/Torrey Pines Express	15/NA	15/NA
BRT	692	El Cajon to Otay Mesa via Spring Valley, SR 125, Millenia	N/A	10/10
BRT	940	Oceanside to UTC via I-5, Carlsbad, Encinitas (Peak Only)	N/A	10/10
Rapid	2	North Park to downtown San Diego via 30th St	10/10	10/10
Rapid	10	La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town	10/10	10/10
Rapid	11	Spring Valley to SDSU via SE San Diego, downtown, Hillcrest, Mid-City	10/10	10/10
Rapid	15	Mid-City Rapid SDSU - downtown	Note D	Note D
Rapid	28	Point Loma to Kearny Mesa via Old Town, Linda Vista	10/10	10/10
Rapid	30	Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC	10/10	10/10
Rapid	41	Fashion Valley to UTC/UCSD via Linda Vista and Clairemont	N/A	10/10
Rapid	103	Solana Beach to Sabre Springs BRT station via Carmel Valley	N/A	15/15
Rapid	120	Kearny Mesa to downtown	10/10	10/10
Rapid	201/202	UTC Area Super Loop - Increase Frequencies	10/10	10/10
Rapid	350	Escondido to Del Lago via Escondido Blvd & Bear Valley	10/10	10/10
Rapid	440	Carlsbad to San Marcos via Palomar Airport Road Corridor	N/A	10/10
Rapid	471	Downtown Escondido to East Escondido	10/10	10/10
Rapid	473	Oceanside to UTC via Hwy 101 Coastal Communities, Carmel Valley	10/10	10/10
Rapid	474	Oceanside to Vista via Mission Ave/Santa Fe Road Corridor	10/10	10/10
Rapid	477	Camp Pendleton to Carlsbad Village via College Boulevard, Plaza Camino Real	N/A	10/10

Table A.10 – Summary of 2050 Revenue Constrained Plan and Unconstrained Scenario – Transit Services and Headways (Continued)

Service	Route	Description	Revenue Constrained Peak/Off-Peak	Unconstrained Peak/Off-Peak
Rapid	635	Eastlake/EUC to Palomar Trolley via Main Street Corridor	10/10	10/10
Rapid	636	SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline	10/10	10/10
Rapid	637	North Park to 32nd Street Trolley via Golden Hill	10/10	10/10
Rapid	638	San Ysidro to Otay Mesa via Otay, SR 905 Corridor	10/10	10/10
Rapid	639	Otay to North Island via Imperial Beach and Silver Strand, Coronado	N/A	10/10
Rapid	709	H Street Trolley to Millenia via H Street Corridor, Southwestern College	10/10	10/10
Rapid	910	Coronado to downtown via Coronado Bridge	10/10	10/10
Streetcar	551	Chula Vista downtown	N/A	10/10
Streetcar	552	National City downtown	N/A	10/10
Streetcar	553	Downtown San Diego: Little Italy to East Village	10/10	10/10
Streetcar	554	Hillcrest/Balboa Park/downtown San Diego Loop	10/10	10/10
Streetcar	555	30th St to downtown San Diego via North Park/ Golden Hill	10/10	10/10
Streetcar	557	El Cajon downtown	N/A	10/10
Streetcar	558	Escondido downtown	N/A	10/10
Streetcar	559	Oceanside downtown	N/A	10/10
Streetcar	565	Mission Beach to La Jolla via Pacific Beach	N/A	10/10
Shuttle	448/449	San Marcos Shuttle	10/10	10/10
Airport Express		Airport Express Routes	30/30	30/30

Notes:

A Included as extensions to Route 510 Blue Line

B Interim service until implementation of Route 522 Orange Line Express

C Interim service until implementation of Route 540 Blue Line Express

D Interim service until implementation of Route 560 Trolley Line

Table A.11 – Summary of 2050 Revenue Constrained Plan and Unconstrained Scenario – Highway Projects

Managed Lanes/Highway Projects					
Freeway	**From**	**To**	**Existing**	**Revenue Constrained**	**Unconstrained**
I-5	SR 905	SR 54	8F	8F+2ML	8F+2ML
I-5	SR 54	SR 15	8F	10F+2ML	10F+2ML
I-5	I-15	I-8	8F	8F+Operational	8F+Operational
I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML	8F/10F+2ML
I-5	La Jolla Village Dr	I-5/I-805 Merge	8F/14F	8F/14F+2ML	8F/14F+2ML
I-5	I-5/I-805 Merge	SR 56	8F/14F+2HOV	8F/14F+4ML	8F/14F+4ML
I-5	SR 56	Manchester Ave	8F/10F+2HOV	8F+4ML	10F+4ML
I-5	Manchester Ave	Palomar Airport Rd	8F	8F+4ML	10F+4ML
I-5	Palomar Airport Rd	Vandegrift	8F	8F+4ML	10F+4ML
I-5	Vandegrift Blvd	Orange County	8F	8F+4T	8F+4T
I-8	I-5	I-15	8F	8F+Operational	8F+Operational
I-8	I-15	SR 125	8F/10F	8F/10F+Operational	8F/10F+Operational
I-8	SR 125	2nd Street	6F/8F	6F/8F+Operational	6F/8F+Operational
I-8	2nd Street	Los Coches	4F/6F	6F	6F
I-8	Los Coches	Dunbar Rd	4F/6F	4F/6F	6F
SR 11/ Otay Mesa East POE	SR 905	Mexico	--	4T+POE	4T+POE
SR 15	I-5	SR 94	6F	8F+2ML	8F+2ML
SR 15	SR 94	I-805	8F	8F+2ML	8F+2ML
SR 15	I-805	I-8	8F	8F+2TL	8F+2TL
I-15	Viaduct		8F	8F+2ML	8F+2ML
I-15	I-8	SR 163	8F	8F+2ML	8F+2ML
I-15	SR 163	SR 56	8F+2ML(R)	10F+4ML/MB	10F+4ML/MB
I-15	SR 56	Centre City Parkway	10F+4ML/MB	10F+4ML/MB	10F+4ML/MB
I-15	Centre City Parkway	SR 78	8F	8F+4ML	10F+4ML
I-15	SR 78	Riverside County	8F	8F+4T	8F+4T
SR 52	I-5	I-805	4F	6F	6F
SR 52	I-805	I-15	6F	6F+2ML	6F+2ML
SR 52	I-15	SR 125	4F	6F+2ML(R)	6F+3ML(R)
SR 52	SR 125	SR 67	4F	4F	6F

Table A.11 – Summary of 2050 Revenue Constrained Plan and Unconstrained Scenario – Highway Projects (Continued)

Managed Lanes/Highway Projects (Continued)					
Freeway	**From**	**To**	**Existing**	**Revenue Constrained**	**Unconstrained**
SR 54	I-5	SR 125	6F	6F+2ML	6F/8F+2ML
SR 56	I-5	I-15	4F	6F	6F+2ML
SR 67	I-8	Mapleview St	4F/6F	4F/6F	6F/8F
SR 67	Mapleview St	Dye Rd	2C/4C	4C	4C
SR 76	I-5	Melrose Drive	4E	4E	6E
SR 76	Melrose Drive	I-15	2C	4C	4C
SR 76	I-15	Couser Canyon	2C	4C/6C+Operational	4C/6C+Operational
SR 78	I-5	I-15	6F	6F+2ML/Operational	6F+2ML/Operational
SR 94	I-5	I-805	8F	8F+2ML	8F+2ML
SR 94	I-805	College Ave	8F	8F+2ML	10F+2ML
SR 94	College Ave	SR 125	8F	8F+2ML	8F+2ML
SR 94	SR 125	Avocado Blvd	4F	6F	6F
SR 94	Avocado Blvd	Jamacha Rd	4C	6C	6C
SR 94	Jamacha Rd	Steele Canyon Rd	4C	6C	6C
SR 94	Steele Canyon Rd	Melody Rd	2C	2C	4C
SR 125	SR 905	San Miguel Rd	4T	8F	8F
SR 125	San Miguel Rd	SR 54	4F	8F	8F
SR 125	SR 54	SR 94	6F	6F+2ML	8F+2ML
SR 125	SR 94	I-8	8F	10F+2ML	10F+2ML
SR 163	I-805	I-15	8F	8F	8F+2ML
SR 241	Orange County	I-5	--	4T/6T	4T/6T
I-805	SR 905	Carroll Canyon Rd	8F/10F	8F/10F+4ML	8F/10F+4ML
I-805	Carroll Canyon Rd	I-5 (north)	8F/10F	8F/10F+2ML	8F/10F+2ML
SR 905	I-5	I-805	4F	4F	8F
SR 905	I-805	Mexico	--	6F	8F

Table A.11 – Summary of 2050 Revenue Constrained Plan and Unconstrained Scenario – Highway Projects (Continued)

HOV Connectors				
Freeway	**Intersecting Freeway**	**Movement**	**Revenue Constrained**	**Unconstrained**
I-5	SR 15	North to North and South to South		✓
I-5	SR 54	West to South and North to East		✓
I-5	SR 54	South to East and West to North		✓
I-5	SR 56	South to East and West to North		✓
I-5	SR 56	North to East and West to South		✓
I-5	SR 78	South to East and West to North, North to East and West to South	✓	✓
I-5	I-805	North to North & South to South	✓	✓
I-15	SR 52	West to North and South to East	✓	✓
I-15	SR 52	West to South and North to East		✓
I-15	SR 56	East to North and South to West		✓
I-15	SR 78	East to South & North to West	✓	✓
I-15	SR 94	South to West & East to North	✓	✓
I-15	SR 163	North to North and South to South		✓
I-15	I-805	North to North & South to South	✓	✓
SR 52	SR 125	North to West and East to South		✓
SR 94	SR 125	East to North and South to West		✓
I-805	SR 52	West to North & South to East	✓	✓
I-805	SR 54	North to West and East to South		✓
I-805	SR 94	West to South and North to East		✓
I-805	SR 94	East to North and South to East		✓
I-805	SR 94	North to West & East to South	✓	✓
I-805	SR 163	North to North and South to South		✓
Freeway Connectors				
Freeway	**Intersecting Freeway**	**Movement**	**Revenue Constrained**	**Unconstrained**
I-5	I-8	East to North and South to West		✓
I-5	SR 56	West to North and South to East	✓	✓
I-5	SR 78	South to East and West to South	✓	✓
I-5	SR 94	North to East		✓
I-15	SR 56	North to West	✓	✓
SR 94	SR 125	South to East and West to North	✓	✓

Table A.11 – Summary of 2050 Revenue Constrained Plan and Unconstrained Scenario – Highway Projects (Continued)

Non-Highway Goods Movement Projects			
Vesta Street Bridge	Mobility Connector over Harbor Drive at Naval Base San Diego	✓	✓
32nd Street	Freeway Access Enhancement	✓	✓
10th Avenue Marine Terminal Entrance	Rail Line Grade Separation/Barrio Logan Enhancement	✓	✓
10th Avenue Marine Terminal Entrance	Enhance military project capacity, expand open storage		✓
National City Marine Terminal	Bay Marina Drive, Civic Center Freeway Access Improvements	✓	✓
National City Marine Terminal	Wharf extension, vehicle processing facility, berths 24-10 and 24-11		✓
National City Rail Yard		✓	✓
Desert Line	Basic Service, rehabilitation		✓
Logistics Center - South County			✓
Logistics Center - North County			✓
Logistics Center - Mid County			✓
San Diego International Airport	Access to I-5		✓
San Diego International Airport	Aircraft/ground access, AC facilities, transload		✓
Future Expansion	Freeway/ground access N. field		✓

KEY

C = Conventional Highway Lanes
F = Freeway Lanes
HOV = High Occupancy Vehicle Lanes
MB = Movable barrier
ML = Managed lanes (HOV & Value Pricing)
ML(R) = Managed lanes (Reversible)
T = Toll Lanes
TL = Transit Lanes

Note: All HOV lanes would convert to Managed Lanes by 2035 with an HOV occupancy of 3+ people.

Table A.12 – 2050 No Build Projects

The following transportation projects were assumed to be built in the 2050 No Build Scenario.

Highway	From	To	Note
I-15	SR 163	SR 78	Under construction
SR 52	SR 125	SR 67	Opened to traffic March 2011
SR 76	Mission Road	I-15	Under construction/development
I-805	Carroll Cyn Road	I-5/I-805 Merge	Under construction
SR 905	I-805	Mexico	Under construction
Transit			
I-15 Bus Rapid Transit (BRT) (downtown and UTC)			Under construction
SuperLoop			In service
Mid-City Rapid Bus			Final design
South Bay BRT (downtown)			Environmental

Figure A.10

2008 Modeled Level of Service

(With Average Daily Traffic Volumes in Thousands)

October 2011

Figure A.11

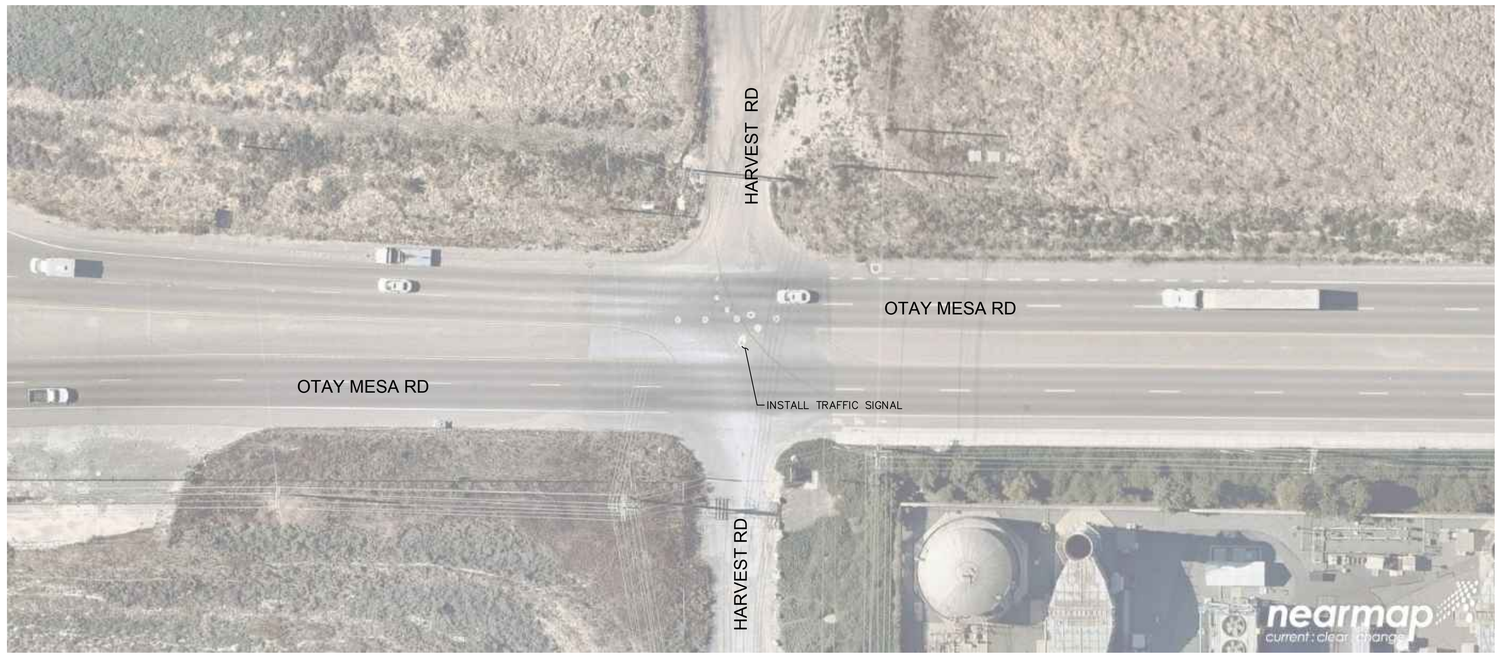
2050 Modeled Level of Service

(With Average Daily Traffic Volumes in Thousands)

October 2011

APPENDIX J

CONCEPTUAL DESIGN FOR PROPOSED MITIGATION IMPROVEMENTS



Kimley»Horn

GRAPHIC SCALE IN FEET
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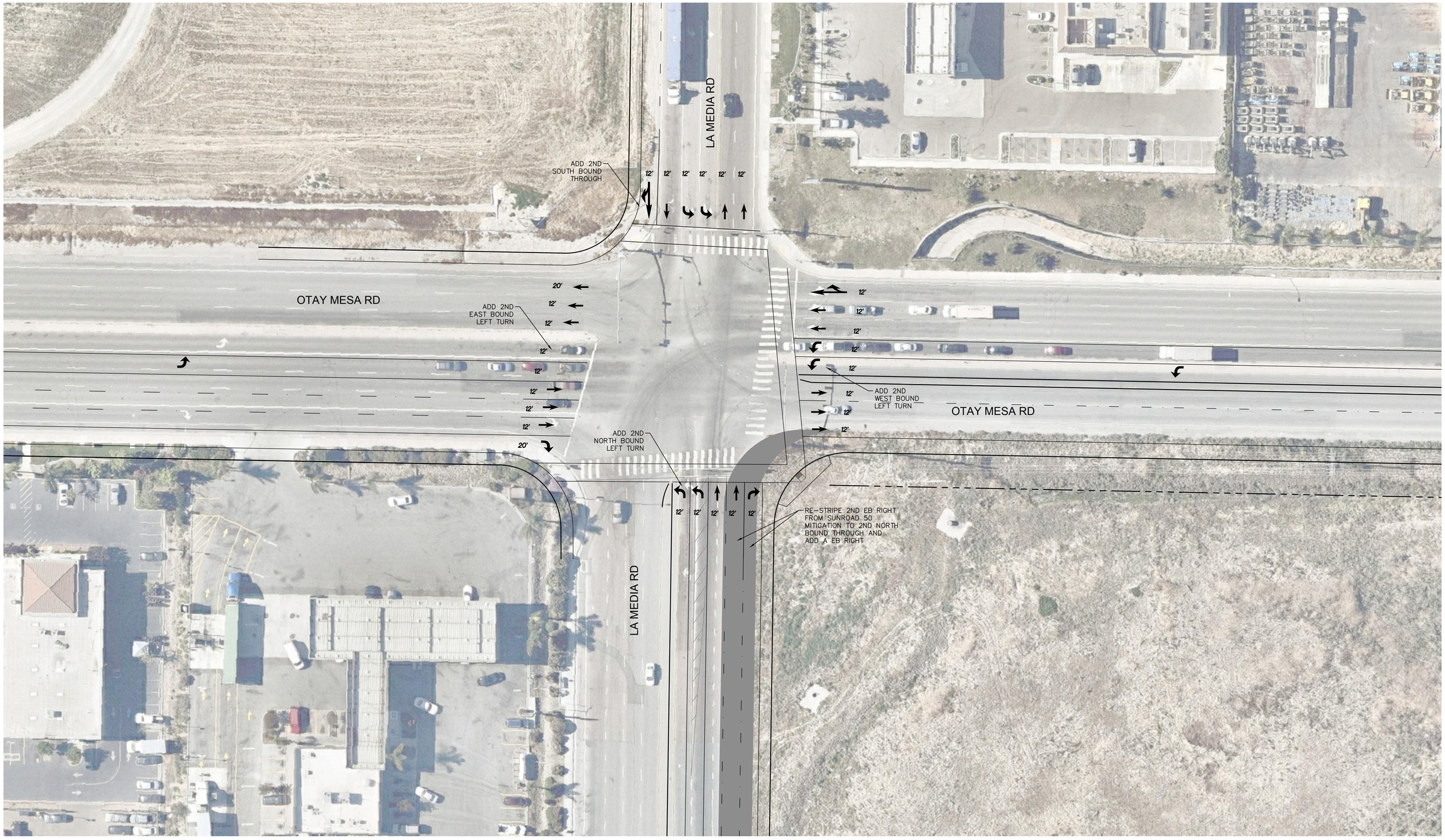
NORTH

HARVEST ROAD AND OTAY MESA ROAD
MITIGATION EXHIBIT

August 2, 2017



Kimley»Horn

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

LA MEDIA ROAD AND OTAY MESA ROAD
MITIGATION EXHIBIT

NOVEMBER 2017

Kimley»Horn

GRAPHIC SCALE IN FEET
0 5 10 20

NORTH

OTAY MESA ROAD AND CACTUS ROAD
MITIGATION EXHIBIT

February 21, 2018

Kimley»Horn

GRAPHIC SCALE IN FEET
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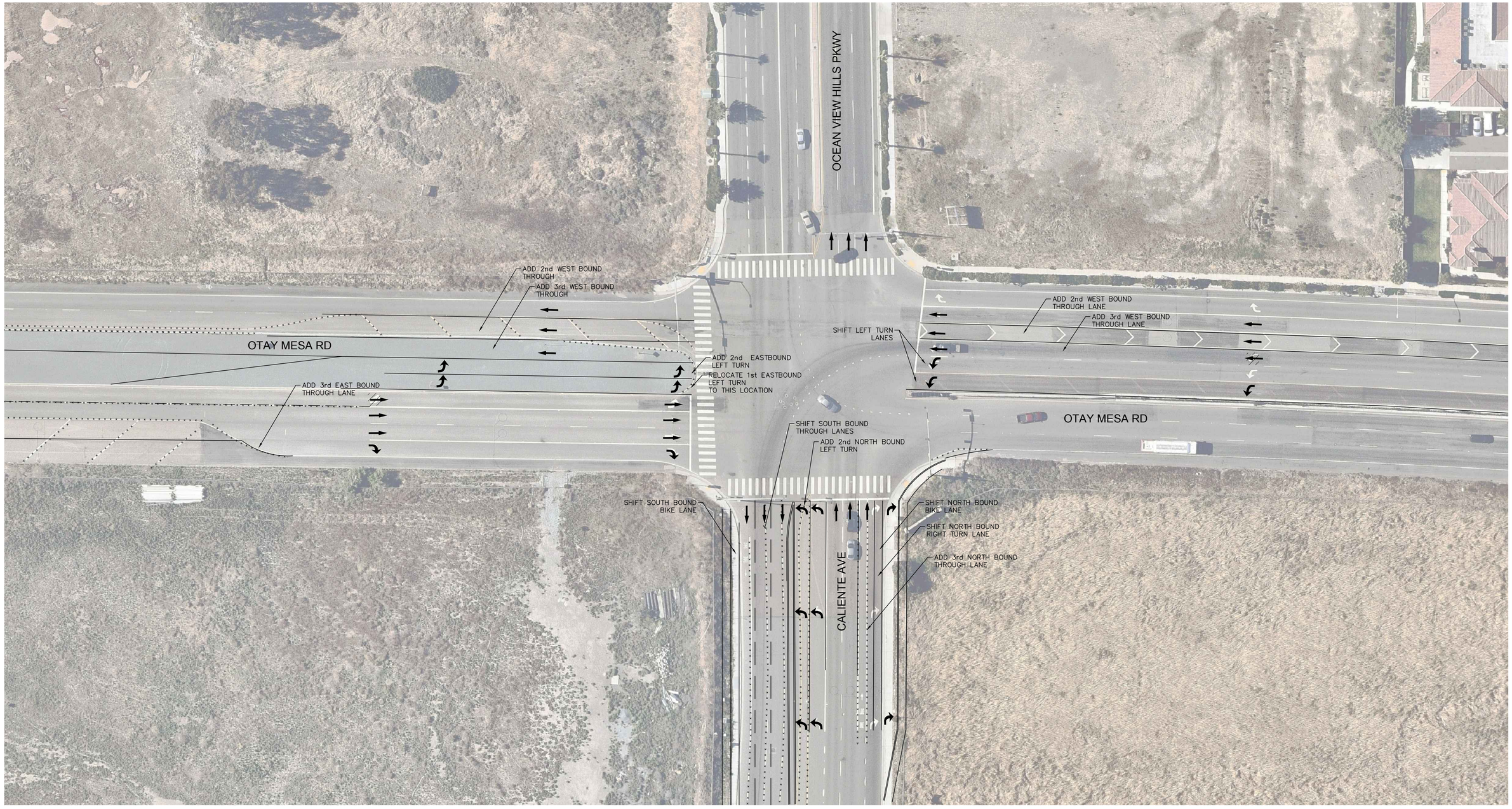
NORTH

HERITAGE ROAD AND OTAY MESA ROAD
MITIGATION EXHIBIT

February 21, 2018



Kimley»Horn

GRAPHIC SCALE IN FEET
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NORTH

CALIENTE AVENUE/ OCEAN VIEW HILLS PARKWAY AND OTAY MESA ROAD
MITIGATION EXHIBIT

August 2, 2017

APPENDIX K

CALTRANS RAMP METER DESIGN MANUAL EXCERPTS

RAMP METERING DESIGN MANUAL

California Department of Transportation
Division of Traffic Operations

April 2016

CHAPTER 1
METERED ENTRANCE RAMPS AND CONNECTORS

1.1 Introduction

Caltrans Deputy Directive 35-R1 contains the statewide policy for ramp metering and delegates responsibilities for implementation. Proposed projects within freeway segments that have existing or proposed ramp meters listed in the latest version of Caltrans *Ramp Metering Development Plan* (RMDP) shall include provisions for ramp metering. Projects designed for new or existing freeway segments without ramp meters, but experiencing recurring traffic congestion and/or having a high frequency of vehicle collisions may consider adding ramp meters.

Geometric design of metered entrance ramps must comply with the standards contained in *Caltrans Highway Design Manual* (HDM). Design of new entrance ramps is typically based on the projected peak-hour traffic volume 20 years after completion of construction, except as stated in the HDM Index 103.2. As with all highway projects, the safety and mobility needs of travelers of all ages and abilities must be addressed in a manner consistent with Caltrans Deputy Directive 64-R2, Complete Streets.

The entrance to a metered entrance ramp should accommodate the crossing of non-motorized traffic (i.e., pedestrians and bicyclists), especially when the entrance ramp is located near schools or a local roadway facility with a designated bicycle lane or route. Non-motorized traffic crossings may be marked or unmarked. Sight distance should be considered in the placement of the non-motorized traffic crossing. Refer to the HDM Topic 201 for sight distance guidance.

Designers need to refer to the HDM for all geometric-related design standards that apply to ramp metering. Any deviations from geometric related design standards need to be approved in accordance with HDM Index 82.2 and the *Project Development Procedures Manual* (PDPM) Chapter 21.

1.2 Number of Metered Entrance Ramp Lanes

For a typical one vehicle per green operation, a ramp meter has practical lower and upper output limits of 240 and 900 vehicles per hour (VPH) per lane, respectively. Ramp metering signals set for flow rates outside this range tend to have high violation rates and cannot effectively control traffic. Therefore, a minimum of one metered lane must be provided for every 900 VPH of traffic demand. However, two General Purpose (GP) lanes may be considered to increase queue storage within the available ramp length when entrance ramp peak hour volumes exceed 500 VPH. See section 1.4 Queue Storage Length Design.

The number of metered lanes at an entrance ramp is determined from the number of lanes at the limit line. It includes the number of both metered general purpose (GP) and high-occupancy vehicle (HOV) preferential lanes. The minimum number of metered GP lanes is determined based on GP traffic demand. The number of metered HOV preferential lanes is determined based on HOV demand using the same guidelines as GP traffic demand, as well as the HOV preferential lane policy.

HOV preferential lanes shall be provided wherever ramp meters are installed, and each HOV preferential lane should be metered.

Ramp Metering design exception approval must be obtained prior to district approval of any project initiation documents such as Project Study Reports (PSR), Project Scope Summary Reports (PSSR), Permit Engineering Evaluation Reports (PEER), or combined PSR and Project Reports (PR). See Appendix A for Deputy Directive 35–R1. See Appendix B for *Exception(s) to Ramp Metering Policy Fact Sheet*. See Appendix C for a ramp metering design checklist.

For new or reconstructed metered entrance ramps, the minimum number and type of entrance ramp lanes as specified in Table 1-1 shall be provided. When truck demand accounts for more than five percent of the GP traffic demand, truck volume must be converted to passenger-car equivalents before using Table 1-1.

Table 1-1 Minimum Number and Type of Entrance Ramp Lanes (for a typical one vehicle per green operation)

Peak Hour GP Lane Volume, VPH	Minimum Number of Entrance Ramp Lanes	Illustration
≤900	1 GP + 1 HOV[(1)]	Fig. 1-1, 1-2, and 1-5
>900 but ≤1,800	2 GP + 1 HOV[(1)]	Fig. 1-3, 1-4[(2)], and 1-6
>1,800	3 GP + 1 HOV[(1)]	[(2)]

[(1)] Increase the number of HOV lanes based on HOV demand.
[(2)] Obtain concurrence of the Caltrans Headquarters Traffic Operations Liaison for three-lane loop or four-lane entrance ramps.

See figures 1-1 and 1-2 for the typical two-lane metered entrance ramp designs (one GP lane and one HOV preferential lane). See figures 1-3 and 1-4 for the typical three-lane metered entrance ramp designs (two GP lanes and one HOV preferential lane).

Any proposed three-lane loop or four-lane entrance ramp requires the review and concurrence of the Caltrans Headquarters Traffic Operations Liaison and approval by Deputy District Director of Traffic Operations.

1.3 Lane Width and Shoulder Width

For metered entrance ramps and connectors, lane width and shoulder width shall be designed according to the requirements as specified in HDM Chapter 300 and Chapter 500.

1.4 Queue Storage Length Design

Storage length is an integral part of a metered entrance ramp. It provides a place upstream of the limit line for queued vehicles during metering operations. To keep the connected local roadways free from the adverse impacts of the entrance ramp queue overspill, adequate storage length should be provided to contain the entrance ramp queue within the entrance ramp. A metered entrance ramp may have to be widened or lengthened in order to provide adequate storage length.

For existing entrance ramps, the adequacy of entrance ramp storage length can be evaluated using the existing peak period 5, 6, or 15 minute arrival rates and the existing or anticipated ramp meter discharge rates. See Appendix D for a detailed description of the Arrival-Discharge Chart method. The arrival-discharge chart method is not to be used for storage design of new or reconstructed entrance ramps.

For a new or reconstructed entrance ramp, the minimum storage length should be designed based on seven percent (7%) of the peak hour demand for the design year. The storage length for the GP and HOV lanes is calculated separately based on the respective peak hour traffic demand. The GP lane demand is the total entrance ramp peak hour demand minus the HOV demand. The HOV demand may vary widely; thus current and project-specific HOV demand information is necessary.

The observed average vehicle spacing for each queued vehicle at a metered entrance ramp is 29 feet, measured from front of one vehicle to the front of the next vehicle. Greater average vehicle spacing should be considered for metered entrance ramps on long and substantial downgrades, or metered entrance ramps that serve a significant percentage of trucks, buses, or recreational vehicles.

For example, the calculation below determines the minimum storage length for each GP lane at a metered entrance ramp with two GP lanes and one HOV preferential lane when the total peak hour traffic demand is 1,200 VPH and 15 percent HOV traffic. In the calculation, the two GP lanes are assumed to be used equally by traffic. A minimum storage length of 1,035 feet is needed for each GP lane.

$$100\% - 15\% \text{ HOV volume} = 85\% \text{ GP volume}$$

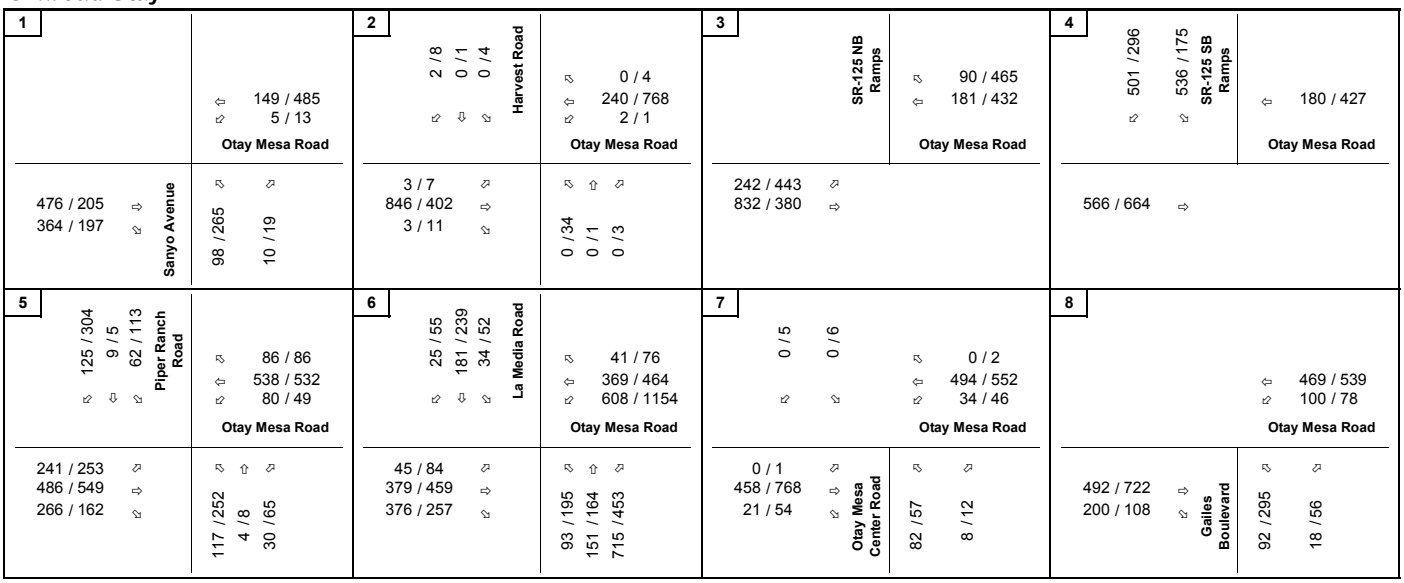
$$\frac{7\% \times (1{,}200 \text{ veh}) \times (85\% \text{ GP vol}) \times (29\ {}^{\text{ft}}/_{\text{veh}})}{2 \text{ GP lanes}}$$

$$\text{mimimum GP storage length} = 1{,}035\ {}^{\text{ft}}/_{\text{lane}}$$

APPENDIX L

ALTERNATIVE ACCESS CONTROL EVALUATION

Sunroad Otay



Legend

X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

#N/A

#N/A

Near Term (2020) w P1+2 Peak-Hour Traffic Volumes

\\Sndfp01\ca_snd1\SND_LDEV\095128024 - Sunroad Otay\Traffic\ANALYSIS\SYNCHRO\2017.11.1 - Driveway Control Alternative\Excel\[095128024_TA01_ALTERNATIVE.xlsm]NT w P1+2 Figure 1-

Sunroad Otay

9

Otay Mesa Road: 321 / 480 ⇦; 201 / 351 ⇨

Britannia Boulevard: 343 / 505 ⇨; 140 / 368 ⇦; 268 / 320 ⇨; 303 / 230 ⇨

10

Cactus Road: 3 / 11 ⇨; 2 / 4 ⇩; 4 / 15 ⇦

Otay Mesa Road: 23 / 8 ⇨; 398 / 712 ⇦; 145 / 193 ⇨

9 / 11 ⇨; 486 / 634 ⇨; 67 / 84 ⇦

75 / 67 ⇨; 1 / 4 ⇧; 115 / 220 ⇨

11

Heritage Road: 68 / 292 ⇨; 26 / 105 ⇩; 157 / 284 ⇦

Otay Mesa Road: 152 / 321 ⇨; 285 / 481 ⇦; 46 / 70 ⇨

130 / 159 ⇨; 381 / 348 ⇨; 124 / 97 ⇦

72 / 155 ⇨; 35 / 61 ⇧; 26 / 82 ⇨

12

Corporate Center Drive: 61 / 429 ⇨; 38 / 122 ⇦

Otay Mesa Road: 43 / 100 ⇨; 273 / 874 ⇦

362 / 192 ⇨; 530 / 453 ⇨

13

Ocean View Hills Parkway: 0 / 4 ⇨; 448 / 239 ⇩; 345 / 210 ⇦

Otay Mesa Road: 191 / 316 ⇨; 4 / 61 ⇦; 343 / 984 ⇨

Caliente Avenue: 3 / 7 ⇦; 2 / 37 ⇨; 5 / 19 ⇦; 1 / 31 ⇨; 332 / 460 ⇧; 832 / 483 ⇨

14

La Media Road: 37 / 64 ⇨; 845 / 1544 ⇩; 0 / 1 ⇦

SR-905 WB Ramps: 197 / 164 ⇨; 65 / 31 ⇦; 42 / 77 ⇨

St Andrew Avenue: 26 / 20 ⇨; 55 / 114 ⇦

94 / 93 ⇨; 942 / 863 ⇧; 64 / 261 ⇨

15

La Media Road: 456 / 723 ⇨; 504 / 1027 ⇩

SR-905 WB On Ramp: 0 / 27 ⇨

0 / 103 ⇨

1098 / 1217 ⇧

16

La Media Road: 187 / 397 ⇦; 252 / 471 ⇩; 13 / 1 ⇦

SR-905 EB Ramps: 837 / 573 ⇨; 310 / 230 ⇦

7 / 69 ⇨; 258 / 618 ⇧; 3 / 0 ⇨

17

Otay Mesa Road: 821 / 919 ⇦; 87 / 125 ⇨

Avenida Costa Azul/ Project Access #2: 1259 / 1126 ⇨; 167 / 212 ⇦; 251 / 663 ⇨; 53 / 135 ⇨

Legend

X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

#N/A

Near Term (2020) w P1+2 Peak-Hour Traffic Volumes (cont.)

#N/A

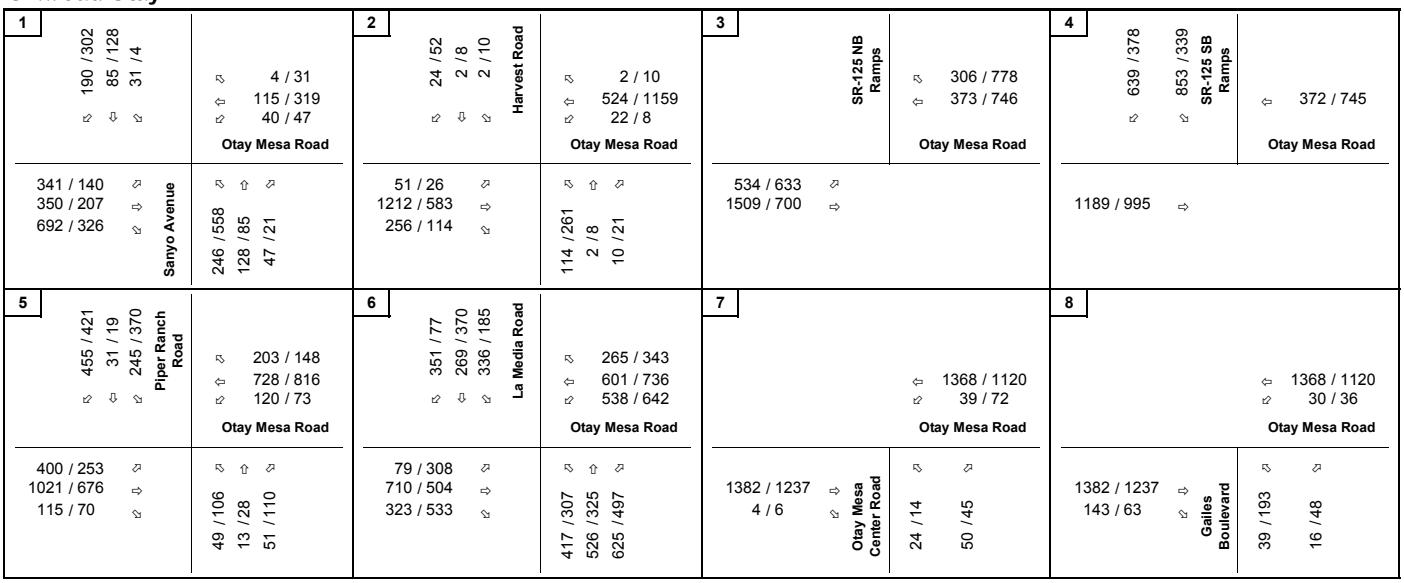
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1259	167	87	821	251	53
Future Volume (vph)	1259	167	87	821	251	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4893	1346	1703	4893	2918	1346
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4893	1346	1703	4893	2918	1346
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1368	182	95	892	273	58
RTOR Reduction (vph)	0	104	0	0	0	46
Lane Group Flow (vph)	1368	78	95	892	273	12
Heavy Vehicles (%)	6%	20%	6%	6%	20%	20%
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	20.6	20.6	4.0	29.1	10.0	10.0
Effective Green, g (s)	20.6	20.6	4.0	29.1	10.0	10.0
Actuated g/C Ratio	0.43	0.43	0.08	0.60	0.21	0.21
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2095	576	141	2960	606	279
v/s Ratio Prot	c0.28		c0.06	0.18	c0.09	
v/s Ratio Perm		0.06				0.01
v/c Ratio	0.65	0.14	0.67	0.30	0.45	0.04
Uniform Delay, d1	10.9	8.3	21.4	4.6	16.6	15.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	12.0	0.1	0.5	0.1
Delay (s)	11.7	8.5	33.4	4.6	17.2	15.3
Level of Service	B	A	C	A	B	B
Approach Delay (s)	11.3			7.4	16.9	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	48.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1126	212	125	919	663	135
Future Volume (vph)	1126	212	125	919	663	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4893	1346	1703	4893	2918	1346
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4893	1346	1703	4893	2918	1346
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1224	230	136	999	721	147
RTOR Reduction (vph)	0	154	0	0	0	101
Lane Group Flow (vph)	1224	76	136	999	721	46
Heavy Vehicles (%)	6%	20%	6%	6%	20%	20%
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	17.4	17.4	5.5	27.4	16.4	16.4
Effective Green, g (s)	17.4	17.4	5.5	27.4	16.4	16.4
Actuated g/C Ratio	0.33	0.33	0.10	0.52	0.31	0.31
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1612	443	177	2539	906	418
v/s Ratio Prot	c0.25		c0.08	0.20	c0.25	
v/s Ratio Perm		0.06				0.03
v/c Ratio	0.76	0.17	0.77	0.39	0.80	0.11
Uniform Delay, d1	15.8	12.6	23.0	7.7	16.7	13.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.1	0.2	18.0	0.1	4.9	0.1
Delay (s)	17.9	12.8	41.0	7.8	21.6	13.1
Level of Service	B	B	D	A	C	B
Approach Delay (s)	17.1			11.8	20.1	
Approach LOS	B			B	C	

Intersection Summary			
HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	52.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Sunroad Otay



Legend

X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

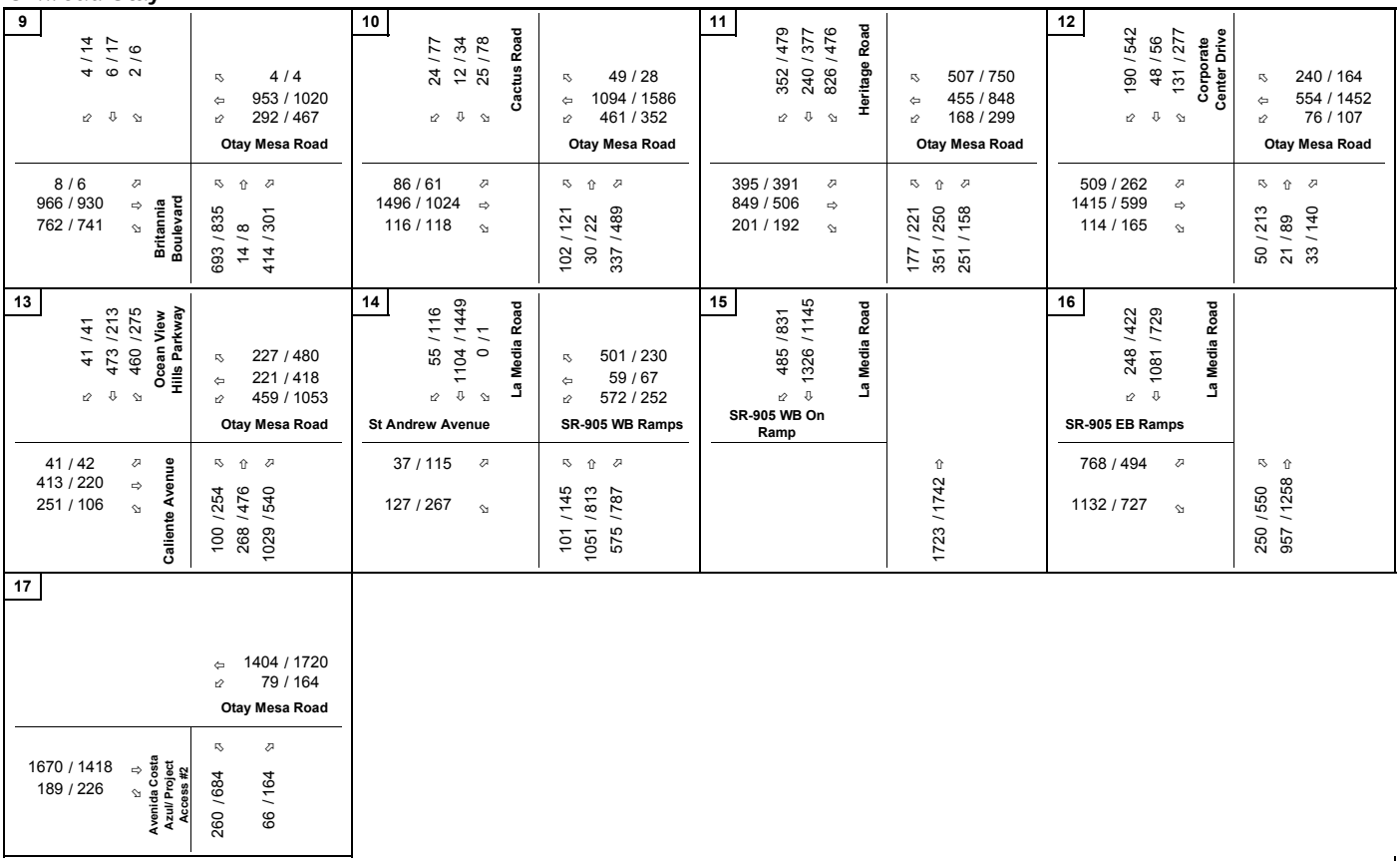
#N/A

#N/A

Horizon Year w P1+2 Peak-Hour Traffic Volumes

\\Sndfp01\ca_snd1\SND_LDEV\095128024 - Sunroad Otay\Traffic\ANALYSIS\SYNCHRO\2017.11.1 - Driveway Control Alternative\Excel\[095128024_TA01_ALTERNATIVE.xlsm]HY w P1+2 Figure 1-

Sunroad Otay



Legend

X / Y = AM / PM PEAK HOUR TURNING VOLUMES

NOT TO SCALE

Kimley»Horn

#N/A

Horizon Year w P1+2 Peak-Hour Traffic Volumes (cont.)

#N/A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1670	189	79	1404	260	66
Future Volume (vph)	1670	189	79	1404	260	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4893	1524	1703	4893	3303	1524
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4893	1524	1703	4893	3303	1524
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1815	205	86	1526	283	72
RTOR Reduction (vph)	0	118	0	0	0	57
Lane Group Flow (vph)	1815	87	86	1526	283	15
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	18.4	18.4	2.7	25.6	9.0	9.0
Effective Green, g (s)	18.4	18.4	2.7	25.6	9.0	9.0
Actuated g/C Ratio	0.42	0.42	0.06	0.59	0.21	0.21
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2064	643	105	2872	681	314
v/s Ratio Prot	c0.37		0.05	c0.31	c0.09	
v/s Ratio Perm		0.06				0.01
v/c Ratio	0.88	0.13	0.82	0.53	0.42	0.05
Uniform Delay, d1	11.6	7.7	20.2	5.4	15.0	13.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.6	0.1	37.1	0.2	0.4	0.1
Delay (s)	16.2	7.8	57.3	5.6	15.4	13.9
Level of Service	B	A	E	A	B	B
Approach Delay (s)	15.4			8.3	15.1	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	43.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1418	226	164	1720	684	164
Future Volume (vph)	1418	226	164	1720	684	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.86	0.86	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	4613	1310	1703	4893	3303	1524
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	4613	1310	1703	4893	3303	1524
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1541	246	178	1870	743	178
RTOR Reduction (vph)	3	141	0	0	0	123
Lane Group Flow (vph)	1563	80	178	1870	743	55
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	20.6	20.6	5.5	30.6	17.6	17.6
Effective Green, g (s)	20.6	20.6	5.5	30.6	17.6	17.6
Actuated g/C Ratio	0.36	0.36	0.10	0.53	0.31	0.31
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1661	471	163	2617	1016	468
v/s Ratio Prot	c0.34		c0.10	0.38	c0.22	
v/s Ratio Perm		0.06				0.04
v/c Ratio	0.94	0.17	1.09	0.71	0.73	0.12
Uniform Delay, d1	17.7	12.5	25.9	10.0	17.7	14.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.1	0.2	97.2	0.9	2.7	0.1
Delay (s)	28.8	12.6	123.1	11.0	20.4	14.3
Level of Service	C	B	F	B	C	B
Approach Delay (s)	26.8			20.7	19.3	
Approach LOS	C			C	B	

Intersection Summary			
HCM 2000 Control Delay	22.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Sewer Study

Sunroad Otay 50

City of San Diego

Site Development Permit / Tentative Map
Project No. 538140

December 2017

Prepared for:
Sunroad Enterprises
4445 Eastgate Mall, suite 400
San Diego, CA 92121

Prepared by:
Kimley-Horn and Associates, Inc.
401 B Street, Suite 600
San Diego, CA 92101

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095128024

SEWER STUDY FOR

Sunroad Otay 50

December 2017

Michael J. Knapton Exp. Date 9/30/19

R.C.E. 65627

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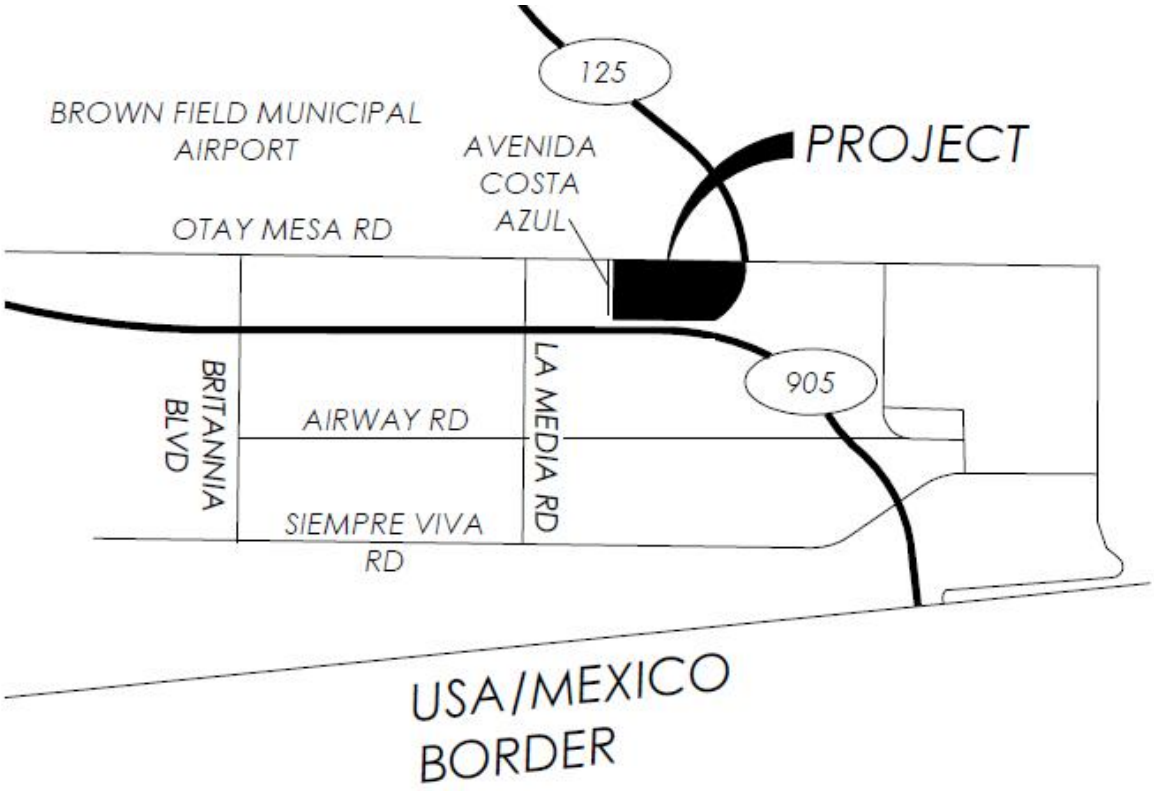
APPENDICES

Appendix A Sewer Flow Generation Calculations

Map Pocket No. 1 Proposed Sunroad Otay 50 Sewer Exhibit



VICINITY MAP

N.T.S.

1. Introduction/Project Description

The existing mapped lots and streets will be vacated and re-subdivided per this proposed entitlement. The public streets and infrastructure contemplated under the previously approved subdivision will no longer apply. The proposed project involves the development of four industrial warehouse buildings, roughly 845,000 square feet of space, on a 49.1-acre parcel located south of Otay Mesa Road and east and west of Piper Ranch Road, North of SR-905. The existing and proposed zoning for the site is IL-3-1.

The design for this private sewer system is a gravity fed system that sewers north into existing public manholes located in Otay Mesa Road. The east half of the project will be constructed first (Phase I) and will connect at Piper Ranch Road. The west half will connect at former Avenida Costa Azul; the public undeveloped right-of-way being abandoned. Piper Ranch Road exists as a public street north of Otay Mesa Road and as a private drive through this project. Connection to the existing system will be made via a direct connect to the existing manhole with a proposed 12" PVC sewer main. Onsite flows to this system will be added through two private sewer laterals as shown in the sewer exhibit. The sewer pipe slopes and sizes are designed taking into account entire system flows predicted for the project site.

As this project does not have identified tenants, the process to derive expected Equivalent Dwelling Units (EDU's) was to take other typical industrial warehouse buildings constructed in Southern California and assign fixture unit counts on the City of San Diego Water Meter Data Card. From this, a ratio of 20 fixture units per 1 EDU was applied. The project is thereby estimated to yield a maximum of 24 EDU's at full buildout. This EDU count is far less than the allowable sewer generation for industrially-zoned land, but in-line with expected sewer demand of similar projects. The project flows to City of San Diego sewer pump station 23T, which has available capacity for the project. The project will pay its fair share and sewer surcharge fees at the time of building permit issuance for the diminished capacity due to this project at that pump station.

In the event a tenant has sewer needs exceeding the cumulative 24 EDU's for the project, the owner will submit for a Substantial Conformance Review specific to sewer, so the request can be vetted against the capacity available at sewer pump station 23T. If sufficient capacity exists for the additional proposed EDU's, fair share costs would be paid. In the event the requested EDU's are substantial; a sewer basin analysis may be required to demonstrate the effect of the project on capacity and may require the developer to fund or install components to upgrade the capacity of the pump station.

The adjacent property to the west will sewer into the private lateral constructed during Phase 2. In an effort to size this lateral this study analyzes the capacity of the sewer system proposed by this project including offsite flows from the 18.2-acre property adjacent to the west. The analysis of the adjacent property utilizes the maximum generated flows using equivalent population values and net acreage per the *City of San Diego - Sewer Design Guide,* which may or may not be the same as the proposed land use.

Additional calculations with smaller pipe diameters for Phase 1 have been provided to demonstrate that the sizing is appropriate, as it considers max allowable sewer generation so the developer has needed flexibility for minimal increase in pipe material costs. Design of the proposed sewer system is consistent with the design parameters as outlined in the *City of San Diego - Sewer Design Guide, May 2015*.

Appendices

Appendix A ~ Sewer Flow Generation Calculations

KIMLEY-HORN AND ASSOCIATES
SAN DIEGO, CALIFORNIA

SEWER STUDY SUMMARY FOR:
SUNROAD OTAY 50

JOB NO. 095128024
DATE: 12/27/2017

PROJECT ENGINEER: Michael Knapton
PREPARED BY: MK

Update

Calculate

ENTER NUMBER OF NODES TO ANALYZE: 3

REACH	FROM MH	TO MH	NUMBER OF RESIDENTIAL DWELLING UNITS	POP. PER DWELLING UNIT	POP. INLINE	SERVED TOTAL	PEAK DESIGN FLOW			LINE SIZE (INCHES)	MINIMUM SLOPE (%)	DESIGN SLOPE (%)	dn(ft)	dn/D	VELOCITY (fps)	COMMENTS
							PEAK/AVG RATIO	M.G.D.	CFS							
D	BLDG	7	6.0	3.5	21.0	21.0	4.00	0.007	0.010	6	5.489%	0.50	0.06	0.11	0.87	ONSITE PRIVATE
C	7	1	6.0	3.5	21.0	42.0	4.00	0.013	0.021	8	3.375%	0.50	0.07	0.11	1.03	ONSITE PRIVATE
END	1	PIPER			0.0	42.0	4.00	0.013	0.021	8	3.375%	1.00	0.06	0.09	1.31	ONSITE PRIVATE

KIMLEY-HORN AND ASSOCIATES
SAN DIEGO, CALIFORNIA

SEWER STUDY SUMMARY FOR:
SUNROAD OTAY 50

JOB NO. 095128024
DATE: 12/27/2017

PROJECT ENGINEER: Michael Knapton
PREPARED BY: MK

Update

Calculate

ENTER NUMBER OF NODES TO ANALYZE: 3

REACH	FROM MH	TO MH	NUMBER OF RESIDENTIAL DWELLING UNITS	POP. PER DWELLING UNIT	POP. INLINE	SERVED TOTAL	PEAK DESIGN FLOW			LINE SIZE (INCHES)	MINIMUM SLOPE (%)	DESIGN SLOPE (%)	dn(ft)	dn/D	VELOCITY (fps)	COMMENTS
							PEAK/AVG RATIO	M.G.D.	CFS							
B	8	6	6.0	3.5	21.0	21.0	4.00	0.007	0.010	6	5.489%	0.50	0.06	0.11	0.87	ONSITE PRIVATE
A1	6	3	6.0	3.5	21.0	42.0	4.00	0.013	0.021	8	3.375%	0.50	0.07	0.11	1.03	ONSITE PRIVATE
A	3	1	260.0	3.5	910.0	952.0	2.55	0.194	0.299	12	0.404%	1.00	0.20	0.20	2.76	MAX ALLOWABLE OFFSITE

Worksheet for Phase 2 Reach A - 8" Check

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00500	ft/ft
Diameter	8.00	in
Discharge	0.299	ft^3/s

Results

Normal Depth	3.26	in
Flow Area	0.13	ft^2
Wetted Perimeter	0.92	ft
Hydraulic Radius	1.74	in
Top Width	0.66	ft
Critical Depth	0.25	ft
Percent Full	40.8	%
Critical Slope	0.00654	ft/ft
Velocity	2.23	ft/s
Velocity Head	0.08	ft
Specific Energy	0.35	ft
Froude Number	0.87	
Maximum Discharge	0.92	ft^3/s
Discharge Full	0.85	ft^3/s
Slope Full	0.00061	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	40.80	%
Downstream Velocity	Infinity	ft/s

Worksheet for Phase 2 Reach A - 8" Check

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	3.26	in
Critical Depth	0.25	ft
Channel Slope	0.00500	ft/ft
Critical Slope	0.00654	ft/ft

Worksheet for Phase 2 Reach B - 6" Check

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00500	ft/ft
Diameter	6.00	in
Discharge	0.010	ft^3/s

Results

Normal Depth	0.66	in
Flow Area	0.01	ft^2
Wetted Perimeter	0.34	ft
Hydraulic Radius	0.42	in
Top Width	0.31	ft
Critical Depth	0.05	ft
Percent Full	10.9	%
Critical Slope	0.00848	ft/ft
Velocity	0.86	ft/s
Velocity Head	0.01	ft
Specific Energy	0.07	ft
Froude Number	0.78	
Maximum Discharge	0.43	ft^3/s
Discharge Full	0.40	ft^3/s
Slope Full	0.00000	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	in
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

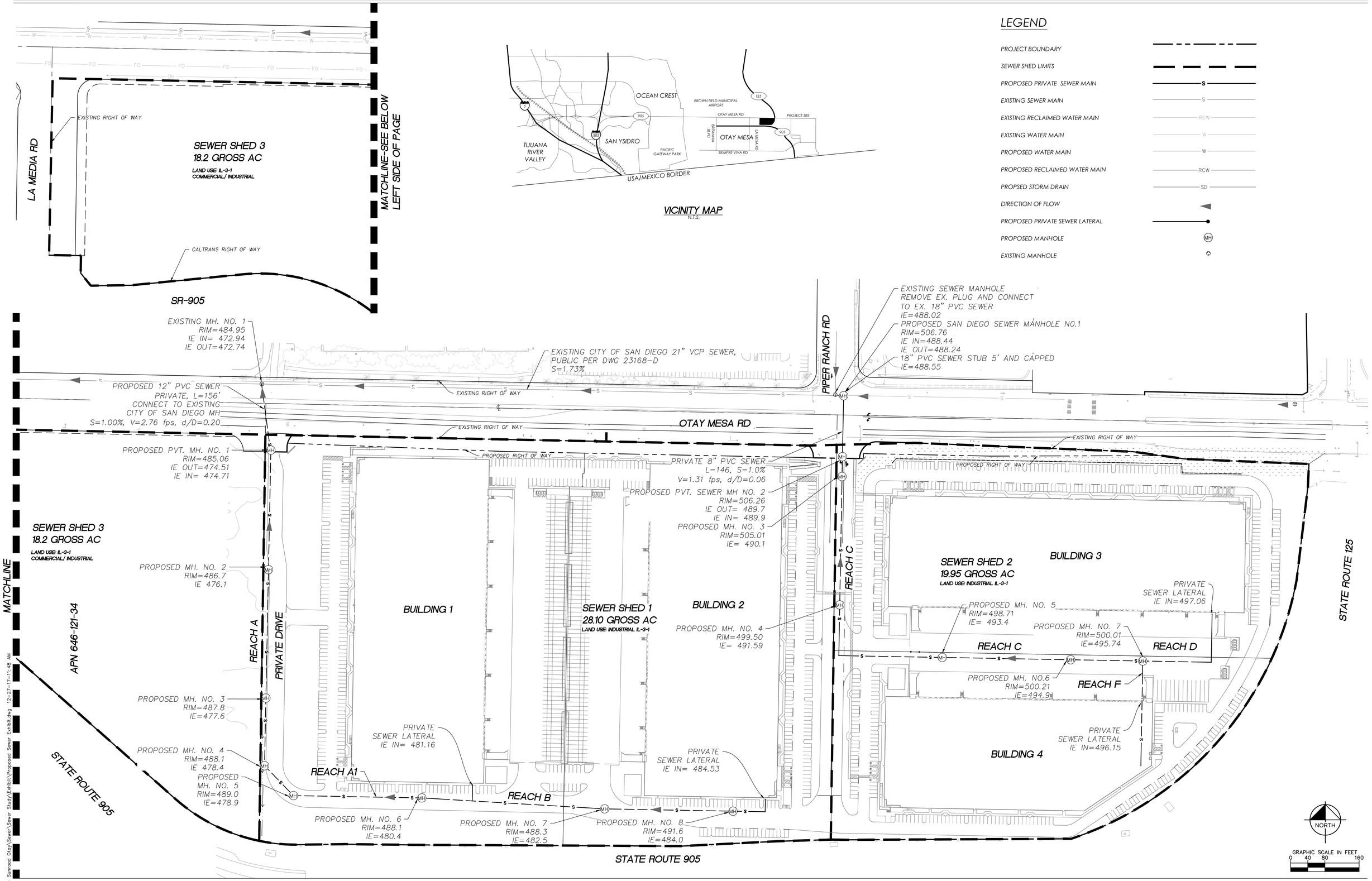
Upstream Depth	0.00	in
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	10.94	%
Downstream Velocity	Infinity	ft/s

Worksheet for Phase 2 Reach B - 6" Check

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	0.66	in
Critical Depth	0.05	ft
Channel Slope	0.00500	ft/ft
Critical Slope	0.00848	ft/ft

Map Pocket No. 1 ~ Sunroad Otay 50
Proposed Sewer Exhibit



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Kimley»Horn

401 B Street · Suite 600 San Diego, Ca. 92101
Tel: (619) 234-9411

DECEMBER 2017

PROPOSED SEWER EXHIBIT

SUNROAD OTAY 50

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST INTRODUCTION

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).[1]

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP or local, State, or federal law.

[1] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

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CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- The Checklist is required only for projects subject to CEQA review.[2]
- If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in Chapter 11: Land Development Procedures of the City's Municipal Code.
- The requirements in the Checklist will be included in the project's conditions of approval.
- The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

Application Information

Contact Information

Project No./Name: Sunroad Otay 50. Project Number 538140

Property Address: So. of Otay Mesa Rd.. No. of SR 905 @ Piper Ranch Rd.

Applicant Name/Co.: Sunroad Otay Partners, L.P. Attn Tom Story

Contact Phone: 858 229-5442 Contact Email: ttstory@outlook.com

Was a consultant retained to complete this checklist? ■ Yes ☐ No If Yes, complete the following

Consultant Name: Tom Story Contact Phone: 858 229-5442

Company Name: Tom Story Consulting Contact Email: ttstory@outlook.com

Project Information

1. What is the size of the project (acres)? 48.07
2. Identify all applicable proposed land uses:
   - ☐ Residential (indicate # of single-family units):
   - ☐ Residential (indicate # of multi-family units):
   - ☐ Commercial (total square footage):
   - ■ Industrial (total square footage): 845,226
   - ☐ Other (describe):
3. Is the project or a portion of the project located in a Transit Priority Area? ■ Yes ☐ No
4. Provide a brief description of the project proposed:

This is a four building speculative business park to be developed in phases. Buildings will be leased to area tenants/businesses.

[2] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

CAP CONSISTENCY CHECKLIST QUESTIONS

Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations?;[3] OR, B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA)[4] and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?; OR, C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?	☑	☐

If "***Yes***," proceed to Step 2 of the Checklist. For question B above, complete Step 3. For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

If "***No***," in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

The proposed project is consistent with the existing Community Plan and Land Use zone (Option A).

[3] This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

[4] This category applies to all projects that answered in the affirmative to question 3 on the previous page: Is the project or a portion of the project located in a transit priority area.

Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.[5] All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the Greenbook (for public projects).

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
Strategy 1: Energy & Water Efficient Buildings			
1. *Cool/Green Roofs*. • Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; OR • Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; OR • Would the project include a combination of the above two options? Check "N/A" only if the project does not include a roof component. The project will meet or exceed the requirements of the first bullet. See attached spec sheet for details.	☑	☐	☐

[5] Actions that are not subject to Step 2 would include, for example: 1) discretionary map actions that do not propose specific development, 2) permits allowing wireless communication facilities, 3) special events permits, 4) use permits or other permits that do not result in the expansion or enlargement of a building (e.g., decks, garages, etc.), and 5) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

2. *Plumbing fixtures and fittings* With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following: Residential buildings: • Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi; • Standard dishwashers: 4.25 gallons per cycle; • Compact dishwashers: 3.5 gallons per cycle; and • Clothes washers: water factor of 6 gallons per cubic feet of drum capacity? Nonresidential buildings: • Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code (See Attachment A); and • Appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code (See Attachment A)? Check "N/A" only if the project does not include any plumbing fixtures or fittings. The non-residential building plumbing fixtures, fittings and applicances will meet or exceed the requirements of the California Green Building Standards Code.	☑	☐	☐

Strategy 3: Bicycling, Walking, Transit & Land Use			
3. *Electric Vehicle Charging* • Multiple-family projects of 17 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents? • Multiple-family projects of more than 17 dwelling units: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents? • Non-residential projects: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use? Check "N/A" only if the project is a single-family project or would not require the provision of listed cabinets, boxes, or enclosures connected to a conduit linking the parking spaces with electrical service, e.g., projects requiring fewer than 10 parking spaces. See attached Exhibit 24 with EV space calculation. 51 spaces will be provided; 26 of which will be active.	☑	☐	☐
Strategy 3: Bicycling, Walking, Transit & Land Use (Complete this section if project includes non-residential or mixed uses)			
4. *Bicycle Parking Spaces* Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?[6] Check "N/A" only if the project is a residential project. Project will provide 48 long term bicyle parking spaces (45 are required).	☑	☐	☐

[6] Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

5. *Shower facilities*

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code as shown in the table below?

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0-10	0	0
11-50	1 shower stall	2
51-100	1 shower stall	3
101-200	1 shower stall	4
Over 200	1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants

Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).

As this project is speculative, the shower and locker facilities will be included with each building as if there will be 50 occupants per building, i.e. 1 shower stall and 2 two-tier lockers will be provided with each building. Additional lockers will be added, if necessary, based on the number of employees associated with the tenant(s) of each indiviual building.

☑ ☐ ☐

6. *Designated Parking Spaces*

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?

Number of Required Parking Spaces	Number of Designated Parking Spaces
0-9	0
10-25	2
26-50	4
51-75	6
76-100	9
101-150	11
151-200	18
201 and over	At least 10% of total

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project, or if it does not include nonresidential use in a TPA.

Per the Building Data table on Exhibit 24 (attached) a total of 86 Clean Air/Vanpool spaces will be provided where 71 are required.

☑	☐	☐

7. *Transportation Demand Management Program* If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes: At least one of the following components: • Parking cash out program • Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools • Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development And at least three of the following components: • Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees • On-site carsharing vehicle(s) or bikesharing • Flexible or alternative work hours • Telework program • Transit, carpool, and vanpool subsidies • Pre-tax deduction for transit or vanpool fares and bicycle commute costs • Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use? Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees). The project is a speculative industrial development where the number of employees will not be known until prospective tenants have signed a lease. If the project has more than 50 employees, a TDM program will be implemented that includes a Parking Management Plan along with the 1st, 2nd, and 5th bullets from the second set of compnents listed above.	☑	☐	☐

Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option B. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3.The following questions must each be answered in the affirmative and fully explained.

1. **Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?**

   Considerations for this question:
   - Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
   - Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
   - Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

2. **Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?**

   Considerations for this question:
   - Does the proposed project support/incorporate identified transit routes and stops/stations?
   - Does the project include transit priority measures?

3. **Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?**

   Considerations for this question:
   - Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
   - Does the proposed project urban design include features for walkability to promote a transit supportive environment?

4. **Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?**

   Considerations for this question:
   - Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
   - Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

5. **Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?**

   Considerations for this question:
   - Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
   - Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
   - Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

6. **Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?**

   Considerations for this question:
   - Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
   - Does the proposed project include policies or strategies for preserving existing trees?
   - Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST
ATTACHMENT A

This attachment provides performance standards for applicable Climate Action Pan (CAP) Consistency Checklist measures.

Table 1 Roof Design Values for Question 1: Cool/Green Roofs supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan

Land Use Type	Roof Slope	Minimum 3-Year Aged Solar Reflectance	Thermal Emittance	Solar Reflective Index
Low-Rise Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
High-Rise Residential Buildings, Hotels and Motels	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
Non-Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 residential and non-residential voluntary measures shown in Tables A4.106.5.1 and A5.106.11.2.2, respectively. Roof installation and verification shall occur in accordance with the CALGreen Code.

CALGreen does not include recommended values for low-rise residential buildings with roof slopes of ≤ 2:12 for San Diego's climate zones (7 and 10). Therefore, the values for climate zone 15 that covers Imperial County are adapted here.

Solar Reflectance Index (SRI) equal to or greater than the values specified in this table may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.

Table 2	Fixture Flow Rates for Non-Residential Buildings related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan
Fixture Type	**Maximum Flow Rate**
Showerheads	1.8 gpm @ 80 psi
Lavatory Faucets	0.35 gpm @60 psi
Kitchen Faucets	1.6 gpm @ 60 psi
Wash Fountains	1.6 [rim space(in.)/20 gpm @ 60 psi]
Metering Faucets	0.18 gallons/cycle
Metering Faucets for Wash Fountains	0.18 [rim space(in.)/20 gpm @ 60 psi]
Gravity Tank-type Water Closets	1.12 gallons/flush
Flushometer Tank Water Closets	1.12 gallons/flush
Flushometer Valve Water Closets	1.12 gallons/flush
Electromechanical Hydraulic Water Closets	1.12 gallons/flush
Urinals	0.5 gallons/flush

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Tables A5.303.2.3.1 and A5.106.11.2.2, respectively. See the California Plumbing Code for definitions of each fixture type.

Where complying faucets are unavailable, aerators rated at 0.35 gpm or other means may be used to achieve reduction.

Acronyms:
gpm = gallons per minute
psi = pounds per square inch (unit of pressure)
in. = inch

Table 3	**Standards for Appliances and Fixtures for Commercial Application related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan**	
Appliance/Fixture Type	Standard	
Clothes Washers	Maximum Water Factor (WF) that will reduce the use of water by 10 percent below the California Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the *California Code of Regulations*.	
Conveyor-type Dishwashers	0.70 maximum gallons per rack (2.6 L) (High-Temperature)	0.62 maximum gallons per rack (4.4 L) (Chemical)
Door-type Dishwashers	0.95 maximum gallons per rack (3.6 L) (High-Temperature)	1.16 maximum gallons per rack (2.6 L) (Chemical)
Undercounter-type Dishwashers	0.90 maximum gallons per rack (3.4 L) (High-Temperature)	0.98 maximum gallons per rack (3.7 L) (Chemical)
Combination Ovens	Consume no more than 10 gallons per hour (38 L/h) in the full operational mode.	
Commercial Pre-rinse Spray Valves (manufactured on or after January 1, 2006)	Function at equal to or less than 1.6 gallons per minute (0.10 L/s) at 60 psi (414 kPa) and • Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate. • Be equipped with an integral automatic shutoff. • Operate at static pressure of at least 30 psi (207 kPa) when designed for a flow rate of 1.3 gallons per minute (0.08 L/s) or less.	

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Section A5.303.3. See the California Plumbing Code for definitions of each appliance/fixture type.

Acronyms:
L = liter
L/h = liters per hour
L/s = liters per second
psi = pounds per square inch (unit of pressure)
kPa = kilopascal (unit of pressure)

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MEMORANDUM

DATE: 25 April 2017
TO: Andrea Rosati, Sunroad Enterprises
FROM: Brittany Erin Ruggels, KLR Planning
SUBJECT: Sunroad 50 EnviroFacts Search
COPIES: Karen Ruggels, KLR Planning

An EnviroFacts and Government Code Section 65962.5 (Cortese List) search was undertaken (concluded 24 April 2017) in response to the following City of San Diego California Environmental Quality Act Significance Determination Threshold with regards to hazardous materials:

> *Would the proposal be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or environment?*

EnviroStor Cleanup Sites and Permitted Sites

As shown in Figure 1, *EnviroStor Cleanup Sites and Permitted Sites*, there are no sites of any manner located within the project boundary.

CalEPA Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit

Per CalEPA.gov, there are no CalEPA Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit within the project boundary or in the whole of San Diego County.

Leaking Underground Storage Tanks

As shown in Figure 2, *Leaking Underground Storage Tanks*, there are no cleanup sites or permitted sites of any manner located within the project boundary.

As such, this memo concludes that the proposed project would not be located on a site which is included on a list of hazardous materials sites and, therefore, would not create a significant hazard to the public or the environment.

RESOURCES

CalEPA. (2017). *Cortese List Data Resources*. Retrieved on 18 April 2017 from http://www.calepa.ca.gov/sitecleanup/corteselist/

CalEPA. (2017). *Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit*. Retrieved on 20 April 2017 from http://www.calepa.ca.gov/files/2016/10/SiteCleanup-CorteseList-CurrentList.pdf

EnviroStor. (2017). *Hazardous Waste and Substances Site List*. Retrieved on 18 April 2017 from http://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&reporttype=CORTESE&site_type=CSITES%2COPEN%2CFUDS%2CCLOSE&status=ACT%2CBKLG%2CCOM&reporttitle=HAZARDOUS%20WASTE%20AND%20SUBSTANCES%20SITE%20LIST

GeoTracker. (2017). *List of Leaking Underground Storage Tank Sites by County and Fiscal Year from Water Board GeoTracker Database*. Retrieved on 20 April 2017 from https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=otay+mesa%2C+san+diego

San Diego, City of. (2011). *California Environmental Quality Act Significance Determination Thresholds*. Retrieved on 18 April 2017 from https://www.sandiego.gov/sites/default/files/legacy/development-services/pdf/news/sdtceqa.pdf

Figure 1. ***EnviroStor Cleanup Sites and Permitted Sites***

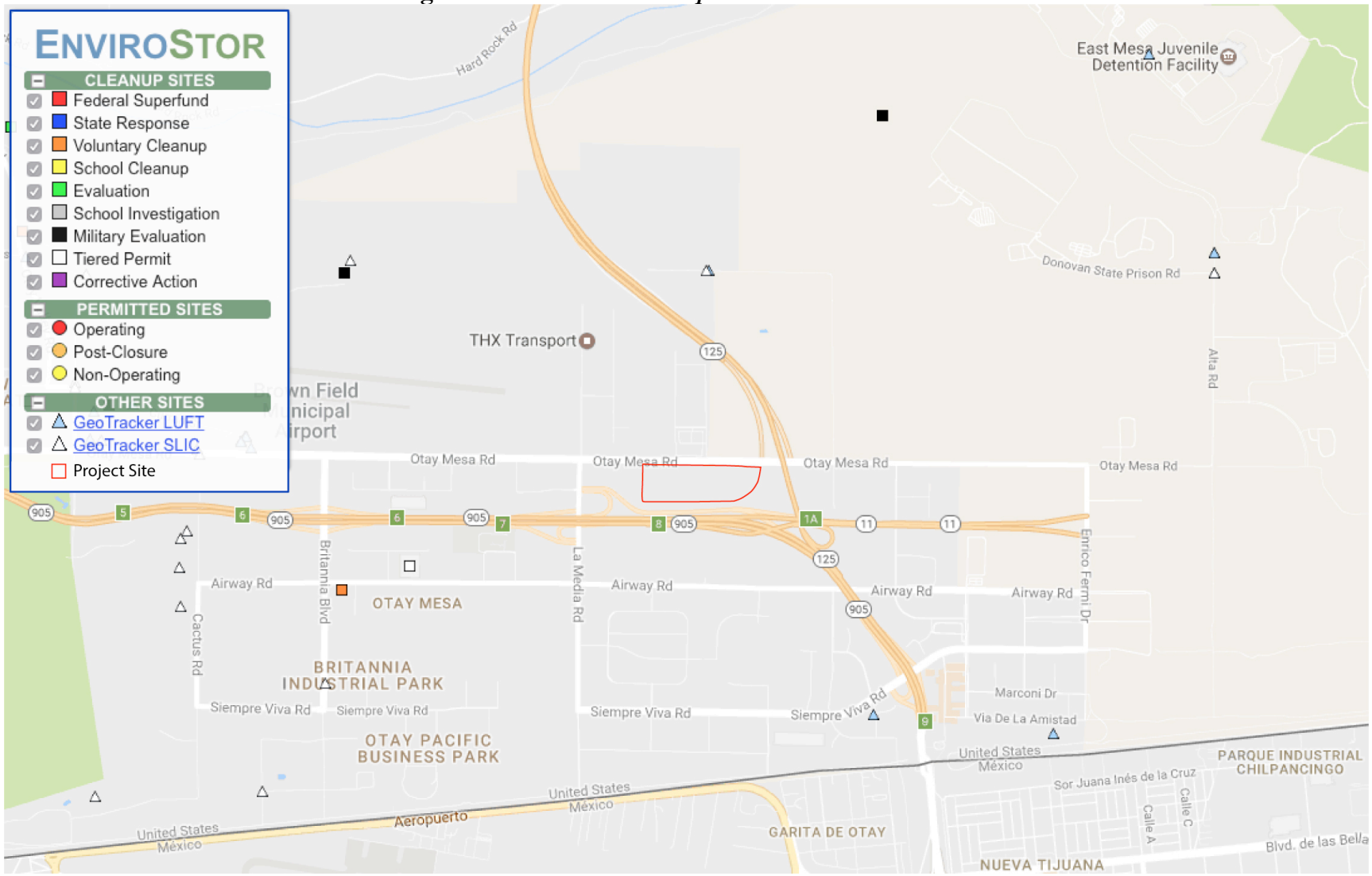
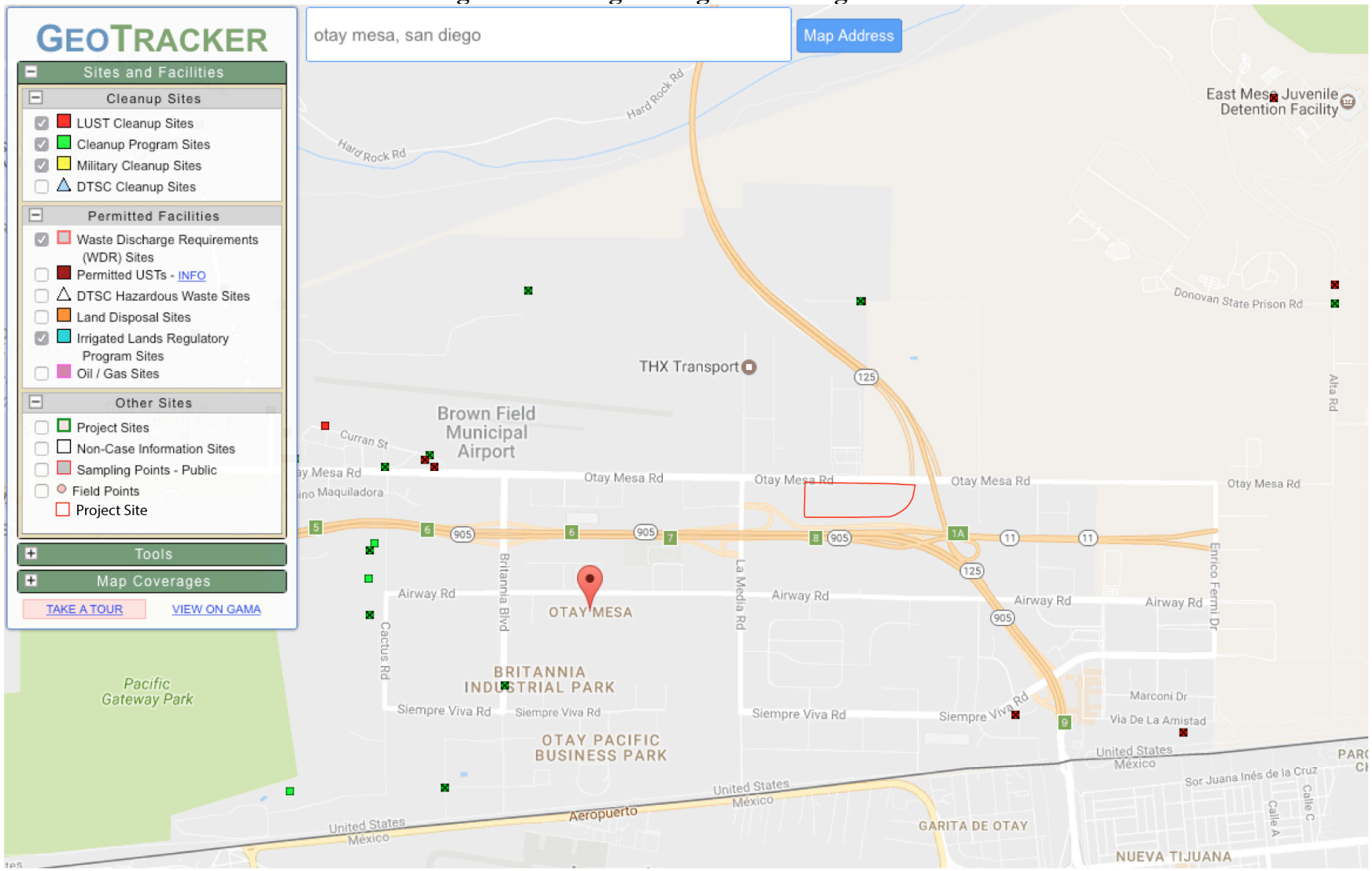


Figure 2. ***Leaking Underground Storage Tanks***



WASTE MANAGEMENT PLAN

FOR

Sunroad Otay 50 Project

San Diego, California

Project No. 538140

Prepared for:

City of San Diego Environmental Services Department
9601 Ridgehaven Court, Suite 320
San Diego, California 92123-1636

Prepared by:

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March 2018

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1.0 INTRODUCTION

The purpose of this Waste Management Plan (WMP) for the *Sunroad Otay 50 Project* in the City of San Diego is to provide analysis of the solid waste impacts anticipated for the *Sunroad Otay 50 Project* and how those impacts will be avoided. The goal of this WMP is to identify sufficient measures to avoid significant impacts of the *Sunroad Otay 50 Project* on solid waste services. Two acceptable approaches to managing waste are to reduce the tons disposed to 60 tons or less, or to provide diversion of 75 percent or more, thus meeting the goal established by Assembly Bill 341.

The 49.1-acre *Sunroad Otay 50 Project* site is located within the Otay Mesa community of the City of San Diego. The site is situated north of SR-905, south of Otay Mesa Road, east of the La Media Road, and west of SR-125. (See Figure 1, *Sunroad Otay 50 Project Location Map and Aerial.*) The project site is currently undeveloped. Surrounding land uses include a mix of industrial uses to the north, west, and south; and the SR-125/SR-905 interchange to the southeast. The site is zoned IL-3-1 (Industrial – Light) and is designated Heavy Commercial in the Otay Mesa Community Plan.

The proposed Sunroad Otay 50 project involves resubdividing the 49.1-acre property and future development of approximately 845,226 square feet of permitted industrial land uses in accordance with the Community Plan land use designation and existing zone. Discretionary actions associated with the project are a Vesting Tentative Map (VTM), Planned Development Permit (PDP), and Site Development Permit (SDP), and Street Vacations.

The proposed VTM would consolidate existing parcels into four parcels. Parcel 1 would be 11.42 acres; Parcel 2 would be 8.54 acres; Parcel 3 would be 13.00 acres; and Parcel 4 would be 15.10 acres. The project proposed bioretention areas in the center and western portions of the site, with a detention basin proposed for the southwest portion of the site. Primary access to the project would occur via two driveways from Otay Mesa Road. The project would include 143 trailer parking spaces and 884 car parking spaces, of which 72 would be designated for clean air, vanpool, and electric vehicle (EV) parking. 46 bicycle parking spaces would also be provided in lockers.

The proposed PDP involves the construction of four buildings consisting of 845,226 square feet of permitted industrial land use, along with all associated landscaping, grading, drainage, utility, and access improvements. One building would be constructed in each aforementioned lot: Parcel 1 would include a 216,320-square-foot building; Parcel 2 would include a 153,676-square-foot building; Parcel 3 would include a 240,560-square-foot building; and Parcel 4 would include a 234,670-square-foot building.

The project involves an SDP due to environmentally sensitive lands occurring on the project site. The project site supports non-native grassland, disturbed land, and developed land. Non-native grassland is recognized as a sensitive habitat due to its potential to provide foraging habitat for raptors. Proposed development of the project site would result in the loss of on-site resources.

The project requires the vacation of public street rights-of-way. Specifically, the unimproved public street rights-of-way for St. Andrews Avenue and Piper Ranch Road would be vacated. The project proposes new public right-of-way for the widening of Otay Mesa Road to the current Community Plan classification as part of the VTM. Additionally, drainage and floodwater storage easements that occur on the property would be vacated.

The proposed development would require grading of the entire site. Earthwork would be balanced on-site, with a total of 125,000 cubic yards of cut and fill. The maximum height of fill slopes would be eight feet; the maximum height of cut slopes would be 11 feet. The project proposes 840 linear feet of retaining/crib walls, ranging in heights of less than two feet to a maximum height of 15 feet.

This WMP consists of two sections corresponding to the implementation of site development: the *Construction Phase* and the *Occupancy Phase* (post-construction). The WMP addresses the projected amount of waste that could be generated by the project based on current City generation rates and estimates; waste reduction goals; and recommended techniques to achieve the waste reduction goals, such as recycling. Construction of the project is anticipated to take approximately 18 months. Construction will take place as a single phase and is estimated to begin early 2019.

Waste disposal sites and recycling methods and opportunities may change from those available today; however, it is not expected that waste diversion and disposal sites listed in Table 3, *Sunroad Otay 50 Project Waste Generation – Construction*, would change by the time the project is anticipated to begin construction. This WMP includes the following general information known at the time the WMP was prepared:

- Projected waste generation calculations and identification of types of waste materials generated;
- Source separation techniques for waste generated;
- How materials will be re-used on-site;
- Name and location of current recycling, re-use, and landfill facilities where waste will be disposed of if not re-used on-site;
- A "buy recycled" program;
- Measures to be implemented directed at reducing construction debris;
- Method(s) for communicating waste reduction and recycling goals to subcontractors;
- A general time line for construction and development; and
- A list of required progress and inspections by City staff, based on current ordinances.

Figure 1
Sunroad Otay 50 Project Location Map and Aerial

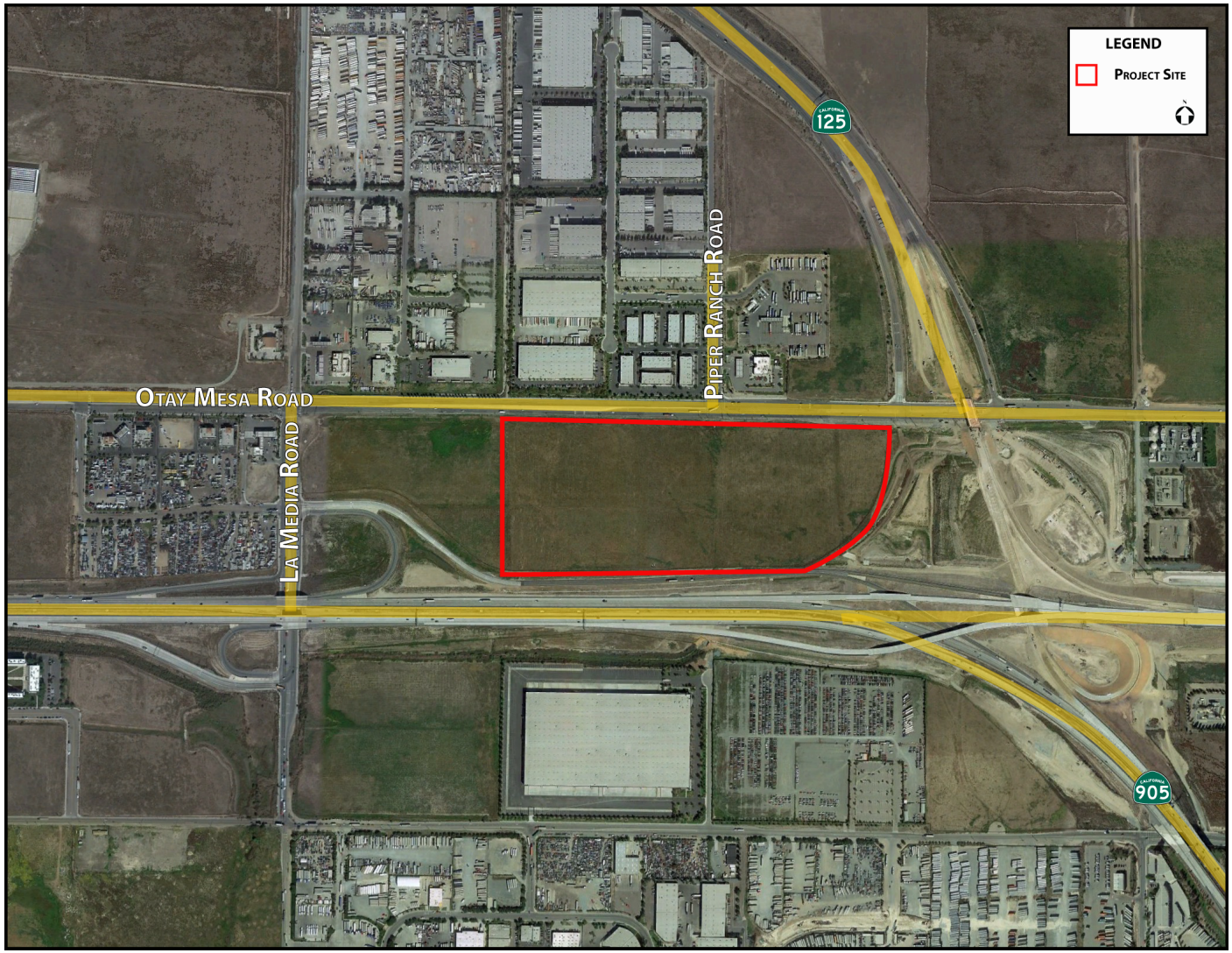
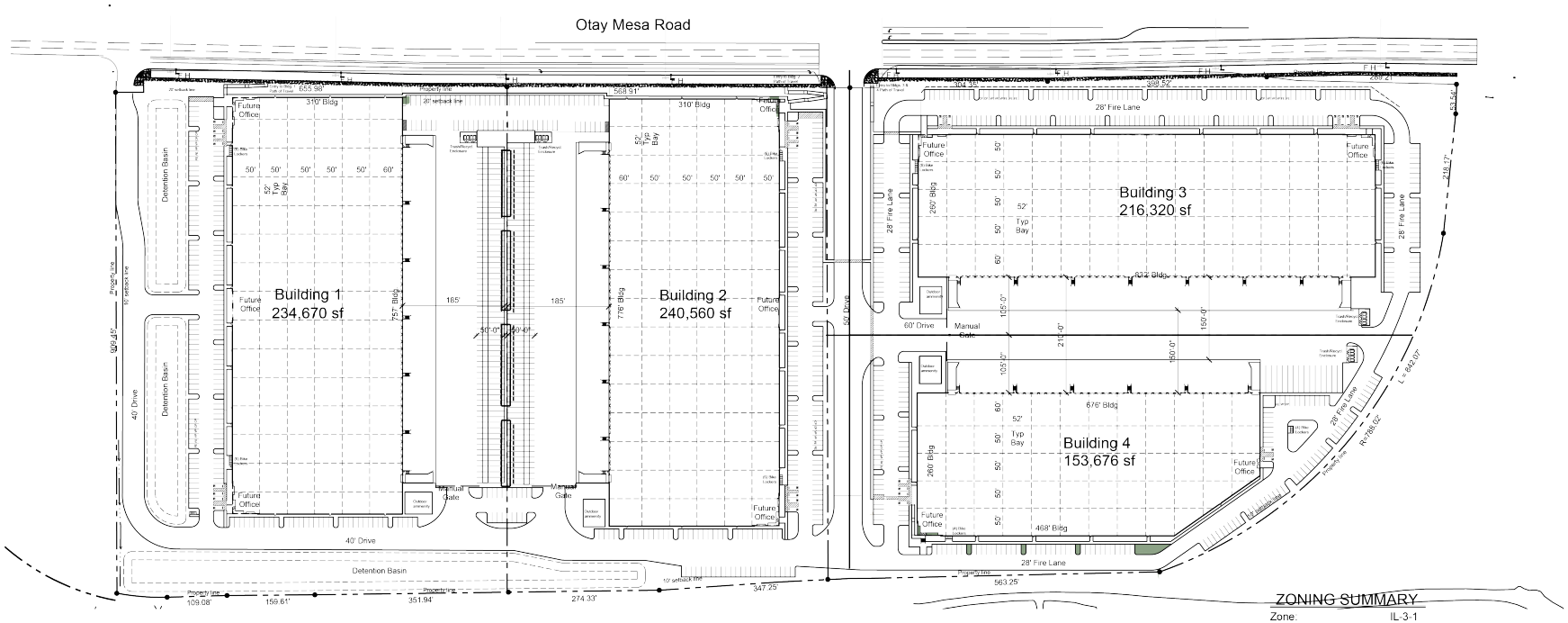


Figure 2
Sunroad Otay 50 Project Site Plan



ZONING SUMMARY

Zone:	IL-3-1
Front Setback:	20' Std.
Street Site Setback:	20' Min.
Side Setback:	10' Min.
Rear Setback:	15' Min.
Parking Required:	1/1,000 (Office and Warehouse)
Detention Provided:	57,4250 s.f. (at bottom)

2.0 BACKGROUND

In 1989, the California Legislature passed Assembly Bill (AB) 939: Integrated Waste Management Act, which mandated that all cities reduce waste disposed in landfills from generators within their borders by 50 percent by the year 2000. AB 939 required all local governments to prepare a Source Reduction and Recycling Element, which incorporates waste management policies and programs to achieve the mandated waste reduction. Since 1990, the City has diverted more than 50 percent of its generated waste stream from disposal. This bill specified that solid waste should be considered by the equation GENERATED = DISPOSED + DIVERTED. "Diverted" materials are put into a *hierarchy* in the law, as follows:

- First *source reduction*, such as using a reusable bag, making double-sided copies, or other measure that stops waste at the source.
- Secondary measures include *recycling* and *composting*. Because these measures often have transportation and processing impacts, they are considered less preferable than source reduction.
- In the Public Resources Code, various methods of *transformation* for energy production are limited to ten percent of the total waste reduction target.

In 2008, SB 1016 was chaptered. Known as the Solid Waste Disposal Measurement Act, SB 1016 maintained the 50 percent diversion requirement, but changed to a disposal-based measurement system, expressed as the 50 percent Equivalent Per Capita Disposal Target. This built upon AB 939 by implementing a simplified and timelier indicator of jurisdiction performance that focuses on reported disposal at Board-permitted disposal facilities. This established a goal of not recycling more, but disposing of less. AB 341: Jobs and Recycling, chaptered in 2011, was intended to create green jobs by expanding recycling to every multi-family dwelling and business. It charged CalRecycle with responsibility for ensuring that the State is diverting at least 75 percent of solid waste that is generated within the State by 2020. SB 1016 establishes that compliance with State law is measured by reducing the amount of waste material requiring disposal, and AB 341 increases the diversion target to 75 percent.

Additional local regulation pertaining to solid waste management includes the City of San Diego's Municipal Code Ch.14 Art. 2 Div. 8: §142.0810, §142.0820, Ch. 6 Art. 6 Div. 7; §66.0706, §66.0709, §66.0710; and Ch. 6 Art. 6 Div. 6; §66.0711, §66.0604, §66.0606. These statues designate refuse and recycling space allocation requirements for:

- on-site refuse and recyclable material storage requirements,
- diversion of construction and demolition debris regulations, and
- diversion of recyclable materials generated from residential facilities, businesses, commercial/institutional facilities, apartments, condominiums, and special events requiring a City permit.

The City of San Diego has established a threshold of 40,000 square feet of development as generating sufficient waste (60 tons) to have a potentially cumulatively significant impact on solid waste services. *Sunroad Otay 50 Project* as proposed exceeds this threshold. The purpose of this WMP is to identify measures that would be implemented such that significant impacts are avoided.

The City Recycling Ordinance is found in Municipal Code section 66.0701 et. seq. It requires the provision of recycling service for all single-family residences; and commercial facilities and multifamily residences with service for four cubic yards or more. In addition, the ordinance also requires development of educational materials to ensure occupants are informed about the City's ordinance and recycling services including information on types of recyclable materials accepted.

Construction and Demolition (C&D) Debris Diversion Deposit Program applies to all applicants for building, demolition, and removal permits. This ordinance requires that the applicant post a deposit (Table 1, *C&D Debris Deposit Table*). The deposit is not returned until the applicant demonstrates that a minimum amount of the material generated has been diverted from disposal in landfills. Mixed construction debris recycling facilities in San Diego are evaluated quarterly to determine how much of the throughput is recycled, and how much is a "residual" material requiring disposal. Facilities that accept mixed debris typically achieve a 68 percent or less diversion rate. Single materials recyclers, such as metal recyclers, often achieve a nearly 100 percent diversion rate. When comingled materials are sent to a mixed facility, the 75 percent diversion goal established by AB 341 will not be met. Depending on the project, to ensure that the overall diversion goal is attained, some materials must often be separated and trucked to facilities with higher diversion rates, such as aggregate and metal recyclers.

Table 1
C&D Debris Deposit Table

Building Category	Sq. Ft. Subject to Ordinance*	Deposit per Sq. Ft.	Range of Deposits
Residential New Construction	500-125,000 detached 500-100,000 attached	$0.40	$200-$50,000 $200-$40,000
Non-residential New Construction	1,000-25,000 commercial 1,000-75,000 industrial	$0.20	$200-$5,000 $200-$15,000
Non-residential Alterations	286 with no maximum	$0.70	$200 and up
Residential Demolition	286 with no maximum	$0.70	$200 and up
Non-residential Demolition	1,000 with no maximum	$0.20	$200 and up
Roof Tear-off	All projects	-	$200
Residential Alterations	500 and above	-	$1,000

* Projects under the minimum square footage subject to the ordinance are exempt from the C&D debris recycling deposit.

2.1 Exterior Refuse and Recyclable Material Storage Area Requirements

The *Sunroad Otay 50 Project* will develop in one phase over an approximate 18-month period. Development is anticipated to begin early 2019. Because the *Sunroad Otay 50 Project* includes nonresidential (industrial) development, exterior refuse and recyclable material storage areas will be provided in accordance with City regulations per Chapter 14, Article 2, Division 8: Refuse and Recyclable Material Storage Regulations, §142.0830.

2.2 Exterior Refuse and Recyclable Material Storage Areas for *Sunroad Otay 50 Project*

Sunroad Otay 50 Project would develop approximately 845,226 square feet of industrial uses. Table 2, *Minimum Exterior and Recyclable Material Storage Areas for Industrial Development*, shows the required amount of refuse and recyclable storage areas for the project. As shown in Table 2, the project would be required to provide 1,632 square feet each of exterior refuse and recyclable material storage area, for a total of 3,264 square feet of material storage area.

Table 2
Minimum Exterior Refuse and Recyclable Material Storage Areas for Industrial Development

Gross Floor Area per Development (square feet)	Minimum Refuse Storage Area per Development (square feet)	Minimum Recyclable Material Storage Area per Development (square feet)	Total Minimum Storage Area per Development (square feet)
0 – 5,000	12	12	24
5,001 – 10,000	24	24	48
10,001 – 25,0000	48	48	96
25,001 – 50,000	96	96	192
50,001 – 75,000	144	144	288
75,001 – 100,000	192	192	384
100, 001+	192 plus 48 square feet for every 25,000 square feet of building area above 100,001	192 plus 48 square feet for every 25,000 square feet of building area above 100,001	384 plus 96 square feet for every 25,000 square feet of building area above 100,001

Source: City of San Diego Municipal Code, Chapter 14, Article 2, Division 8: Refuse and Recyclable Material Storage Regulations, §142.0830, Table 142-08C, effective January 1, 2000.

3.0 EXISTING CONDITIONS

The *Sunroad Otay 50 Project* site encompasses approximately 49.1 acres. The site is situated north of SR-905, south of Otay Mesa Road, east of the La Media Road, and west of SR-125. The project site is currently undeveloped.

4.0 PROPOSED CONDITIONS

The proposed VTM for the project would consolidate existing parcels into four lots. Lot 1 would be 11.97 acres and would include a 216,320-square-foot building; Lot 2 would be 9.09 acres and would include a 153,500-square-foot building; Lot 3 would be 11.90 acres and would include a 240,560-square-foot building; and Lot 4 would be 15.10 acres and would include a 234,670-square-foot building. The project proposed bioretention areas in the center and western portions of the site, with a detention basin proposed for the southwest portion of the site. Primary access to the project would occur via two driveways from Otay Mesa Road. The project would include 143 trailer parking spaces and 909 car parking spaces, of which 76 would be designated for clean air, vanpool, and EV parking. 45 bicycle parking spaces would also be provided in lockers.

Construction of the project will take approximately 18 months. Construction will take place as a single phase and is estimated to begin early 2018. Construction practices will comply with local, State, and Federal regulations regarding handling of building materials to ensure waste minimization requirements are met.

5.0 GRADING AND CONSTRUCTION WASTE

Construction will occur over a period of approximately 18 months. ESD staff would be present for an early pre-construction meeting to evaluate waste segregation, signage, and salvage.

5.1 Grading

Proposed development would require grading of the entire site. Earthwork would be balanced on-site, with a total of 395,000 cubic yard of cut and fill. Therefore, no waste materials (earth) would be required to be disposed of as a result on project grading operations.

5.2 Construction

Construction activities would generate packaging materials and unpainted wood, including wood pallets, and other miscellaneous debris. Construction debris would be separated on-site into material-specific containers to facilitate reuse and recycling and to increase the efficiency of waste reclamation and/or would be collected by a contracted waste hauler and separated at the facility. Source separation of materials at the construction site is essential to (1) ensure appropriate waste diversion rate, (2) minimize costs associated with transportation and disposal, and (3) facilitate compliance with the C&D ordinance. The types of construction waste anticipated to be generated include:

- Asphalt and Concrete
- Brick/Masonry/Tile
- Cardboard
- Carpet, Padding/Foam
- Drywall
- Landscape Debris
- Mixed C&D Debris
- Roofing Materials
- Scrap Metal
- Unpainted Wood and Pallets
- Garbage/Trash

In accordance with State diversion targets, a minimum of 75 percent of construction materials will be recycled. Materials to be recycled would be redirected to appropriate recipients selected from ESD's directory of facilities that recycle construction materials, scrap metal, and yard waste.

To facilitate management of construction materials, the developer shall identify one person or agency connected with the proposed development to act as Solid Waste Management Coordinator, whose responsibility it becomes to work with all contractors and subcontractors to ensure material separation and coordinate proper disposal and diversion of waste generated. The Solid Waste Management Coordinator will help to ensure all diversion practices outlined in this Waste Management Plan are upheld and communicate goals to all contractors involved efficiently.

The responsibilities of the Solid Waste Management Coordinator, include, but are not limited to, the following:

- Review the Solid Waste Management Plan including responsibilities of Solid Waste Management Coordinator.
- Review and update procedures as needed for material separation and verify availability of containers and bins needed to avoid delays.
- Review and update procedures for periodic solid waste collection and transportation to recycling and disposing facilities.
- The authority to issue stop work orders if proper procedures are not being allowed.

The contractors will perform daily inspections of the construction site to ensure compliance with the requirements of the Waste Management Plan and all other applicable laws and ordinances and report directly to Solid Waste Management Coordinator. Daily inspections will include verifying the availability and number of dumpsters based on amount of debris being generated, correct labeling of dumpsters, proper sorting and segregation materials, and salvaging of excess materials. Additionally, the following apply:

- Solid waste management coordinator will be responsible for educating contractors and subcontractors regarding waste management plan requirements and ensuring that contractors and subcontractors carry out the measures described in the WMP.
- Solid waste management coordinator will ensure ESD attendance at a Precon and assure compliance with segregation requirements, and verification of recycled content in base materials.
- Recycling areas will be clearly identified with large signs, approved by ESD, and sufficient amounts of material-specific bins will be provided for necessary segregation.
- Recycling bins will be placed in areas that are readily accessible to contractors/subcontractors and in areas that will minimize misuse or contamination by employees and the public.
- Solid waste management coordinator will be responsible for ensuring that contamination rates in bins remain below five percent by weight of the bin.

Table 3, *Sunroad Otay 50 Project Waste Generation – Construction*, is included below to summarize the types of waste generated, the amount of each waste type diverted, and the overall amount remaining to be disposed of in landfills.

Construction debris will be separated onsite into material-specific containers, corresponding to the materials types in Table 3, to facilitate reuse and recycling and to increase the efficiency of waste reclamation. The *Sunroad Otay 50 Project* will implement a target of 20 percent recycled material and 75 percent for landfill diversion. As shown in Table 3, 89 percent of the construction materials generated by the project are expected to be diverted from landfills.

Table 3
Sunroad Otay 50 Project Waste Generation – Construction

Material Type	Estimated Waste Quantity (tons)	Handling	Estimated Diversion (tons)	Estimated Disposal (tons)
CONSTRUCTION WASTE				
Asphalt and Concrete	804.02	**Hanson Aggregates** 9229 Harris Plant Road San Diego, CA 92126 (100% diversion)	804.02	--
Brick/Masonry/ Tile	229.7	**Vulcan Carroll Canyon Landfill and Recycle Site** 10051 Black Mountain Road San Diego, CA 92126 (100% diversion)	229.7	--
Cardboard	22.58	**Allan Company** 6733 Consolidated Way San Diego, CA 92121 (100% diversion)	15.81	6.77
Carpet, Padding/Foam	11.48	**DFS Flooring** 10178 Willow Creek Road San Diego, CA 92131 (100% diversion)	11.48	--
Drywall	160.80	**EDCO Station Transfer and Buy Back Center** 8184 Commercial Street La Mesa, CA 91942 (70% diversion)	112.56	42.84
Landscape Debris	22.96	**Miramar Greenery** 5180 Convoy Street San Diego, CA 92111 (100% diversion)	22.96	--
Mixed C&D Debris	689.20	**Otay C&D/Inert Debris Processing Facility** 1700 Maxwell Road Chula Vista, CA 91913 (76% diversion)	516.90	172.30
Roofing Materials	11.64	**LEED Recycling** 8725 Miramar Place San Diego, CA 92121 (100% diversion)	11.64	--
Scrap Metal	55.83	**Allan Company** 6733 Consolidated Way San Diego, CA 92121 (100% diversion)	39.08	16.75
Unpainted Wood & Pallets	275.62	**Miramar Greenery** 5180 Convoy Street San Diego, CA 92111 (100% diversion)	275.62	--
Garbage/Trash	11.64	**Miramar Landfill** 5180 Convoy Street San Diego, CA 92111 (0% diversion)	--	11.64
TOTAL	**1,690.42**		**1,501.93**	**188.49**

6.0 OCCUPANCY PHASE

While the construction phase for the *Sunroad Otay 50 Project* occurs as a one-time waste generation event as construction of the project proceeds, tenant/owner occupancy requires an on-going plan to manage waste disposal to meet the waste reduction goals established by the City and State. The *Sunroad*

Otay 50 Project will comply with the City's Recycling Ordinance. Solid waste collection would be provided by a private hauler.

The *Sunroad Otay 50 Project* includes project features on-site that will help to achieve the broad goals of smart growth and sustainable development. Specifically, the project has demonstrated compliance with the City's Climate Action Plan (CAP) through implementation of the following measures as presented in the CAP Consistency Checklist Application prepared for the project.

Table 4
Sunroad Otay 50 Project Sustainable Design Features

- Cool/Green roofs.
- Plumbing ffixtures and fittings compliant with the California Green Building Standards Code.
- Appliances and fixtures compliant with the California Green Building Standard Code.
- Energy budget decreased to meet the standards of the Title 24, Part 6 Energy Budget for Proposed Design Building.
- Provide more short and long-term bicycle parking spaces greater than required in the City's Municipal Code.
- Provide designated parking spaces for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles.

In addition to the energy efficient components provided in Table 4, the project would comply with the Uniform Building Code (UBC) and Title 24 requirements for building materials and insulation in order to reduce unnecessary loss of energy.

The project proposes to utilize planters/bioswales throughout the project for Low Impact Development (LID) storm water treatment.

As a result of the recommended site design, source control measures, and treatment control measures, water quality exceedances are not anticipated, and pollutants are not expected within project runoff that would adversely affect beneficial uses in downstream receiving waters. The project would implement controls designed to limit discharges to the appropriate standard. The project complies with the requirements of the State Regional Water Quality Control Board concerning coverage under the General Construction Permit.

The proposed Landscape Concept Plan utilizes a low water use planting palette. Native and drought-tolerant shrubs are used throughout the landscaping for the project. Circulation throughout the project is accentuated with a hierarchy of landscape treatments. Vehicle nodes with planted pop-outs break up long linear drives and surface parking. Street trees are proposed to define vehicle/pedestrian spaces and to provide shade and scale to the street scene. Decomposed granite or shredded bark mulch will be utilized to conserve soil moisture and reduce soil temperature variation. Efficient irrigation equipment will be installed to apply exact water requirements for plant species.

6.1 Implementation

The following table expresses the anticipated refuse and recyclable storage requirements based on Table 142.08C of the City of San Diego Municipal Code.

Table 5
Minimum Exterior and Recyclable Material Storage Areas for the Sunroad Otay 50 Project

Land Use	Gross Floor Area	Minimum Refuse Storage Area (square feet)	Minimum Recyclable Material Storage Area (square feet)	Total Minimum Storage Area (square feet)
Industrial	845,226 sq. ft.	1,632	1,632	3,264

The *Sunroad Otay 50 Project* would be required to provide a minimum of 1,632 square feet refuse storage area and a minimum of 1,632 square feet recyclable material storage area for a total of approximately 3,264 square feet minimum exterior refuse and recyclable material storage area.

As shown in Table 6, *Estimated Solid Waste Generation from the Sunroad Otay 50 Project – Occupancy Phase*, during occupancy, the expected generated waste per year from the *Sunroad Otay 50 Project* when fully occupied would be approximately 3,549.21 tons.

Table 6
Estimated Solid Waste Generation from the Sunroad Otay 50 Project – Occupancy Phase

Use	Intensity	Waste Generation Rate	Estimated Waste Generated (tons/year)
Industrial	845,226 sq. ft.	0.0042 tons/year/sq. ft.	3,549.21

On-site recycling services shall be provided to all tenants within *Sunroad Otay 50 Project*. Tenants within *Sunroad Otay 50 Project* that receive solid waste collection service shall participate in a recycling program by separating recyclable materials from other solid waste and depositing the recyclable materials in the recycling container provided for the occupants. Recycling services are required by Section 66.0707 of the City of San Diego Land Development Code. Based on current requirements, these services shall include the following:

- Collection of recyclable materials as frequently as necessary to meet demand;
- Collection of plastic bottles and jars, paper, newspaper, metal containers, cardboard, and glass containers;
- Collection of other recyclable materials for which markets exist, such as scrap metal, wood pallets
- Collection of food waste for recycling by composting, where available (prior to issuance of building and occupancy permits, the project proponent will meet with representatives from ESD to ensure that their educational materials and haulers can comply with the requirements for this service);
- Use of recycling receptacles or containers which comply with the standards in the Container and Signage Guidelines established by the City of San Diego Environmental Services Department;
- Designated recycling collection and storage areas; and
- Signage on all recycling receptacles, containers, chutes, and/or enclosures which complies with the standards described in the Container and Signage Guidelines established by the City of San Diego Environmental Services Department

As required by Section 66.0707 of the City of San Diego Land Development Code, the building management or other designated personnel shall ensure that occupants are educated about the recycling services as follows:

- Information, including the types of recyclable materials accepted, the location of recycling containers, and the occupants responsibility to recycle shall be distributed to all occupants annually;
- All new occupants shall be given information and instructions upon occupancy; and
- All occupants shall be given information and instructions upon any change in recycling service to the commercial facility.

6.2 Landscaping and Green Waste Recycling

Plant material selection will be guided by the macro-and micro-climate characteristics of the project site and surrounding region to encourage long-term sustainability without the excessive use of water pesticides and fertilizers. Irrigation of these areas, where practical, will utilize reclaimed water applied via low precipitation rate spray heads, drip emitters, or other highly efficient systems. Landscape maintenance would include the collection of green waste and disposal of green waste at recycling centers that accept green waste. This will help further reduce the waste generated by developments within *Sunroad Otay 50 Project* during the occupancy phases.

7.0 CONCLUSION

The City of San Diego Development Services Department is requiring that this WMP be prepared and submitted to the City of San Diego's ESD.

This WMP will be implemented to the fullest degree of accuracy and efficiency. Additionally, the project will be required to adhere to City ordinances, including the *Construction and Demolition Debris Diversion Deposit Program*, the City's *Recycling Ordinance*, and the *Refuse and Recyclable Materials Storages Regulations*. The WMP plan for the *Sunroad Otay 50 Project* is designed to implement and adhere to all city ordnance and regulations with regards to waste management. The measures in the WMP would ensure that impacts are mitigated to below a level of significance.

Prior to the issuance of any grading or construction permits, the Solid Waste Coordinator will ensure ESD's attendance at a precon. The Solid Waste Coordinator will ensure that 1) the proposed approach to contractor education is approved, 2) the written specifications for base materials, concrete pavers, decomposed granite, and mulch, is approved, and 3) that the ESD inspector approves the separate waste containers, signage, and hauling contract(s) for the following materials:

- Asphalt/concrete
- Brick/masonry/Tile
- Cardboard
- Carpet/padding/foam
- Drywall

- Landscape debris
- Mixed C&D debris
- Scrap metal
- UNTREATED woodwaste
- Refuse

The project will be designed to achieve 75 percent of construction waste to be source reduced and/or recycled. While diversion activities during occupancy will achieve only 40 percent diversion and will not achieve the State target of 75 percent, the project incorporates several measures above and beyond the requirements of local ordinance.

- First, the project exceeds ordinance requirements and even the State waste reduction target during construction.
- Second, the project includes landscaping that will reduce yardwaste, and will provide transportation to a composting facility for the yard waste that is produced. The project proponent will ensure that ESD reviews the landscaping plans and hauling contract for the facility to verify that waste reduction goals are met.
- Third, the project would include LEED measures to reduce waste.

The project will target 20 percent recycled content of construction materials and 75 percent for landfill diversion.

These measures ensure that the waste generated by the project will be properly managed and that solid waste services will not be impacted.

The following standard measures apply to the project to avoid cumulative impacts on solid waste:

I. Prior to Permit Issuance or Bid opening/Bid award
   A. LDR Plan check
      1. Prior to the issuance of any construction permit, including but is not limited to, demolition, grading, building or any other construction permit, the Assistant Deputy Director (ADD) Environmental Designee shall verify that the all the requirements of the Refuse & Recyclable Materials Storage Regulations and all of the requirements of the waste management plan are shown and noted on the appropriate construction documents. All requirements, notes and graphics shall be in substantial conformance with the conditions and exhibits of the associated discretionary approval.
      2. The construction documents shall include a waste management plan.
      3. Notification shall be sent to:

MMC Environmental Review Specialist
Development Service Department
9601 Ridgehaven Court
Ste. 220, MS 1102 B
San Diego, California 92123 1636
(619) 980 7122

Environmental Services Department (ESD)
9601 Ridgehaven Court
Ste. 210, MS 1102 A
San Diego, California 92123 1636
(858) 573-1236

II. Prior to Start of Construction

A. Grading and Building Permit - Prior to issuance of any grading or building permit, the permittee shall be responsible to arrange a preconstruction meeting to coordinate the implementation of the Waste Management Plan. The Precon Meeting that shall include: the Construction Manager, Building/Grading Contractor; MMC; and ESD and the Building Inspector and/or the RE (whichever is applicable) to verify that implementation of the waste management plan shall be performed in compliance with the plan approved by LDR and the San Diego ESD, to ensure that impacts to solid waste facilities are mitigated to below a level of significance.

1. At the Precon Meeting, the Permittee shall submit reduced copies (11" x 17") of the approved waste management plan, the RE, BI, MMC, and ESD.
2. Prior to the start of construction, the Permittee/Construction Manager shall verify that the project targets 20 percent recycled content for construction materials and 75 percent of construction materials for landfill diversion.
3. Prior to the start of construction, the Permittee/Construction Manager shall submit a construction schedule to the RE, BI, MMC, and ESD.

III. During Construction

The Permittee/Construction Manager shall call for inspections by the RE/BI and both MMC and ESD, who will periodically visit the demolition/construction site to verify implementation of the waste management plan. The Consultant Site Visit Record (CSVR) shall be used to document the Daily Waste Management Activity/progress.

IV. Post Construction

A. Within 30 days after the completion of the implementation of the Waste Management Plan, for any demolition or construction permit, a final results report shall be submitted to both MMC and ESD for review and approval to the satisfaction of the City. MMC will coordinate the approval with ESD and issue the approval notification. ESD will review/approve City Recycling Ordinance-required educational materials prior to occupancy.

Resource Management Plan for the Turecek Off-site Mitigation Parcel for the Sunroad Otay Project

(Project Number 538140)

March 4, 2019

Prepared for:

Sunroad Enterprises
4445 Eastgate Mall
Suite 400
San Diego, CA 92121

Prepared by:

Alden Environmental, Inc.
3245 University Avenue, #1188
San Diego, CA 92104

ALDEN
ENVIRONMENTAL, INC

Resource Management Plan
for the Turecek Off-site Mitigation Parcel
for the Sunroad Otay Project

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1.0 INTRODUCTION

This Resource Management Plan (RMP) has been prepared for the proposed 18.75-acre Turecek parcel in accordance with mitigation requirements identified in the Biological Technical Report for the Sunroad Otay Project (Alden Environmental, Inc. [Alden] 2018). This RMP provides direction for the permanent preservation, enhancement, and management of the parcel in accordance with City of San Diego (City) requirements.

1.1 PURPOSE OF RESOURCE MANAGEMENT PLAN

The habitat mitigation that would occur on the Turecek parcel (Figures 1 and 2) supports non-native grassland and has the potential to support the burrowing owl (BUOW; *Athene cunicularia*). The purpose of this RMP is to provide measures and conditions to help establish and maintain a self-sustaining colony of California ground squirrels (*Otospermophilus beecheyi*) as a means to provide suitable habitat for year-round occupation by the BUOW.

1.1.1 Conditions and/or Mitigation Measures that Require an RMP

The Sunroad Otay Project would permanently impact the entire 49.1-acre project site. An additional 1.8 acres off site, along Otay Mesa Road and La Media Road, also would be permanently impacted by the project. A total of 47.0 acres of non-native grassland, 3.8 acres of disturbed land, and 0.1 acre of developed land would be impacted. The impacts to non-native grassland are significant and require mitigation.

The project would not directly impact any known BUOW (State Species of Special Concern and City Multiple Species Conservation Program [MSCP] Covered Species) burrow, but it would impact 47.0 acres of BUOW-occupied (foraging) non-native grassland habitat. This impact is considered significant, and mitigation is required.

Mitigation for impacts to 47.0 acres of BUOW-occupied non-native grassland from the project (at a 0.5:1 ratio) will occur, in part, through the preservation and enhancement of 18.75-acres at Turecek parcel. The remaining 4.75 acres of non-native grassland mitigation will be satisfied through acquisition of non-native grassland credits from the Ramona Grasslands Preserve in San Diego County. This RMP does not address the Ramona Grasslands Preserve mitigation component.

1.1.2 Agency Review and Coordination

The RMP will be submitted to the U.S Fish and Wildlife Service, California Department of Fish and Wildlife (i.e., Wildlife Agencies), and City for approval.

2.0 IMPLEMENTATION

2.1 RESOURCE MANAGER QUALIFICATIONS AND RESPONSIBLE PARTIES

Resource Manager:

The resource manager shall be one of the following:

- Conservancy group
- Natural resources land manager
- Natural resources consultant
- Federal or State Wildlife Agency
- Federal Land Manager such as Bureau of Land Management
- City Land Managers, including but not limited to Department of Parks and Recreation, Watershed Management or Department of Public Works.

The resource manager shall be approved by the City and Wildlife Agencies. Any change in the designated resource manager shall also be approved by the City and Wildlife Agencies. Appropriate qualifications for resource managers include, but are not limited to:

- Demonstrated ability to carry out habitat monitoring or mitigation activities including a minimum of 2 years of experience in field biology in southern California (preferably San Diego County).
- Fiscal stability including preparation of an operational budget (using an appropriate analysis technique for the management of the RMP).
- Resource Manager shall have a minimum of a B.S. or B.A. in biological, ecological, or wildlife management degree.
- Experience with habitat management in southern California (with experience maintaining habitat conditions suitable for BUOW).

The Resource Manager (1) will be responsible for the implementation of this RMP; and (2) will carry out the RMP's requirements and objectives. The Resource Manager's primary responsibility will be to maintain the integrity of all preserved and restored habitats. In order to fulfill that responsibility, the Habitat Manager shall:

- Be an advocate of the preserved open space and its protection.
- Be familiar with this RMP, its appendices, and supporting documentation.
- Be familiar with requirements and restrictions of any Conservation and/or Open Space Easement(s) that may be recorded over the mitigation area.
- Be responsible for all points noted in this RMP, as discussed in applicable sections of this document.
- Maintain all documents transferred by the project proponent, and be knowledgeable about the resources addressed in these reports.
- Educate the surrounding community about the presence and need for the open space and be responsive to any community concerns or problems regarding the open space.
- Document all field visits, and notify the City in a timely manner of all concerns, problems, and suggested solutions.

Figure 1

Regional Location

SUNROAD OTAY PROJECT
OFF-SITE TURECEK MITIGATION PARCEL

N
W E
S

0 2 4 Miles

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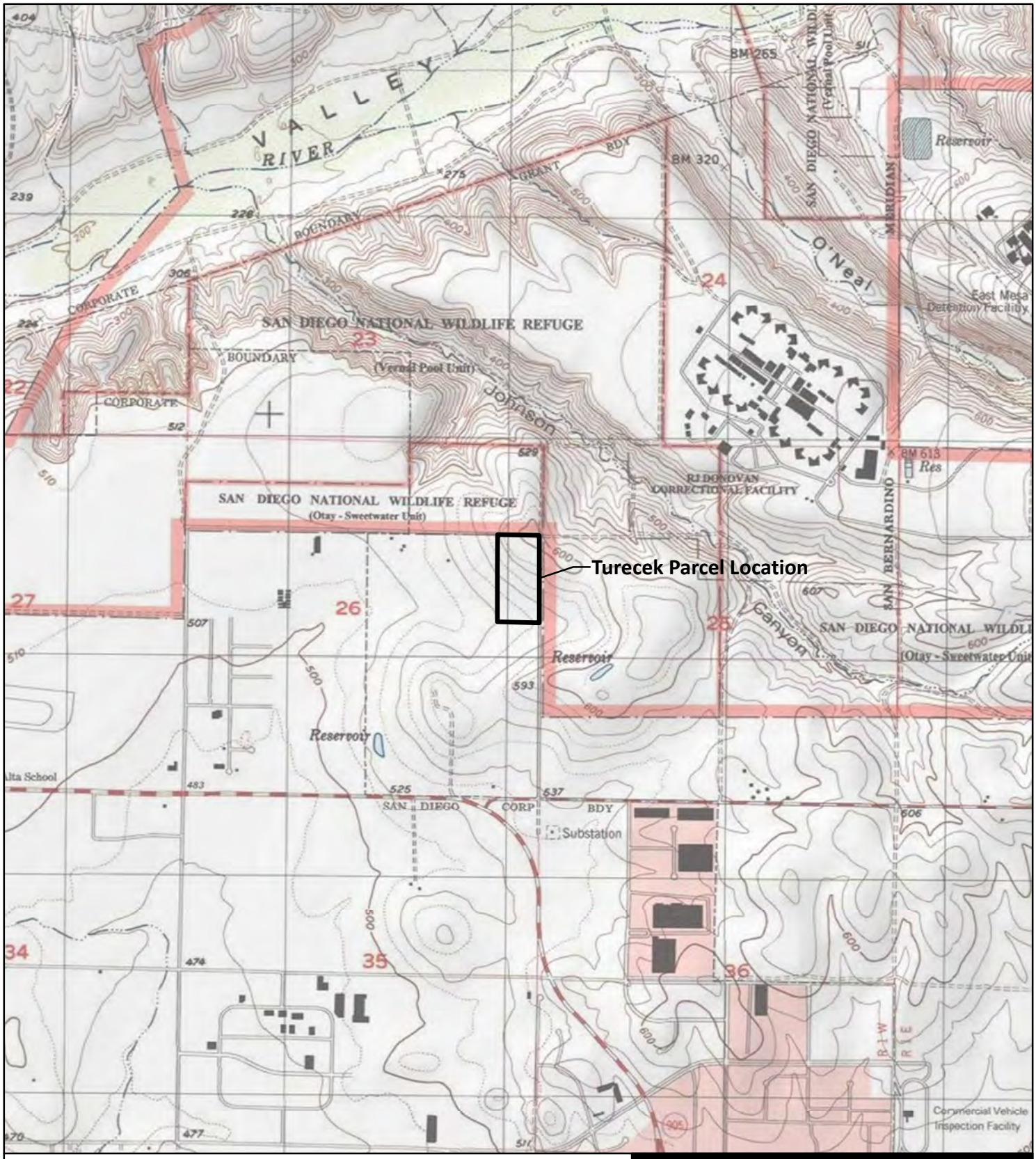

USGS 7.5' Quadrangle: Otay Mesa

Figure 2

Turecek Parcel Location

SUNROAD OTAY PROJECT
OFF-SITE TURECEK MITIGATION PARCEL

N
W E
S

0 1,000 2,000 Feet

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- Forward all applicable monitoring and management data to the City for incorporation into the MSCP database and annual report.
- Coordinate with the manager(s) of adjacent preserves/open space areas on management practices and tasks related to preservation and maintenance of the regional open space system and apply pertinent adaptive management recommendations received from the regional monitoring source.
- Coordinate with and allow for on-site management actions (as identified by regional stakeholders) to foster greater occupation of the site by the BUOW.

Proposed Land Owner:

Fee title of the parcel may be maintained by the project applicant or transferred to the Resource Manager or other appropriate landowner (e.g., land trust, conservancy, or public agency).

Proposed Easement Holder:

If the land is transferred in fee title to a non-governmental entity or retained by the current landowner, a Biological Open Space Easement or Conservation Easement must be recorded, prior to initiation of Sunroad Otay Project impacts (grading). This easement should be dedicated to the City but also will include the Wildlife Agencies as grantees or third-party beneficiaries. The proposed easement limits are included in Appendix A.

If title to the land is transferred in fee title to a public governmental agency (e.g. City of San Diego) then that agency shall determine the need for, and type of protective easement that would be required. Any easement or protective document will include an enforcement mechanism to ensure that the management requirements are being carried out as required in this RMP. It is anticipated that the enforcement mechanism will be through the City and Wildlife Agencies.

Habitat Enhancement Entity:

Management responsibility for the initial habitat enhancement shall remain with the Resource Manager.

2.2 FINANCIAL RESPONSIBILITY/MECHANISM

The project applicant will fund this RMP. Said funds will be tied to the property, to be used by the resource manager to implement the RMP. The San Diego Foundation (or other approved entity) will hold and manage the endowment. The resource manager will request annual funding from the San Diego Foundation (or other approved entity) to implement the coming year tasks based on an annual work plan.

The project applicant is responsible for all RMP funding requirements, including direct funds to support the RMP initial activities as well as either an on-going funding source, or a one-time non-wasting endowment, which is tied to the property to fund long-term RMP implementation. It is currently anticipated that long-term management funding will be provided through an endowment provided by the project applicant. RMP initial and long-term tasks/activities are presented in Section 4.0.

Long-term tasks involve the management and maintenance of the parcel in perpetuity including mowing, focused weed removal, fencing maintenance, and general monitoring and reporting.

2.3 CONCEPTUAL COST ESTIMATE

A Property Analysis Record (PAR) or similar cost estimate for the resource management activities will be prepared for the 18.75-acre preserve when a Resource Manager has been identified. The PAR will include initial task funding as a separate item. Initial tasks are those that would be required at the initiation of long-term management.

2.4 REPORTING REQUIREMENTS

An RMP Annual Report as well as a Work Plan for the upcoming year shall be submitted to the City and Wildlife Agencies. The Annual Report shall provide a summary of management and monitoring activities, identify new issues, and address management successes and failures. An accounting of funds used for management that year, a proposed budget for management in the coming year, and a summary statement of the status of the endowment fund shall also be included.

The report shall include a summary of changes from baseline or previous year conditions for species and communities and address any monitoring and management limitations, including weather. The report shall also address any adaptive management resulting from previous monitoring results and provide methods for measuring the success of adaptive management. The report will be prepared at the end of each calendar year and will be submitted to both the City and the Wildlife Agencies by December 1.

The Annual Report shall also include copies of California Natural Diversity Data Base (CNDDB) forms that were submitted to the State for any new sensitive species observations or significant changes to species previously reported. In addition, copies of invasive plant species forms submitted to the State or City must be included in the report.

The Land Manager shall also prepare and submit an annual workplan that spells out the specific tasks that will be implemented in the coming year to achieve the recommendations outlined in the annual report. The workplan may be included in an appendix to the annual report.

3.0 PROPERTY DESCRIPTION

3.1 LEGAL AND GEOGRAPHICAL DESCRIPTION

The 18.75 acres of off-site mitigation for the Sunroad Otay Project is at the Turecek parcel located at the corner of Harvest Road and Lonestar Road in East Otay Mesa in the County (Figure 1). The parcel is within the County's MSCP Minor Amendment Area. County MSCP Hardline Preserve is immediately north of the parcel; the Lonestar Ridge Biological Open Space and State Route 125 Dedicated Preserve Lands are located approximately 1,200 feet to the northwest of the Turecek parcel. The parcel occupies portions of Sections 26 in Township 18 South, Range 1 West of the U.S. Geological Survey 7.5-minute Otay Mesa quadrangle (Figure 2). The Assessor's Parcel Number is 64607023. A Record of Survey figure is included as Appendix A.

The site is on a relatively flat mesa that slopes to the southwest. Johnson Canyon occurs to the east and the Otay River Valley beyond to the north (Figure 2). Elevations range from approximately 550 feet above mean sea level (AMSL) to approximately 610 feet AMSL.

3.2 ENVIRONMENTAL SETTING

The parcel has been used for agricultural and materials stockpiling purposes in the past. Land uses in the surrounding area include Brown Field Airport to the southwest; industrial uses and State Route 125 to the west; and the R.J. Donovan State Prison and George F. Bailey County Correctional Facility to the northeast.

Soil on the parcel is mapped as Diablo clay (Bowman 1973). As noted later in Section 4.1.1 of this RMP, non-native grassland characteristically occurs on gradual slopes with deep, fine-textured, usually clay soils (Oberbauer et al. 2008). Therefore, the existing non-native grassland on site is expected to continue to support non-native grassland vegetation. The disturbed area on site is anticipated to become non-native grassland following enhancement activities as part of this RMP, of which one activity is to fence the site and prevent vehicles from impacting the area and causing its disturbed nature.

While clay soil may not be highly suitable for fossorial mammal burrows, particularly California ground squirrel (*Otospermophilus beecheyi*) whose burrows are typically used by the BUOW, both California ground squirrels and Botta's pocket gophers (*Thomomys bottae*) have created numerous burrows on site, principally on the berms along the edges of the parcel. These burrows have potential to be used by BUOWs, and a population of BUOWs is known to occur on preserved land just north of the site, across Lonestar Road. It is expected that the owls in that area are currently using the Turecek parcel as foraging habitat.

The climate in San Diego County is generally mild and arid. Temperatures in Otay Mesa are generally highest in September (mean high temperatures are 79˚F) and lowest in December (mean low temperatures are 45˚F). Average annual precipitation in the Otay Mesa is approximately 9.9 inches, with the highest average rainfall totals occurring in January and February (1.99 inches) and March (2.07 inches). The driest months are June, July, and August with approximately 0.08, 0.03, and 0.08 inch of rainfall per month, respectively (Weather.com 2008). The parcel is located within the Otay Valley Hydrologic Area of the Otay Hydrologic Unit. No drainages occur on the parcel.

3.3 USES OF PLAN AREA

The parcel would be used solely as mitigation for the Sunroad Otay Project. No public facilities are proposed on the parcel, and no trails are proposed.

4.0 BIOLOGICAL RESOURCES – FUNCTIONS AND VALUES

4.1 VEGETATION COMMUNITIES

The site is composed almost entirely of non-native grassland, with a small amount of disturbed land (Figure 3). The disturbed area is anticipated to become non-native grassland following site fencing and initial enhancement activities. The entire area will be preserved and enhanced for the BUOW as mitigation for the Sunroad Otay Project.

4.1.1 Non-native Grassland

Non-native grassland occurs as a dense to sparse cover of non-native grasses, sometimes associated with species of showy-flowered, native, annual forbs. This community characteristically occurs on gradual slopes with deep, fine-textured, usually clay soils (Oberbauer et al. 2008). Dominant grass species include wild oats (*Avena barbata*), red brome (*Bromus madritensis* ssp. *rubens*), ripgut grass (*Bromus diandrus*), barley (*Hordeum murinum*), and Bermuda grass (*Cynodon dactylon*). Other species occurring throughout the parcel include garland daisy (*Glebionis coronarium*), black mustard (*Brassica nigra*), and Russian thistle (*Salsola tragus*). Most of the annual, introduced species that comprise the majority of the species and biomass within non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California's. These two factors, in addition to intensive grazing and agricultural practices in conjunction with severe droughts, contributed to the successful invasion and establishment of these species and the replacement of native grasses with an annual-dominated, non-native grassland (Jackson 1985). These grasslands are common throughout San Diego County and serve as valuable raptor foraging habitat. This habitat on site meets both the County's and City's criteria for non-native grassland.

4.1.2 Disturbed Land

Disturbed land includes land cleared of vegetation, land containing a preponderance of non-native plant species, or land showing signs of past or present usage that reduces its capability of providing viable wildlife habitat. Less than 0.1 acre of disturbed land is present in the northeastern corner of the parcel at the corner of Harvest Road and Lonestar Road. This area is disturbed by vehicular traffic turning right from Lonestar Road on to Harvest Road. This habitat is not considered sensitive. If the vehicular traffic were precluded from this area it is anticipated that non-native grassland would become established over time.

4.2 Plant Species

No sensitive plants were observed on the parcel, and none have been reported to the CNDDB for the parcel. The overall potential for sensitive plants to occur on site is considered to be low.

In addition to the non-native grasses on the parcel, several invasive species are present and pose a potential management issue: garland daisy, black mustard, and Russian thistle.

Turecek Parcel Boundary
Non-native Grassland
Disturbed

N
W E
S

0 100 200
Feet

ALDEN
ENVIRONMENTAL, INC

Figure 3

Biological Resources

SUNROAD OTAY PROJECT
OFF-SITE TURECEK MITIGATION PARCEL

4.3 WILDLIFE SPECIES

No sensitive animals were observed on the parcel. The parcel does, however, support numerous habitat components that make it potentially suitable for BUOWs. California ground squirrels and Botta's pocket gophers have created numerous burrows, principally on the berms along the edges of the parcel, which could be used by BUOWs. In addition, a population of BUOWs is known to occur on preserved land just north of the site, across Lonestar Road. It is likely that the owls in this area are currently using the site as foraging habitat.

4.4 OVERALL BIOLOGICAL AND CONSERVATION VALUE

The East Otay Mesa/Otay Mesa area is currently the primary location of BUOWs in San Diego County (County of San Diego 2010). The Turecek parcel is located in East Otay Mesa. The goals and objectives for BUOWs in East Otay Mesa emphasize long-term habitat conservation, habitat improvement, and creation and maintenance of as much native and naturalized habitat as possible for BUOWs. One of the goals for BUOWs in East Otay Mesa is to preserve grasslands. Another goal is to establish two BUOW nodes of at least 150 acres each in East Otay Mesa. A node is a generalized area identified by the Wildlife Agencies, the County, and the City as an area in which to concentrate preservation and restoration/enhancement of BUOW habitat. The Turecek parcel is located just southeast of one of the East Otay Mesa nodes and, therefore, would contribute to the establishment and enlargement of that node (Figure 4). Preservation and enhancement of squirrel and BUOW habitat on the parcel would further contribute toward meeting the node goal.

4.5 ENHANCEMENT OPPORTUNITIES

As stated previously, 18.75 acres of habitat will be preserved for the BUOW. The parcel presents an excellent opportunity to enhance the parcel for the BUOW and contribute toward meeting the node goal described in Section 4.4 of this RMP. The following enhancement efforts would be conducted:

- Focused weed removal of targeted non-grass invasive species
- Soil ripping/decompaction
- Hole auguring to create starter burrows
- Soil berming/mounding
- Mowing to reduce vegetation height across the site where needed
- Dethatching
- Establishment of brush piles placed approximately 100 - 200 feet apart to provide initial cover for ground squirrels

Furthermore, the installation of fencing along the project perimeter will prevent vehicles from impacting the northeastern corner of the site resulting in disturbed land. With the preclusion of vehicles from this area due to installed fencing, it is anticipated that non-native grassland would become established in the area over time.

5.0 BIOLOGICAL ELEMENT GOALS

The ultimate goal of this RMP is to detail the methods to preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the RMP land. In addition, this RMP establishes the following goals with regard to biological resources:

Goal 1: Preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the open space. More specifically, the vegetative condition desired is to achieve a relatively low growing, moderately open mix of grasses and forbs to support California ground squirrels and BUOW. Occasional scattered shrubs are also compatible with this habitat condition.

Goal 2: To the extent compatible with Goal 1, reduce, control, and where feasible, eradicate non-native, invasive flora and/or fauna known to be detrimental to native species and/or the local ecosystem. This may include the on-going eradication of target non-native invasive species as deemed necessary by the resource manager.

Goal 3: Manage the land for the benefit of sensitive species, MSCP Covered Species, and existing natural communities, without substantive efforts to alter or restrict the natural course of habitat development and dynamics.

Goal 4: Provide program administration through planning and reporting on the RMP implementation in a consistent and efficient manner.

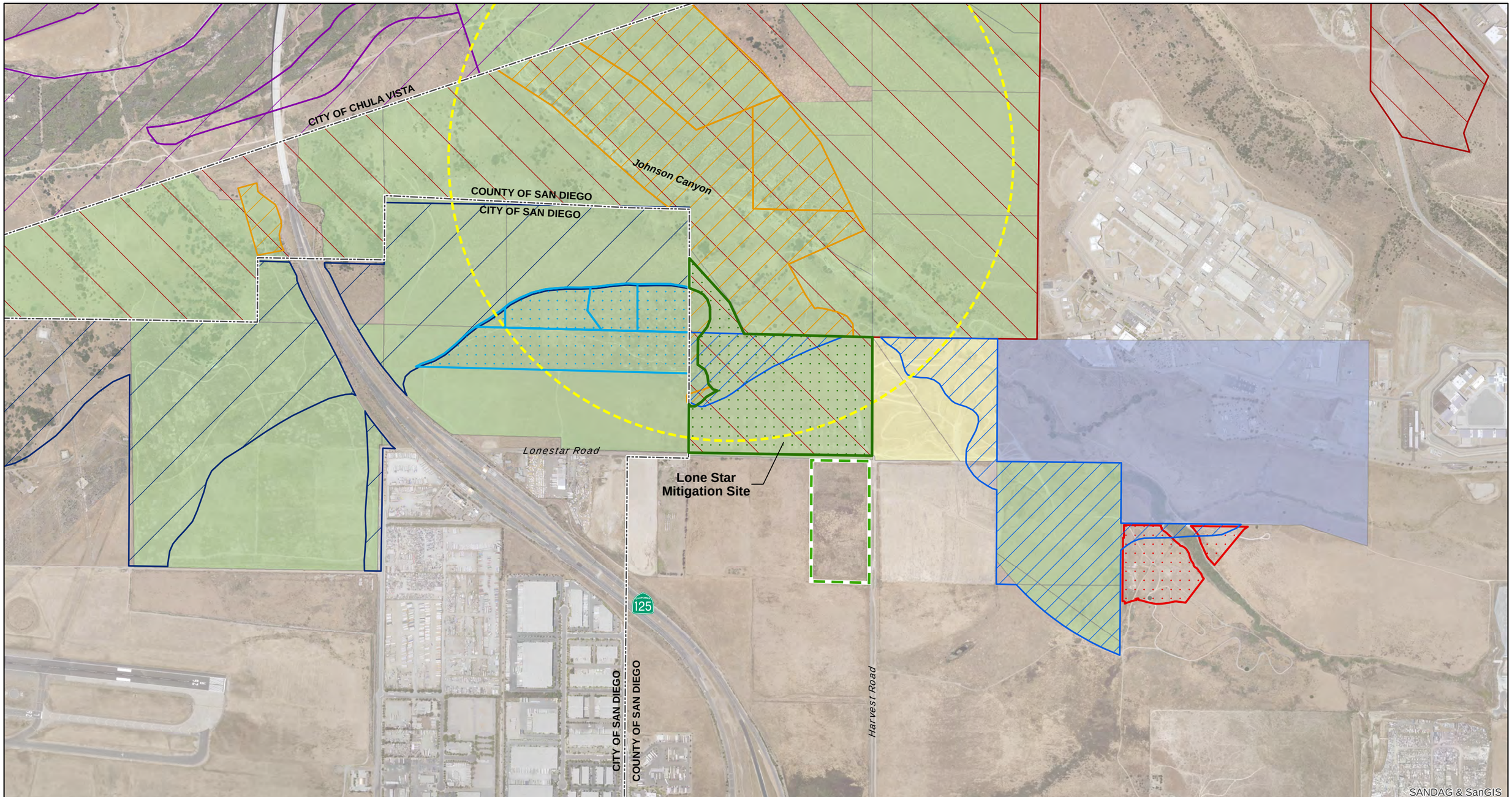
5.1 INITIAL TASKS

The following tasks would be completed to the satisfaction of the City and Wildlife Agencies and would commence immediately upon project approval. The applicant would provide funding for these initial tasks and to establish an endowment for long-term management costs. The project budget/PAR would include the costs associated with the initial activities separate from the long-term endowment cost. A list of all management tasks is presented in Table 2.

Results of initial site preparation tasks would be monitored, and the applicant would provide interim management and annual reporting for 3 years - with the goal of establishing and maintaining 75% cover by vegetation dominated by low growing plant species (ranging between 4-6 inches in height) to support ground squirrel and BUOW. At that time, long-term management would begin.

5.1.1 Initial Fencing/Access Control

To prevent human-induced degradation of the parcel due to illegal occupancy, trespassing (off-highway vehicle activity), removal of resources, or dumping of trash or debris, the Resource Manager will restrict access to the parcel. Permanent three strand barbless fencing will be installed around the entire parcel. Permanent signage will be installed along the perimeter of the preserve area (Figure 5). All signs will be corrosion-resistant (e.g., constructed of steel), measure at minimum six by nine inches in size, be posted on a metal post at least three feet above ground level, and provide notice in both English and Spanish that the area is an ecological preserve with



Limits of Preserve Area
Lone Star Mitigation Site
County MSCP Preserve Area
City of San Diego MHPA
City of Chula Vista MSCP Preserve
SDG&E
State of California
Conserved Lands (SANDAG)
USFWS Refuge
East Otay Mesa Specific Plan Conservation/Limited Use
SR 125 Mitigation Site
Proposed TM 5549 Preserve
Burrowing Owl Node

N
W E
S

0 500 1,000
Feet

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ENVIRONMENTAL, INC

Figure 4

Regional Preserve Context

SUNROAD OTAY PROJECT
OFF-SITE TURECEK MITIGATION PARCEL

Turecek Parcel Boundary
Artificial Berm
Refugia Pipes
Pilot Holes
Brush Piles

N
W E
S

0 100 200 Feet

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Figure 5

Initial Enhancement Activities

SUNROAD OTAY PROJECT
OFF-SITE TURECEK MITIGATION PARCEL

trespassing prohibited. The fences and signs will be installed prior to initiation of the long-term management.

5.1.2 Initial Trash/Debris Removal

Trash and debris located on the site will be removed prior to initiation of the long-term management. All materials will be removed from the site and disposed of in a legal manner.

5.1.3 Initial Mowing

Mowing is the primary technique employed to reduce the height and density of non-native grasses on the site. An initial mowing of the site will be conducted prior to initiation of long-term management. The target habitat is non-native grassland that is generally less than 1 foot in height and suitable for ground squirrels and the BUOW. The goal of the initial mowing will be to cut and remove vegetation that is above 4-6 inches in height over at least 75% of the site. Line trimmers and mechanical mowers will be used to carry out this effort.

5.1.4 Initial Dethatching

An initial task will be to dethatch the site prior to initiation of the long-term management. Dethatching will involve raking and removal of dead vegetative material from the ground surface. This effort may be conducted with the use of hand tools and machinery (tractor and gannon, rake tynes, etc.), as deemed appropriate by the Resource Manager. Collected material will be removed from the site and disposed of in a legal manner. Some thatch may be left if it is determined by the Resource Manager that its removal is unnecessary or would be too damaging to the site.

5.1.5 Initial Weed Removal

Initial removal of target invasive plant species will be conducted through hand removal, mechanical means, and focused application of herbicides. Since non-native grassland is a naturalized habitat type and is important for owls and raptors, removal of non-native grass species is not included. Several species of weeds are particularly problematic in the vicinity of the site. The initial target weed species are provided in Table 1. This list will be reevaluated by the Resource Manager and will be adapted as necessary to reflect site conditions. Control of these target, invasive, site specific weed species shall be conducted such that they do not diminish the suitability of the site for ground squirrels and the BUOW. Prior to initiation of long-term management, all of the target species on the site will have received at least a single round of treatment (to include the specific methods identified above as well as the overall site mowing). Although the annual goal would be to achieve vegetation height of no more than 4-6 inches over at least 75% of the site, it is not anticipated that any of the target species will be "under control" or eradicated following this initial effort as they are tenacious invasive species and there is an extant seed bank in the soils on site.

Table 1 TARGET INVASIVE SPECIES	
SCIENTIFIC NAME	**COMMON NAME**
Atriplex semibaccata	Australian saltbush
Brassica nigra	black mustard
Cynara cardunculus	artichoke thistle
Foeniculum vulgare	fennel
Hirschfeldia incana	shortpod mustard
Salsola tragus	Russian thistle

5.1.6 Initial Berm Placement

In order to help improve site conditions for ground squirrels, 3 artificial berms will be installed on the site (Figure 5) prior to initiation of the long-term management. The berms will consist of debris free soil material that would be imported to the site. The berms will be approximately 10 – 12 feet in width and 4- 5 feet in height. The berm locations have been selected such that they will be in the flatter portions of the site and no less than 100 feet from the adjacent roadways. The soil will be compacted such that they are stable, yet still can be utilized by ground squirrels.

The berms also will incorporate plastic pipe refugia and pilot burrow holes. The plastic pipe refugia will consist of hard plastic pipe, 6-8 inches in diameter and 3-4 feet in length. These pipes will be installed horizontally in the berms so that they can be accessed by owls if needed to escape predation.

The pilot burrows will consist of holes augured in to the top of the berms at regular intervals. The holes will be 6 – 8 inches in diameter and 1 – 2 feet in depth. The holes are intended to help ground squirrels begin digging burrows into the berms. The holes will be at an angle, rather than vertical, so that they do not become pitfall traps for reptiles and small rodents.

5.1.7 Initial Brush Pile Placement

Prior to initiation of the long-term management, shrub and brush material will be collected and stacked into low brush piles to provide additional cover for ground squirrels and small animals. Each pile will be approximately 4 to 6 feet in diameter and 2 to 3 feet in height, provided sufficient material is available. This can be especially beneficial during the initial stages of the effort when there will be no cover available for small animals to utilize. The brush piles will be distributed at approximately 30 feet on center throughout the higher, flatter areas of the site, within approximately 100 feet of the installed berms. The final number and size of piles will depend upon the amount of material available locally. No fewer than 25 brush piles will be initially installed on the property to facilitate ground squirrel establishment.

5.2 BIOLOGICAL MANAGEMENT ACTIVITIES

As stated previously, long-term management of the site would commence following completion of the Initial Tasks and a 3-year interim monitoring and reporting period.

Prior to the issuance of the Certificate of Occupancy, the following would be required to ensure adequate long-term management:

- Recordation of a covenant of easement or conservation easement over the 18.75-acre off-site BUOW mitigation property (Turecek Parcel)
- Identification of a qualified resource manager and approval by the City and Wildlife Agencies
- Preparation of a PAR based on the list of management tasks in Table 2 and approval by the City and Wildlife Agencies

5.2.1 Adaptive Management

The Resource Manager is responsible for interpreting the results of site monitoring to determine the ongoing success of the RMP. The parcel will be inspected for changes during regular monthly, annual, and focused survey visits. Substantial changes that become apparent will be documented. Substantial changes are those that may, as determined by the Resource Manager, have a negative effect on the managed resources and/or cause the effort to not meet its stated RMP goals.

When issues are encountered, the Resource Manager shall determine the course of action to be taken, using Adaptive management techniques as necessary. Adaptive management is a systematic approach for improving resource management by learning from management outcomes. It is an iterative process driven by data collection and monitoring of management success. If it is necessary to modify the RMP between regularly scheduled updates, changes shall be submitted to the City and Wildlife Agencies for approval as required. Adaptive management would involve application of current research and information available on the BUOW to troubleshoot issues that arise during RMP implementation.

5.2.2 Baseline Inventory

Upon implementation of this RMP, the Resource Manager will be provided with existing digital files containing the vegetation and sensitive resources data mapped to date. The Resource Manager will then update this data with biological data collected during the start-up (first year) phase of the RMP. This will include the initial enhancement effort results as well as the standard monitoring tasks described in the following sections.

The data collected over the first year of management (enhancement effort, focused surveys, annual monitoring, etc.) will be compiled into a digital (GIS) database and map of the biological resources on the site. This database will serve as the baseline inventory for future management and allow the Resource Manager to measure habitat changes caused by natural and human effects and to evaluate efforts during subsequent years. The baseline data also will be incorporated into the first annual report, which will include the results of the enhancement effort.

5.2.3 BUOW Survey

A focused BUOW breeding season survey will be conducted annually to determine the presence, number, and general status of the BUOW. The survey will follow current CDFW survey protocols, but may be altered as deemed necessary by the Resource Manager and approved by the City and Wildlife Agencies. The survey visits may coincide with other regularly scheduled site visits. During the BUOW surveys the presence of ground squirrels will be noted and the number of active and potentially suitable BUOW burrows will be noted and mapped.

5.2.4 Vegetation Monitoring

Permanent photo documentation points will be established in the first year and photos taken annually thereafter. A spring site visit will be conducted each year to evaluate the condition of the habitat (non-native grassland) on site. Species cover and richness will be visually evaluated. Plant species observed will be recorded and an estimate of the richness (number) of species present on site can be made. This list will be further broken down into native/non-native species.

Species cover will be evaluated by visually estimating the cover of vegetation in generalized cover classes (e.g. 0-10%, 10-25%, 25-50%, and 75-100%). The goal is to provide an estimate non-native grassland cover across the site and to identify changes over time. The site is generally homogenous and is expected to remain so (non-native grassland habitat). The Resource Manager will collect vegetation cover data within homogenous areas of the site. For example, if there is an area dominated by Russian thistle the Resource Manager may evaluate this area separately from other portions of the site with a different species composition. Separate cover values also may be estimated for different height classes (herb, shrub, tree) if warranted.

Vegetation community mapping will be updated, as necessary, based on the results of the vegetation monitoring. Sensitive plant and animal species observed also will be recorded and mapped. Finally, the suitability of the site to support the BUOW will be evaluated and remedial measures will be identified, if deemed necessary by the Resource Manager.

5.2.5 Monthly Monitoring

Site visits will be conducted at least monthly each year. The type and purpose of each monthly visit may vary depending upon the season and site conditions. At a minimum, each visit will include an inspection of the fences, signs, and general state of the preserved habitat. Necessary repairs will be performed during the monitoring visit, if possible. If not, necessary repairs will be scheduled to be performed as soon as possible/practical. These monthly visits may be conducted in conjunction with other scheduled visits (BUOW survey, vegetation monitoring, etc.). Following each general maintenance visit the Resource Manager shall be informed of any issues that need to be addressed.

5.2.6 Annual Monitoring Report and Work Plan

An annual report will be prepared and submitted to the Wildlife Agencies and City by December 1 each year. The report will summarize the overall condition of the vegetation and sensitive species on the parcel, with particular attention to ground squirrel or BUOW activity on the site. The report would also document the progress of weed eradication efforts. The annual report would discuss the results of management activities proposed in the previous report, and based on the condition of the site, would propose management tasks for the following year.

A Work Plan also will be prepared and submitted by December 1 of each year. The Work Plan will identify remedial measures and tasks that are recommended to occur in the next year.

5.2.7 Biological Database

The Resource Manager will prepare and maintain a biological database for the site. This database will include documentation of all activities conducted, sensitive species presence, and mapping (GIS) of all biological resources. The Resource Manager also will prepare and submit CNDDB forms annually for new species observations on site.

5.2.8 Management Plan Review

This RMP will be reviewed every five years (or as needed) to determine the need for revisions or updates. Due to potentially changing conditions on site, it may be necessary to revise the tasks outlined in this plan to ensure continued success of the stated goals.

5.3 OPERATIONS, MAINTENANCE, AND ADMINISTRATION TASKS

A list of tasks such as mowing, collecting a baseline inventory of biological data, and monitoring, etc. is included in Table 2. Ongoing maintenance and administration, which will be the responsibility of the Resource Manager, will be conducted to ensure no loss of resource quality. The general maintenance and operation tasks to be conducted by the Resource Manager will include the following.

Table 2 RMP TASK SUMMARY[1]			
Task Number	**Task**	**Description**	**Frequency**
Initial Tasks			
I1	Fencing/Access Control	Permanent three strand barbless fencing and signs will be installed around the entire parcel.	Once prior to initiation of long-term management
I2	Trash/debris removal	Remove trash and debris from site.	Once prior to initiation of long-term management
I3	Access Control	Install fence and signs.	Once prior to initiation of long-term management
I4	Mowing	Mow site vegetation to a height of 4-6”.	Once prior to initiation of long-term management
I5	Weed Removal	Removal of target invasive plant species through hand removal, mechanical means, and focused application of herbicides.	Once prior to initiation of long-term management
I6	Dethatch	Removal of vegetative thatch from soil surface.	Once prior to initiation of long-term management
I7	Soil Berms	Install berms to create burrow area.	Once prior to initiation of long-term management
I8	Brush Piles	Place brush piles to create refugia for wildlife.	Once prior to initiation of long-term management
Biological/Reporting Tasks			
B1	Baseline Inventory	Habitat manager will verify and update existing biological information during spring of the first year of active management.	First season following active management
B2	BUOW survey	Annually conduct surveys for breeding BUOW.	Annually, spring
B3	Vegetation Monitoring	Annually assess status of grassland habitat and modify management activities as necessary to maintain habitat for ground squirrels and BUOW.	Annually, spring
B4	Monthly Monitoring	Site visits to visually assess the condition of the site and note any problems needing attention (vandalism, trash dumping etc.).	Minimum monthly, may be in conjunction with other scheduled visits
B5	Annual Report and Work Plan	Prepare and submit an Annual Report and a Work Plan report as discussed in this RMP.	By December 1 each year
B6	Biological Database	Establish and maintain a biological database.	Update as needed, include with Annual Report by December 1 each year
B7	RMP Update	Adjust the RMP as necessary based on adaptive management to address issues identified in the annual report.	Every 5 years, or as needed
Maintenance/Operations Tasks			
M1	Mowing	Mowing of the non-native grassland habitat to a height of 4-6” to help encourage establishment of squirrel and BUOW habitat.	Once per year (late winter/early spring) for the first 5 years, then every other year thereafter (or as needed)
M2	Fence/Sign Repair	Maintain and repair fences and signs.	As needed
M3	Weed Removal	Focused removal of target invasives.	As needed, depending on species and techniques applied
M4	Trash and debris removal	Remove trash and debris left on site.	As needed

[1]Hours and costs to be determined by Resource Manager and depicted in the PAR/ELM.

5.3.1 Mowing/Clearing

Mowing of the overall grassland area will be conducted once per year for the first five years of management, then every other year thereafter. This effort also will include limited clearing around future occupied burrows. The burrow clearing will be conducted as needed and not be limited to the mowing schedule. Line trimmers and mechanical mowers will be used to carry out this effort. The Resource Manager will determine the need and timing of mowing to be conducted as the time progresses and may change the mowing schedule. This activity should be conducted in late winter (February/March) before the non-native grasses go to seed and native flowering plants are emerging. Mowing also will be timed to avoid affecting nesting BUOWs during their breeding season. The goal is to reduce the cover of non-native grasses such that native plant seed that may be in the soil will have a better chance of becoming established. This effort also will help ensure that BUOWs are able to forage and nest successfully. Additionally, the Resource Manager may identify and incorporate alternative measures to help achieve the long-term establishment of a lower statured non-native grassland habitat. The goal is to maintain at least 75% of the site as non-native grassland habitat that is approximately 4-6 inches in height and is suitable for ground squirrels and the BUOW.

5.3.2 Fence/Sign Repair

The Resource Manager will be responsible for ensuring that the fence and signs are maintained in good condition. Necessary repair/replacement will be conducted as needed. The Resource Manager also will be responsible for altering the type and location of fencing to ensure site protection and to prohibit trespassing.

5.3.3 Weed Removal

Removal of target invasive plant species (Table 1) will be conducted through hand removal, mechanical means, and focused application of herbicides. Eradication of established invasives may require several herbicide applications per year for several years, and shall be conducted at the appropriate time of year for the targeted species based on that species' biology. Herbicides may only be applied by workers with the appropriate applicator licenses. The Resource Manager will determine the timing and techniques to be used, depending upon species presence and site conditions. The annual goal will be that the invasive weed species are maintained such that they do not inhibit or lessen the potential of the site to support ground squirrels and the BUOW, especially adjacent to established burrows.

5.3.4 Trash and Debris Removal

The Resource Manager will also conduct general trash/debris removal on the parcel during regular management site visits. Additionally, damage caused by vandalism will be repaired. Trash/debris removal and vandalism repair will occur as needed.

5.3.5 Public Use

There will be no public uses allowed on the parcel.

5.3.6 Fire Management

No specific activities for fire management are proposed on the parcel; however, the planned mowing to control vegetative height (in support of the BUOW), will reduce the wildfire risk.

5.3.7 Illegal Occupancy

Illegal occupancy is common in open space areas, although this is not anticipated to be an issue on this site because of the open nature of the habitat. The Resource Manager will monitor the parcel for evidence of illegal access concurrently with other management activities and file a report with the Sheriff, City, and regulatory agencies, if necessary.

5.3.8 Removal of Resources

Removal of any plants, animals, rocks, minerals, or other natural resources from the preserve is prohibited. The resource manager will maintain a log of illegal collecting and may report individuals caught removing natural resources from the parcel to the Wildlife Agencies, City, and/or sheriff's office.

5.3.9 Hazardous Materials Monitoring

The release of hazardous materials such as fuels, oil, vegetation clippings, trash, and landscaping related chemicals (e.g., pesticides and herbicides) has potential to affect the parcel habitat negatively. Although no specific survey will be conducted, if such hazardous materials are observed during the annual monitoring visits, remedial measures to remove the material will be taken.

5.4 MANAGEMENT CONSTRAINTS

This RMP follows the regulatory and permitting requirements of the Wildlife Agencies and City. Although it anticipates measures for most foreseeable contingencies, several external constraints remain. For example, illegal trespassing could negatively impact sensitive animal species; and environmental factors, such as prolonged drought, could have detrimental effects on vegetation.

5.5 CHANGES/AMENDMENTS

The Resource Manager will have discretion in the use of adaptive management actions deemed necessary for management under this RMP. Each annual report will identify actions taken during the previous year and specifically identify any deviations from the RMP. Additionally, each annual workplan will identify proposed management changes that would be employed in the upcoming year. Any proposed changes or amendments to the RMP (allowable uses, reporting schedules, goal revisions, etc.) would require prior approval from the City and the Wildlife Agencies.

Additionally, the City and Wildlife Agencies would be immediately notified in the event of major issues (e.g. management failure, transference of management responsibility, insufficient endowment funds, extreme landform changes, etc.) that would be outside the realm of normal land management and standard adaptive management techniques identified in the RMP.

6.0 LIST OF PREPARERS

The following individuals contributed to the preparation of this report.

Greg Mason	B.S., Natural Resources Planning & Interpretation, Humboldt State University, 1992
Deborah Clayton	B.A., Resource/Environmental Geography, San Diego State University, 1990
Justin Palmer	B.A., Geography, San Diego State University, 2001

7.0 REFERENCES

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Appendix A

RECORD OF SURVEY FIGURE

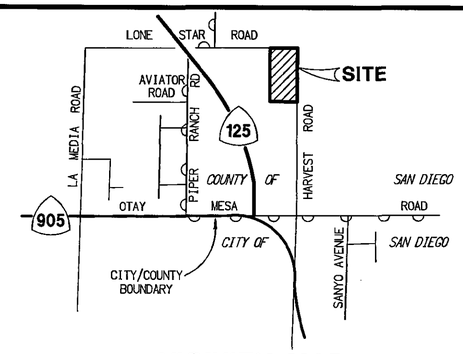
Order: 95000
Doc: 20029 MAP RECORDOFSURVEY

R. OF S. MAP NO. 20029

SHEET 1 OF 2 SHEETS

RECORD OF SURVEY

PARCEL 1 OF PARCEL MAP NO. 7808, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, SEPTEMBER 7, 1978.



VICINITY MAP

NO SCALE

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE NAD 83, ZONE 6, EPOCH 1991.35, GRID BEARING BETWEEN STATION PT.# 5109 AND STATION PT.# 4014, BOTH HAVING A CALIFORNIA COORDINATE VALUE OF FIRST ORDER ACCURACY OR BETTER, AS SAID CONTROLS ARE SHOWN IN R.O.S. 14841.
I.E., N88°52'07"W.

QUOTED BEARINGS FROM REFERENCE MAPS/DEEDS MAY OR MAY NOT BE IN TERMS OFSAID SYSTEM.

GRID DISTANCE = GROUND DISTANCE x COMBINED SCALE FACTOR

SURVEYOR'S STATEMENT

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYOR'S ACT AT THE REQUEST OF SUNROAD ENTERPRISES, AUGUST 20, 2007 THROUGH SEPTEMBER 28, 2007.

01-03-2008

JOSEPH G. CRESTO — DATE
PLS 8050

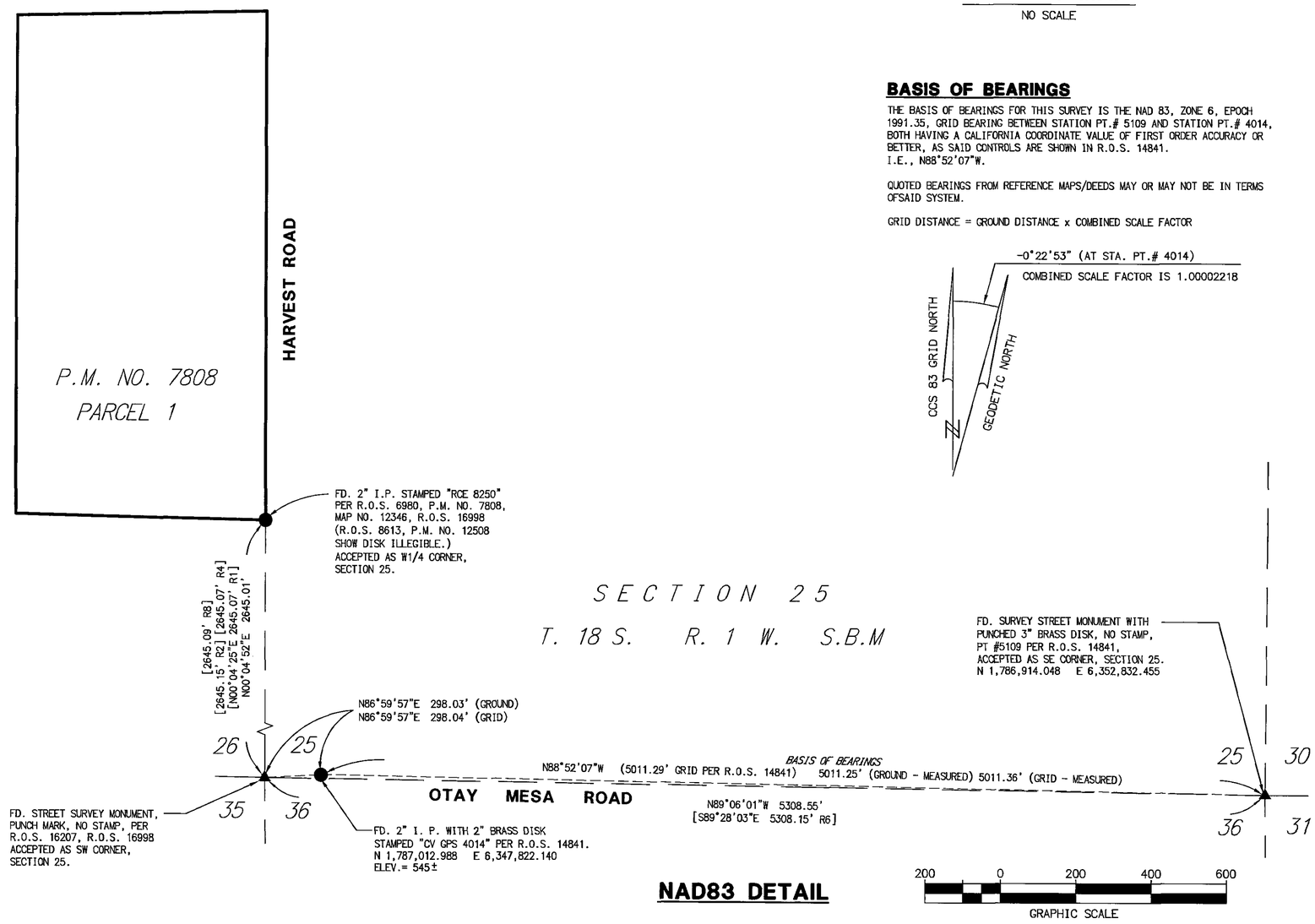
LICENSED LAND SURVEYOR — JOSEPH G. CRESTO — No. 8050 — Exp. 12-31-09 — STATE OF CALIFORNIA

COUNTY SURVEYOR'S STATEMENT

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE PROFESSIONAL LAND SURVEYORS ACT, THIS 8TH DAY OF JANUARY, 2008.

TERRENCE T. CONNORS
COUNTY SURVEYOR
PLS 5099

LICENSED LAND SURVEYOR — TERRENCE T. CONNORS — 5099 — Expires 6/30/09 — STATE OF CALIFORNIA



NAD83 DETAIL

RECORDER'S CERTIFICATE

FILE NO. 2008-0013512

FILED THIS 11th DAY OF January, 2008, AT 10:57 O'CLOCK A.M. IN BOOK OF RECORD OF SURVEY MAPS AT PAGE — AT THE REQUEST OF JOSEPH G. CRESTO.

GREGORY J. SMITH
COUNTY RECORDER

BY: DEPUTY COUNTY RECORDER

FEE: $10.00

Prepared by: STEVENS CRESTO ENGINEERING, INC.
JN 07001.03 DWG. NO.7001ros1

APN 646-070-23
CALIF.COORD.INDEX 146-1779

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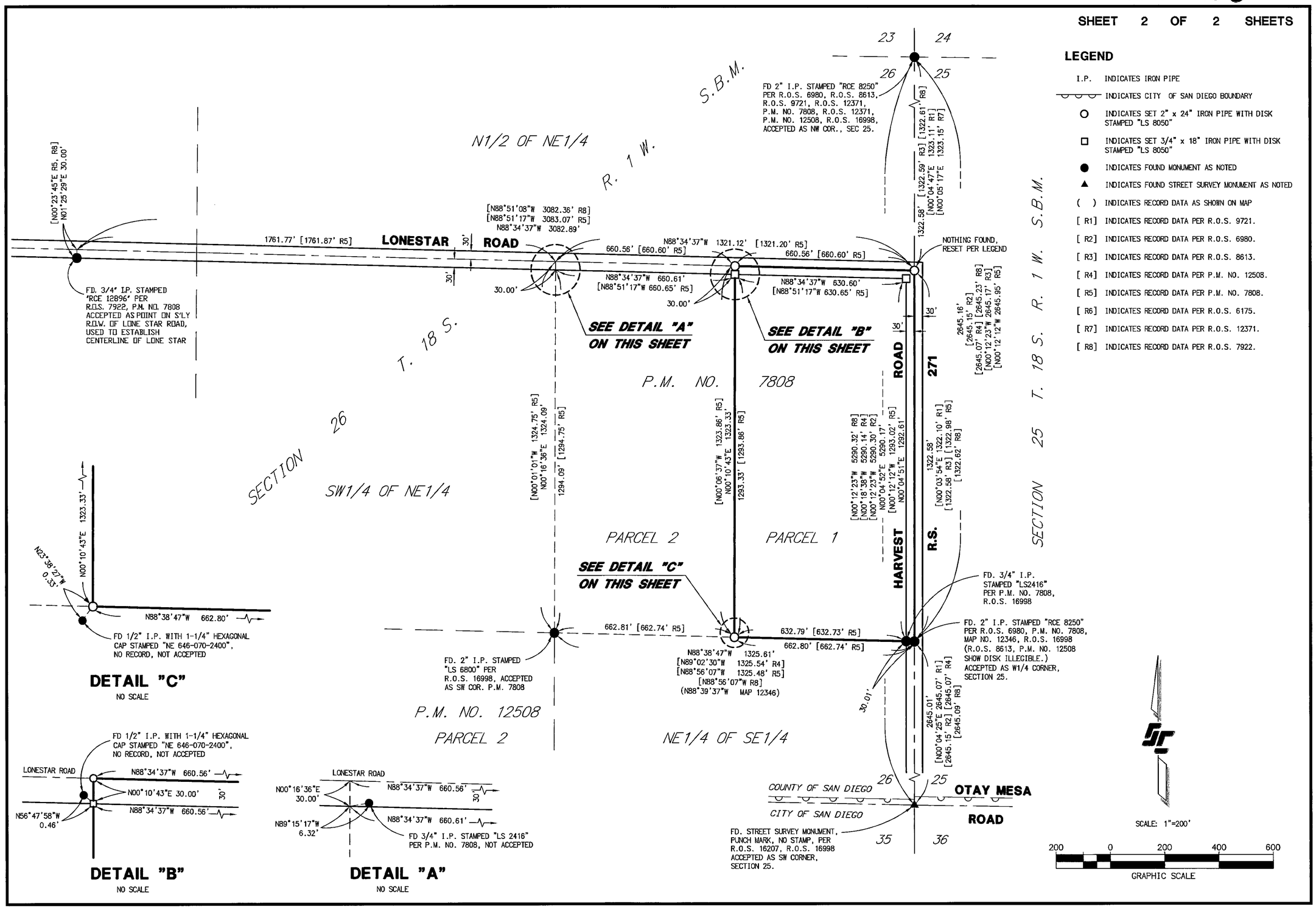
Requested By: Michael Moore , Printed: 8/1/2018 11:54 AM

Order: 95000
Doc: 20029 MAP RECORDOFSURVEY

R. OF S. MAP NO. 20029

SHEET 2 OF 2 SHEETS



LEGEND

I.P.	INDICATES IRON PIPE
	INDICATES CITY OF SAN DIEGO BOUNDARY
○	INDICATES SET 2" x 24" IRON PIPE WITH DISK STAMPED "LS 8050"
□	INDICATES SET 3/4" x 18" IRON PIPE WITH DISK STAMPED "LS 8050"
●	INDICATES FOUND MONUMENT AS NOTED
▲	INDICATES FOUND STREET SURVEY MONUMENT AS NOTED
( )	INDICATES RECORD DATA AS SHOWN ON MAP
[R1]	INDICATES RECORD DATA PER R.O.S. 9721.
[R2]	INDICATES RECORD DATA PER R.O.S. 6980.
[R3]	INDICATES RECORD DATA PER R.O.S. 8613.
[R4]	INDICATES RECORD DATA PER P.M. NO. 12508.
[R5]	INDICATES RECORD DATA PER P.M. NO. 7808.
[R6]	INDICATES RECORD DATA PER R.O.S. 6175.
[R7]	INDICATES RECORD DATA PER R.O.S. 12371.
[R8]	INDICATES RECORD DATA PER R.O.S. 7922.

Prepared by: STEVENS CRESTO ENGINEERING, INC.
JN 07001.03 DWG. NO.7001ros2

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