

Appendix E:
Traffic Study

TRAFFIC ANALYSIS

HEALTH CLUB WITHIN THE SHOPS AT ROSSMOOR
CITY OF SEAL BEACH
COUNTY OF ORANGE, CALIFORNIA

This Traffic Impact Analysis has been prepared under the supervision of
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Signed 



LSA

March 2017

TRAFFIC ANALYSIS

HEALTH CLUB WITHIN THE SHOPS AT ROSSMOOR
CITY OF SEAL BEACH
COUNTY OF ORANGE, CALIFORNIA

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TRAFFIC ANALYSIS HEALTH CLUB WITHIN THE SHOPS AT ROSSMOOR

LSA has prepared this updated traffic/circulation analysis within a study area along Seal Beach Boulevard north of the Interstate 405 (I-405) freeway in the City of Seal Beach in order to identify any potential traffic impacts resulting from the development of the proposed project. This traffic/circulation analysis serves as an update to the *Health Club within the Shops at Rossmoor Traffic Analysis* (LSA, October 2015) and accompanying *Revised Health Club within the Shops at Rossmoor Expanded Queuing Assessment* (LSA, April 2016), referred to collectively as Previous Analyses. This update was performed as the Previous Analyses were based on traffic counts collected in November 2014 and are not considered current. This update is based on traffic counts collected in October 2016. The project description, which includes the construction of a 37,000-square-foot (sf) health club within the existing Shops at Rossmoor, remains the same as previously analyzed.

Through the identification of various community concerns collected during the preparation of the Previous Analyses, the project includes two off-site improvements to access facilities. These include the lengthening of the northbound left-turn pocket at the intersection of Seal Beach Boulevard and Rossmoor Center Drive to 250 feet and the widening of Rossmoor Center Way between the internal driveway and Seal Beach Boulevard.

The study area is consistent with the Previous Analyses, which were developed in coordination with City staff. This study area includes intersections and roadway segments along Seal Beach Boulevard and local access roads adjacent to the proposed project. Per previous direction from the City, LSA also evaluated recent accident and pedestrian data in the study area. The traffic analysis has been prepared consistent with the City Traffic Impact Study Guidelines (March 2010) and the City's General Plan (December 2003).

EXECUTIVE SUMMARY

The purpose of this analysis is to determine short-term and long-term traffic impacts resulting from the development of a 37,000 sf health club within the existing Shops at Rossmoor retail center along the south side of Rossmoor Center Way between West Road and Sprouts Farmers Market.

The traffic analysis reviewed the weekday a.m., p.m., and weekend peak-hour levels of service (LOS) at study intersections and roadway segments for the following scenarios:

1. Existing (2016) conditions with current occupancy of the Shops at Rossmoor retail center.
2. Existing (2016) conditions with estimated full occupancy of the Shops at Rossmoor retail center.
3. Existing (2016) conditions with estimated full occupancy of the Shops at Rossmoor retail center plus the proposed project.

4. Project Completion Year (2018) conditions with estimated full occupancy of the Shops at Rossmoor retail center.
5. Project Completion Year (2018) conditions with estimated full occupancy of the Shops at Rossmoor retail center plus the proposed project.
6. Future (2035) General Plan Buildout conditions with estimated full occupancy of the Shops at Rossmoor retail center.
7. Future (2035) General Plan Buildout conditions with estimated full occupancy of the Shops at Rossmoor retail center plus the proposed project.

Based on the results of this TIA, the proposed project can be implemented without impacting the design or the operation of the surrounding intersections and roadways with the implementation of project off-site improvements. The evaluation of intersection and roadway LOS shows that the addition of project traffic to existing, Project Completion Year (2018), and Future (2035) General Plan Buildout traffic volumes would not significantly impact the study area intersections or roadways according to City performance criteria.

Project access circulation and queuing were also analyzed based on coordination with City staff on the Previous Analyses. Based on the circulation and queuing analysis, the addition of project traffic will contribute to the northbound left-turn queue at the intersection of Seal Beach Boulevard and Rossmoor Center Way, which currently exceeds the provided storage lane. The extension of this northbound left-turn pocket is a project off-site improvement. This improvement is consistent with recommendations made in the Previous Analyses. Additionally, project off-site improvements to access the facilities will include the widening of Rossmoor Center Way between the internal driveway and Seal Beach Boulevard. At the community's request, an optional improvement was evaluated for the construction of an additional inbound-only driveway and right-turn deceleration lane on Seal Beach Boulevard south of Rossmoor Center Way. This improvement, however, was determined to be infeasible based on several factors. The proposed Rossmoor Center Way improvement, in conjunction with the extension of the northbound left-turn pocket at the intersection of Seal Beach Boulevard and Rossmoor Center Way will improve vehicular access to both the project site and the Shops at Rossmoor.

These project off-site improvements are not required by the City or California Environmental Quality Act (CEQA) guidelines but have been evaluated to investigate concerns raised by the local community.

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INTRODUCTION

LSA has prepared this updated traffic/circulation analysis within a study area along Seal Beach Boulevard north of I-405 in the City of Seal Beach in order to identify any potential traffic impacts resulting from the development of the proposed project. This traffic/circulation analysis serves as an update to the Previous Analyses, which were based on traffic counts collected in November 2014 and are not considered current. This update is based on traffic counts collected in October 2016. The project description includes the construction of a 37,000-square-foot (sf) health club within the existing Shops at Rossmoor.

The study area is consistent with the Previous Analyses, which were developed in coordination with the City staff. This study area includes intersections and roadway segments along Seal Beach Boulevard and local access roads adjacent to the proposed project. Per previous direction from the City, LSA also evaluated recent accident data in the study area. The traffic analysis has been prepared consistent with the City Traffic Impact Study Guidelines (March 2010) and the City's General Plan (December 2003).

The traffic analysis reviewed the weekday a.m., p.m., and weekend peak-hour LOS at study intersections and roadway segments for the following scenarios:

1. Existing (2016) conditions with current occupancy of the Shops at Rossmoor retail center.
2. Existing (2016) conditions with estimated full occupancy of the Shops at Rossmoor retail center.
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7. Future (2035) General Plan Buildout conditions with estimated full occupancy of the Shops at Rossmoor retail center plus the proposed project.

Project Description

The proposed project consists of 37,000 sf of health club uses to be developed on surface parking within the existing Shops at Rossmoor retail center along the south side of Rossmoor Center Way between West Road and Sprouts Farmers Market as shown on Figure 1. The project site is bound by residential uses to the north and west. Access to the project will be provided by the site-adjacent intersections of West Road at Rossmoor Center Way and Project Driveway at Rossmoor Center Way. As part of the proposed project, two off-site improvements to access facilities will be implemented. These include the lengthening of the northbound left-turn pocket at the intersection of Seal Beach Boulevard and Rossmoor Center Way to 250 feet and the widening of Rossmoor Center Way between the internal driveway and Seal Beach Boulevard. These project off-site improvements will be fully funded by the project applicant.

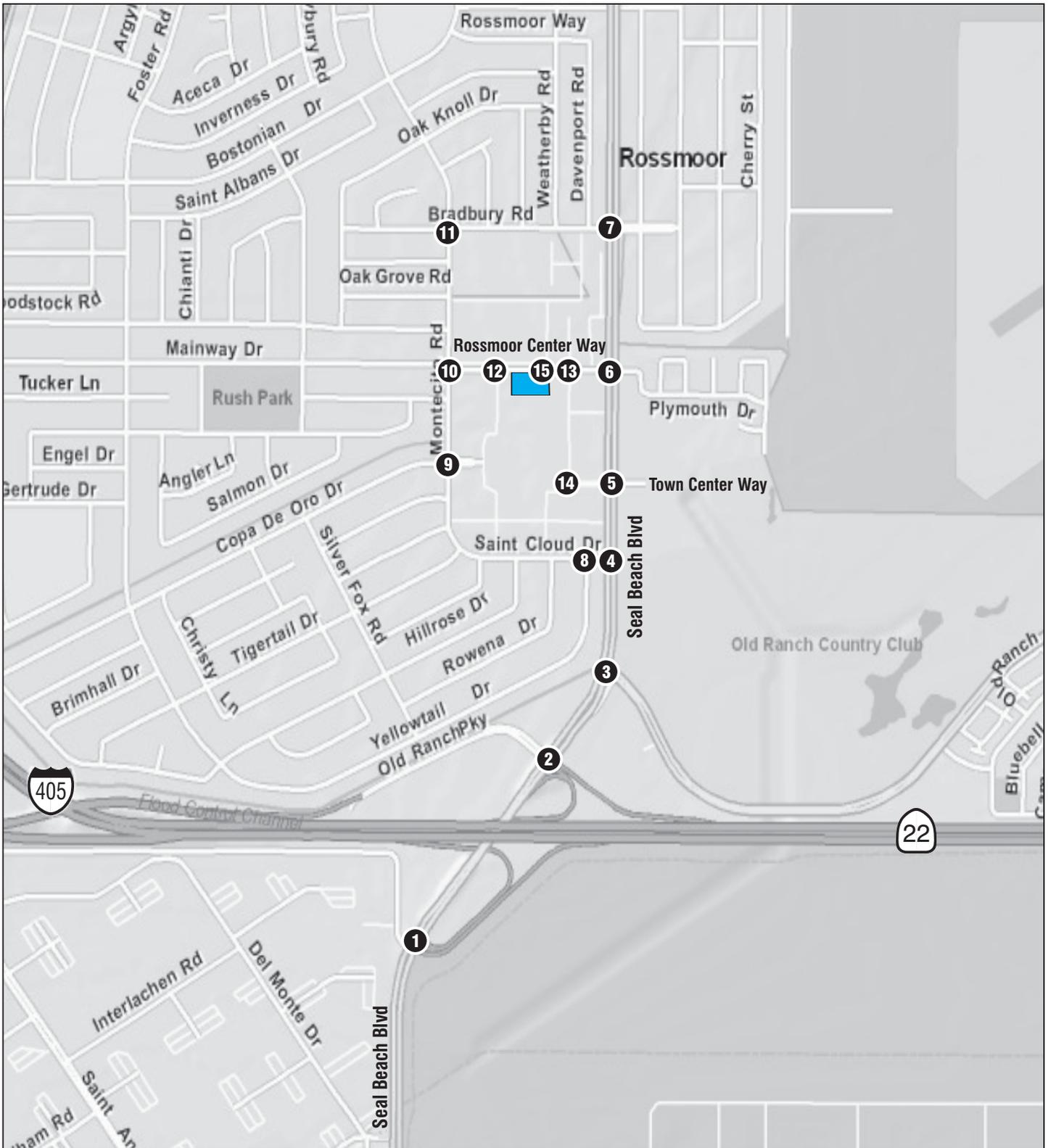


FIGURE 1

L S A

LEGEND

- Project Site
- 8 - Study Area Intersection



Health Club within The Shops at Rossmoor
 Project Location and
 Study Area Intersections

SOURCE: ESRI

I:\MPA1401\G\Location & Study Ints.cdr (12/13/2016)

STUDY AREA

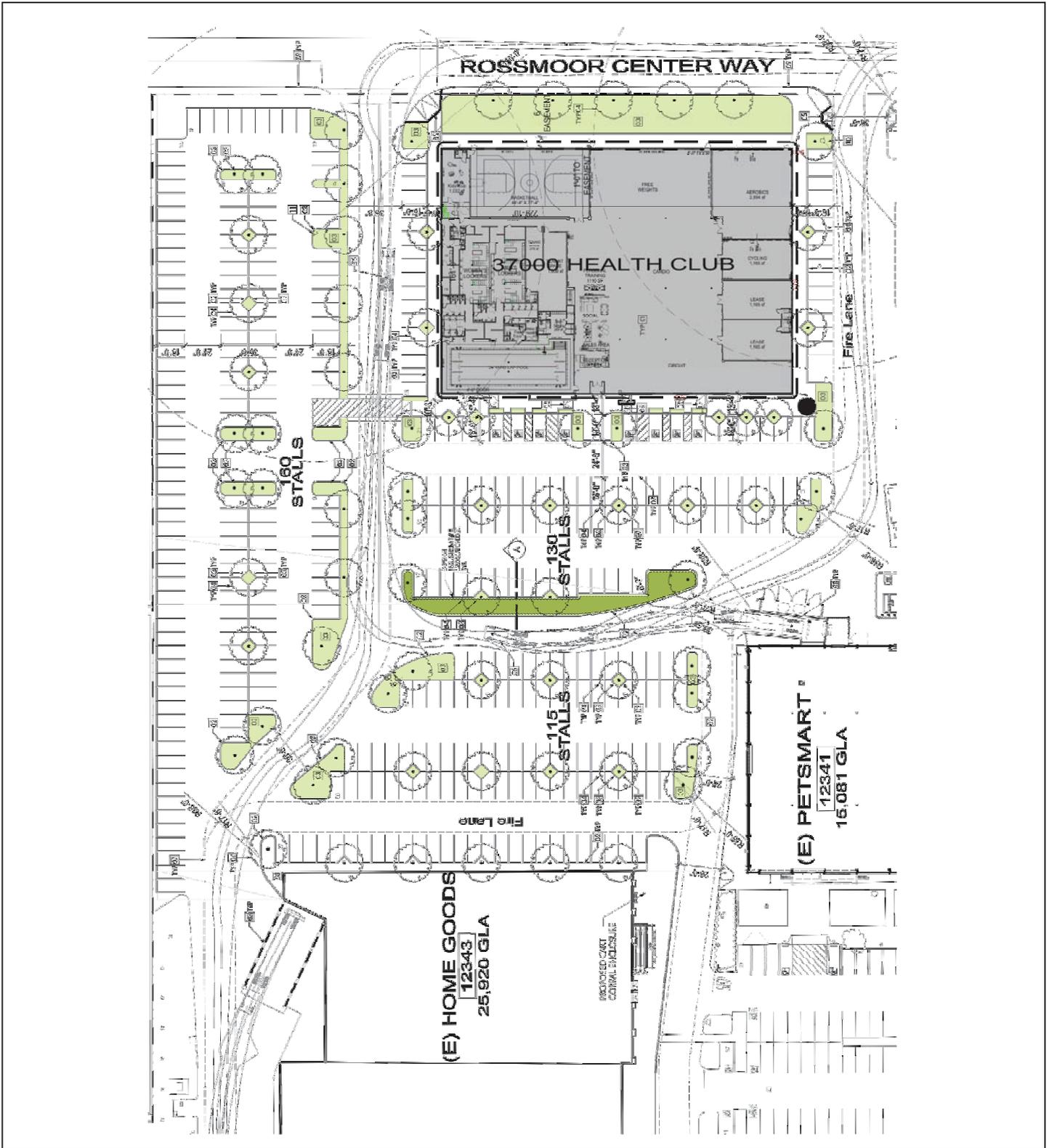
As Figure 2 shows, Seal Beach Boulevard is a north-south arterial that provides access to both residential and commercial (retail) uses within the City of Seal Beach. Seal Beach Boulevard is a six-lane Major Arterial per the City's General Plan, which provides connection to the I-405 freeway as well as the Interstate 605 (I-605) freeway (via Katella Avenue). The 1.2-mile (mi) section of Seal Beach Boulevard between I-405 and Bradbury Road provides connection to commercial uses such as office, retail, and hotel, and residential uses (both east and west of Seal Beach Boulevard) via local collector streets such as Bradbury Road, Lampson Avenue, Rossmoor Center Way, Town Center Drive, and St. Cloud Drive. There are retail/commercial uses on either side of Seal Beach Boulevard between St. Cloud Drive and Bradbury Road. The Shops at Rossmoor retail/commercial center west of Seal Beach Boulevard recently underwent modifications and changes at several locations and is close to full occupancy with only one unoccupied restaurant space of 8,827 sf (former Marie Callender's). The existing traffic along Seal Beach Boulevard includes the traffic from the occupied retail and restaurant space within the Shops at Rossmoor as well as residential traffic from the Rossmoor community, but does not include traffic generated by the restaurant space that is currently unoccupied.

In order to analyze the traffic conditions along Seal Beach Boulevard when the Shops at Rossmoor is fully occupied, traffic for the unoccupied restaurant space was added to existing traffic volumes.

Based on discussion with City staff and the criteria provided in the City's Traffic Impact Study Guidelines, the following roadway segments and intersections are analyzed for the study:

Roadway Segments

- Seal Beach Boulevard between:
 - Rossmoor Way and Bradbury Road;
 - Bradbury Road and Rossmoor Center Way;
 - Rossmoor Center Way and Town Center Drive;
 - Town Center Drive and St. Cloud Drive;
 - St. Cloud Drive and Lampson Avenue; and
 - Lampson Avenue and I-405 Northbound ramps.
- St. Cloud Drive between:
 - Seal Beach Boulevard and Yellowtail Drive.
- Montecito Road between:
 - Yellowtail Drive and Copa De Oro Drive;
 - Copa De Oro Drive and Mainway Drive; and
 - Mainway Drive and Bradbury Road.
- Rossmoor Center Way between:
 - Montecito Road and Seal Beach Boulevard.



LSA

LEGEND

■ - Project Site

FIGURE 2



SOURCE: robinson hill architecture, inc.
I:\MPA1401\G\Site Plan.cdr (12/13/2016)

Health Club within The Shops at Rossmoor
Site Plan

Intersections

1. Seal Beach Boulevard/I-405 Southbound ramps;
2. Seal Beach Boulevard/I-405 Northbound ramps;
3. Seal Beach Boulevard/Lampson Avenue;
4. Seal Beach Boulevard/St. Cloud Drive;
5. Seal Beach Boulevard/Town Center Drive;
6. Seal Beach Boulevard/Rossmoor Center Way;
7. Seal Beach Boulevard-Los Alamitos Boulevard/Bradbury Road;
8. Yellowtail Drive/St. Cloud Drive (unsignalized);
9. Montecito Road/Copa De Oro Drive (unsignalized);
10. Montecito Road/Mainway Drive-Rossmoor Center Way (unsignalized);
11. Montecito Road/Bradbury Road (unsignalized);
12. West Road/Rossmoor Center Way (unsignalized);
13. Internal Driveway (Eastern)/Rossmoor Center Way (unsignalized);
14. Internal Driveway/Towne Center Drive (unsignalized); and
15. Internal Driveway (Western)/Rossmoor Center Way (unsignalized).

Figure 3 shows the existing intersection lane geometrics at all 15 intersections.

METHODOLOGY

To determine the peak hour intersection operations at signalized intersections within the study area, intersection capacity utilization (ICU) methodology was used per City of Seal Beach Traffic Study Guidelines. The ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of LOS, where LOS A represents free-flow activity and LOS F represents overcapacity operation. The ICUs were developed for this study using the Traffix (Version 8.0) software.

According to the City of Seal Beach Traffic Impact Study Guidelines, LOS at an intersection is considered to be unsatisfactory when the ICU exceeds 0.90 (LOS D). As such, improvements are recommended at locations that operate at LOS E or F. The relationship of ICU (v/c ratio) to LOS is demonstrated in the following table:

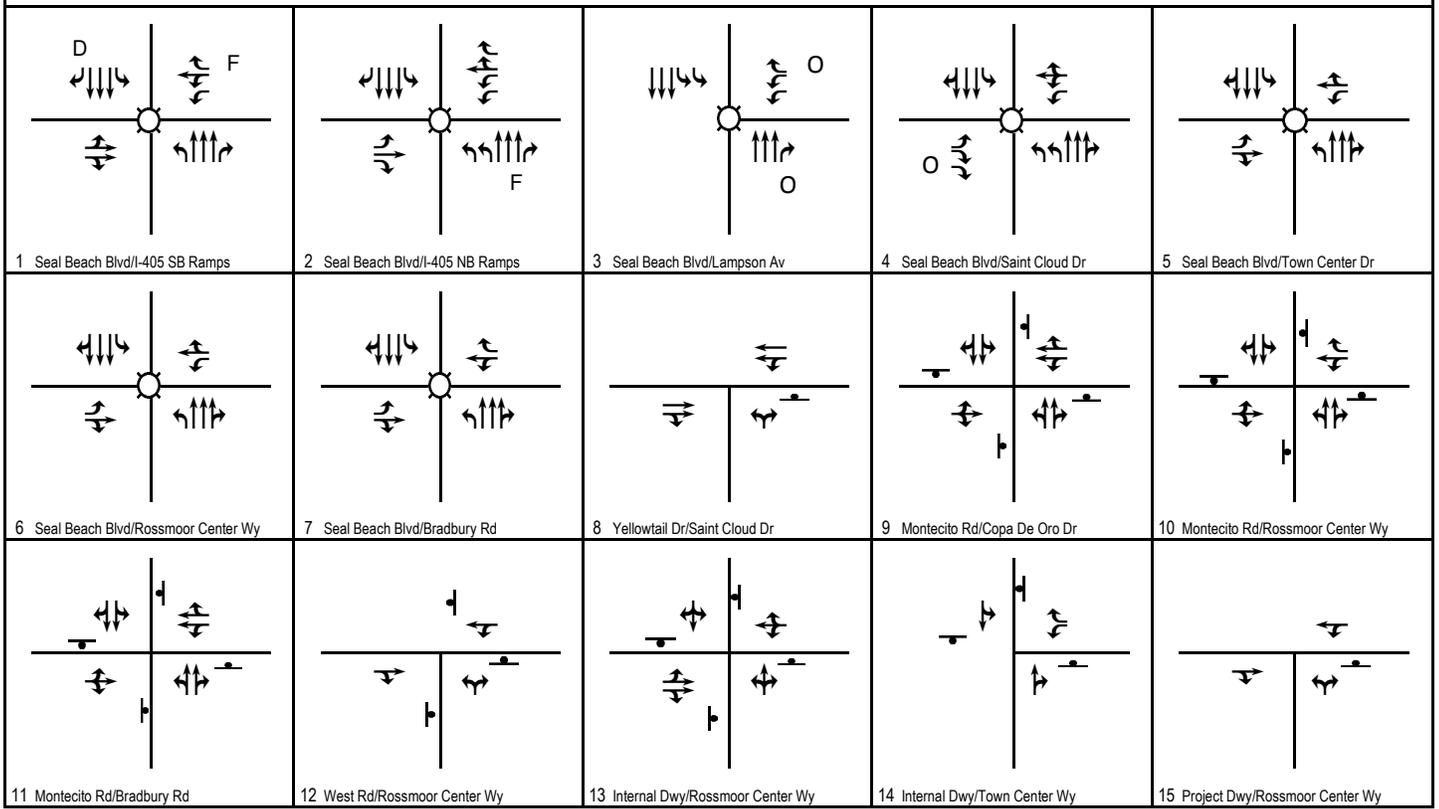
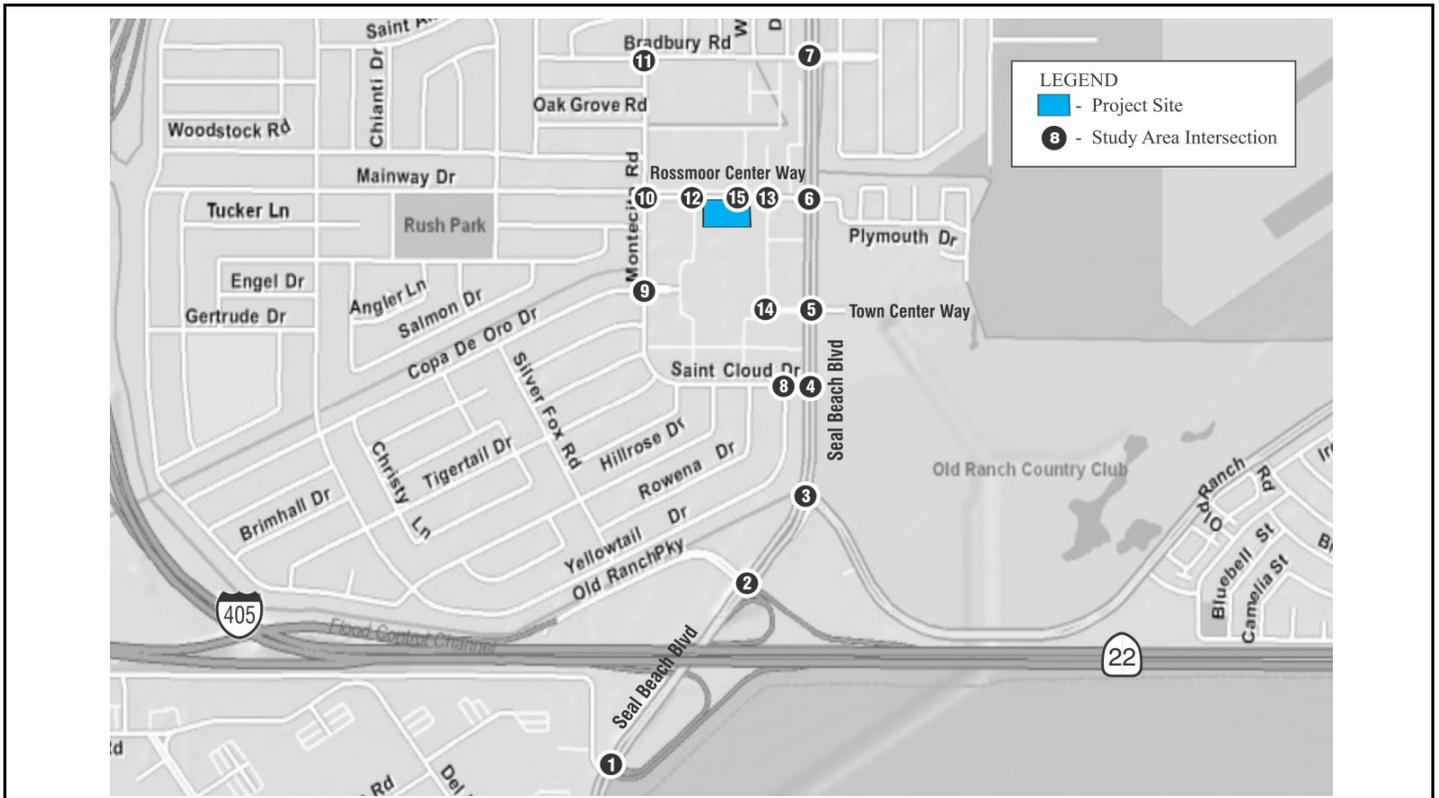


FIGURE 3

Legend

- Signal
- ⊙ Right Turn Overlap
- ⊠ Stop Sign
- F Free Right Turn
- D Defacto Right Turn Lane

Health Club within The Shops at Rossmoor

Existing (2016) Lane Geometrics and Traffic Control Devices

LOS	Operating Condition	ICU (v/c ratio)
A	Free flowing, virtually no delay. Minimal traffic	<0.60
B	Free flow and choice of lanes. Delays are minimal. All cars clear intersection easily.	0.60–0.69
C	State flow. Queue at signal starting to get relatively long. Delays starting to become a factor but still within “acceptable” limits.	0.70–0.79
D	Approaching unstable flow. Queues at intersection are quite long but most cars clear intersection on their green signal. Occasionally, several vehicles must wait for a second green signal. Congestion is moderate.	0.80–0.89
E	Severe congestion and delay. Most of the available capacity is used. Many cars must wait through a complete signal cycle to clear the intersection.	0.90–0.99
F	Excessive delay and congestion. Most cars must wait through more than one on one signal cycle. Queues are very long and drivers are obviously irritated.	>1.00

ICU = Intersection Capacity Utilization

LOS = level of service

v/c = volume-to-capacity

Per City guidelines, the following project-related increases in intersection ICU shall be deemed as “significant” and require mitigation:

Existing ICU	Project-Related Increase in ICU
0.00–0.69	0.06
0.70–0.79	0.04
0.80–0.89	0.02
0.90+	0.01

ICU = Intersection Capacity Utilization

In addition to the ICU methodology of calculating signalized intersection LOS, the *Highway Capacity Manual* (HCM 2010) methodology was used to determine the LOS at the signalized ramp intersections that are governed by California Department of Transportation (Caltrans) and at unsignalized study area intersections. The HCM 2010 unsignalized intersection methodology presents LOS in terms of control delay (in seconds per vehicle). The resulting delay is expressed in terms of LOS, as in the ICU methodology. The relationship of delay to LOS is demonstrated in the following table:

LOS	Signalized Intersection Delay (seconds)	Unsignalized Intersection Delay (seconds)
A	≤10.0	≤10.0
B	>10.0 and ≤20.0	>10.0 and ≤15.0
C	>20.0 and ≤35.0	>15.0 and ≤25.0
D	>35.0 and ≤55.0	>25.0 and ≤35.0
E	>55.0 and ≤80.0	>35.0 and ≤50.0
F	>80.0	>50.0

Source: *Highway Capacity Manual* (2010), Exhibits 18-4, 19-1, and 20-2.

LOS = level of service

It should be noted that this study focuses on capacity (i.e., ICU). The HCM method is another method to evaluate operational conditions at signalized intersections, such as signal timing and queue lengths at turn lanes. While briefly discussed, this operational tool is not the focus of this impact study,

although it is used to evaluate the operations (queuing) at intersections as discussed later in this report. All HCM analysis for this study has been developed utilizing the Synchro (Version 9.1) software.

For roadway segments situated between intersections, LOS is described via a “mid-block roadway link” analysis. The Highway Capacity Software Version 5.2 (HCS) was utilized to analyze roadway segments in the study area consistent with Chapter 21 of the HCM. The basic input data for conducting a roadway analysis include the number of lanes and peak-hour volumes along the segments.

Roadway segments have uniform traffic conditions and roadway characteristics. The measure used to provide an estimate of LOS is density, where density is calculated from the average vehicle flow rate per lane and the average speed. The following shows the correlation between LOS and flow density:

LOS	Density (pc/mi/ln)
A	≤11
B	>11–18
C	>18–26
D	>26–35
E	>35–45
F	>45

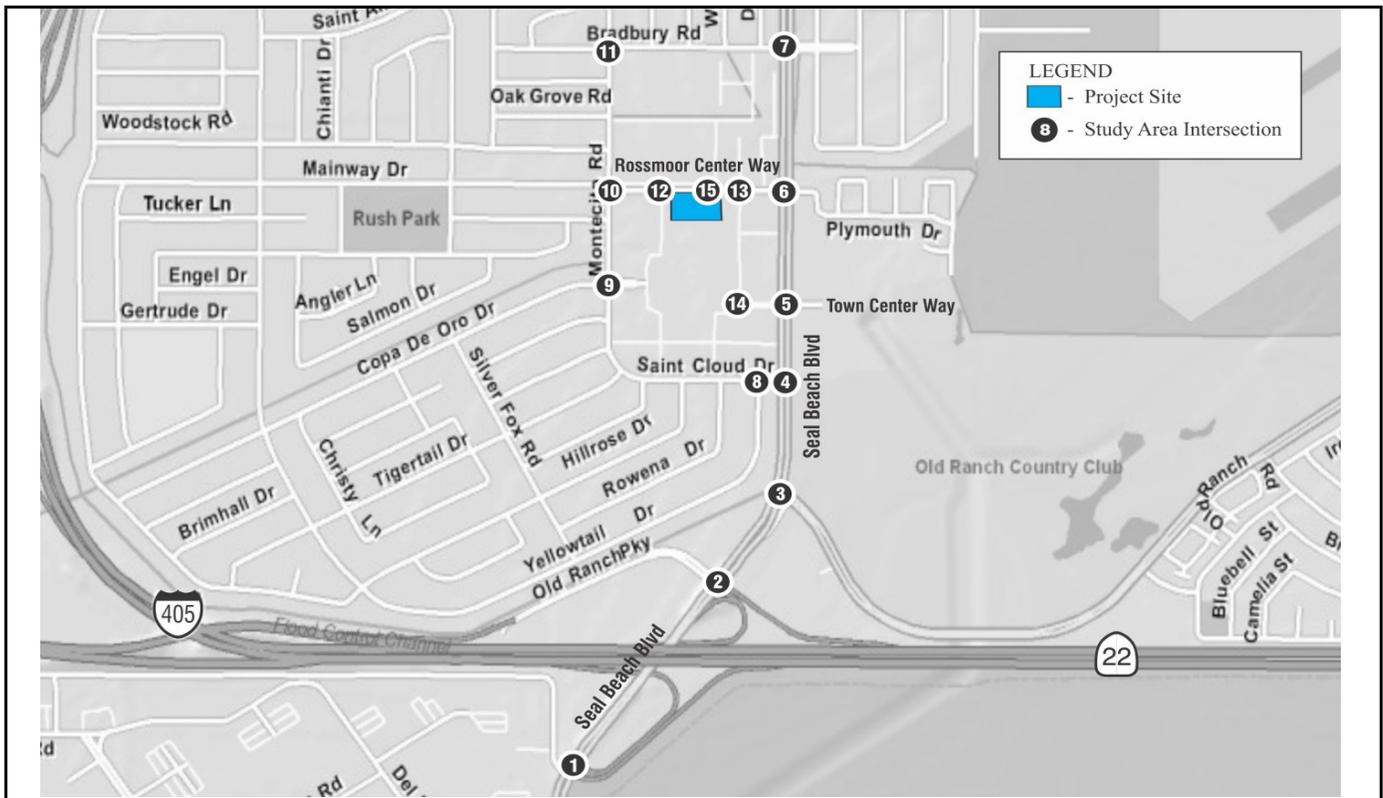
LOS = level of service
pc/mi/ln = passenger cars per mile per lane

For the purposes of this study, LOS D is considered satisfactory on all study area roadway segments.

EXISTING CONDITIONS

Existing weekday a.m., p.m., and weekend midday peak-hour traffic conditions and LOS were analyzed for Existing (2016) conditions.

LSA obtained intersection turn-movement counts at the 15 study area intersections for the weekday a.m. peak hour (7:00 a.m.–9:00 a.m.), the p.m. peak hour (4:00 p.m.–6:00 p.m.), and a weekend (Saturday) midday peak hour (11:00 a.m.–1:00 p.m.). Daily 24-hour counts were conducted for the 11 study area roadway segments in between the study area intersections. The counts were conducted by an independent car count company (National Data & Surveying Services [NDS]) for a weekday and weekend (Saturday) in October 2016. The traffic counts are included in Appendix A. The trips generated from surrounding existing land uses, which consist of residential and retail uses east and west of Seal Beach Boulevard, are included in the counts. Count data were collected before the week of the Thanksgiving holiday. LSA collected geometric, traffic control, and posted speed limit data at all study area locations. Figures 4 and 5 show the Existing (2016) peak-hour volumes at the study area intersections for weekday and weekend conditions, respectively.



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FIGURE 4

Legend

123 / 456 AM / PM Volume

Health Club within The Shops at Rossmoor
Existing (2016) Peak Hour Volumes (AM/PM)

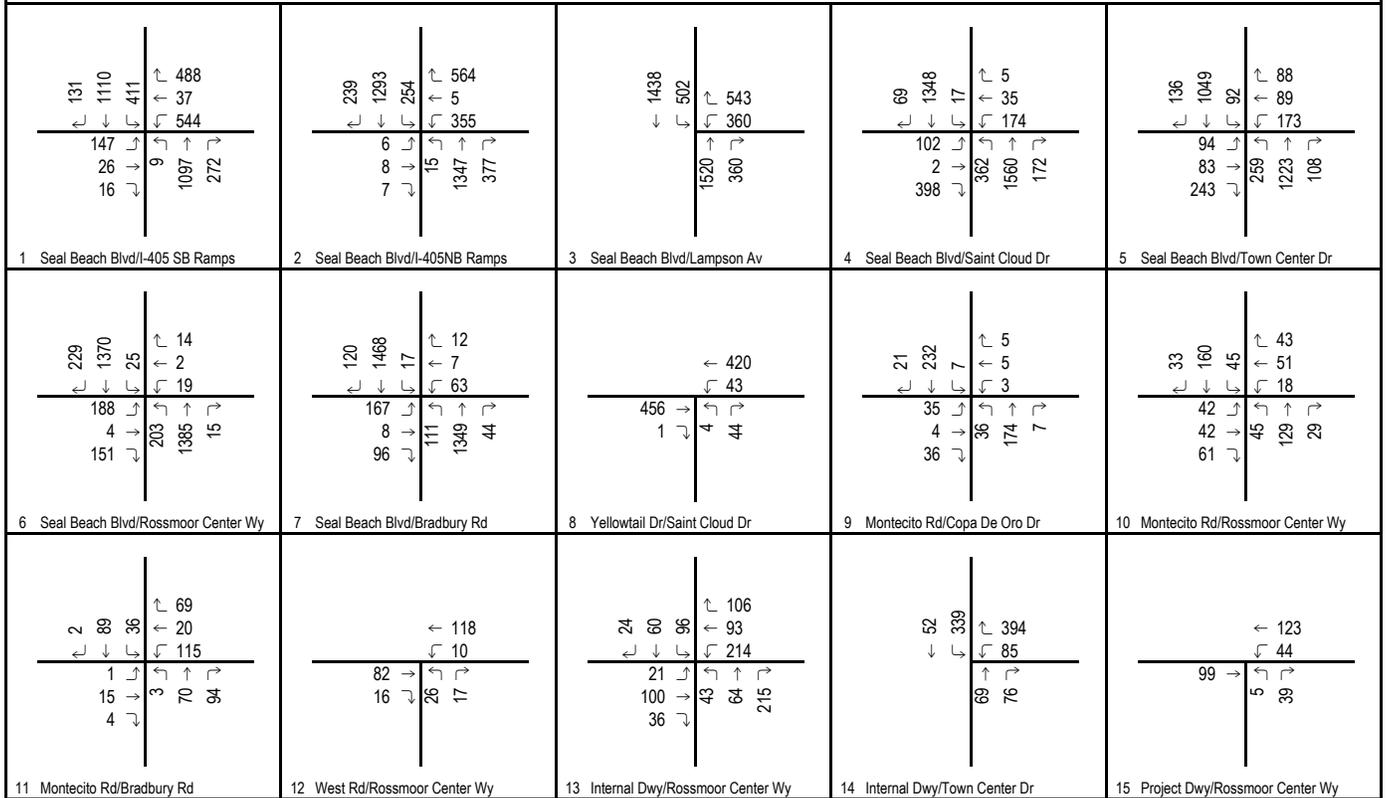
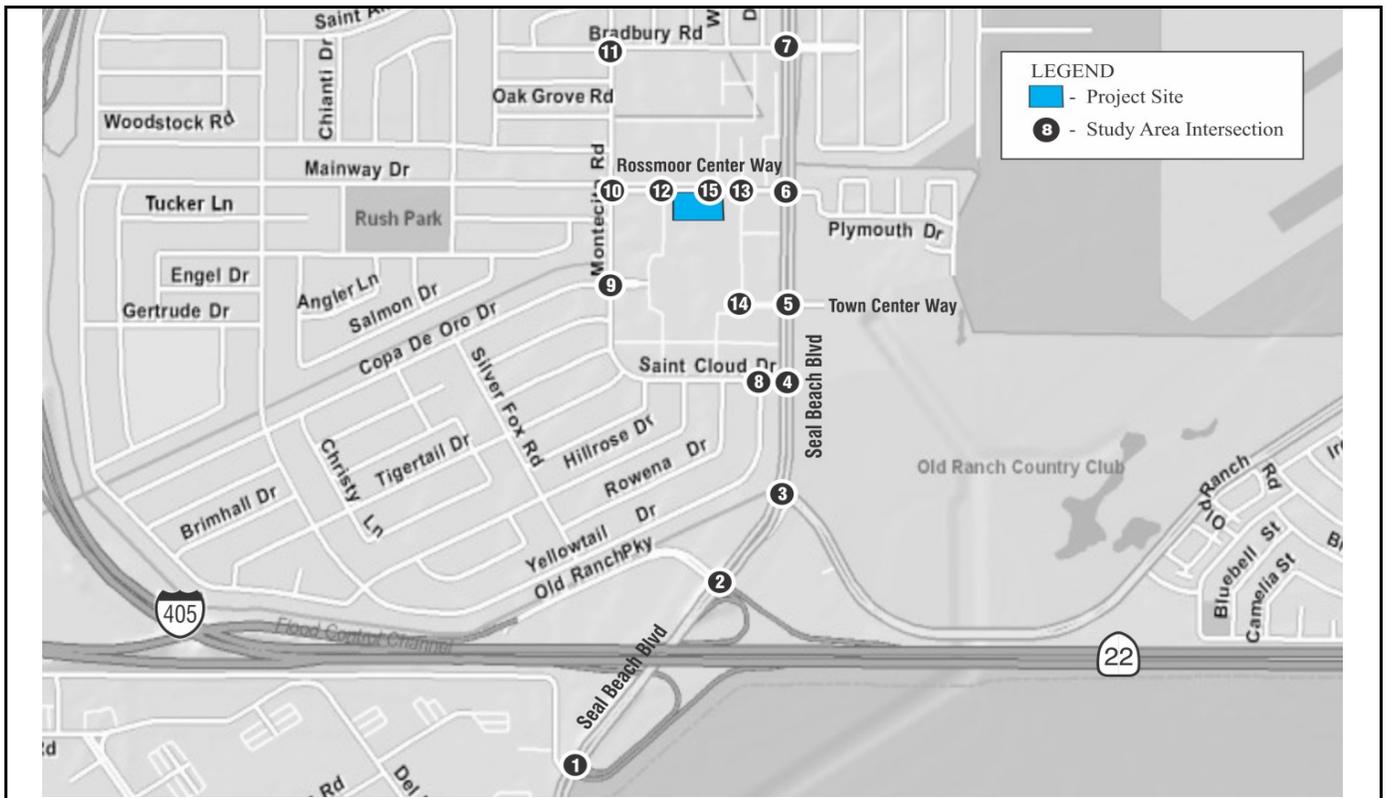


FIGURE 5

Legend

123 Saturday Volume

Health Club within The Shops at Rossmoor
 Existing (2016) Peak Hour Volumes (Saturday)

Summaries of Existing (2016) LOS for intersections and roadway segments are presented in Tables A and B, respectively. Intersection LOS worksheets are included in Appendix B while roadway LOS worksheets are included in Appendix C. As Tables A and B indicate, all study area intersections and roadway segments are currently operating at satisfactory LOS (LOS D or better).

Accident History

The City's Traffic Impact Study Guidelines require the identification and analysis of intersections or roadway segments having five or more reported accidents within the most recent 12-month period. Five accidents is a generalized figure used by City staff as an indication of potential problems that could require improvements. The accident data provided by the City are included in Appendix D.

The City of Seal Beach Police Department provided accident data for the years of 2015 and 2016 in the City of Seal Beach. It should be noted that the 2016 data represents only 11 months. As such, this study will focus on the accidents within the study area identified in 2015.

Table C provides the total number of accidents reported within the study area each year. As this table indicates, five accidents or more have occurred in 2015 in the vicinity of the intersections of Seal Beach Boulevard at the I-405 southbound on/off ramps, I-405 northbound on/off ramps, and Lampson Avenue. Table D shows a detailed description of the primary collision factor, type of accident, and number of injuries reported at each of these three locations. The most common factor at the intersections of Seal Beach Boulevard at the I-405 southbound on/off ramps and Seal Beach Boulevard at the I-405 northbound on/off ramps was unsafe speed.

As Table C shows, the number of accidents at these two Caltrans-controlled intersections increased from 2015 through the first 11 months of 2016.

The intersection of Seal Beach Boulevard and Lampson Avenue experienced five accidents in 2015 and four accidents within the first 11 months of 2016. Improvements were implemented in this location in 2011. Based on the operational analysis provided in this report, this intersection operates at an acceptable LOS and no additional improvements are recommended at this time.

Based on weekday average daily traffic (ADT) counts taken in October 2016, the segment of Seal Beach Boulevard between the I-405 northbound on/off ramps and Lampson Avenue currently experiences approximately 53,000 vehicles per day. The project is anticipated to add 451 vehicles per day to this same segment. The project's anticipated traffic contribution would increase daily traffic on this section of Seal Beach Boulevard by 0.8 percent. The segment of Seal Beach Boulevard between Lampson Avenue and St. Cloud Drive would experience a similar 1.2 percent growth in daily traffic from the development of the project (existing ADT of approximately 49,900 with an anticipated project ADT of 597 vehicles). This increase in daily traffic due to project traffic would not significantly alter existing traffic volumes. The effect of this magnitude of traffic growth on accident rates would be nominal and is not considered significant.

It is recommended that the City and Caltrans continue to monitor the operation and safety of all intersections and roadway segments within their respective jurisdictions and make the necessary improvements to reduce potential accidents in the future.

Table A: Existing (2016) Peak Hour Intersection Level of Service Summary

Intersection		AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
		ICU / Delay	LOS	ICU / Delay	LOS	ICU / Delay	LOS
1	Seal Beach Boulevard/I-405 SB On/Off Ramps ¹	42.8	D	42.7	D	40.1	D
2	Seal Beach Boulevard/I-405 NB On/Off Ramps ¹	43.2	D	49.2	D	34.1	C
3	Seal Beach Boulevard/Lampson Avenue	0.804	D	0.792	C	0.764	C
4	Seal Beach Boulevard/Saint Cloud Drive	0.626	B	0.717	C	0.648	B
5	Seal Beach Boulevard/Town Center Drive	0.501	A	0.732	C	0.815	D
6	Seal Beach Boulevard/Rossmoor Center Way	0.535	A	0.686	B	0.668	B
7	Seal Beach Boulevard/Bradbury Road	0.726	C	0.679	B	0.627	B
8	Yellow Tail Drive/Saint Cloud Drive*	13.4	B	10.8	B	10.8	B
9	Montecito Road/Copa De Oro Drive*	11.3	B	9.5	A	8.8	A
10	Montecito Road/Rossmoor Center Way*	11.9	B	10.2	B	9.6	A
11	Montecito Road/Bradbury Road*	12.8	B	10.1	B	8.9	A
12	West Road/Rossmoor Center Way*	7.7	A	8.0	A	7.8	A
13	Internal Driveway/Rossmoor Center Way*	8.7	A	13.0	B	18.0	C
14	Internal Driveway/Town Center Drive*	7.4	A	11.5	B	15.5	C
15	Project Driveway/Rossmoor Center Way*	8.9	A	9.1	A	9.2	A

ICU V/C ratio is used for signalized intersections in the City of Seal Beach.

* Indicates unsignalized intersection. HCM delay in seconds is used for unsignalized intersections.

■ (Shade) = Exceeds City level of service criteria (LOS D)

¹ HCM Methodology-consistent with Caltrans requirements

Table B: Existing (2016) Peak Hour Roadway Level of Service Summary

Roadway	Segment	Direction	AM			PM			Saturday Mid-day		
			Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS
Seal Beach Boulevard	I-405 Northbound On/Off Ramps and Lampson Avenue	Northbound	45.0	16.6	B	45.0	18.0	B*	45.0	15.4	B
		Southbound	45.0	18.0	B*	45.0	16.4	B	45.0	14.0	B
	Lampson Avenue and Saint Cloud Drive	Northbound	45.0	19.5	C	45.0	18.3	C	45.0	17.7	B
		Southbound	45.0	16.7	B	45.0	17.0	B	45.0	14.9	B
	Saint Cloud Drive and Town Center Drive	Northbound	45.0	14.6	B	45.0	14.6	B	45.0	14.0	B
		Southbound	45.0	11.1	B	45.0	12.9	B	45.0	11.3	B
	Town Center Drive and Rossmoor Center Way	Northbound	45.0	13.5	B	45.0	13.1	B	45.0	12.4	B
		Southbound	45.0	11.2	B	45.0	12.3	B	45.0	11.2	B
	Rossmoor Center Way and Bradbury Road	Northbound	45.0	13.1	B	45.0	13.1	B	45.0	12.6	B
		Southbound	45.0	11.6	B	45.0	14.0	B	45.0	12.8	B
	Bradbury Road and Rossmoor Way	Northbound	45.0	14.7	B	45.0	13.8	B	45.0	12.4	B
		Southbound	45.0	12.4	B	45.0	14.9	B	45.0	12.8	B
Saint Cloud Drive*	Seal Beach Boulevard and Yellowtail Drive		22.8	-	D	26.5	-	C	26.7	-	C
Montecito Road*	Yellowtail Drive and Copa De Oro Drive		26.0	-	C	28.8	-	B	29.3	-	B
	Copa De Oro Drive and Mainway Drive		30.1	-	B	30.2	-	B	31.1	-	A
	Mainway Drive and Bradbury Road		29.1	-	B	30.3	-	B	31.2	-	A
Rossmoor Center Way**	Montecito Road and Seal Beach Boulevard		27.6	-	A	25.7	-	A	25.2	-	B

* Analyzed as Two Lane Roadways with a speed limit of 35 MPH

** Analyzed as Two Lane Roadway with a speed limit of 30 MPH

Table C - North Seal Beach Total Accident History Summary

Location	Year	
	2016 ¹	2015
Seal Beach Boulevard/I-405 SB On/Off Ramps	7	5
Seal Beach Boulevard/I-405 NB On/Off Ramps	10	7
Seal Beach Boulevard/Lampson Avenue	2	5
Seal Beach Boulevard/St. Cloud Drive	3	2
Seal Beach Boulevard/Town Center Drive	4	3
Seal Beach Boulevard/Rossmoor Center Way-Plymouth Drive	1	2
Seal Beach Boulevard/Bradbury Road	4	3
Yellowtail Drive/St. Cloud Drive	1	0
Internal Driveway/Rossmoor Center Way	1	0
Internal Driveway/Town Center Way	1	1

Data is presented in total number of accidents per location

¹ 2016 Data represents January - November only

 = Location will be further analyzed in the traffic study

Table D - North Seal Beach High Accident Location Details (2015)

Location	Primary Collision Factor	Type	Injury	Fatality
Seal Beach Boulevard/I-405 SB On/Off Ramps (5 Total Accidents)	Unsafe Speed	Rear End	0	0
	Unsafe Speed	Rear End	0	0
	Unsafe Speed	Rear End	0	0
	Unsafe Speed	Not Specified	1	0
	Lane Change	Sideswipe	0	0
		Total:	1	0
Seal Beach Boulevard/I-405 NB On/Off Ramps (7 Total Accidents)	Unsafe Speed	Not Specified	1	0
	Unsafe Speed	Rear End	0	0
	Unsafe Speed	Rear End	0	0
	Improper Turn	Broadside	0	0
	Unsafe Speed	Broadside	0	0
	Unsafe Speed	Rear End	0	0
	Signage	Broadside	0	0
		Total:	1	0
Seal Beach Boulevard/Lampson Avenue (5 Total Accidents)	Improper Turn	Broadside	0	0
	Unsafe Speed	Rear End	2	0
	Unsafe Speed	Not Specified	0	0
	Signage	Broadside	2	0
	Grand Theft Auto	Not Specified	0	0
		Total:	4	0

Pedestrian Conditions

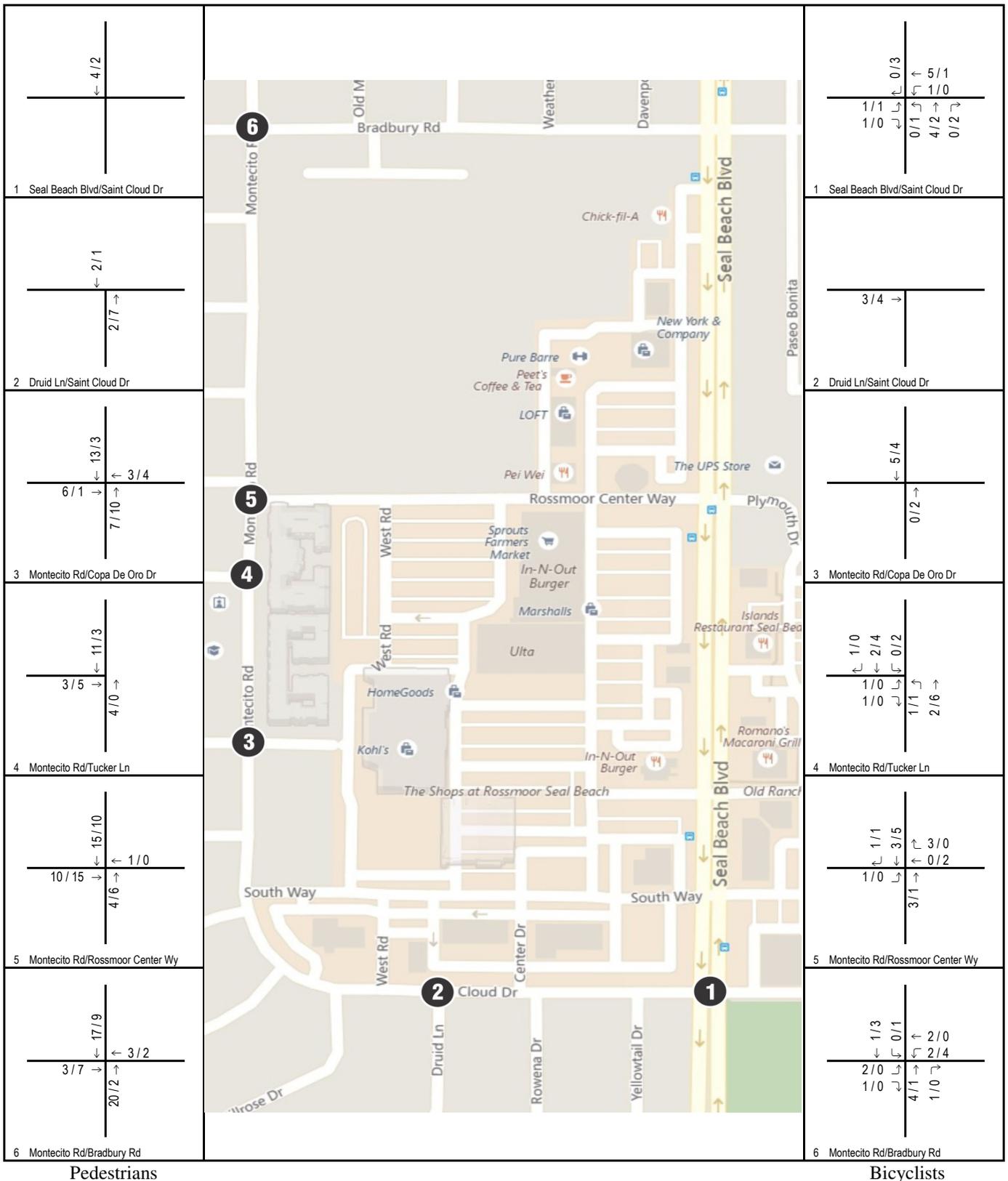
In an effort to address concerns regarding pedestrian safety that were expressed by local residents, this analysis conducted a pedestrian and cyclist survey of the surrounding residential area. Specifically, five intersections along Montecito Road and St. Cloud Drive between Bradbury Road and Seal Beach Boulevard were counted as the most utilized pedestrian crossing points due to the presence of crosswalks. This survey revealed that there is the presence of pedestrian activity during the peak hours. As shown on Figure 6, the highest number of peak hour pedestrians observed to cross Montecito Road or Saint Cloud Drive are at the marked crosswalk on the south side of the intersection of Montecito Road and Rossmoor Center Way with 15 pedestrians in the weekday p.m. peak hour. These pedestrians are most likely nearby residents traveling to and from the Shops at Rossmoor for shopping or dining in the afternoon and do not occur during periods of school travel activity. This would suggest that these pedestrians are not students. As this intersection, along with all other study intersections along Montecito Road and Saint Cloud Drive, is a low delay intersection (LOS A or B in all analysis scenarios), pedestrian and traffic conditions along Montecito Road and Saint Cloud drive are anticipated to remain largely the same. The pedestrian and cyclist counts are included in Appendix A.

In an effort to illustrate the project’s effect on local traffic adjacent to the pedestrians identified, weekday counts taken in October 2016 for segments of St. Cloud Drive and Montecito Road are shown below alongside the anticipated project traffic. As vehicular traffic during times of school-related pedestrian activity are of particular concern, the a.m. and p.m. peak hours shown correspond with the peak morning drop-off and afternoon pick-up hours of the surrounding schools.

Roadway	Segment	Analysis Period ¹	Existing Trips	Project Trips	Percent Increase
Saint Cloud Drive	Seal Beach Boulevard and Yellowtail Drive	AM Peak	966	2	0.2%
		Midday Peak	929	7	0.8%
		ADT	12,295	61	0.5%
Montecito Road	Yellowtail Drive and Copa De Oro Drive	AM Peak	552	2	0.3%
		Midday Peak	555	7	1.3%
		ADT	6,275	49	0.8%
	Copa De Oro Drive and Mainway Drive	AM Peak	427	2	0.5%
		Midday Peak	511	5	1.0%
		ADT	5,895	37	0.6%
	Mainway Drive and Bradbury Road	AM Peak	536	2	0.4%
		Midday Peak	540	4	0.7%
		ADT	5,647	37	0.7%

¹ Analysis Period: AM Peak (7:00 a.m. – 8:00 a.m.); Midday Peak (2:00 p.m. – 3:00 p.m.); ADT = Average Daily Traffic

As shown above, the project related traffic increase during both peak school traffic hours and the whole day are anticipated to result in a growth of about one percent or less. The increases in peak school activity hours and daily traffic due to project traffic would not alter existing traffic volumes in any noticeable way. The effect of this magnitude of traffic growth on the pedestrian experience would be nominal.



Pedestrians

Bicyclists

FIGURE 6

Legend

123 / 456 AM / PM Volume

Health Club within The Shops at Rossmore
Pedestrian and Bicyclist Peak Hour Volumes (AM/PM)

HEALTH CLUB

The proposed project will consist of 37,000 sf of health/fitness club uses and is bounded on the north by Rossmoor Center Drive, on the west by West Road, and on the east by Sprouts Farmers Market. The project site is located in the northwest parking lot of The Shops at Rossmoor retail center. This parking lot serves as an employee/overflow lot behind all of the existing adjacent stores and does not provide direct access to Sprouts, Marshalls, or PetSmart. The main access points to the project site are located on either side of the proposed building at West Road, and the existing driveway along the south side of Rossmoor Center Drive west of Sprouts Farmers Market. As part of the proposed project, two off-site improvements to access facilities will be implemented. These include the lengthening of the northbound left-turn pocket at the intersection of Seal Beach Boulevard and Rossmoor Center Way to 205 feet and the widening of Rossmoor Center Way between the internal driveway and Seal Beach Boulevard.

Trip Generation and Distribution

The generation and distribution of trips associated with the proposed project site are discussed below.

Trip Generation. Trip generation for the proposed project is calculated based on rates contained in the Institute of Transportation Engineers’ (ITE) *Trip Generation* (Ninth Edition), which is a standard reference used by jurisdictions throughout the country for estimating the trip generation potential of new developments. The project is classified as Health/Fitness club use (ITE Land Use 492). The project’s potential trip generation was calculated using the average rates (per 1,000 sf).

As indicated in Table E, the proposed project is estimated to generate 1,218 daily trips, 52 weekday a.m. peak hour trips, 131 weekday p.m. peak hour trips, and 103 Saturday midday peak hour trips.

Table E: Project Trip Generation

	Size	Unit	ADT	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Trip Rate¹												
Health Fitness Club		TSF	32.93	0.71	0.71	1.41	2.01	1.52	3.53	1.25	1.53	2.78
Trip Generation												
Health Fitness Club	37,000	TSF	1,218	26	26	52	74	56	131	46	57	103

¹ Trip rates from the Institute of Transportation Engineers (ITE), *Trip Generation*, Ninth Edition (2012).
ADT = average daily traffic
TSF = thousand square feet

Trip Distribution and Trip Assignment. The project trips were distributed throughout the study area using information from the County’s current travel demand model (Orange County Transportation Analysis Model [OCTAM]). Using the travel demand model, a process known as “select zone assignment” is applied to distribute and assign trips from a specific zone through the circulation network to an origin.

The travel demand model goes through several iterations to develop the most likely distribution pattern that takes into account several factors such as the shortest distance between origin and destination, availability of capacity, and type of uses, etc., before assigning the trips. The trips were distributed manually based on a select zone assignment from OCTAM. Based on the select zone assignments and further manual refinements, the project traffic is distributed as follows: 43 percent of traffic will travel north along Seal Beach Boulevard, 49 percent will travel south along Seal Beach Boulevard, of which 3 percent will travel west on the State Route 22 (SR-22) freeway into Long Beach, 12 percent will travel east along Lampson Avenue, 10 percent northwest along northbound I-405, 15 percent southeast along the I-405 southbound, and the remaining 9 percent would continue to travel south along Seal Beach Boulevard. A total of 8 percent will have destinations within close proximity to the retail site. Figures 7 and 8 illustrate the health club trip assignment for weekday and weekend conditions based on the trip generation and the trip distribution identified above.

UNOCCUPIED SPACE WITHIN THE SHOPS AT ROSSMOOR

In order to evaluate the adjacent Shops at Rossmoor retail center at full occupancy, traffic from the former Marie Callender’s restaurant in the southern part of the retail center has been developed. The unoccupied restaurant consists of 8,827 sf of restaurant use just west of Seal Beach Boulevard. Figure 9 shows the location of the unoccupied restaurant in relation to the rest of the retail center.

Retail Trip Generation and Distribution

The generation and distribution of trips associated with this unoccupied space are discussed below.

Trip Generation. Trip generation for the unoccupied space is calculated based on rates contained in the ITE *Trip Generation* (Ninth Edition).

The former restaurant has been conservatively classified as a high-turnover restaurant use (ITE Land Use 932) as it most closely represents the use of the former Marie Callender’s. As indicated in Table F, the unoccupied restaurant is estimated to generate 1,122 daily trips, 96 weekday a.m. peak hour trips, 87 weekday p.m. peak hour trips, and 124 Saturday midday peak hour trips.

Table F: Unoccupied Space within the Shops at Rossmoor Trip Generation

	Size	Unit	ADT	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Trip Rate¹												
High-Turnover Restaurant		TSF	127.15	5.95	4.86	10.81	5.91	3.94	9.85	7.46	6.61	14.07
Trip Generation												
High-Turnover Restaurant	8,827	TSF	1,122	53	43	96	52	35	87	66	58	124

¹ Trip rates from the Institute of Transportation Engineers (ITE), *Trip Generation*, Ninth Edition (2012).
ADT = average daily traffic
TSF = thousand square feet

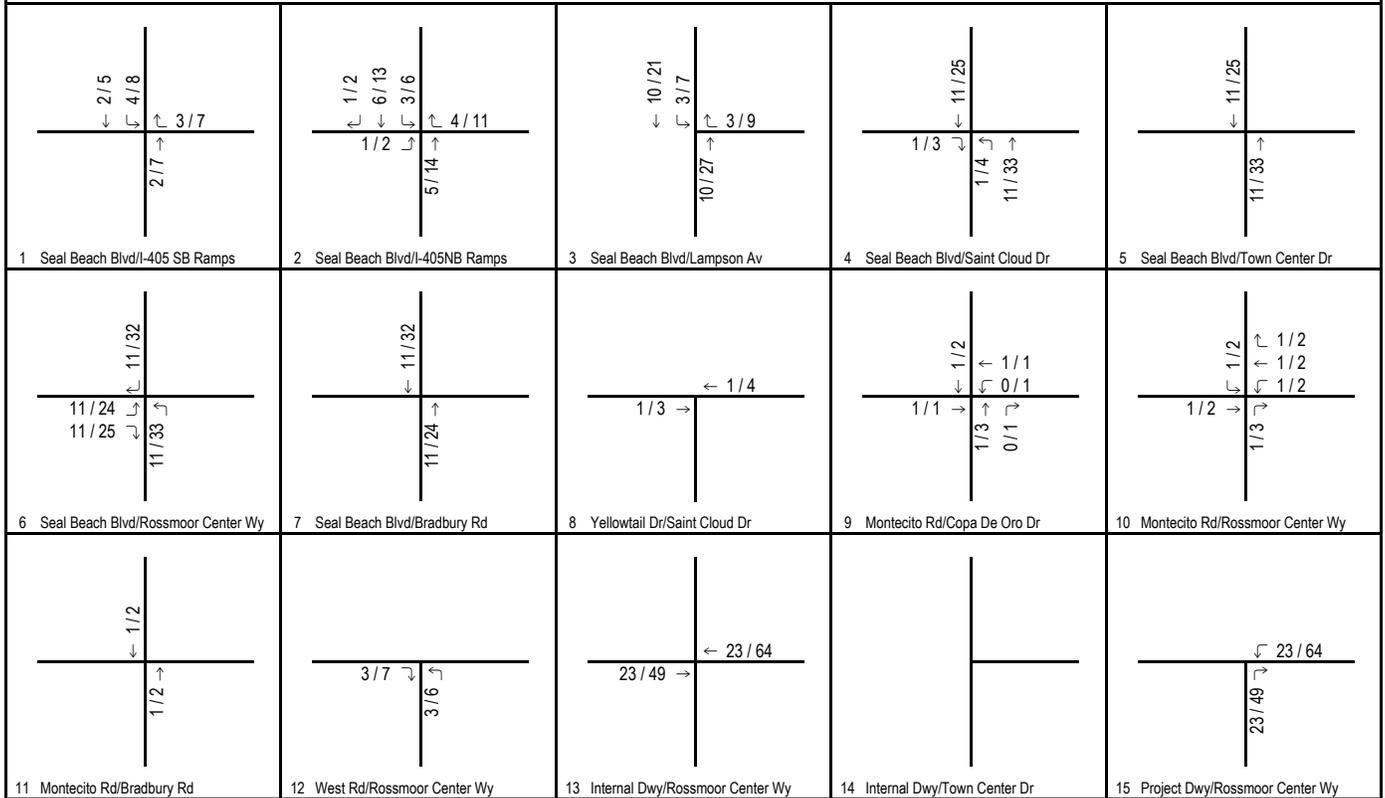
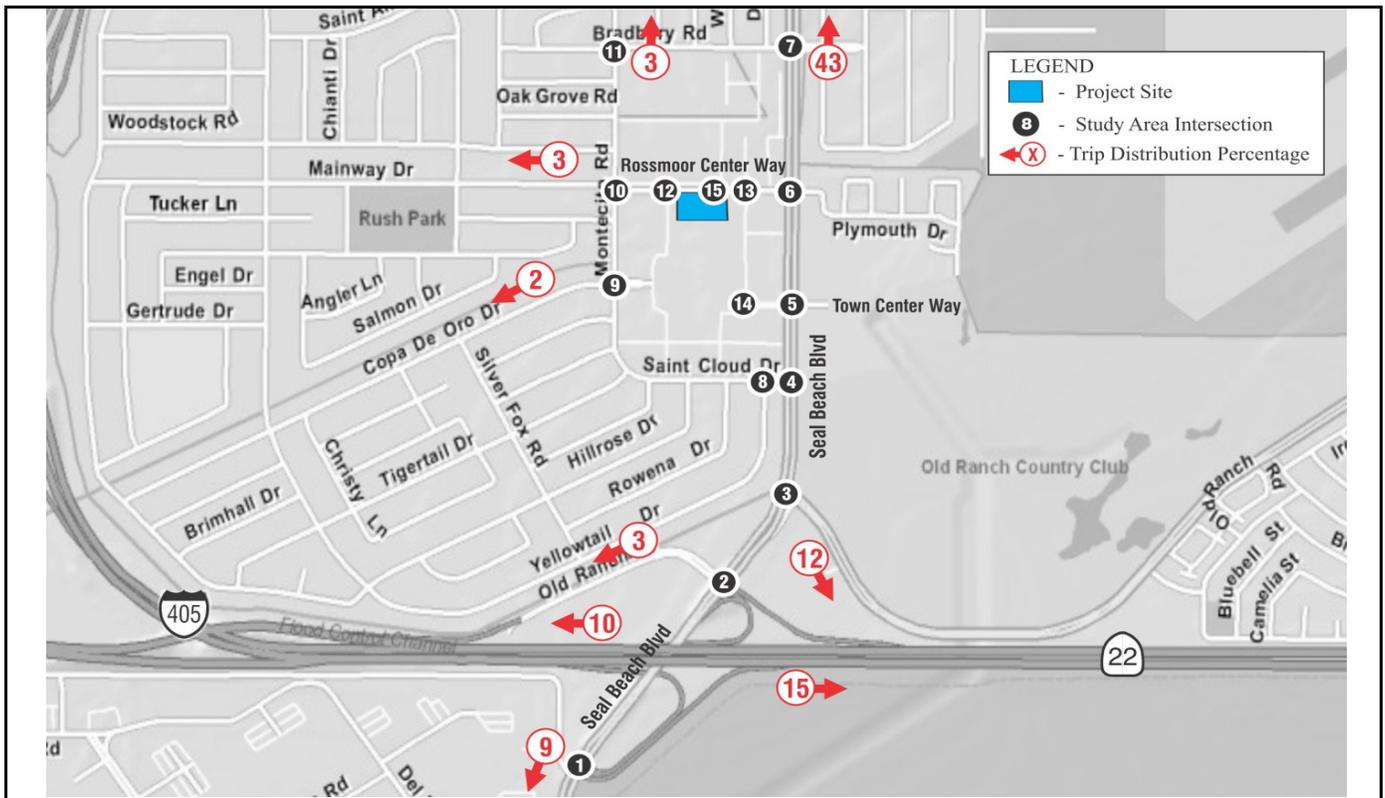


FIGURE 7

Legend

123 / 456 AM / PM Volume

Health Club within The Shops at Rossmoor
Project Peak Hour Volumes (AM/PM)

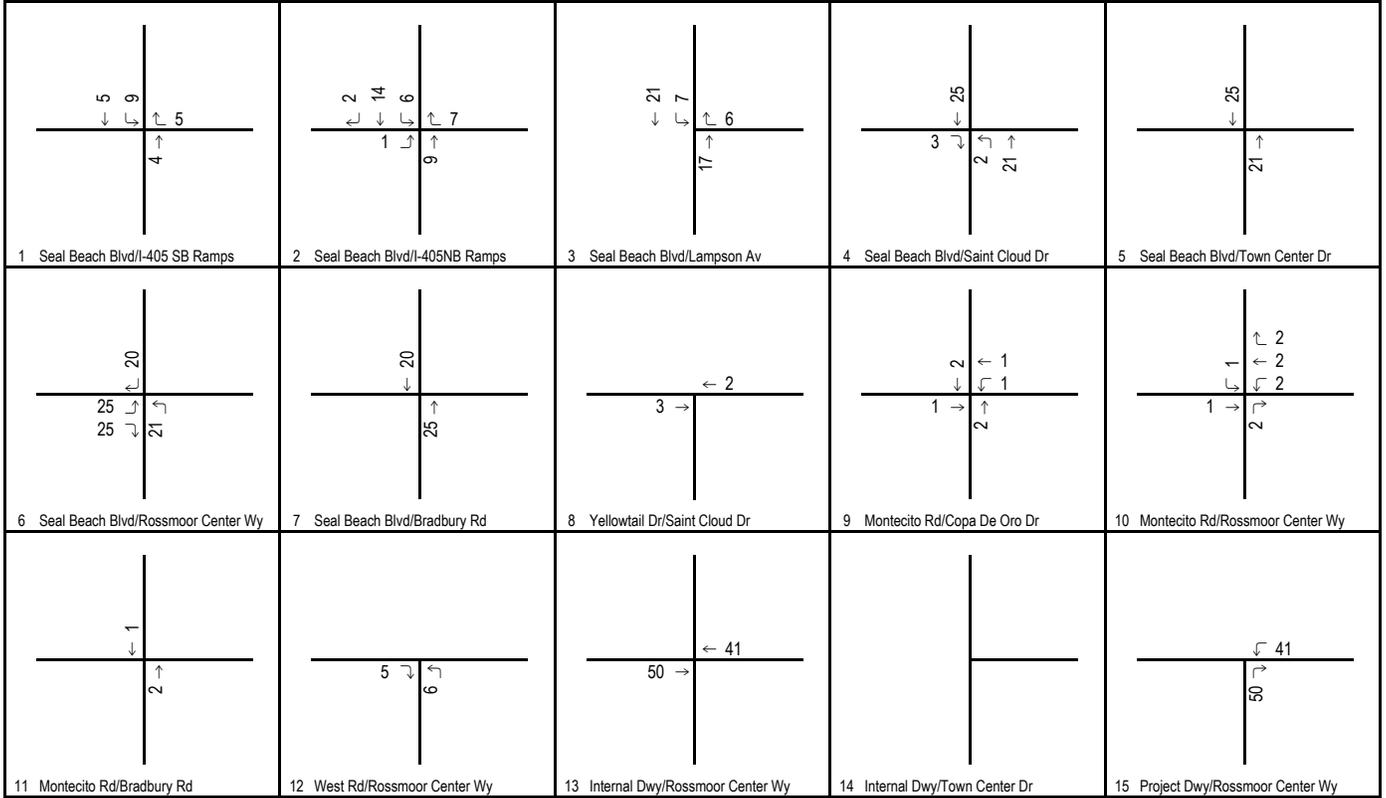
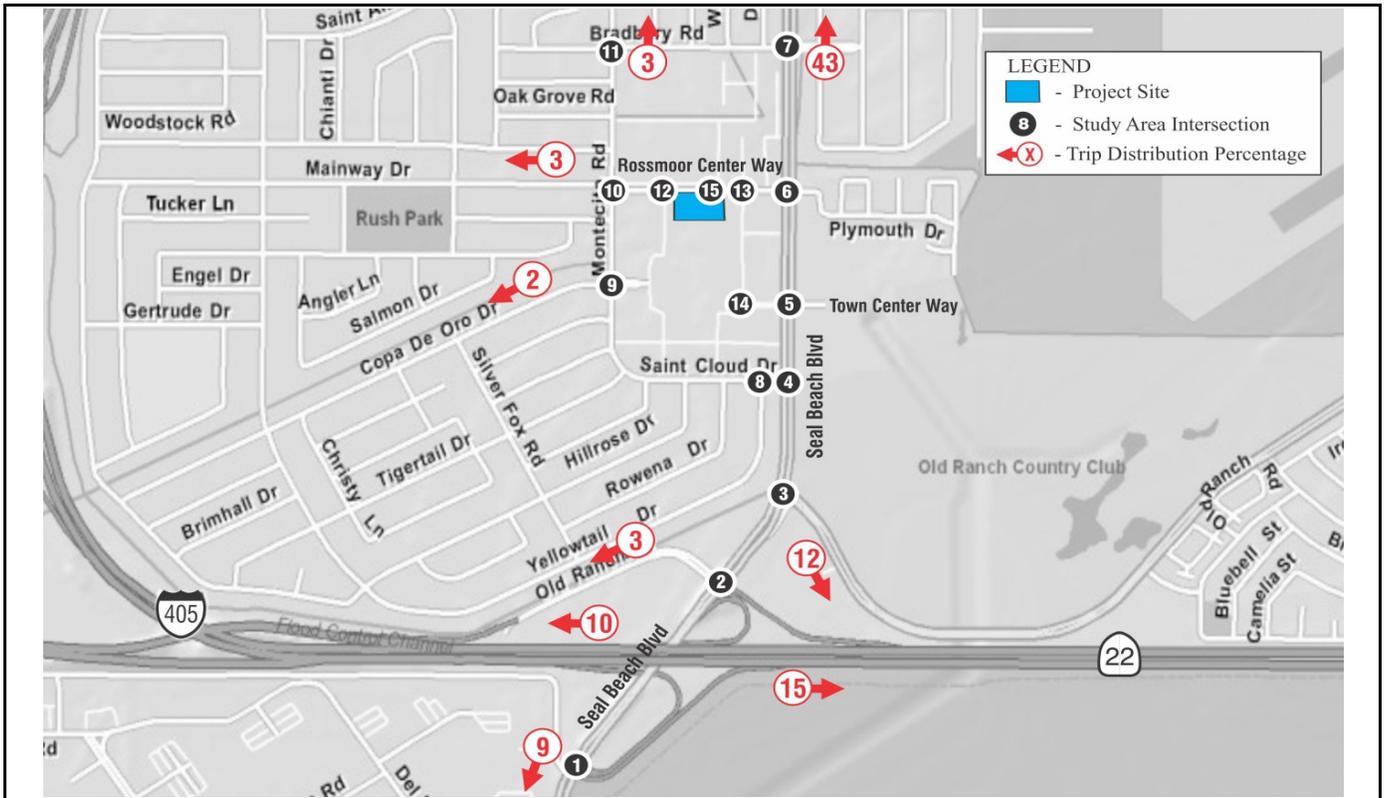


FIGURE 8

Legend

123 Saturday Volume

Health Club within The Shops at Rossmoor
Project Peak Hour Volumes (Saturday)



L S A FIGURE 9

LEGEND
 - Unoccupied Parcel



Health Club within The Shops at Rossmoor
 The Shops at Rossmoor Existing Site Plan

SOURCE: The Shops at Rossmoor shopsatrossmoor.com
 F:\MPA1401\G\Existing Site Plan.cdr (12/14/2016)

Trip Distribution and Trip Assignment. The unoccupied restaurant trips were distributed throughout the study area using the same information from OCTAM that was utilized for the proposed project.

Figures 10 and 11 illustrate the trip assignment for weekday and weekend conditions based on the trip generation and the trip distribution identified previously. Trips generated by the unoccupied restaurant were added to the base traffic volumes to develop “with Full Occupancy” traffic volumes.

EXISTING (2016) WITH FULL OCCUPANCY CONDITIONS

To represent the full potential of traffic that could traverse Seal Beach Boulevard and the study area in the existing condition, existing weekday a.m., p.m., and weekend midday peak-hour traffic conditions were modified based on the additional traffic from the unoccupied restaurant for the Existing (2016) with Full Occupancy scenario.

The trip assignment of the unoccupied restaurant was added to the Existing (2016) counts to develop the volumes for the Existing (2016) with Full Occupancy conditions. Figures 12 and 13 show Existing (2016) with Full Occupancy condition peak-hour volumes at study area intersections for weekday and weekend conditions.

Tables G and H present summaries of Existing (2016) with Full Occupancy conditions LOS at study area intersections and roadway segments. Intersection LOS worksheets are included in Appendix B while roadway LOS worksheets are included in Appendix C. As the tables indicate, all study area intersections and roadway segments are anticipated to operate at satisfactory LOS (D or better).

EXISTING (2016) WITH FULL OCCUPANCY PLUS PROJECT CONDITIONS

In order to identify any potential project impacts to traffic and circulation, project traffic was added to Existing (2016) with Full Occupancy traffic. Figures 14 and 15 show the resulting Existing (2016) with Full Occupancy plus Project conditions weekday a.m., p.m., and weekend midday peak-hour traffic volumes.

Tables G and H present summaries of Existing (2016) with Full Occupancy plus Project LOS for study area intersections and roadway segments. Intersection LOS worksheets are included in Appendix B while roadway LOS worksheets are included in Appendix C. As the tables indicate, all study area intersections and roadway segments are anticipated to continue to operate at satisfactory LOS (D or better) with the addition of project traffic.

PROJECT COMPLETION YEAR (2018) WITH FULL OCCUPANCY CONDITIONS

According to the project applicant, the proposed project will be completed in 2018. In order to present a near-term 2018 traffic condition, an ambient growth rate of 0.5 percent per year was added to existing traffic volumes along with traffic from the unoccupied parcel within The Shops at Rossmoor.

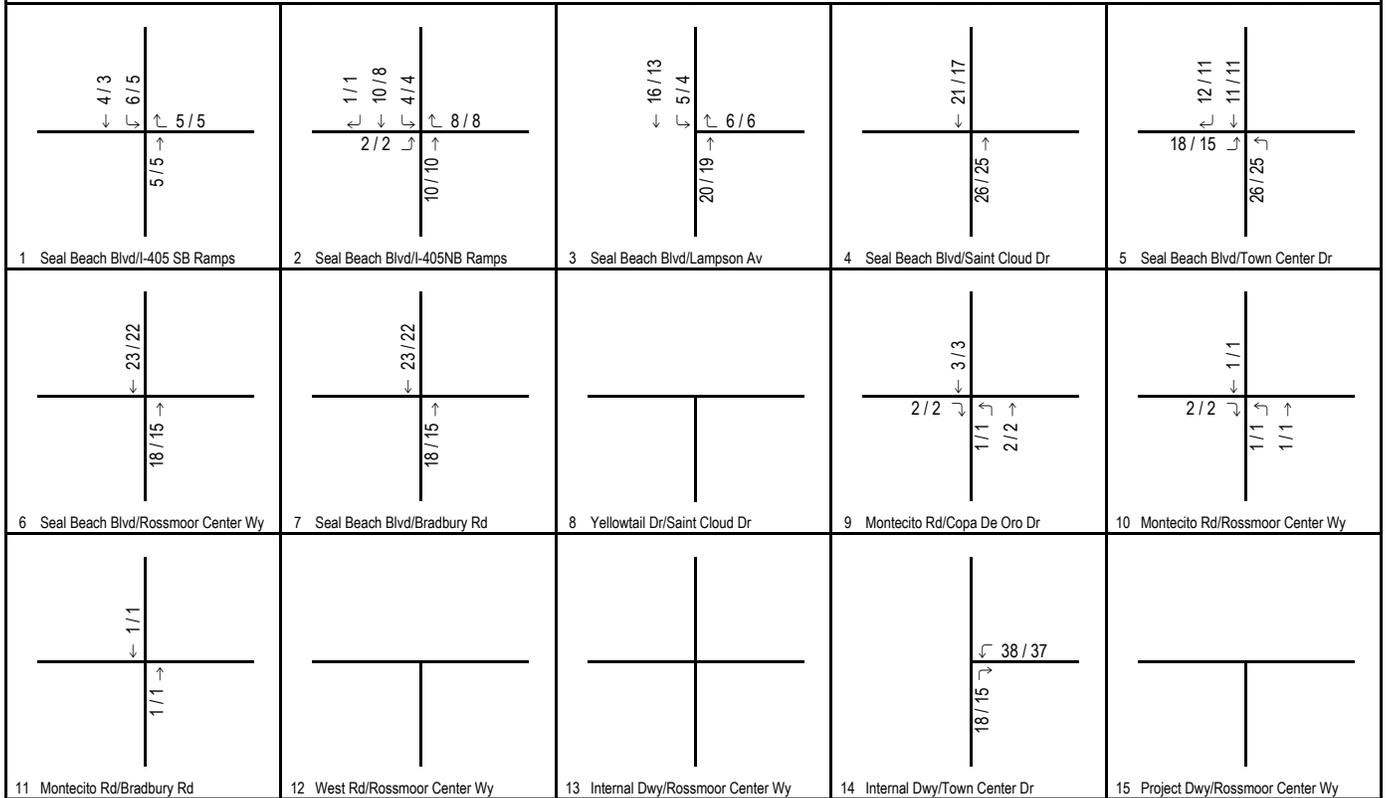
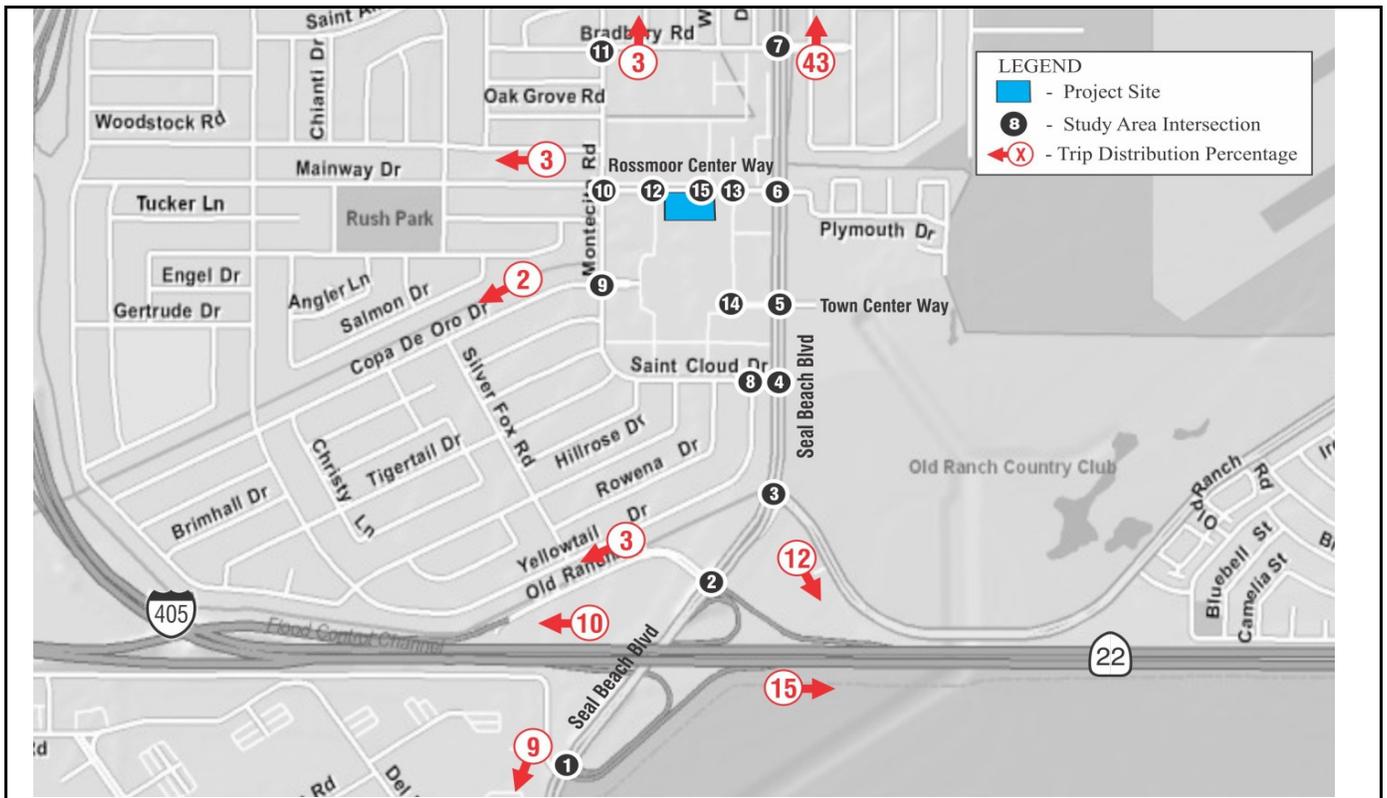


FIGURE 10

Legend

123 / 456 AM / PM Volume

Health Club within The Shops at Rossmoor
Unoccupied Uses Peak Hour Volumes (AM/PM)

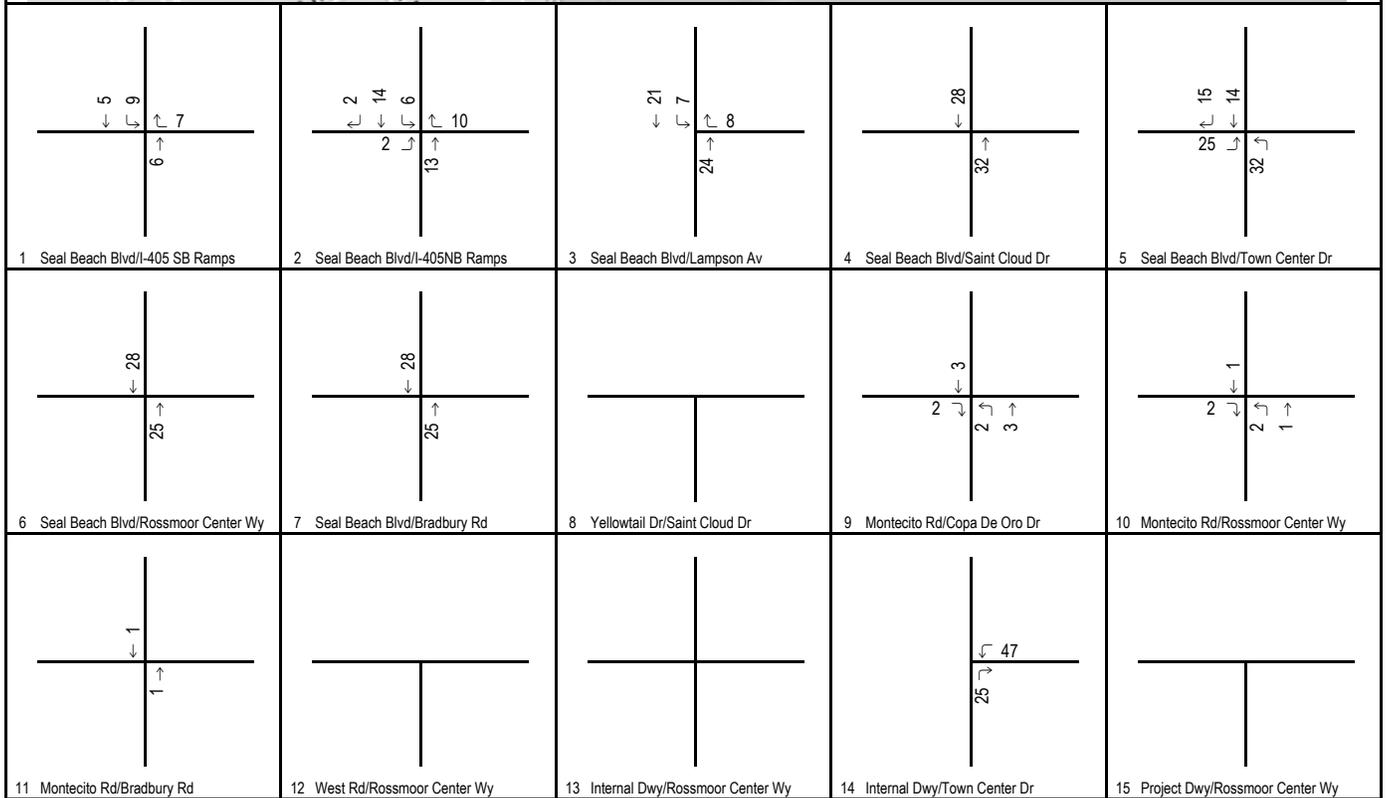
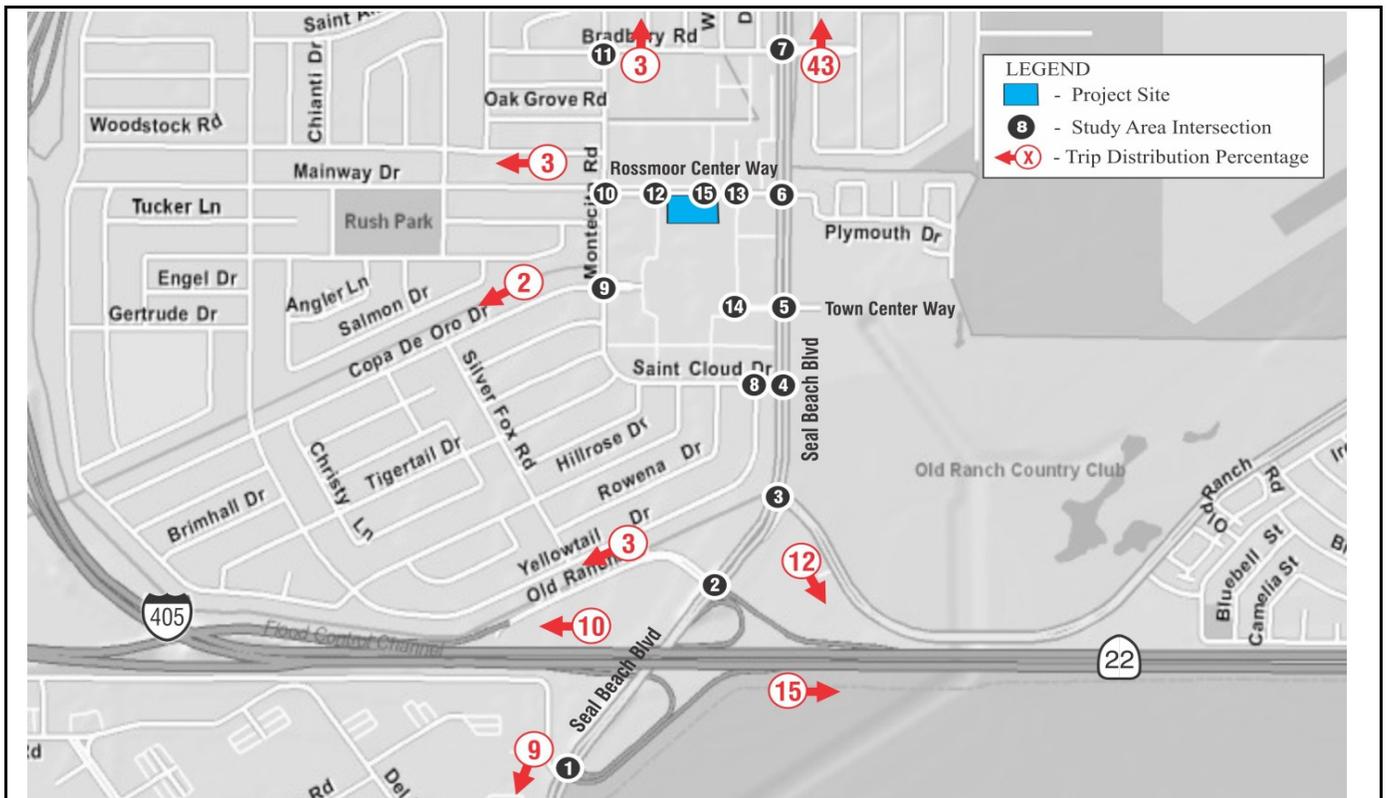
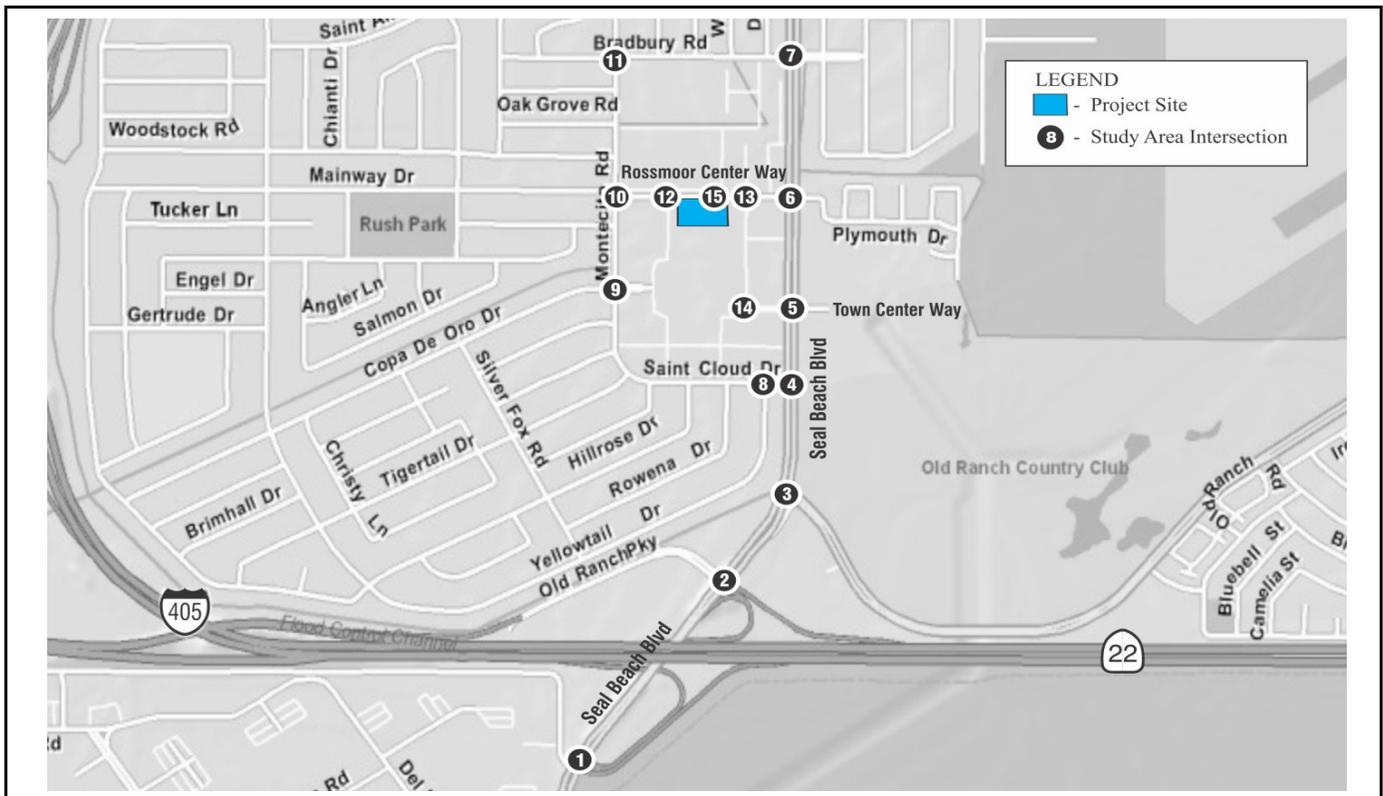


FIGURE 11

Legend

123 Saturday Volume

Health Club within The Shops at Rossmoor
Unoccupied Uses Peak Hour Volumes (Saturday)



<table border="1"> <tr><td>72 / 127</td><td>1453 / 1069</td></tr> <tr><td>87 / 166</td><td>434 / 1521</td></tr> <tr><td>28 / 30</td><td>530 / 522</td></tr> <tr><td>16 / 20</td><td>44 / 35</td></tr> <tr><td>14 / 11</td><td>696 / 321</td></tr> <tr><td>1056 / 1450</td><td></td></tr> <tr><td>166 / 361</td><td></td></tr> </table> <p>1 Seal Beach Blvd/I-405 SB Ramps</p>	72 / 127	1453 / 1069	87 / 166	434 / 1521	28 / 30	530 / 522	16 / 20	44 / 35	14 / 11	696 / 321	1056 / 1450		166 / 361		<table border="1"> <tr><td>464 / 371</td><td>1575 / 1447</td></tr> <tr><td>9 / 77</td><td>332 / 317</td></tr> <tr><td>11 / 72</td><td>557 / 672</td></tr> <tr><td>5 / 87</td><td>53 / 15</td></tr> <tr><td>110 / 41</td><td>367 / 195</td></tr> <tr><td>1206 / 1546</td><td></td></tr> <tr><td>348 / 555</td><td></td></tr> </table> <p>2 Seal Beach Blvd/I-405NB Ramps</p>	464 / 371	1575 / 1447	9 / 77	332 / 317	11 / 72	557 / 672	5 / 87	53 / 15	110 / 41	367 / 195	1206 / 1546		348 / 555		<table border="1"> <tr><td>1669 / 1604</td><td></td></tr> <tr><td>1465 / 1710</td><td>301 / 634</td></tr> <tr><td>305 / 544</td><td>611 / 460</td></tr> <tr><td></td><td>702 / 540</td></tr> </table> <p>3 Seal Beach Blvd/Lampson Av</p>	1669 / 1604		1465 / 1710	301 / 634	305 / 544	611 / 460		702 / 540	<table border="1"> <tr><td>46 / 66</td><td>1322 / 1666</td></tr> <tr><td>106 / 86</td><td>4 / 5</td></tr> <tr><td>3 / 0</td><td>2 / 5</td></tr> <tr><td>567 / 385</td><td>13 / 31</td></tr> <tr><td>377 / 406</td><td>65 / 193</td></tr> <tr><td>1659 / 1642</td><td></td></tr> <tr><td>47 / 132</td><td></td></tr> </table> <p>4 Seal Beach Blvd/Saint Cloud Dr</p>	46 / 66	1322 / 1666	106 / 86	4 / 5	3 / 0	2 / 5	567 / 385	13 / 31	377 / 406	65 / 193	1659 / 1642		47 / 132		<table border="1"> <tr><td>25 / 94</td><td>1356 / 1361</td></tr> <tr><td>21 / 100</td><td>21 / 78</td></tr> <tr><td>4 / 28</td><td>21 / 59</td></tr> <tr><td>14 / 185</td><td>2 / 47</td></tr> <tr><td>56 / 205</td><td>24 / 139</td></tr> <tr><td>1627 / 1415</td><td></td></tr> <tr><td>31 / 84</td><td></td></tr> </table> <p>5 Seal Beach Blvd/Town Center Dr</p>	25 / 94	1356 / 1361	21 / 100	21 / 78	4 / 28	21 / 59	14 / 185	2 / 47	56 / 205	24 / 139	1627 / 1415		31 / 84	
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FIGURE 12

Legend

123 / 456 AM / PM Volume

Health Club within The Shops at Rossmoor
Existing (2016) with Full Occupancy Peak Hour Volumes (AM/PM)

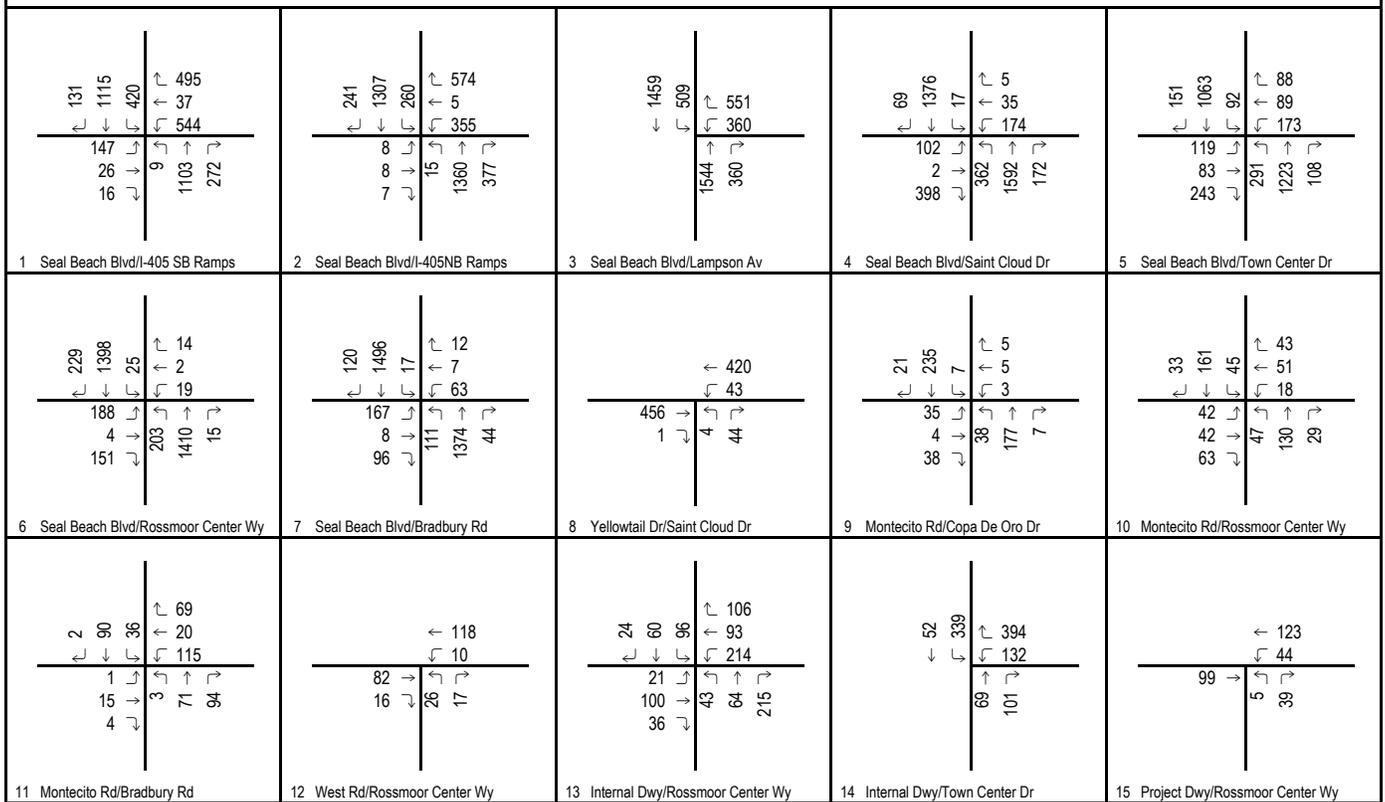
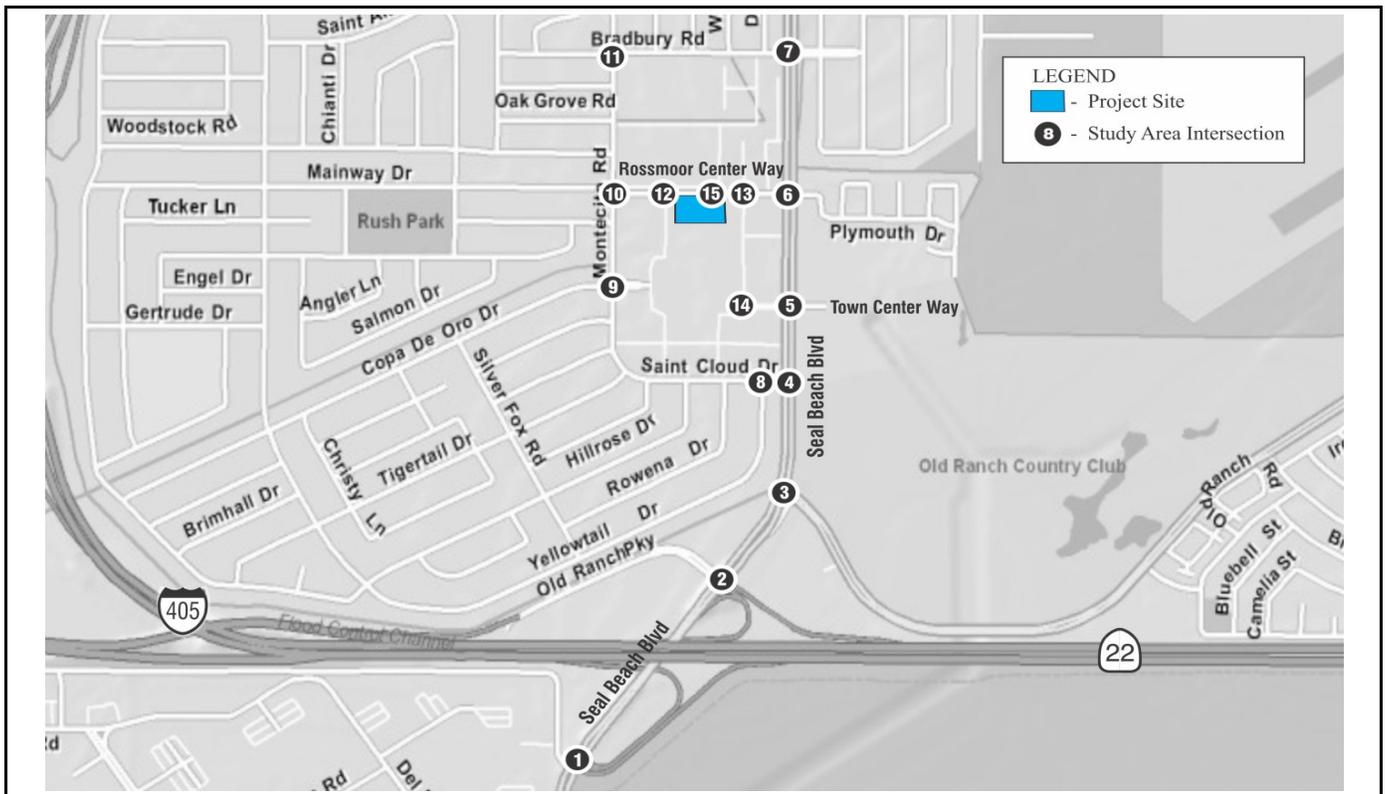


FIGURE 13

Legend

123 Saturday Volume

Health Club within The Shops at Rossmoor
Existing (2016) with Full Occupancy Peak Hour Volumes (Saturday)

Table G: Existing (2016) with Full Occupancy Peak Hour Intersection Level of Service Summary

Intersection		Existing (2016) + Full Occupancy						Existing (2016) + Full Occupancy + Project								
		AM		PM		Sat		AM			PM			Sat		
		ICU / Delay	LOS	ICU / Delay	LOS	ICU / Delay	LOS	ICU / Delay	LOS	Δ ICU	ICU / Delay	LOS	Δ ICU	ICU / Delay	LOS	Δ ICU
1	Seal Beach Boulevard/I-405 SB On/Off Ramps ¹	42.1	D	42.6	D	40.4	D	41.7	D	-	42.4	D	-	40.7	D	-
2	Seal Beach Boulevard/I-405 NB On/Off Ramps ¹	44.0	D	50.0	D	34.9	C	44.5	D	-	51.2	D	-	35.7	D	-
3	Seal Beach Boulevard/Lampson Avenue	0.812	D	0.797	C	0.774	C	0.816	D	0.004	0.804	D	0.007	0.781	C	0.007
4	Seal Beach Boulevard/Saint Cloud Drive	0.631	B	0.720	C	0.654	C	0.634	B	0.003	0.727	C	0.007	0.660	B	0.006
5	Seal Beach Boulevard/Town Center Drive	0.501	A	0.752	C	0.841	C	0.503	A	0.002	0.757	C	0.005	0.846	D	0.005
6	Seal Beach Boulevard/Rossmoor Center Way	0.539	A	0.691	B	0.673	B	0.548	A	0.009	0.733	C	0.042	0.705	C	0.032
7	Seal Beach Boulevard/Bradbury Road	0.731	C	0.684	B	0.632	B	0.733	C	0.002	0.690	B	0.006	0.636	B	0.004
8	Yellow Tail Drive/Saint Cloud Drive*	13.9	B	10.9	B	10.8	B	13.9	B	-	10.9	B	-	11.0	B	-
9	Montecito Road/Copa De Oro Drive*	11.4	B	9.6	A	8.8	A	11.4	B	-	9.6	A	-	8.8	A	-
10	Montecito Road/Rossmoor Center Way*	11.9	B	10.2	B	9.7	A	12.0	B	-	10.3	B	-	9.8	A	-
11	Montecito Road/Bradbury Road*	12.8	B	10.1	B	8.9	A	12.8	B	-	10.1	B	-	8.9	A	-
12	West Road/Rossmoor Center Way*	7.7	A	8.0	A	7.8	A	7.7	A	-	8.1	A	-	7.8	A	-
13	Internal Driveway/Rossmoor Center Way*	8.7	A	13.0	B	18.0	C	8.9	A	-	15.8	C	-	22.9	C	-
14	Internal Driveway/Town Center Drive*	7.8	A	11.6	B	16.0	C	7.8	A	-	11.6	B	-	16.0	C	-
15	Project Driveway/Rossmoor Center Way*	8.9	A	9.1	A	9.2	A	9.1	A	-	9.3	A	-	9.5	A	-

ICU V/C ratio is used for signalized intersections in the City of Seal Beach.

* Indicates unsignalized intersection. HCM delay in seconds is used for unsignalized intersections.

■ (Shade) = Exceeds City level of service criteria (LOS D)

¹ HCM Methodology-consistent with Caltrans requirements

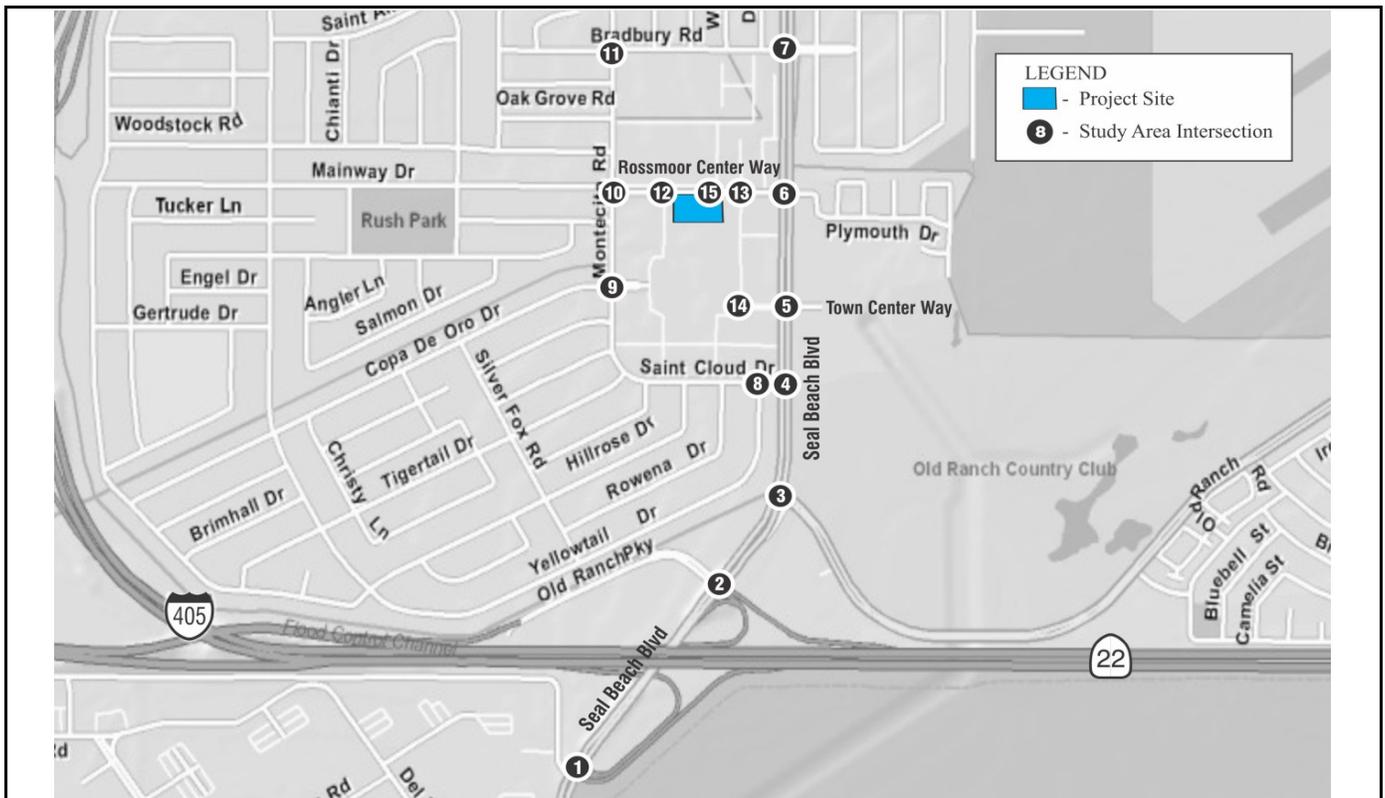
Table H: Existing (2016) With Full Occupancy Peak Hour Roadway Level of Service Summary

Roadway	Segment	Direction	Existing (2016) + Full Occupancy									Existing (2016) + Full Occupancy + Project								
			AM			PM			Saturday Mid-day			AM			PM			Saturday Mid-day		
			Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS
Seal Beach Boulevard	I-405 Northbound On/Off Ramps and Lampson Avenue	NB	45.0	16.8	B	45.0	18.1	C	45.0	15.6	B	45.0	16.9	B	45.0	18.3	C	45.0	15.8	B
		SB	45.0	18.1	C	45.0	16.5	B	45.0	14.1	B	45.0	18.2	C	45.0	16.7	B	45.0	14.3	B
	Lampson Avenue and Saint Cloud Drive	NB	45.0	19.7	C	45.0	18.5	C	45.0	18.0	B*	45.0	19.9	C	45.0	18.8	C	45.0	18.2	C
		SB	45.0	16.9	B	45.0	17.1	B	45.0	15.1	B	45.0	17.0	B	45.0	17.3	B	45.0	15.3	B
	Saint Cloud Drive and Town Center Drive	NB	45.0	14.8	B	45.0	14.8	B	45.0	14.3	B	45.0	14.9	B	45.0	15.0	B	45.0	14.5	B
		SB	45.0	11.2	B	45.0	13.0	B	45.0	11.5	B	45.0	11.3	B	45.0	13.2	B	45.0	11.6	B
	Town Center Drive and Rossmoor Center Way	NB	45.0	13.6	B	45.0	13.2	B	45.0	12.6	B	45.0	13.7	B	45.0	13.5	B	45.0	12.8	B
		SB	45.0	11.4	B	45.0	12.5	B	45.0	11.4	B	45.0	11.5	B	45.0	12.7	B	45.0	11.6	B
	Rossmoor Center Way and Bradbury Road	NB	45.0	13.3	B	45.0	13.2	B	45.0	12.8	B	45.0	13.4	B	45.0	13.4	B	45.0	13.0	B
		SB	45.0	11.8	B	45.0	14.2	B	45.0	13.0	B	45.0	11.9	B	45.0	14.4	B	45.0	13.2	B
Bradbury Road and Rossmoor Way	NB	45.0	14.9	B	45.0	13.9	B	45.0	12.6	B	45.0	15.0	B	45.0	14.1	B	45.0	12.8	B	
	SB	45.0	12.6	B	45.0	15.1	B	45.0	13.0	B	45.0	12.7	B	45.0	15.4	B	45.0	13.2	B	
Saint Cloud Drive*	Seal Beach Boulevard and Yellowtail Drive		22.8	-	D	26.5	-	C	26.7	-	C	22.8	-	D	26.5	-	C	26.7	-	C
Montecito Road*	Yellowtail Drive and Copa De Oro Drive		26.0	-	C	28.8	-	B	29.2	-	B	25.9	-	C	28.7	-	B	29.2	-	B
	Copa De Oro Drive and Mainway Drive		30.0	-	B	30.1	-	B	31.1	-	A	30.0	-	B	30.1	-	B	31.0	-	A
	Mainway Drive and Bradbury Road		29.1	-	B	30.3	-	B	31.2	-	A	29.1	-	B	30.2	-	B	31.2	-	A
Rossmoor Center Way**	Montecito Road and Seal Beach Boulevard		27.6	-	A	25.7	-	A	25.2	-	B	27.4	-	A	25.1	-	B	24.7	-	B

NB = Northbound, SB = Southbound

*Analyzed as Two Lane Roadways with a speed limit of 35 MPH

**Analyzed as Two Lane Roadway with a speed limit of 30 MPH



<table border="1"> <tr><td>72 / 127</td><td>1455 / 1074</td><td>533 / 529</td></tr> <tr><td>87 / 166</td><td>438 / 1529</td><td>44 / 35</td></tr> <tr><td>28 / 30</td><td>14 / 11</td><td>696 / 321</td></tr> <tr><td>16 / 20</td><td>1058 / 1457</td><td>166 / 361</td></tr> <tr><td></td><td>166 / 361</td><td></td></tr> </table> <p>1 Seal Beach Blvd/I-405 SB Ramps</p>	72 / 127	1455 / 1074	533 / 529	87 / 166	438 / 1529	44 / 35	28 / 30	14 / 11	696 / 321	16 / 20	1058 / 1457	166 / 361		166 / 361		<table border="1"> <tr><td>465 / 373</td><td>1581 / 1460</td><td>561 / 683</td></tr> <tr><td>10 / 79</td><td>335 / 323</td><td>53 / 15</td></tr> <tr><td>11 / 72</td><td>110 / 41</td><td>367 / 195</td></tr> <tr><td>5 / 87</td><td>1211 / 1560</td><td>348 / 555</td></tr> <tr><td></td><td>110 / 41</td><td></td></tr> </table> <p>2 Seal Beach Blvd/I-405NB Ramps</p>	465 / 373	1581 / 1460	561 / 683	10 / 79	335 / 323	53 / 15	11 / 72	110 / 41	367 / 195	5 / 87	1211 / 1560	348 / 555		110 / 41		<table border="1"> <tr><td>1679 / 1625</td><td>614 / 469</td></tr> <tr><td>304 / 641</td><td>702 / 540</td></tr> <tr><td>1475 / 1737</td><td>305 / 544</td></tr> <tr><td></td><td></td></tr> </table> <p>3 Seal Beach Blvd/Lampson Av</p>	1679 / 1625	614 / 469	304 / 641	702 / 540	1475 / 1737	305 / 544			<table border="1"> <tr><td>46 / 66</td><td>1333 / 1691</td><td>2 / 5</td></tr> <tr><td>106 / 86</td><td>4 / 5</td><td>13 / 31</td></tr> <tr><td>3 / 0</td><td>378 / 410</td><td>65 / 193</td></tr> <tr><td>568 / 388</td><td>1670 / 1675</td><td>47 / 132</td></tr> <tr><td></td><td></td><td></td></tr> </table> <p>4 Seal Beach Blvd/Saint Cloud Dr</p>	46 / 66	1333 / 1691	2 / 5	106 / 86	4 / 5	13 / 31	3 / 0	378 / 410	65 / 193	568 / 388	1670 / 1675	47 / 132				<table border="1"> <tr><td>25 / 94</td><td>1367 / 1406</td><td>21 / 59</td></tr> <tr><td>21 / 100</td><td>21 / 78</td><td>2 / 47</td></tr> <tr><td>4 / 28</td><td>56 / 205</td><td>24 / 139</td></tr> <tr><td>14 / 185</td><td>1638 / 1448</td><td>31 / 84</td></tr> <tr><td></td><td></td><td></td></tr> </table> <p>5 Seal Beach Blvd/Town Center Dr</p>	25 / 94	1367 / 1406	21 / 59	21 / 100	21 / 78	2 / 47	4 / 28	56 / 205	24 / 139	14 / 185	1638 / 1448	31 / 84			
72 / 127	1455 / 1074	533 / 529																																																																						
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<table border="1"> <tr><td>2 / 3</td><td>133 / 126</td><td>146 / 64</td></tr> <tr><td>5 / 1</td><td>74 / 41</td><td>18 / 25</td></tr> <tr><td>24 / 17</td><td>0 / 5</td><td>135 / 148</td></tr> <tr><td>2 / 2</td><td>140 / 106</td><td>219 / 106</td></tr> <tr><td></td><td></td><td></td></tr> </table> <p>11 Montecito Rd/Bradbury Rd</p>	2 / 3	133 / 126	146 / 64	5 / 1	74 / 41	18 / 25	24 / 17	0 / 5	135 / 148	2 / 2	140 / 106	219 / 106				<table border="1"> <tr><td>99 / 90</td><td>86 / 136</td></tr> <tr><td>10 / 24</td><td>6 / 22</td></tr> <tr><td>7 / 32</td><td>12 / 11</td></tr> <tr><td></td><td></td></tr> </table> <p>12 West Rd/Rossmoor Center Wy</p>	99 / 90	86 / 136	10 / 24	6 / 22	7 / 32	12 / 11			<table border="1"> <tr><td>15 / 30</td><td>51 / 84</td></tr> <tr><td>16 / 34</td><td>81 / 170</td></tr> <tr><td>59 / 75</td><td>73 / 183</td></tr> <tr><td>35 / 22</td><td>13 / 43</td></tr> <tr><td>121 / 121</td><td>16 / 44</td></tr> <tr><td>14 / 27</td><td>31 / 178</td></tr> <tr><td></td><td></td></tr> </table> <p>13 Internal Dwy/Rossmoor Center Wy</p>	15 / 30	51 / 84	16 / 34	81 / 170	59 / 75	73 / 183	35 / 22	13 / 43	121 / 121	16 / 44	14 / 27	31 / 178			<table border="1"> <tr><td>15 / 54</td><td>37 / 292</td></tr> <tr><td>28 / 231</td><td>71 / 86</td></tr> <tr><td>16 / 43</td><td>32 / 66</td></tr> <tr><td></td><td></td></tr> </table> <p>14 Internal Dwy/Town Center Dr</p>	15 / 54	37 / 292	28 / 231	71 / 86	16 / 43	32 / 66			<table border="1"> <tr><td>110 / 88</td><td>95 / 165</td></tr> <tr><td>0 / 1</td><td>32 / 84</td></tr> <tr><td>0 / 4</td><td>34 / 69</td></tr> <tr><td></td><td></td></tr> </table> <p>15 Project Dwy/Rossmoor Center Wy</p>	110 / 88	95 / 165	0 / 1	32 / 84	0 / 4	34 / 69																	
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FIGURE 14

Legend

123 / 456 AM / PM Volume

Health Club within The Shops at Rossmoor
Existing (2016) with Full Occupancy plus Project Peak Hour Volumes (AM/PM)

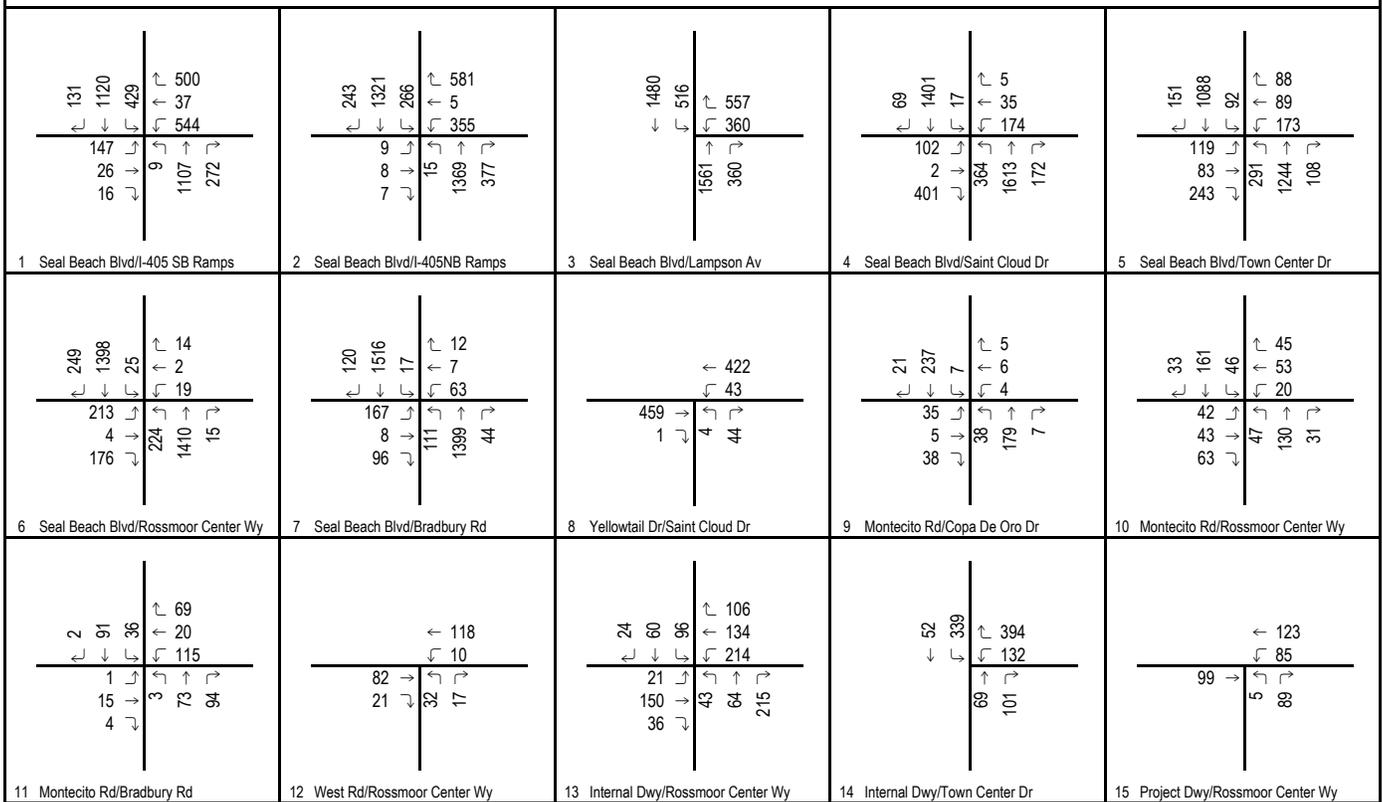
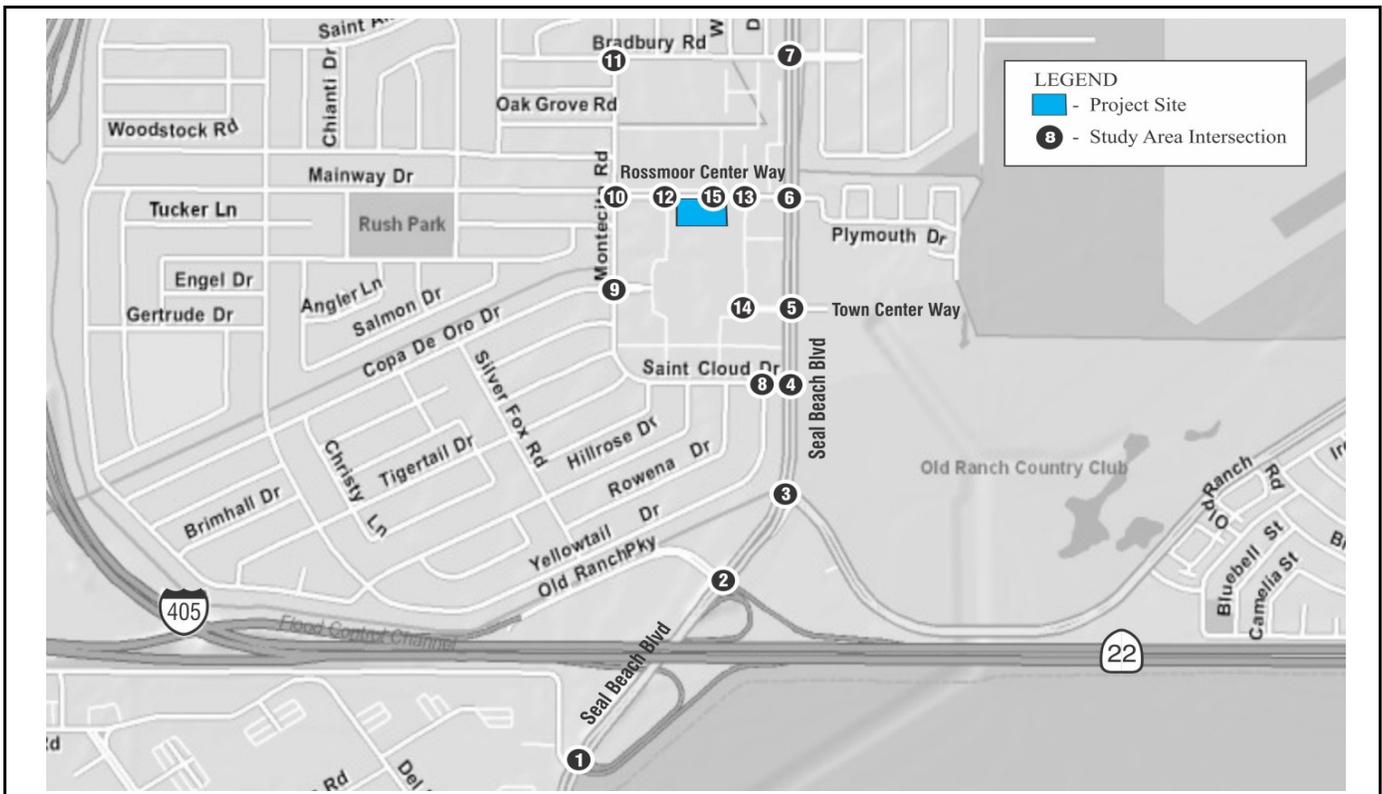


FIGURE 15

Legend

123 Saturday Volume

Health Club within The Shops at Rossmoor
Existing (2016) with Full Occupancy plus Project Peak Hour Volumes (Saturday)

This growth rate is consistent with the growth rate utilized in the Previous Analyses, which was reached through consultation with City staff.

In addition to the inclusion of an ambient growth rate, anticipated traffic from nearby planned developments that may utilize the study area roadway facilities by the time the project is planned to be built and operational was considered in this analysis. At the time the Previous Analyses was conducted, City staff provided information on one nearby cumulative development of a new car wash within the Mobil gas station on the northeast corner of Seal Beach Boulevard and Rossmoor Center Way/Plymouth Drive. Additional traffic from this development was not included in this analysis as the traffic counts taken in October 2016 have taken into account the now existing car wash within the Mobil gas station. The neighboring City of Los Alamitos was also contacted for information on anticipated developments that may contribute traffic to study area facilities. Based on information provided by City of Los Alamitos staff, traffic from the following cumulative projects in the City of Los Alamitos was included in this analysis:

- Village 605 – 3131 Katella Avenue
 - Replacement of existing office use with the construction of a 113,800 sf neighborhood retail center within seven buildings.
- Fairfield Inn & Suites – 10650 Los Alamitos Boulevard
 - Construction of a 108-room hotel.

Specific traffic information from these cumulative projects was provided by City of Los Alamitos staff. Figures 16 and 17 show the resulting Project Completion Year (2018) with Full Occupancy conditions weekday a.m., p.m., and weekend midday peak hour traffic volumes.

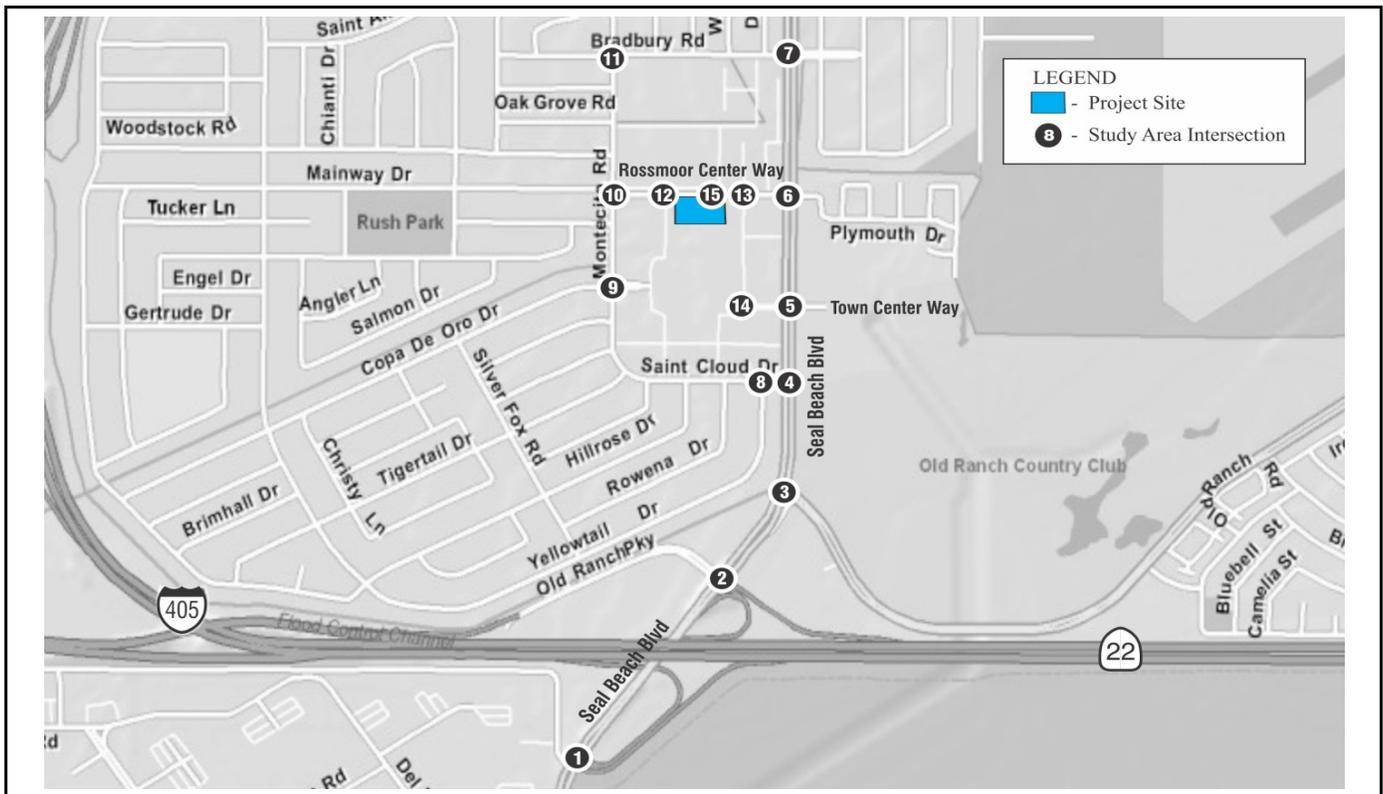
Traffic from the proposed project was then added to assess any near-term deficiencies. Figures 18 and 19 show Project Completion Year (2018) with Full Occupancy plus Project conditions weekday a.m., p.m., and weekend midday peak hour traffic volumes.

Summaries of Project Completion Year (2018) with Full Occupancy without and with Project traffic LOS for study area intersections and roadway segments are presented in Tables I and J, respectively. As the tables show, all study area intersections and roadway segments are anticipated to operate at satisfactory LOS (D or better) under Project Completion Year (2018) with Full Occupancy conditions, without and with the proposed project.

Intersection LOS worksheets for Project Completion Year (2018) with Full Occupancy without and with Project scenarios are included in Appendix B while roadway LOS worksheets are included in Appendix C.

FUTURE (2035) GENERAL PLAN BUILDOUT CONDITIONS

Traffic conditions for the future long-range condition, corresponding to the buildout of the City's General Plan, were analyzed in the study. The traffic volumes for Future (2035) General Plan Buildout traffic conditions were developed based on an annual growth rate applied to the Existing (2016) weekday a.m., p.m., and weekend peak-hour traffic volumes at study intersections and



<table border="1"> <tr> <td>73 / 128</td> <td>1467 / 1080</td> <td>539 / 530</td> </tr> <tr> <td>88 / 168</td> <td>440 / 529</td> <td>44 / 35</td> </tr> <tr> <td>28 / 30</td> <td>14 / 11</td> <td>703 / 324</td> </tr> <tr> <td>16 / 20</td> <td>1067 / 1464</td> <td>168 / 365</td> </tr> </table> <p>1 Seal Beach Blvd/I-405 SB Ramps</p>	73 / 128	1467 / 1080	539 / 530	88 / 168	440 / 529	44 / 35	28 / 30	14 / 11	703 / 324	16 / 20	1067 / 1464	168 / 365	<table border="1"> <tr> <td>469 / 375</td> <td>1593 / 1464</td> <td>338 / 323</td> <td>565 / 683</td> </tr> <tr> <td>9 / 78</td> <td>11 / 73</td> <td>5 / 88</td> <td>111 / 41</td> </tr> <tr> <td>1222 / 1564</td> <td>1222 / 1564</td> <td>351 / 561</td> <td></td> </tr> </table> <p>2 Seal Beach Blvd/I-405NB Ramps</p>	469 / 375	1593 / 1464	338 / 323	565 / 683	9 / 78	11 / 73	5 / 88	111 / 41	1222 / 1564	1222 / 1564	351 / 561		<table border="1"> <tr> <td>1709 / 1628</td> <td>336 / 640</td> <td>617 / 481</td> <td>709 / 545</td> </tr> <tr> <td>1491 / 1744</td> <td>308 / 549</td> <td></td> <td></td> </tr> </table> <p>3 Seal Beach Blvd/Lampson Av</p>	1709 / 1628	336 / 640	617 / 481	709 / 545	1491 / 1744	308 / 549			<table border="1"> <tr> <td>53 / 70</td> <td>1390 / 1690</td> <td>4 / 5</td> <td>2 / 5</td> </tr> <tr> <td>107 / 95</td> <td>3 / 0</td> <td>573 / 389</td> <td>381 / 410</td> </tr> <tr> <td></td> <td></td> <td></td> <td>1687 / 1691</td> </tr> <tr> <td></td> <td></td> <td></td> <td>47 / 133</td> </tr> </table> <p>4 Seal Beach Blvd/Saint Cloud Dr</p>	53 / 70	1390 / 1690	4 / 5	2 / 5	107 / 95	3 / 0	573 / 389	381 / 410				1687 / 1691				47 / 133	<table border="1"> <tr> <td>32 / 95</td> <td>1424 / 1406</td> <td>21 / 79</td> <td>21 / 60</td> </tr> <tr> <td>21 / 101</td> <td>4 / 28</td> <td>14 / 187</td> <td>56 / 207</td> </tr> <tr> <td></td> <td></td> <td></td> <td>1655 / 1470</td> </tr> <tr> <td></td> <td></td> <td></td> <td>31 / 85</td> </tr> </table> <p>5 Seal Beach Blvd/Town Center Dr</p>	32 / 95	1424 / 1406	21 / 79	21 / 60	21 / 101	4 / 28	14 / 187	56 / 207				1655 / 1470				31 / 85												
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71 / 192	1447 / 1603	19 / 36	39 / 16																																																																													
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<table border="1"> <tr> <td>2 / 3</td> <td>133 / 125</td> <td>75 / 41</td> <td>147 / 65</td> </tr> <tr> <td>5 / 1</td> <td>24 / 17</td> <td>2 / 2</td> <td>0 / 5</td> </tr> <tr> <td></td> <td></td> <td></td> <td>140 / 104</td> </tr> <tr> <td></td> <td></td> <td></td> <td>221 / 107</td> </tr> </table> <p>11 Montecito Rd/Bradbury Rd</p>	2 / 3	133 / 125	75 / 41	147 / 65	5 / 1	24 / 17	2 / 2	0 / 5				140 / 104				221 / 107	<table border="1"> <tr> <td>100 / 91</td> <td>7 / 17</td> <td>4 / 26</td> <td>12 / 11</td> </tr> <tr> <td></td> <td></td> <td></td> <td>87 / 137</td> </tr> <tr> <td></td> <td></td> <td></td> <td>6 / 22</td> </tr> </table> <p>12 West Rd/Rossmoor Center Wy</p>	100 / 91	7 / 17	4 / 26	12 / 11				87 / 137				6 / 22	<table border="1"> <tr> <td>15 / 30</td> <td>16 / 34</td> <td>60 / 76</td> <td>52 / 85</td> </tr> <tr> <td>35 / 22</td> <td>99 / 73</td> <td>14 / 27</td> <td>13 / 43</td> </tr> <tr> <td></td> <td></td> <td></td> <td>16 / 44</td> </tr> <tr> <td></td> <td></td> <td></td> <td>31 / 180</td> </tr> </table> <p>13 Internal Dwy/Rossmoor Center Wy</p>	15 / 30	16 / 34	60 / 76	52 / 85	35 / 22	99 / 73	14 / 27	13 / 43				16 / 44				31 / 180	<table border="1"> <tr> <td>15 / 55</td> <td>28 / 233</td> <td>37 / 295</td> <td>71 / 86</td> </tr> <tr> <td>16 / 43</td> <td>32 / 66</td> <td></td> <td></td> </tr> </table> <p>14 Internal Dwy/Town Center Dr</p>	15 / 55	28 / 233	37 / 295	71 / 86	16 / 43	32 / 66			<table border="1"> <tr> <td>111 / 89</td> <td>0 / 1</td> <td>0 / 4</td> <td>11 / 20</td> </tr> <tr> <td></td> <td></td> <td></td> <td>96 / 167</td> </tr> <tr> <td></td> <td></td> <td></td> <td>9 / 20</td> </tr> </table> <p>15 Project Dwy/Rossmoor Center Wy</p>	111 / 89	0 / 1	0 / 4	11 / 20				96 / 167				9 / 20												
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FIGURE 16

Legend

123 / 456 AM / PM Volume

Health Club within The Shops at Rossmoor
Project Completion Year (2018) with Full Occupancy Peak Hour Volumes (AM/PM)

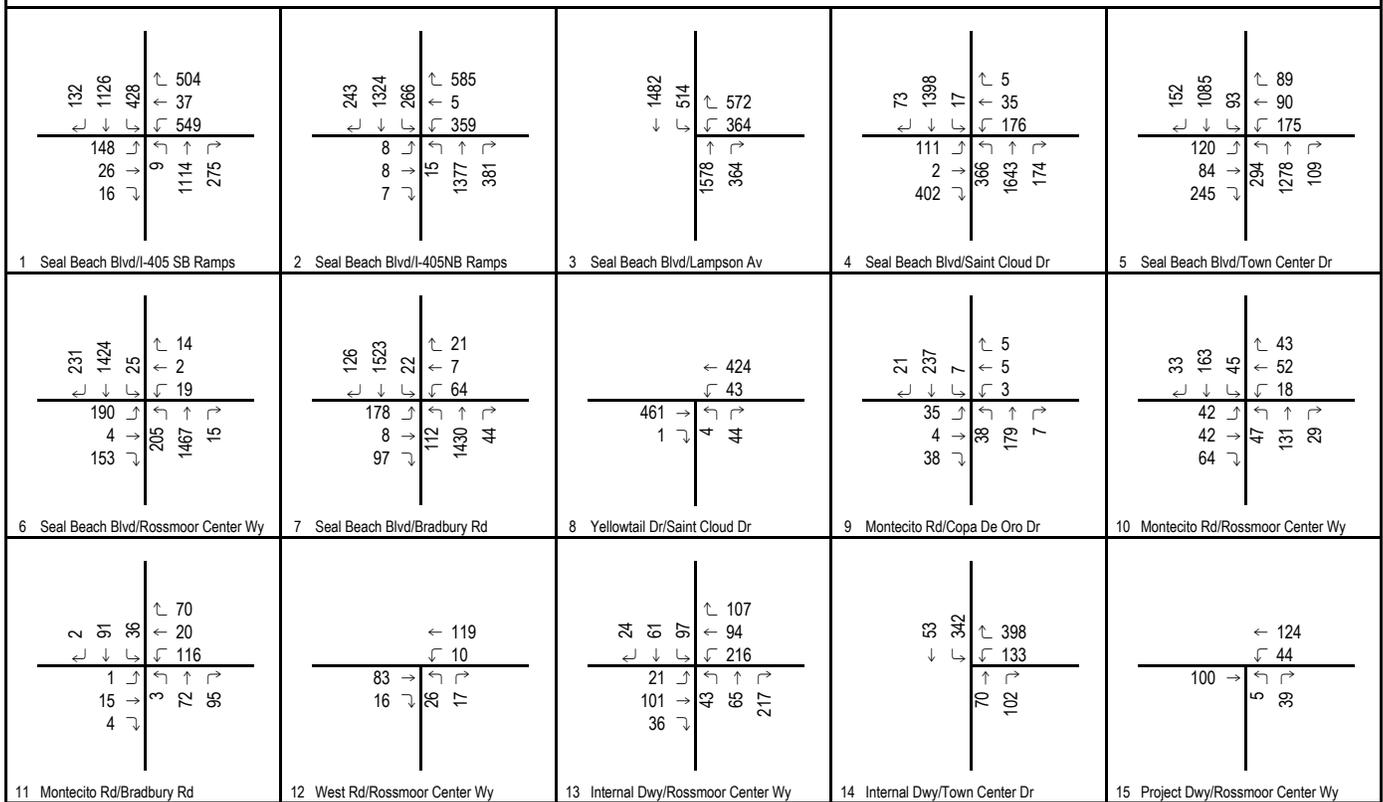
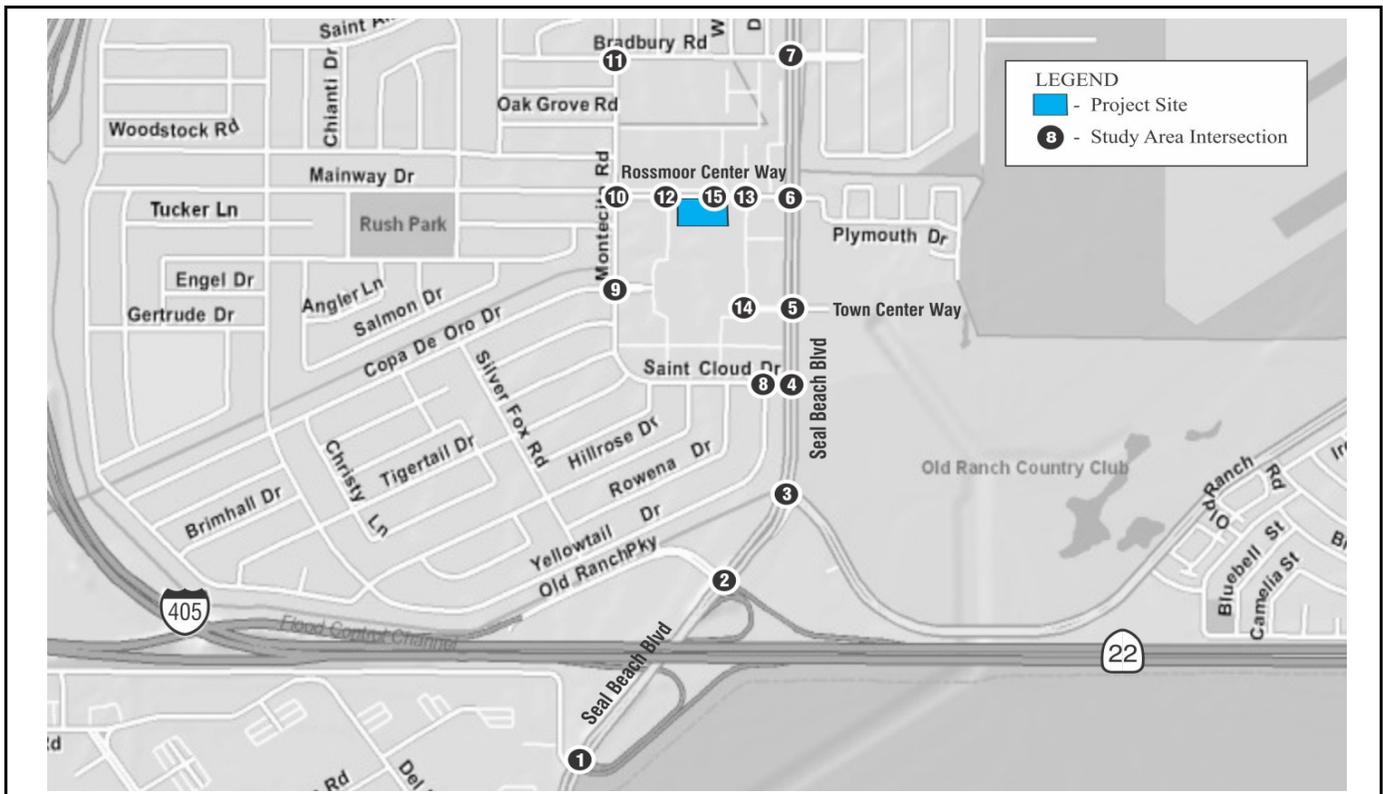
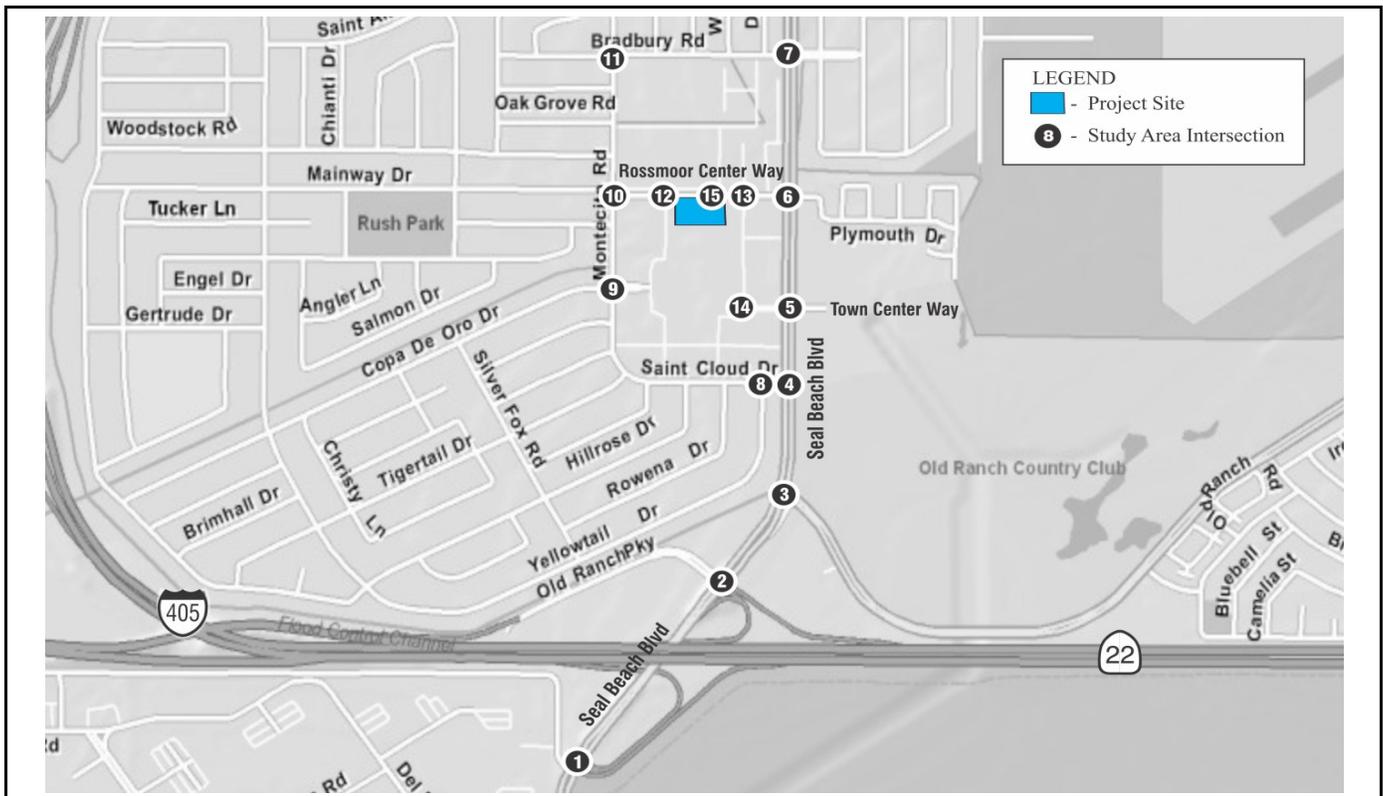


FIGURE 17

Legend

123 Saturday Volume

Health Club within The Shops at Rossmoor
 Project Completion Year (2018) with Full Occupancy Peak Hour Volumes (Saturday)



LEGEND
 - Project Site
8 - Study Area Intersection

<table border="1"> <tr><td>73 / 128</td><td>↑</td><td>542 / 537</td></tr> <tr><td>1469 / 1085</td><td>↓</td><td>44 / 35</td></tr> <tr><td>444 / 1537</td><td>↔</td><td>703 / 324</td></tr> <tr><td>88 / 168</td><td>↔</td><td>1069 / 1471</td></tr> <tr><td>28 / 30</td><td>↔</td><td>168 / 365</td></tr> <tr><td>16 / 20</td><td>↔</td><td>14 / 11</td></tr> <tr><td></td><td>↔</td><td>1069 / 1471</td></tr> <tr><td></td><td>↔</td><td>168 / 365</td></tr> </table> <p>1 Seal Beach Blvd/I-405 SB Ramps</p>	73 / 128	↑	542 / 537	1469 / 1085	↓	44 / 35	444 / 1537	↔	703 / 324	88 / 168	↔	1069 / 1471	28 / 30	↔	168 / 365	16 / 20	↔	14 / 11		↔	1069 / 1471		↔	168 / 365	<table border="1"> <tr><td>470 / 377</td><td>↑</td><td>569 / 694</td></tr> <tr><td>1599 / 1477</td><td>↓</td><td>54 / 15</td></tr> <tr><td>341 / 329</td><td>↔</td><td>371 / 197</td></tr> <tr><td>10 / 80</td><td>↔</td><td>111 / 41</td></tr> <tr><td>11 / 73</td><td>↔</td><td>1227 / 1578</td></tr> <tr><td>5 / 88</td><td>↔</td><td>351 / 561</td></tr> <tr><td></td><td>↔</td><td>111 / 41</td></tr> <tr><td></td><td>↔</td><td>1227 / 1578</td></tr> </table> <p>2 Seal Beach Blvd/I-405NB Ramps</p>	470 / 377	↑	569 / 694	1599 / 1477	↓	54 / 15	341 / 329	↔	371 / 197	10 / 80	↔	111 / 41	11 / 73	↔	1227 / 1578	5 / 88	↔	351 / 561		↔	111 / 41		↔	1227 / 1578	<table border="1"> <tr><td>1719 / 1649</td><td>↑</td><td>620 / 490</td></tr> <tr><td>339 / 647</td><td>↓</td><td>709 / 545</td></tr> <tr><td></td><td>↔</td><td>1501 / 1771</td></tr> <tr><td></td><td>↔</td><td>308 / 549</td></tr> </table> <p>3 Seal Beach Blvd/Lampson Av</p>	1719 / 1649	↑	620 / 490	339 / 647	↓	709 / 545		↔	1501 / 1771		↔	308 / 549	<table border="1"> <tr><td>53 / 70</td><td>↑</td><td>2 / 5</td></tr> <tr><td>1401 / 1715</td><td>↓</td><td>13 / 31</td></tr> <tr><td>4 / 5</td><td>↔</td><td>66 / 195</td></tr> <tr><td>107 / 95</td><td>↔</td><td>382 / 414</td></tr> <tr><td>3 / 0</td><td>↔</td><td>1698 / 1724</td></tr> <tr><td>574 / 392</td><td>↔</td><td>47 / 133</td></tr> <tr><td></td><td>↔</td><td>382 / 414</td></tr> <tr><td></td><td>↔</td><td>1698 / 1724</td></tr> </table> <p>4 Seal Beach Blvd/Saint Cloud Dr</p>	53 / 70	↑	2 / 5	1401 / 1715	↓	13 / 31	4 / 5	↔	66 / 195	107 / 95	↔	382 / 414	3 / 0	↔	1698 / 1724	574 / 392	↔	47 / 133		↔	382 / 414		↔	1698 / 1724	<table border="1"> <tr><td>32 / 95</td><td>↑</td><td>21 / 60</td></tr> <tr><td>1435 / 1431</td><td>↓</td><td>2 / 47</td></tr> <tr><td>21 / 79</td><td>↔</td><td>24 / 140</td></tr> <tr><td>21 / 101</td><td>↔</td><td>56 / 207</td></tr> <tr><td>4 / 28</td><td>↔</td><td>1666 / 1503</td></tr> <tr><td>14 / 187</td><td>↔</td><td>31 / 85</td></tr> <tr><td></td><td>↔</td><td>56 / 207</td></tr> <tr><td></td><td>↔</td><td>1666 / 1503</td></tr> </table> <p>5 Seal Beach Blvd/Town Center Dr</p>	32 / 95	↑	21 / 60	1435 / 1431	↓	2 / 47	21 / 79	↔	24 / 140	21 / 101	↔	56 / 207	4 / 28	↔	1666 / 1503	14 / 187	↔	31 / 85		↔	56 / 207		↔	1666 / 1503
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FIGURE 18

Legend

123 / 456

AM / PM Volume

Project Completion Year (2018) with Full Occupancy plus Project Peak Hour Volumes (AM/PM)

Health Club within The Shops at Rossmoor

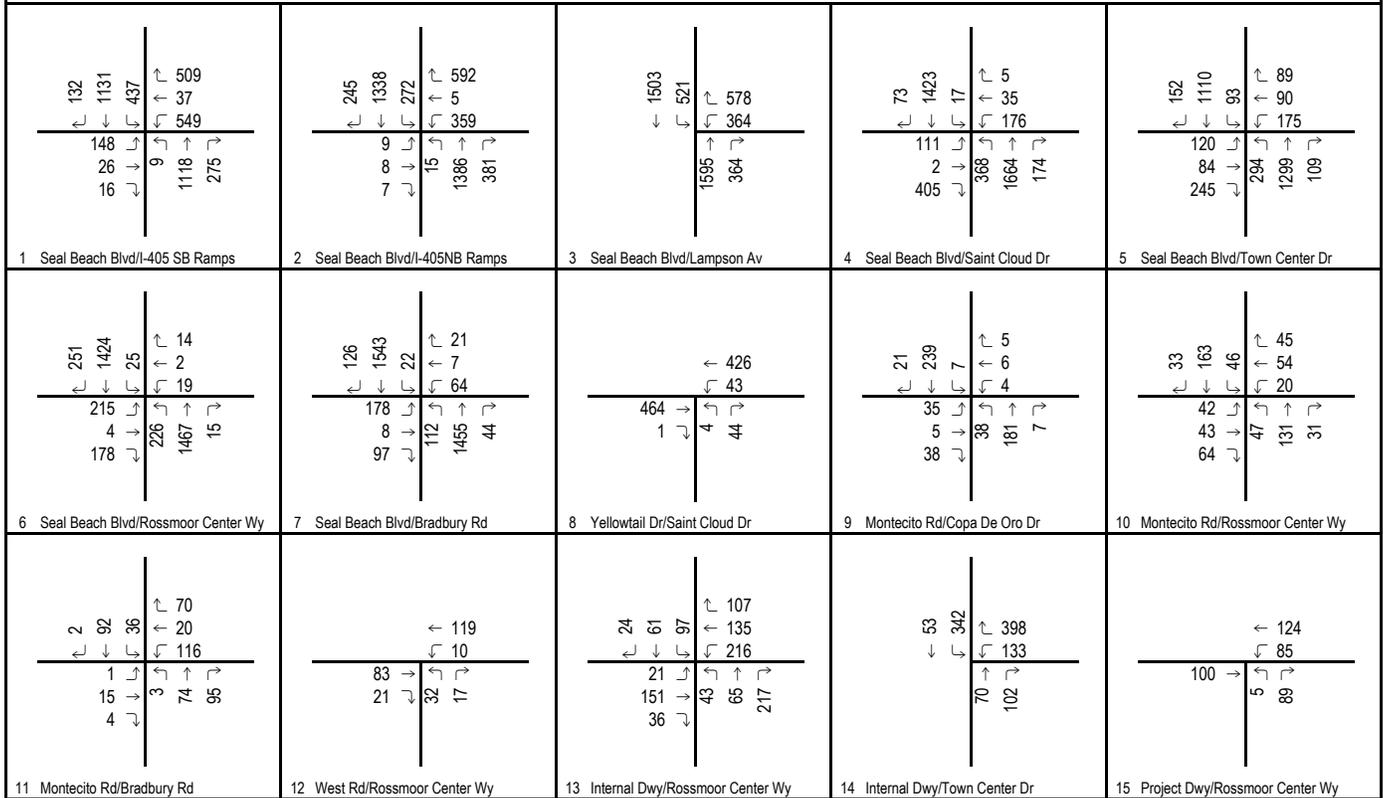
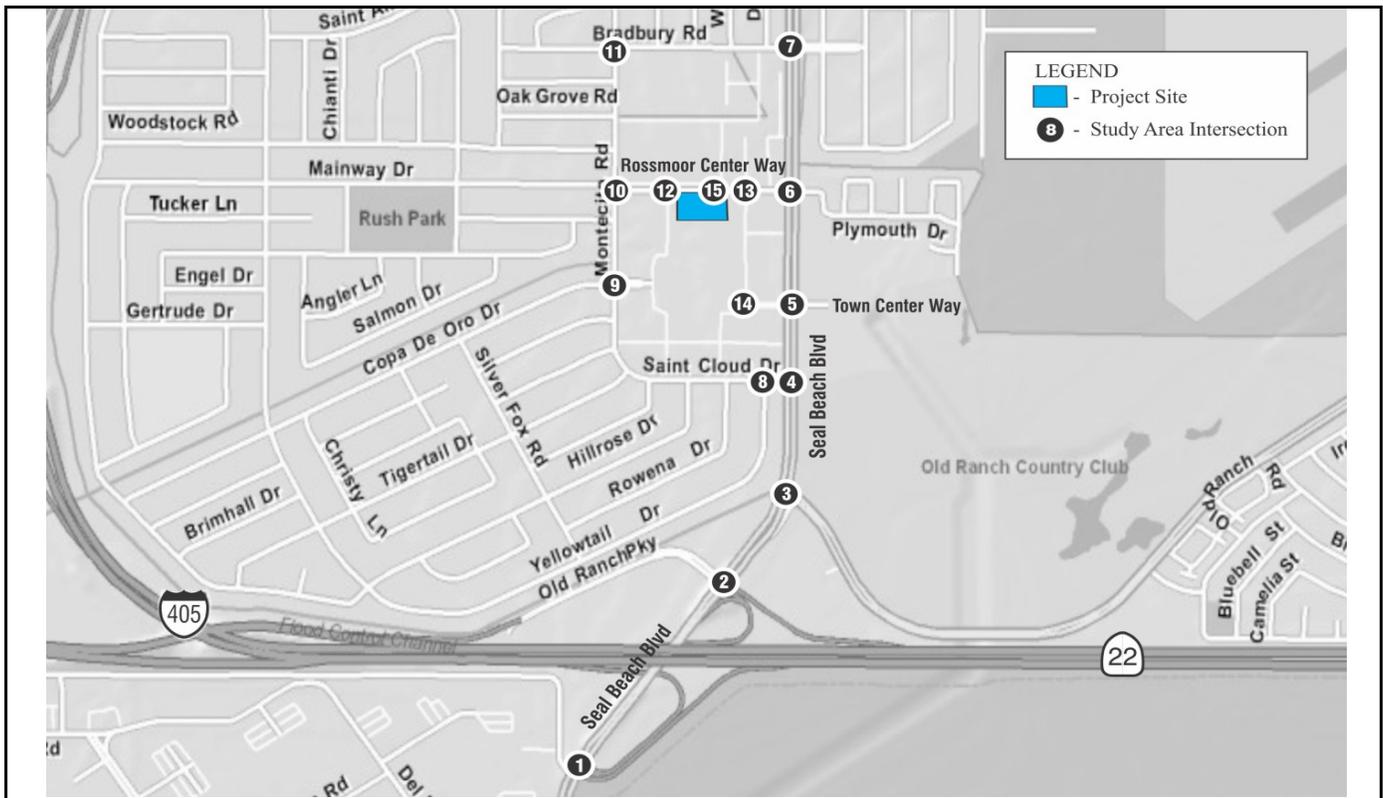


FIGURE 19

Legend

123 Saturday Volume Health Club within The Shops at Rossmoor
 Project Completion Year (2018) with Full Occupancy plus Project Peak Hour Volumes (Saturday)

Table I: Project Completion Year (2018) Peak Hour Intersection Level of Service Summary

Intersection		Project Completion Year (2018)						Project Completion Year (2018) + Project								
		AM		PM		Sat		AM			PM			Sat		
		ICU / Delay	LOS	ICU / Delay	LOS	ICU / Delay	LOS	ICU / Delay	LOS	Δ ICU	ICU / Delay	LOS	Δ ICU	ICU / Delay	LOS	Δ ICU
1	Seal Beach Boulevard/I-405 SB On/Off Ramps ¹	41.7	D	42.9	D	41.1	D	41.4	D	-	42.7	D	-	41.5	D	-
2	Seal Beach Boulevard/I-405 NB On/Off Ramps ¹	45.3	D	51.3	D	35.7	D	45.8	D	-	52.5	D	-	36.5	D	-
3	Seal Beach Boulevard/Lampson Avenue	0.822	D	0.807	D	0.794	D	0.826	D	0.004	0.814	D	0.007	0.802	D	0.008
4	Seal Beach Boulevard/Saint Cloud Drive	0.650	B	0.734	C	0.668	C	0.653	B	0.003	0.740	C	0.006	0.673	B	0.005
5	Seal Beach Boulevard/Town Center Drive	0.507	A	0.761	C	0.851	C	0.509	A	0.002	0.766	C	0.005	0.856	D	0.005
6	Seal Beach Boulevard/Rossmoor Center Way	0.549	A	0.699	B	0.681	B	0.566	A	0.017	0.741	C	0.042	0.713	C	0.032
7	Seal Beach Boulevard/Bradbury Road	0.759	C	0.698	B	0.647	B	0.761	C	0.002	0.705	C	0.007	0.651	B	0.004
8	Yellow Tail Drive/Saint Cloud Drive*	14.0	B	10.8	B	11.0	B	14.7	B	-	10.8	B	-	11.0	B	-
9	Montecito Road/Copa De Oro Drive*	11.5	B	9.6	A	8.8	A	11.6	B	-	9.6	A	-	8.8	A	-
10	Montecito Road/Rossmoor Center Way*	12.0	B	10.3	B	9.7	A	12.1	B	-	10.4	B	-	9.8	A	-
11	Montecito Road/Bradbury Road*	12.9	B	10.1	B	8.9	A	12.9	B	-	10.2	B	-	9.0	A	-
12	West Road/Rossmoor Center Way*	7.7	A	8.0	A	7.8	A	7.7	A	-	8.1	A	-	7.8	A	-
13	Internal Driveway/Rossmoor Center Way*	8.7	A	13.2	B	18.5	C	8.9	A	-	16.1	C	-	23.7	C	-
14	Internal Driveway/Town Center Drive*	7.8	A	11.8	B	16.3	C	7.8	A	-	11.8	B	-	16.3	C	-
15	Project Driveway/Rossmoor Center Way*	8.9	A	9.2	A	9.2	A	9.1	A	-	9.3	A	-	9.5	A	-

ICU V/C ratio is used for signalized intersections in the City of Seal Beach.

* Indicates unsignalized intersection. HCM delay in seconds is used for unsignalized intersections.

■ (Shade) = Exceeds City level of service criteria (LOS D)

¹ HCM Methodology-consistent with Caltrans requirements

Table J: Project Completion Year (2018) With Full Occupancy Peak Hour Roadway Level of Service Summary

Roadway	Segment	Direction	Project Completion Year (2018)									Project Completion Year (2018) + Project								
			AM			PM			Saturday Mid-day			AM			PM			Saturday Mid-day		
			Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS
Seal Beach Boulevard	I-405 Northbound On/Off Ramps and Lampson Avenue	NB	45.0	17.1	B	45.0	18.4	C	45.0	15.9	B	45.0	17.2	B	45.0	18.6	C	45.0	16.1	B
		SB	45.0	18.4	C	45.0	16.7	B	45.0	14.3	B	45.0	18.5	C	45.0	16.9	B	45.0	14.5	B
	Lampson Avenue and Saint Cloud Drive	NB	45.0	20.0	C	45.0	19.0	C	45.0	18.4	C	45.0	20.2	C	45.0	19.3	C	45.0	18.6	C
		SB	45.0	17.5	B	45.0	17.3	B	45.0	15.3	B	45.0	17.6	B	45.0	17.6	B	45.0	15.5	B
	Saint Cloud Drive and Town Center Drive	NB	45.0	15.1	B	45.0	15.2	B	45.0	14.7	B	45.0	15.2	B	45.0	15.4	B	45.0	14.9	B
		SB	45.0	11.8	B	45.0	13.2	B	45.0	11.7	B	45.0	11.9	B	45.0	13.4	B	45.0	11.9	B
	Town Center Drive and Rossmoor Center Way	NB	45.0	13.8	B	45.0	13.7	B	45.0	13.0	B	45.0	13.9	B	45.0	14.0	B	45.0	13.2	B
		SB	45.0	12.0	B	45.0	12.7	B	45.0	11.6	B	45.0	12.1	B	45.0	12.9	B	45.0	11.8	B
	Rossmoor Center Way and Bradbury Road	NB	45.0	13.5	B	45.0	13.6	B	45.0	13.2	B	45.0	13.6	B	45.0	13.8	B	45.0	13.4	B
		SB	45.0	12.4	B	45.0	14.4	B	45.0	13.2	B	45.0	12.5	B	45.0	14.6	B	45.0	13.4	B
Bradbury Road and Rossmoor Way	NB	45.0	15.2	B	45.0	14.5	B	45.0	13.2	B	45.0	15.3	B	45.0	14.7	B	45.0	13.4	B	
	SB	45.0	13.4	B	45.0	15.4	B	45.0	13.3	B	45.0	13.5	B	45.0	15.7	B	45.0	13.4	B	
Saint Cloud Drive*	Seal Beach Boulevard and Yellowtail Drive		22.8	-	D	26.4	-	C	26.6	-	C	22.8	-	D	26.4	-	C	26.5	-	C
Montecito Road*	Yellowtail Drive and Copa De Oro Drive		25.9	-	C	28.7	-	B	29.2	-	B	25.9	-	C	28.6	-	B	29.1	-	B
	Copa De Oro Drive and Mainway Drive		30.0	-	B	30.1	-	B	31.0	-	A	30.0	-	B	30.0	-	B	31.0	-	A
	Mainway Drive and Bradbury Road		29.0	-	B	30.2	-	B	31.2	-	A	29.0	-	B	30.2	-	B	31.1	-	A
Rossmoor Center Way**	Montecito Road and Seal Beach Boulevard		27.6	-	A	25.6	-	A	25.2	-	B	27.3	-	A	25.1	-	B	24.7	-	B

NB = Northbound, SB = Southbound

* Analyzed as Two Lane Roadways with a speed limit of 35 MPH

** Analyzed as Two Lane Roadway with a speed limit of 30 MPH

roadway segments to represent a 19-year horizon. In the Previous Analyses, the development of the Future (2035) General Plan Buildout baseline volumes were initially based on an estimated annual growth rate of 0.2 percent per year based on the growth along Seal Beach Boulevard using OCTAM. However, based on discussions with City staff, a growth rate of 0.5 percent per year was applied over the time frame between Existing and Future (2035) General Plan Buildout traffic conditions to provide a conservative traffic analysis. This analysis has forecast future volumes consistent with this previously agreed upon approach.

To account for the fully occupied retail center, the trip assignment generated earlier for the unoccupied restaurant was manually added to the Future (2035) General Plan Buildout traffic volumes to develop the volumes for the Future (2035) General Plan Buildout with Full Occupancy condition. The LOS at the study area intersections and roadway segments were identified based on these data. Figures 20 and 21 show the Future (2035) General Plan Buildout with Full Occupancy peak hour volumes at the study area intersections for weekday and weekend conditions, respectively. Intersection turning movement volumes resulting from the addition of the proposed project are shown in Figures 22 and 23 for weekday and weekend conditions, respectively.

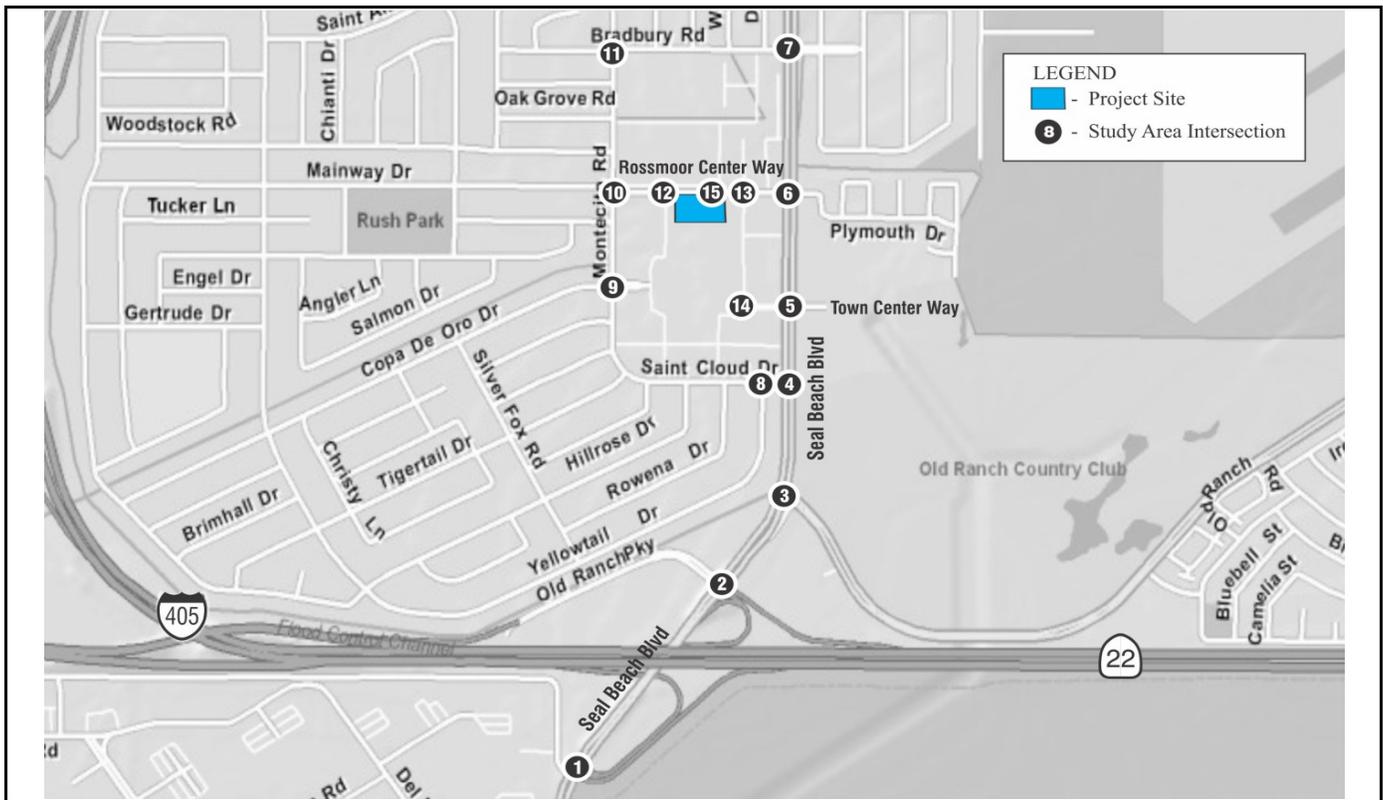
Tables K and L present summaries of Future (2035) General Plan Buildout with Full Occupancy without and with Project LOS for study area intersections and roadway segments. As Tables K and L demonstrate, all study area intersections and roadway segments are anticipated to operate at satisfactory LOS (D or better) under Future (2035) General Plan Buildout with Full Occupancy without and with Project conditions. Intersection LOS worksheets for Future (2035) General Plan Buildout without and with Project scenarios are included in Appendix B while roadway LOS worksheets are included in Appendix C.

As Table K shows, the addition of project traffic at the intersection of Seal Beach Boulevard and Rossmoor Center Way results in an ICU increase that meets the City's threshold of significance of 0.040 during the weekday p.m. peak hour. It should be noted this intersection is anticipated to operate at an acceptable LOS C or better under all peak hours in the Future (2035) General Plan Buildout with Full Occupancy with Project conditions. As all study area intersections and roadway facilities are anticipated to operate at satisfactory LOS from Existing (2016) to Future (2035) General Plan Buildout with Full Occupancy plus Project traffic conditions, operational improvements aimed at alleviating LOS deficiencies are not warranted and have not been recommended.

Existing queuing issues that occur in the northbound left-turn lane at the intersection of Seal Beach Boulevard and Rossmoor Center Way are anticipated to be alleviated by the project's proposed improvement to the northbound left-turn lane. Although this northbound left-turn queuing is an existing concern, the project will improve the stacking distance to alleviate existing and anticipated queues.

ON-SITE CIRCULATION AND QUEUING

This section presents the results of the site access assessment conducted for Existing (2016) with Full Occupancy without and with Project conditions. As presented previously in this report, both project driveways and site-adjacent intersections are anticipated to operate at satisfactory LOS for all analysis scenarios.



<table border="1"> <tr><td>79 / 139</td><td>1591 / 1170</td></tr> <tr><td>584 / 574</td><td>477 / 573</td></tr> <tr><td>48 / 38</td><td>762 / 351</td></tr> <tr><td>95 / 182</td><td>15 / 12</td></tr> <tr><td>31 / 33</td><td>1156 / 1587</td></tr> <tr><td>18 / 22</td><td>182 / 395</td></tr> <tr><td></td><td>1156 / 1587</td></tr> <tr><td></td><td>182 / 395</td></tr> </table> <p>1 Seal Beach Blvd/I-405 SB Ramps</p>	79 / 139	1591 / 1170	584 / 574	477 / 573	48 / 38	762 / 351	95 / 182	15 / 12	31 / 33	1156 / 1587	18 / 22	182 / 395		1156 / 1587		182 / 395	<table border="1"> <tr><td>508 / 406</td><td>1726 / 1587</td></tr> <tr><td>612 / 739</td><td>366 / 350</td></tr> <tr><td>58 / 16</td><td>402 / 214</td></tr> <tr><td>10 / 84</td><td>120 / 45</td></tr> <tr><td>12 / 79</td><td>1324 / 1695</td></tr> <tr><td>5 / 95</td><td>381 / 608</td></tr> <tr><td></td><td>120 / 45</td></tr> <tr><td></td><td>1324 / 1695</td></tr> <tr><td></td><td>381 / 608</td></tr> </table> <p>2 Seal Beach Blvd/I-405NB Ramps</p>	508 / 406	1726 / 1587	612 / 739	366 / 350	58 / 16	402 / 214	10 / 84	120 / 45	12 / 79	1324 / 1695	5 / 95	381 / 608		120 / 45		1324 / 1695		381 / 608	<table border="1"> <tr><td>1849 / 1763</td><td>361 / 694</td></tr> <tr><td>668 / 519</td><td>769 / 591</td></tr> <tr><td>1614 / 1888</td><td>334 / 596</td></tr> <tr><td>662 / 485</td><td>4 / 8</td></tr> <tr><td>9 / 3</td><td>9 / 3</td></tr> <tr><td>77 / 54</td><td>77 / 54</td></tr> </table> <p>3 Seal Beach Blvd/Lampson Av</p>	1849 / 1763	361 / 694	668 / 519	769 / 591	1614 / 1888	334 / 596	662 / 485	4 / 8	9 / 3	9 / 3	77 / 54	77 / 54	<table border="1"> <tr><td>57 / 75</td><td>1501 / 1831</td></tr> <tr><td>2 / 5</td><td>4 / 5</td></tr> <tr><td>14 / 34</td><td>71 / 211</td></tr> <tr><td>116 / 102</td><td>413 / 445</td></tr> <tr><td>3 / 0</td><td>1826 / 1829</td></tr> <tr><td>621 / 422</td><td>51 / 145</td></tr> </table> <p>4 Seal Beach Blvd/Saint Cloud Dr</p>	57 / 75	1501 / 1831	2 / 5	4 / 5	14 / 34	71 / 211	116 / 102	413 / 445	3 / 0	1826 / 1829	621 / 422	51 / 145	<table border="1"> <tr><td>33 / 102</td><td>1539 / 1522</td></tr> <tr><td>23 / 65</td><td>23 / 85</td></tr> <tr><td>2 / 51</td><td>26 / 152</td></tr> <tr><td>21 / 108</td><td>59 / 222</td></tr> <tr><td>4 / 31</td><td>1794 / 1590</td></tr> <tr><td>15 / 203</td><td>34 / 92</td></tr> </table> <p>5 Seal Beach Blvd/Town Center Dr</p>	33 / 102	1539 / 1522	23 / 65	23 / 85	2 / 51	26 / 152	21 / 108	59 / 222	4 / 31	1794 / 1590	15 / 203	34 / 92
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<table border="1"> <tr><td>77 / 208</td><td>1562 / 1735</td></tr> <tr><td>43 / 18</td><td>21 / 39</td></tr> <tr><td>11 / 1</td><td>19 / 16</td></tr> <tr><td>84 / 201</td><td>71 / 174</td></tr> <tr><td>8 / 1</td><td>1761 / 1720</td></tr> <tr><td>85 / 142</td><td>16 / 26</td></tr> </table> <p>6 Seal Beach Blvd/Rossmoor Center Wy</p>	77 / 208	1562 / 1735	43 / 18	21 / 39	11 / 1	19 / 16	84 / 201	71 / 174	8 / 1	1761 / 1720	85 / 142	16 / 26	<table border="1"> <tr><td>185 / 191</td><td>1516 / 1868</td></tr> <tr><td>31 / 21</td><td>30 / 26</td></tr> <tr><td>24 / 3</td><td>77 / 53</td></tr> <tr><td>305 / 186</td><td>160 / 142</td></tr> <tr><td>20 / 10</td><td>1676 / 1686</td></tr> <tr><td>106 / 96</td><td>28 / 62</td></tr> </table> <p>7 Seal Beach Blvd/Bradbury Rd</p>	185 / 191	1516 / 1868	31 / 21	30 / 26	24 / 3	77 / 53	305 / 186	160 / 142	20 / 10	1676 / 1686	106 / 96	28 / 62	<table border="1"> <tr><td>662 / 485</td><td>4 / 8</td></tr> <tr><td>9 / 3</td><td>9 / 3</td></tr> <tr><td>77 / 54</td><td>77 / 54</td></tr> </table> <p>8 Yellowtail Dr/Saint Cloud Dr</p>	662 / 485	4 / 8	9 / 3	9 / 3	77 / 54	77 / 54	<table border="1"> <tr><td>30 / 48</td><td>313 / 256</td></tr> <tr><td>1 / 11</td><td>0 / 8</td></tr> <tr><td>3 / 5</td><td>2 / 2</td></tr> <tr><td>59 / 33</td><td>118 / 73</td></tr> <tr><td>7 / 4</td><td>183 / 234</td></tr> <tr><td>138 / 51</td><td>2 / 3</td></tr> </table> <p>9 Montecito Rd/Copa De Oro Dr</p>	30 / 48	313 / 256	1 / 11	0 / 8	3 / 5	2 / 2	59 / 33	118 / 73	7 / 4	183 / 234	138 / 51	2 / 3	<table border="1"> <tr><td>71 / 44</td><td>222 / 198</td></tr> <tr><td>34 / 78</td><td>26 / 48</td></tr> <tr><td>46 / 43</td><td>14 / 39</td></tr> <tr><td>106 / 46</td><td>43 / 33</td></tr> <tr><td>67 / 38</td><td>198 / 144</td></tr> <tr><td>96 / 60</td><td>23 / 28</td></tr> </table> <p>10 Montecito Rd/Rossmoor Center Wy</p>	71 / 44	222 / 198	34 / 78	26 / 48	46 / 43	14 / 39	106 / 46	43 / 33	67 / 38	198 / 144	96 / 60	23 / 28																
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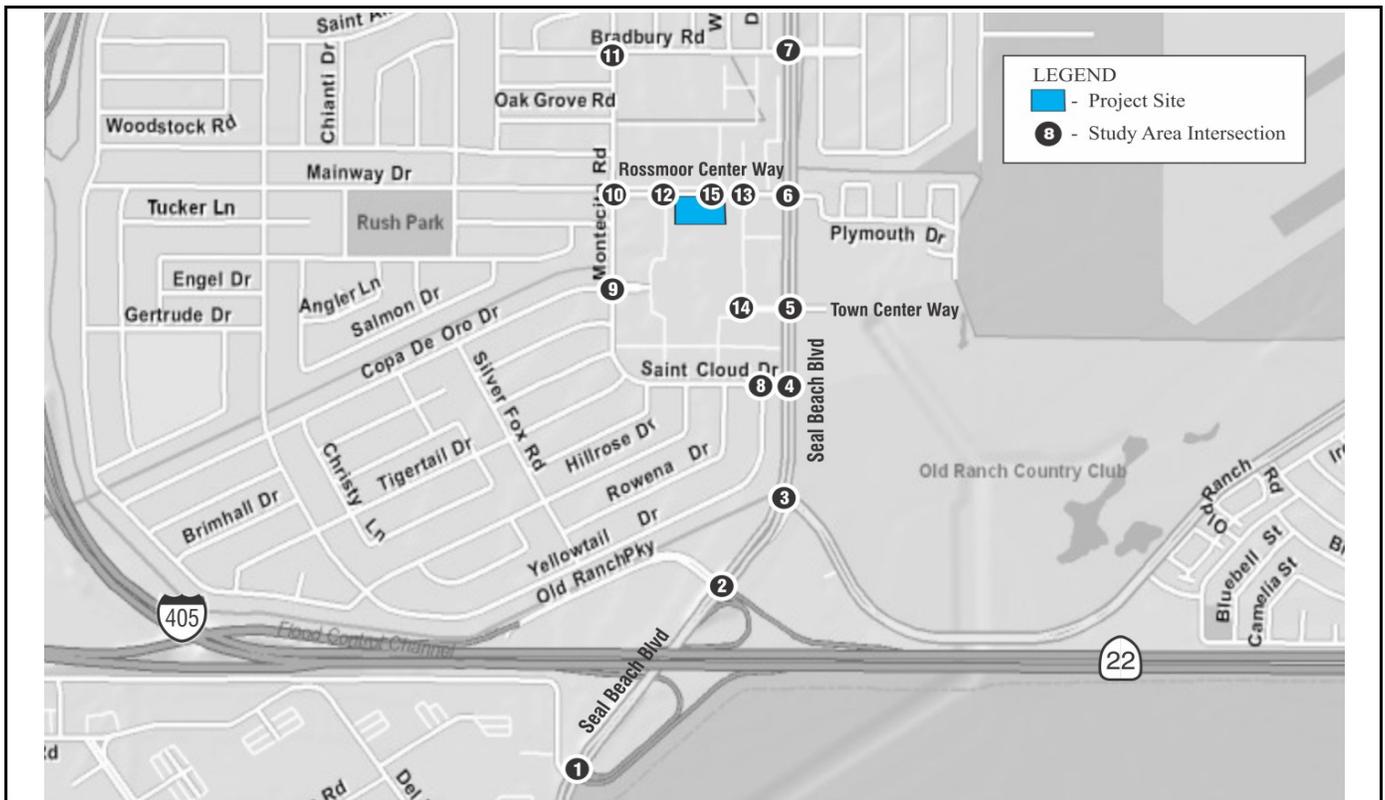
FIGURE 20

Legend

123 / 456 AM / PM Volume

Health Club within The Shops at Rossmoor

Future (2035) General Plan Buildout with Full Occupancy Peak Hour Volumes (AM/PM)



<table border="1"> <tr><td>143</td><td>545</td></tr> <tr><td>1220</td><td>41</td></tr> <tr><td>463</td><td>596</td></tr> <tr><td>161</td><td>10</td></tr> <tr><td>28</td><td>1207</td></tr> <tr><td>18</td><td>298</td></tr> </table> <p>1 Seal Beach Blvd/I-405 SB Ramps</p>	143	545	1220	41	463	596	161	10	28	1207	18	298	<table border="1"> <tr><td>264</td><td>633</td></tr> <tr><td>1434</td><td>5</td></tr> <tr><td>287</td><td>389</td></tr> <tr><td>16</td><td>1492</td></tr> <tr><td>16</td><td>413</td></tr> </table> <p>2 Seal Beach Blvd/I-405NB Ramps</p>	264	633	1434	5	287	389	16	1492	16	413	<table border="1"> <tr><td>1605</td><td>619</td></tr> <tr><td>557</td><td>394</td></tr> <tr><td>1707</td><td>394</td></tr> </table> <p>3 Seal Beach Blvd/Lampson Av</p>	1605	619	557	394	1707	394	<table border="1"> <tr><td>79</td><td>19</td><td>5</td></tr> <tr><td>1513</td><td>38</td><td>38</td></tr> <tr><td>120</td><td>191</td><td>188</td></tr> <tr><td>2</td><td>396</td><td>1775</td></tr> <tr><td>436</td><td>1775</td><td>188</td></tr> </table> <p>4 Seal Beach Blvd/Saint Cloud Dr</p>	79	19	5	1513	38	38	120	191	188	2	396	1775	436	1775	188	<table border="1"> <tr><td>164</td><td>96</td></tr> <tr><td>1175</td><td>97</td></tr> <tr><td>101</td><td>189</td></tr> <tr><td>128</td><td>316</td></tr> <tr><td>91</td><td>1382</td></tr> <tr><td>266</td><td>118</td></tr> </table> <p>5 Seal Beach Blvd/Town Center Dr</p>	164	96	1175	97	101	189	128	316	91	1382	266	118		
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FIGURE 21

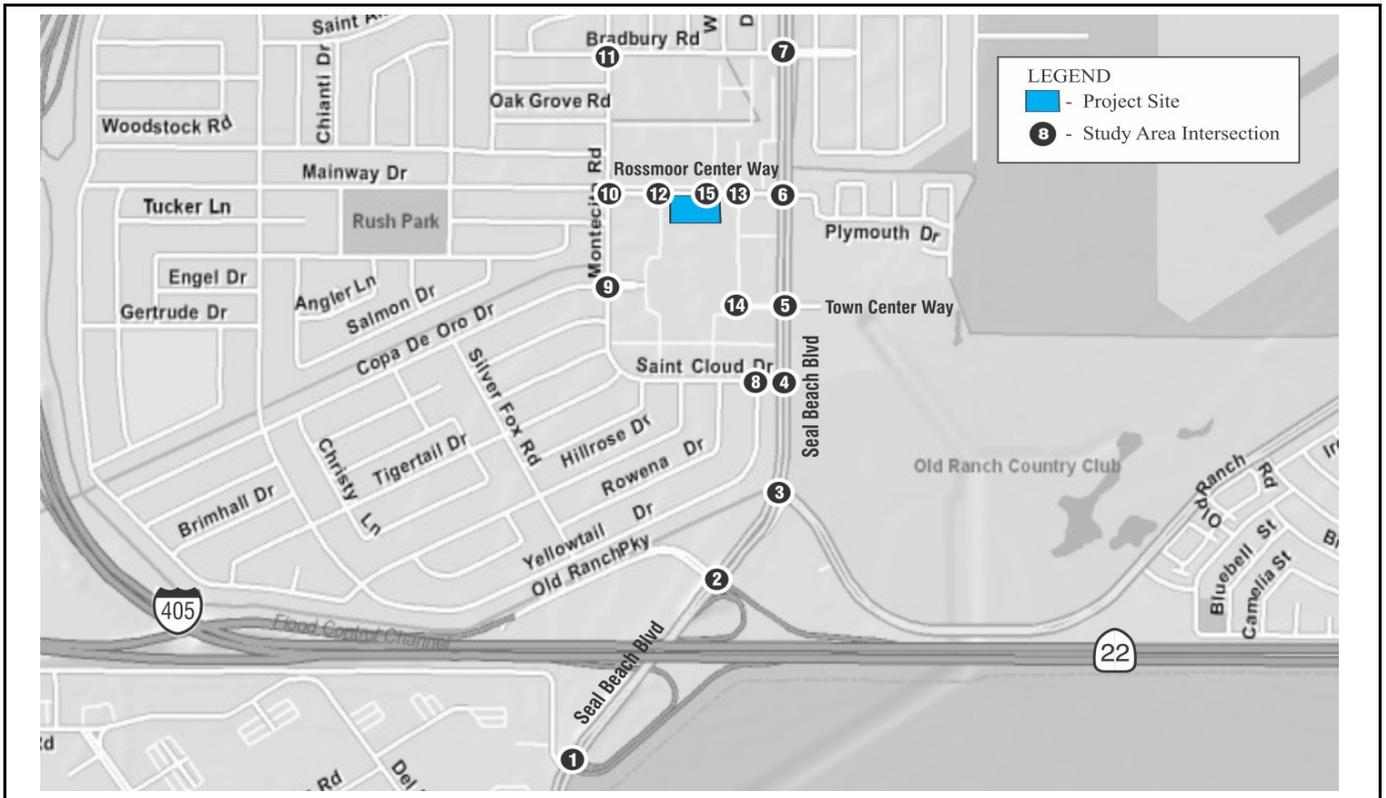
Legend

123

Saturday Volume

Health Club within The Shops at Rossmoor

Future (2035) General Plan Buildout with Full Occupancy Peak Hour Volumes (Saturday)



LEGEND

- Project Site
- 6 - Study Area Intersection

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<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%; border-right: 1px solid black; padding: 2px;">88 / 240 1562 / 1735 21 / 39</td><td style="width: 50%; padding: 2px;">43 / 18 11 / 1 19 / 16</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px;">95 / 225 8 / 1 96 / 167</td><td style="padding: 2px;">82 / 207 1761 / 1720 16 / 26</td></tr> </table> <p>6 Seal Beach Blvd/Rossmoor Center Wy</p>	88 / 240 1562 / 1735 21 / 39	43 / 18 11 / 1 19 / 16	95 / 225 8 / 1 96 / 167	82 / 207 1761 / 1720 16 / 26	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%; border-right: 1px solid black; padding: 2px;">185 / 191 1527 / 1900 30 / 26</td><td style="width: 50%; padding: 2px;">31 / 21 24 / 3 77 / 53</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px;">305 / 186 20 / 10 106 / 96</td><td style="padding: 2px;">160 / 142 1687 / 1710 28 / 62</td></tr> </table> <p>7 Seal Beach Blvd/Bradbury Rd</p>	185 / 191 1527 / 1900 30 / 26	31 / 21 24 / 3 77 / 53	305 / 186 20 / 10 106 / 96	160 / 142 1687 / 1710 28 / 62	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%; border-right: 1px solid black; padding: 2px;">663 / 488 4 / 8</td><td style="width: 50%; padding: 2px;">442 / 500 31 / 58</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px;">9 / 3 77 / 54</td><td style="padding: 2px;">118 / 73 184 / 237 2 / 4</td></tr> </table> <p>8 Yellowtail Dr/Saint Cloud Dr</p>	663 / 488 4 / 8	442 / 500 31 / 58	9 / 3 77 / 54	118 / 73 184 / 237 2 / 4	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%; border-right: 1px solid black; padding: 2px;">30 / 48 314 / 268 0 / 8</td><td style="width: 50%; padding: 2px;">1 / 11 4 / 6 2 / 3</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px;">59 / 33 8 / 5 138 / 51</td><td style="padding: 2px;">118 / 73 184 / 237 2 / 4</td></tr> </table> <p>9 Montecito Rd/Copa De Oro Dr</p>	30 / 48 314 / 268 0 / 8	1 / 11 4 / 6 2 / 3	59 / 33 8 / 5 138 / 51	118 / 73 184 / 237 2 / 4	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%; border-right: 1px solid black; padding: 2px;">71 / 44 222 / 198 27 / 50</td><td style="width: 50%; padding: 2px;">35 / 80 47 / 45 15 / 41</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px;">106 / 46 68 / 40 96 / 60</td><td style="padding: 2px;">43 / 33 198 / 144 24 / 31</td></tr> </table> <p>10 Montecito Rd/Rossmoor Center Wy</p>	71 / 44 222 / 198 27 / 50	35 / 80 47 / 45 15 / 41	106 / 46 68 / 40 96 / 60	43 / 33 198 / 144 24 / 31
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106 / 46 68 / 40 96 / 60	43 / 33 198 / 144 24 / 31																							
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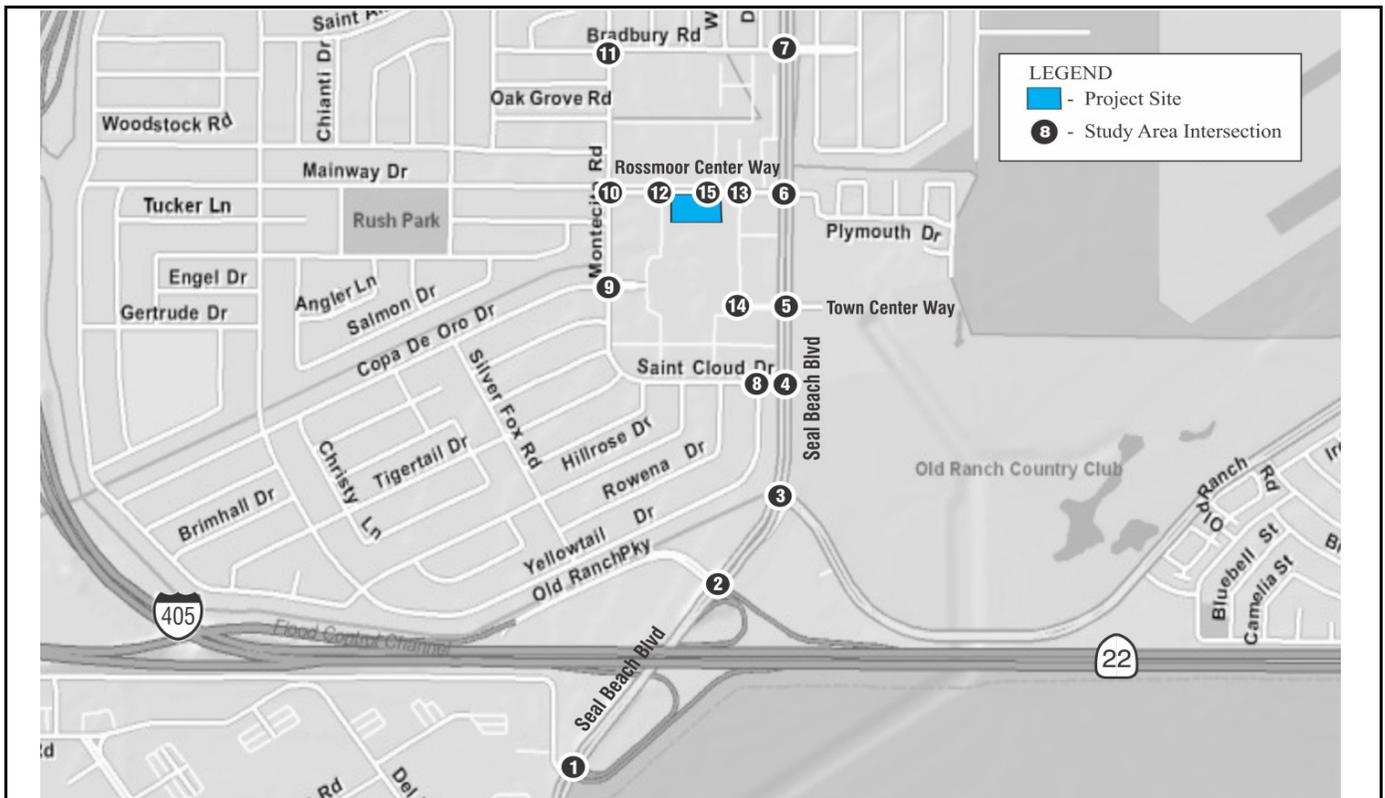
FIGURE 22

Legend

123 / 456 AM / PM Volume

Health Club within The Shops at Rossmoor

Future (2035) General Plan Buildout with Full Occupancy plus Project Peak Hour Volumes (AM/PM)



<p>1 Seal Beach Blvd/I-405 SB Ramps</p>	<p>2 Seal Beach Blvd/I-405NB Ramps</p>	<p>3 Seal Beach Blvd/Lampson Av</p>	<p>4 Seal Beach Blvd/Saint Cloud Dr</p>	<p>5 Seal Beach Blvd/Town Center Dr</p>
<p>6 Seal Beach Blvd/Rossmoor Center Wy</p>	<p>7 Seal Beach Blvd/Bradbury Rd</p>	<p>8 Yellowtail Dr/Saint Cloud Dr</p>	<p>9 Montecito Rd/Copa De Oro Dr</p>	<p>10 Montecito Rd/Rossmoor Center Wy</p>
<p>11 Montecito Rd/Bradbury Rd</p>	<p>12 West Rd/Rossmoor Center Wy</p>	<p>13 Internal Dwy/Rossmoor Center Wy</p>	<p>14 Internal Dwy/Town Center Dr</p>	<p>15 Project Dwy/Rossmoor Center Wy</p>

FIGURE 23

Legend

123 Saturday Volume Health Club within The Shops at Rossmoor
 Future (2035) General Plan Buildout with Full Occupancy plus Project Peak Hour Volumes (Saturday)

Table K: Future Buildout Year (2035) Peak Hour Intersection Level of Service Summary

Intersection		Future Buildout Year (2035)						Future Buildout Year (2035) + Project								
		AM		PM		Sat		AM			PM			Sat		
		ICU / Delay	LOS	ICU / Delay	LOS	ICU / Delay	LOS	ICU / Delay	LOS	Δ ICU	ICU / Delay	LOS	Δ ICU	ICU / Delay	LOS	Δ ICU
1	Seal Beach Boulevard/I-405 SB On/Off Ramps ¹	42.1	D	47.0	D	46.6	D	41.7	D	-	47.1	D	-	47.2	D	-
2	Seal Beach Boulevard/I-405 NB On/Off Ramps ¹	43.2	D	44.9	D	36.6	D	43.7	D	-	46.9	D	-	37.4	D	-
3	Seal Beach Boulevard/Lampson Avenue	0.809	D	0.848	D	0.799	D	0.813	D	0.004	0.855	D	0.007	0.806	D	0.007
4	Seal Beach Boulevard/Saint Cloud Drive	0.623	B	0.738	C	0.669	C	0.625	B	0.002	0.744	C	0.006	0.675	B	0.006
5	Seal Beach Boulevard/Town Center Drive	0.498	A	0.776	C	0.870	C	0.501	A	0.003	0.781	C	0.005	0.875	D	0.005
6	Seal Beach Boulevard/Rossmoor Center Way	0.544	A	0.713	C	0.713	C	0.559	A	0.015	0.753	C	0.040	0.744	C	0.031
7	Seal Beach Boulevard/Bradbury Road	0.766	C	0.730	C	0.680	C	0.769	C	0.003	0.736	C	0.006	0.684	B	0.004
8	Yellow Tail Drive/Saint Cloud Drive*	12.5	B	10.7	B	10.8	B	12.9	B	-	10.7	B	-	10.9	B	-
9	Montecito Road/Copa De Oro Drive*	10.4	B	9.3	A	8.8	A	10.4	B	-	9.3	A	-	8.8	A	-
10	Montecito Road/Rossmoor Center Way*	11.0	B	9.8	A	9.6	A	11.1	B	-	9.9	A	-	9.7	A	-
11	Montecito Road/Bradbury Road*	11.3	B	9.9	A	9.1	A	11.3	B	-	9.9	A	-	9.1	A	-
12	West Road/Rossmoor Center Way*	7.6	A	8.0	A	7.8	A	7.6	A	-	8.0	A	-	7.8	A	-
13	Internal Driveway/Rossmoor Center Way*	8.7	A	13.9	B	19.5	C	9.0	A	-	17.3	C	-	25.0	C	-
14	Internal Driveway/Town Center Drive*	7.7	A	11.4	B	17.9	C	7.7	A	-	11.4	B	-	17.9	C	-
15	Project Driveway/Rossmoor Center Way*	8.9	A	9.1	A	9.3	A	9.0	A	-	9.3	A	-	9.4	A	-

ICU V/C ratio is used for signalized intersections in the City of Seal Beach.

* Indicates unsignalized intersection. HCM delay in seconds is used for unsignalized intersections.

■ (Shade) = Exceeds City level of service criteria (LOS D)

¹ HCM Methodology-consistent with Caltrans requirements

Table L: Future (2035) Buildout with Full Occupancy Peak Hour Roadway Level of Service Summary

Roadway	Segment	Direction	Future Buildout Year (2035)									Future Buildout Year (2035) + Project								
			AM			PM			Saturday Mid-day			AM			PM			Saturday Mid-day		
			Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS	Speed (mph)	Density	LOS
Seal Beach Boulevard	I-405 Northbound On/Off Ramps and Lampson Avenue	NB	45.0	14.4	B	45.0	18.5	C	45.0	15.7	B	45.0	14.5	B	45.0	18.7	C	45.0	15.8	B
		SB	45.0	19.3	C	45.0	17.4	B	45.0	14.8	B	45.0	19.4	C	45.0	17.6	B	45.0	14.9	B
	Lampson Avenue and Saint Cloud Drive	NB	45.0	16.9	B	45.0	17.9	B	45.0	17.4	B	45.0	17.0	B	45.0	18.1	C	45.0	17.5	B
		SB	45.0	16.3	B	45.0	18.2	C	45.0	15.9	B	45.0	16.4	B	45.0	18.4	C	45.0	16.1	B
	Saint Cloud Drive and Town Center Drive	NB	45.0	14.2	B	45.0	14.1	B	45.0	13.7	B	45.0	14.3	B	45.0	14.4	B	45.0	13.8	B
		SB	45.0	11.6	B	45.0	14.0	B	45.0	12.0	B	45.0	11.7	B	45.0	14.2	B	45.0	12.2	B
	Town Center Drive and Rossmoor Center Way	NB	45.0	13.6	B	45.0	13.6	B	45.0	12.7	B	45.0	13.7	B	45.0	13.9	B	45.0	12.8	B
		SB	45.0	12.1	B	45.0	13.3	B	45.0	11.7	B	45.0	12.2	B	45.0	13.5	B	45.0	11.9	B
	Rossmoor Center Way and Bradbury Road	NB	45.0	13.9	B	45.0	14.2	B	45.0	13.0	B	45.0	14.0	B	45.0	14.4	B	45.0	13.2	B
		SB	45.0	12.4	B	45.0	14.8	B	45.0	13.5	B	45.0	12.5	B	45.0	15.0	B	45.0	13.6	B
Bradbury Road and Rossmoor Way	NB	45.0	15.7	B	45.0	14.2	B	45.0	13.3	B	45.0	15.7	B	45.0	14.4	B	45.0	13.5	B	
	SB	45.0	13.0	B	45.0	16.0	B	45.0	13.4	B	45.0	13.1	B	45.0	16.3	B	45.0	13.5	B	
Saint Cloud Drive*	Seal Beach Boulevard and Yellowtail Drive		25.5	-	C	26.5	-	C	26.7	-	C	25.5	-	C	26.5	-	C	26.7	-	C
Montecito Road*	Yellowtail Drive and Copa De Oro Drive		27.8	-	C	29.1	-	B	29.1	-	B	27.8	-	C	29.0	-	B	29.1	-	B
	Copa De Oro Drive and Mainway Drive		30.3	-	B	30.7	-	A	31.0	-	A	30.4	-	B	30.7	-	A	31.0	-	A
	Mainway Drive and Bradbury Road		29.8	-	B	30.7	-	A	31.4	-	A	29.7	-	B	30.7	-	A	31.4	-	A
Rossmoor Center Way**	Montecito Road and Seal Beach Boulevard		27.8	-	A	26.1	-	A	25.7	-	A	27.6	-	A	25.5	-	A	25.3	-	B

NB = Northbound, SB = Southbound

* Analyzed as Two Lane Roadways with a speed limit of 35 MPH

** Analyzed as Two Lane Roadway with a speed limit of 30 MPH

Site Adjacent Driveways and Circulation (Rossmoor Park)

Based on the intersection and roadway analysis and observations made by LSA staff, the section of Rossmoor Center Way adjacent to the project site between Montecito Road and the internal driveways into Pei Wei and Sprouts operate at desirable levels of traffic. The amount of traffic on this segment of Rossmoor Center Way is lower than the segment of Rossmoor Center Way just west of Seal Beach Boulevard. Specifically, 2,620 vehicles were counted in a 24 hour period on Tuesday, October 18, 2016 on Rossmoor Center Way between Montecito Road and the Sprouts and Pei Wei driveways while 8,267 vehicles were counted in the same period on Rossmoor Center Way between the Sprouts and Pei Wei driveways and Seal Beach Boulevard. In an effort to provide perspective on what these volumes mean for traffic, the City considers 12,500 vehicles per day to be the capacity for a two-lane undivided roadway like the segment of Rossmoor Center Way between Montecito Road and the Sprouts and Pei Wei driveways.

Additionally, weekday a.m., p.m., and weekend mid-day peak hour counts at the unsignalized Rossmoor Park outbound only driveway to the north of the site revealed a maximum of 46 peak hour vehicles leaving the residences during any peak hour. This translates to approximately 1 vehicle leaving the Rossmoor Park residential development every 78 seconds during the weekday p.m. peak hour. Combined with the daily volumes counted on Rossmoor Center Way directly in front of this driveway, which are within the 12,500 vehicles per day capacity, the operations at this location and along this segment are considered acceptable and would not result in unacceptable interruptions in vehicular movements because of traffic.

It needs to be clarified that this does not apply to the segment of Rossmoor Center Way between the Sprouts and Pei Wei driveways and Seal Beach Boulevard which see more than three times the daily traffic of the segment discussed above. Further analysis of the segment of Rossmoor Center Way between the Sprouts and Pei Wei driveways and Seal Beach Boulevard and the overall traffic operations at the intersection of Seal Beach Boulevard and Rossmoor Center Way are the focus of the following analysis.

Rossmoor Center Way and Shops at Rossmoor Access and Circulation

As part of the site access assessment, existing and potential turn-pocket queuing issues at site access points and site-adjacent intersections were analyzed using the SimTraffic (Version 9.1) software. SimTraffic is analysis software that provides a microscopic model that more accurately simulates real world conditions as compared to macroscopic analysis tools such as Traffix. SimTraffic tracks and collects measures of effectiveness for each vehicle in a traffic system during a simulation. Due to variability that arises from simulations of this nature, multiple simulation runs for each analysis scenario have been averaged in order to draw representative queuing results. This method more accurately measures the full impact of queuing and blocking of traffic.

Table M shows queuing results for Existing (2016) with Full Occupancy without and with Project traffic conditions and indicates all existing peak-hour queues at site access points and site-adjacent intersections are anticipated to be sufficiently stored by existing facilities with the exception of the northbound left-turn pocket at the intersection of Seal Beach Boulevard and Rossmoor Center Way. The existing weekday p.m. and weekend midday 95th percentile peak-hour queues extend past the storage provided by the existing northbound left-turn pocket. The northbound left-turn pocket

Table M: Site Access Queuing Summary

Intersection	Movement	Storage Length	95th Percentile Queue (ft)		
			AM	PM	Sat Mid-day
Existing (2016) with Full Occupancy					
Existing Signal Timing					
6 Seal Beach Boulevard/Rossmoor Center Way	NBL	105	103	190	168
	EBL	230	113	213	185
	EBTR	230	78	81	87
13 Internal Driveway/Rossmoor Center Way	EBLT	190	51	48	56
	EBTR	190	51	50	52
	WBLTR	230	89	165	156
Existing (2016) with Full Occupancy plus Project					
Existing Signal Timing					
6 Seal Beach Boulevard/Rossmoor Center Way	NBL	250	107	198	176
	EBL	230	128	240	200
	EBTR	230	82	96	103
13 Internal Driveway/Rossmoor Center Way	EBLT	190	50	56	53
	EBTR	190	49	53	59
	WBLTR	230	96	200	172
Rossmoor Center Way Reconfiguration (Two Westbound Lanes, One Eastbound Lane and Dedicated Right-Turn Lane)					
6 Seal Beach Boulevard/Rossmoor Center Way	NBL	250	115	224	210
	EBLT	230	121	231	223
	EBR	150	58	168	168
13 Internal Driveway/Rossmoor Center Way	EBLTR	190	58	73	80
	WBLT	230	77	180	145
	WBR	230	55	58	64
Addition of Right-In Only Driveway on Seal Beach Boulevard					
13 Internal Driveway/Rossmoor Center Way	EBLT	190	50	50	55
	EBTR	190	50	50	56
	WBLTR	230	85	189	164

Storage Length = Storage length as measured from stop bar to the end of lane striping, ft = feet, NB = northbound, EB = eastbound, L = left, T = through, R = right

■ (Shade) = Exceeds existing storage length

currently provides 105 feet of storage with a 100-foot transition. However, as Table M shows, a potential queue of 190 feet (without the project) during the weekday p.m. peak hour could spill back into the adjacent through lane.

Because this northbound left-turn lane will be improved by the project applicant concurrent with project implementation, the added project traffic to this queue is not anticipated to spill back into the adjacent through lane. The addition of traffic associated with the project to this movement is anticipated to result in a 95th percentile queue of 198 feet during the weekday p.m. peak hour. It should be noted that anticipated queue lengths are not directly correlated to their associated volumes as queuing for a given movement is also dependent on traffic signal operations.

This existing queuing issue is anticipated to continue into future analysis scenarios if the northbound left-turn pocket is not lengthened. All other site access points and site-adjacent intersections are anticipated to be sufficiently served by existing facilities. SimTraffic queuing worksheets for both Existing (2016) with Full Occupancy without and with Project conditions are provided in Appendix E.

Eastbound and westbound queues on the segment of Rossmoor Center Way between the internal driveway and Seal Beach Boulevard are shown as adequately accommodated in Table M for both Existing (2016) with Full Occupancy without and with Project conditions. However, field observations and experience with this segment reveal that vehicles on occasion fill up the 230 feet between the driveways to the Shops at Rossmoor and Seal Beach Boulevard. The lack of overflow shown in the analysis may be a function of vehicles staying in the upstream northbound left and southbound right movements on Seal Beach Boulevard in order to avoid illegally blocking the intersection. The queues in Table M show that anticipated inbound queues reach 200 feet in the weekday p.m. peak hour, a length that is less than 40 feet from filling up the entire available inbound lane. The operations of this segment of Rossmoor Center Way affect the upstream northbound left-turn queues, which have been identified in Table M as exceeding the currently available storage in without project conditions.

PROJECT OFF-SITE IMPROVEMENTS

As part of the proposed project, two off-site improvements to access facilities will be implemented. These include the lengthening of the northbound left-turn pocket at the intersection of Seal Beach Boulevard and Rossmoor Center Way to 250 feet and the widening of Rossmoor Center Way between the internal driveway and Seal Beach Boulevard. At the community's request, an optional improvement was evaluated to include the construction of an additional inbound-only driveway on Seal Beach Boulevard south of Rossmoor Center Way. This section provides details on these project off-site improvements.

Northbound Left-Turn Pocket Lengthening

The northbound left-turn movement is currently experiencing queues that could extend past the existing left-turn pocket during periods of peak demand. The provision of dual left-turn lanes is one possible solution to long queues. However, if an unequal utilization of the left-turn lanes were probable, the effectiveness of providing two lanes would be greatly diminished. In addition, right-of-

way may be necessary to implement dual left-turn lanes. In these circumstances, extending the queue available to the single lane may be a better option. As previously referenced Table M shows, the northbound left-turn pocket would require a storage length of approximately 190 feet (an extension of 85 feet) to accommodate Existing (2016) with Full Occupancy peak-hour queues and a storage length of approximately 198 feet (an extension of 93 feet) to accommodate Existing (2016) with Full Occupancy plus Project peak-hour queues. As illustrated in Figure 24, the existing landscaped median along Seal Beach Boulevard would require modification and possibly vacation in order to provide the recommended storage length. As shown in Figure 24, a storage length of 250 feet (an extension of 145 feet) would not reduce the existing 100-foot southbound left-turn pocket providing access to the adjacent Target shopping center, but may create a situation where the two adjacent left-turn pockets would effectively be “back to back.”

As shown in Table N, the proposed project’s contribution to this existing and future queuing deficiency is at most, 17 percent during any peak hour under Existing (2016) with Full Occupancy plus Project conditions.

Table N: Project Traffic Contribution

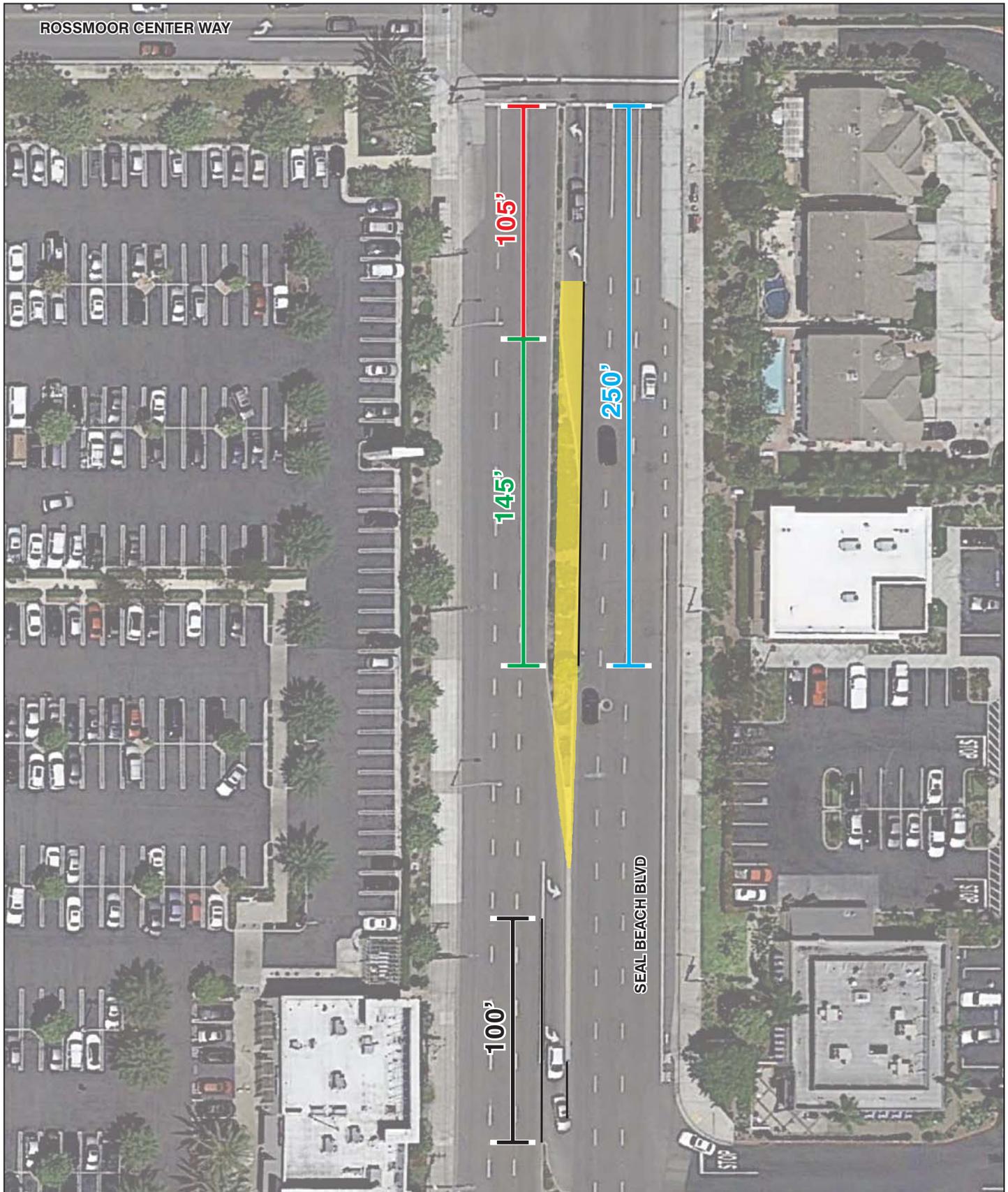
Intersection		Peak Hour	2016 FO+P NB Left-Turn Volume	Project NB Left-Turn Volume	Project % of NB Left-Turn Volume
6	Seal Beach Boulevard/Rossmoor Center Way	AM	76	11	14%
		PM	192	33	17%
		Saturday	224	21	9%

Bold = Highest peak-hour project percentage; NB = northbound; FO+P = Full Occupancy Plus Project

Reconfiguration of Rossmoor Center Way (Two Westbound Lanes and One Eastbound Lane plus Dedicated Right-Turn Lane)

As illustrated on Figure 25, an improvement to reduce the westbound queuing on Rossmoor Center Way between the internal driveway and Seal Beach Boulevard is to increase the capacity for vehicles entering the project site at Rossmoor Center Way/Seal Beach Boulevard. Providing two inbound lanes (460 feet) would increase the storage for incoming vehicles and reduce the chance that vehicles would back out onto Seal Beach Boulevard. As shown in previously referenced Table M, the addition of a second westbound lane along Rossmoor Center Way will reduce westbound (inbound) queue lengths to approximately 180 feet (from 200 feet) in the new westbound shared left-turn/through lane and approximately 64 feet in the new westbound right-turn lane. This would mean that the total queue in both lanes, 244 feet, would fit within the total capacity of both lanes (460 feet). However, the restriction of the eastbound lanes along Rossmoor Center Way is anticipated to lengthen eastbound (outbound) queues.

The constraint of this improvement is that the two outbound lanes, which provide 460 feet of storage (230 feet in each lane; from Sprouts/Pei Wei to Seal Beach Boulevard), would be reduced to 1 lane and a dedicated right-turn lane (approximately 380 feet of storage, 230 feet in the shared through left-turn lane and 150 feet in the right-turn lane).



L S A



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FEET

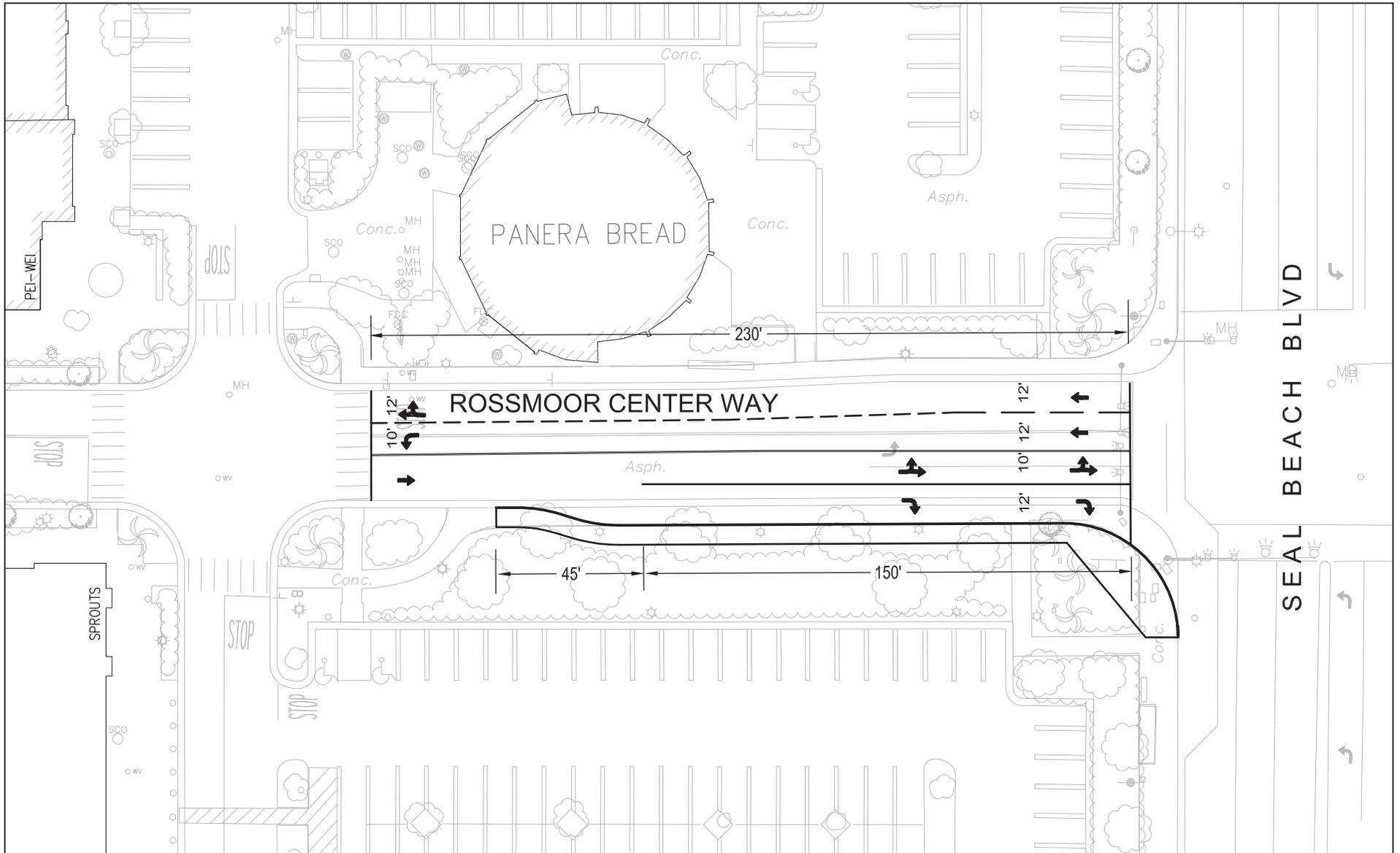
SOURCE: Google Earth

LEGEND

- Recommended Turn Pocket Extension
- Existing Turn Pocket Storage
- Recommended Turn Pocket Storage
- Recommended Extension

FIGURE 24

Health Club within The Shops at Rossmoor
Recommended Turn Pocket Extension



LSA



FIGURE 25

Health Club within The Shops at Rossmoor
 Rossmoor Center Way Reconfiguration Alternative

As Table M shows, the eastbound (outbound) queues at the intersection of Seal Beach Boulevard and Rossmoor Center Way would be approximately 231 feet (from 240 feet) in the eastbound shared left-turn/through lane and approximately 168 feet (from 96 feet) in the eastbound right-turn lane. The traffic and queuing analysis describes how vehicles on occasion back up past the internal intersection due to the queue of vehicles waiting for the green light at Rossmoor Center Way/Seal Beach Boulevard. Based on our observations, the majority of vehicles turn left at the intersection.

Optional Improvement - Addition of Right-In Only Driveway on Seal Beach Boulevard

Based on community input, an alternative to improving the westbound queuing on the segment of Rossmoor Center Way was evaluated. An additional access point into the retail center would decrease the number of vehicles using this segment. This alternative proposes an inbound only driveway south of Rossmoor Center Way near the existing Subway restaurant, as illustrated on Figure 26. This improvement was evaluated as an alternative to the Rossmoor Center Way improvements discussed above.

Southbound vehicles attempting to reach the Sprouts side of the retail center would most likely use this access point. These vehicles have been singled out as they would be the most likely vehicles entering the retail center to benefit from an additional entry point as southbound vehicles attempting to reach the Pei Wei side of the retail center would most likely make a southbound right at the unsignalized driveway near the California Pizza Kitchen. Northbound left-turning vehicles would be less likely to benefit from an additional entry point to the retail center as there is already an unsignalized driveway into the retail center near the California Pizza Kitchen.

For the purposes of this analysis, half of the southbound right-turning vehicles that would ultimately make a westbound left into the Sprouts side of the retail center are thought to potentially utilize this driveway. The number of southbound right-turning vehicles that would ultimately make a westbound left into the Sprouts side of the retail center was calculated by multiplying the proportion of inbound vehicles making a left into Sprouts of all inbound vehicles by the number of southbound right-turning vehicles. This number was then divided in half in order to arrive at the number of vehicles that would utilize the new inbound only driveway. As shown on Figure 26, 15 weekday a.m., 46 weekday p.m., and 58 weekend midday peak-hour vehicles are anticipated to utilize this new inbound driveway.

As previously referenced Table M shows, this new driveway is anticipated to reduce the westbound queue on Rossmoor Center Way to 189 feet (from 200 feet) in the weekday p.m. peak-hour and 164 feet (from 172 feet) in the weekend midday peak-hour.

It should be noted that this SimTraffic analysis cannot take into account the number of additional southbound right-turning vehicles that may be diverted to the new entry to the south due to instances of peak congestion. The assumption of half of these southbound right-turning vehicles into Sprouts was arrived at based on anticipated travel patterns and does not take into consideration atypical traffic conditions of inbound vehicles while traveling southbound on Seal Beach Boulevard. Passing instances where the westbound queue on Rossmoor Center Way may be full may incentivize a larger proportion of such southbound right-turning vehicles to utilize the proposed inbound driveway to the south. All SimTraffic site access queuing worksheets and arterial coordination worksheets are included in Appendix E.

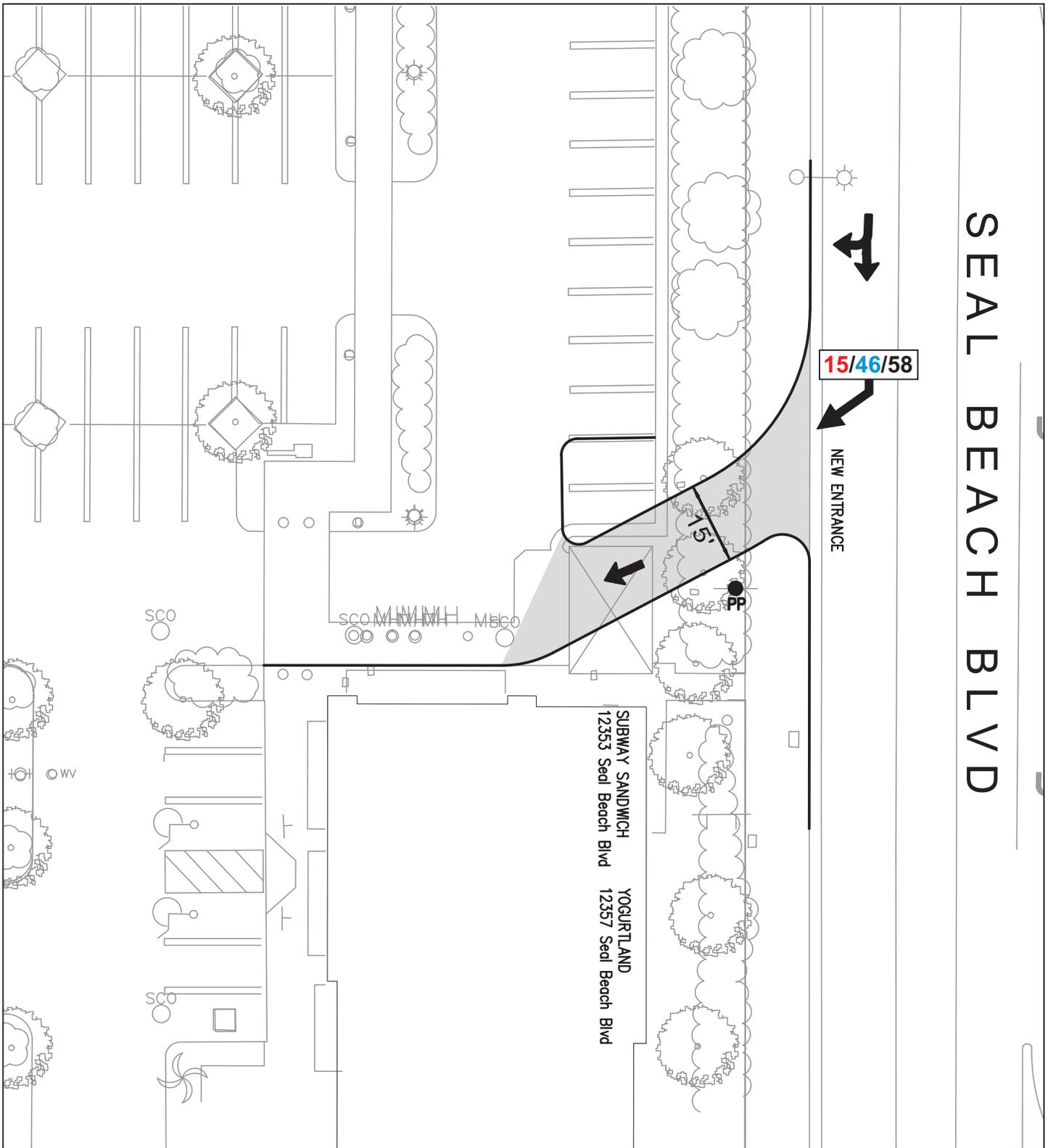


FIGURE 26

LSA

LEGEND

XX/YY/ZZ - Morning/Afternoon/Saturday Peak Hour Trips



Based on the analysis described above, either off-site improvement alternative is anticipated to improve vehicular access to both the project site and the Shops at Rossmoor. However, upon discussions with City staff and the City's transportation consultant, further investigation of the feasibility of the alternative improvement was conducted. The City required a 120-foot deceleration lane on Seal Beach Boulevard in order to allow the new driveway. This investigation revealed the following challenges of implementing the new driveway and right-in only lane:

- Adding a deceleration lane could pose considerable conflicts with existing public utilities which would render this option financially infeasible;
- A new driveway would result in a reduction of onsite parking spaces;
- Several of the operating tenants will have to grant their approval for the design;
- The utilization of the new driveway is less than 50 inbound peak hour vehicles.

Due to these challenges associated with the Seal Beach Boulevard driveway and right-in only improvement, this alternative was not considered feasible. The Rossmoor Center Way widening alternative is considered to be the feasible and thus preferred improvement alternative.

CONCLUSIONS

This traffic/circulation analysis was prepared for a study area along Seal Beach Boulevard north of I-405 in order to identify any potential traffic impacts resulting from the development of the proposed health club within the Shops at Rossmoor. The study included analysis of intersections and roadway segments along Seal Beach Boulevard and local access roads adjacent to the proposed project.

The LOS at 15 intersections and 11 roadway segments within the study area for 7 scenarios were analyzed and physical and/or operational improvements were not recommended, as all facilities were found to meet the City's LOS standards.

A queuing analysis of site-access points and site-adjacent intersections found that all peak-hour queues are anticipated to be sufficiently stored by existing facilities with the exception of the northbound left-turn pocket at the intersection of Seal Beach Boulevard and Rossmoor Center Way. The extension of the existing northbound left-turn pocket from 105 feet to 250 feet by the project applicant is anticipated to alleviate this existing and anticipated queuing deficiency. Additionally, project off-site improvements to access facilities will include the widening of Rossmoor Center Way between the internal driveway and Seal Beach Boulevard. At the community's request, an optional improvement was evaluated for the construction of an additional inbound-only driveway and right turn deceleration lane on Seal Beach Boulevard south of Rossmoor Center Way. This improvement, however, was determined to be infeasible based on several factors. The proposed Rossmoor Center Way improvement, in conjunction with the extension of the northbound left-turn pocket at the intersection of Seal Beach Boulevard and Rossmoor Center Way, will improve vehicular access to both the project site and the Shops at Rossmoor.

APPENDIX A

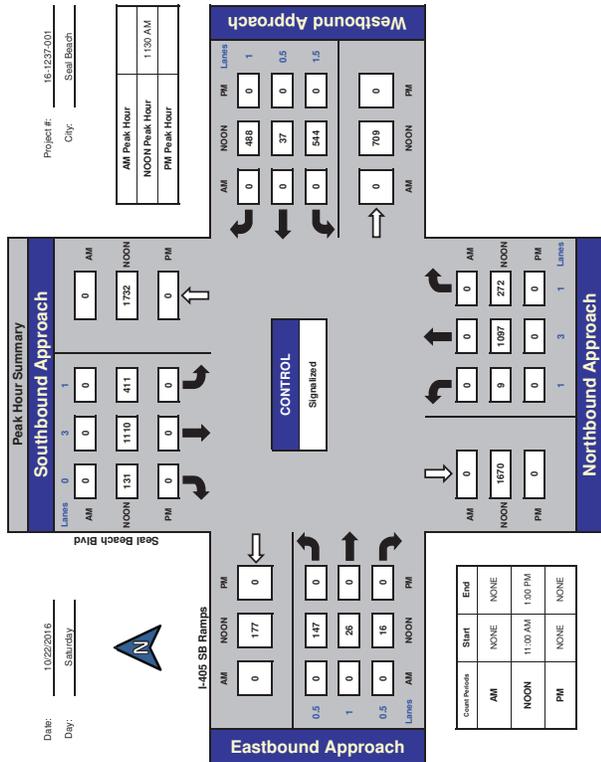
EXISTING TRAFFIC COUNTS

ITM Peak Hour Summary

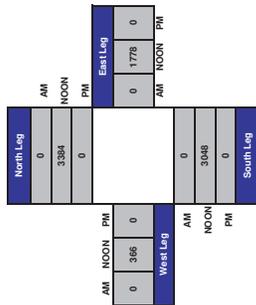
Prepared by: **NDS**

National Data & Surveying Services

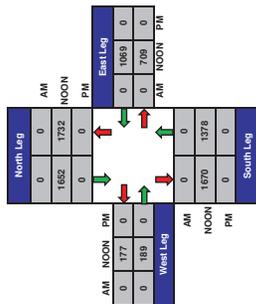
Seal Beach Blvd and I-405 SB Ramps - Seal Beach



Total Volume Per Leg



Total Ins & Outs

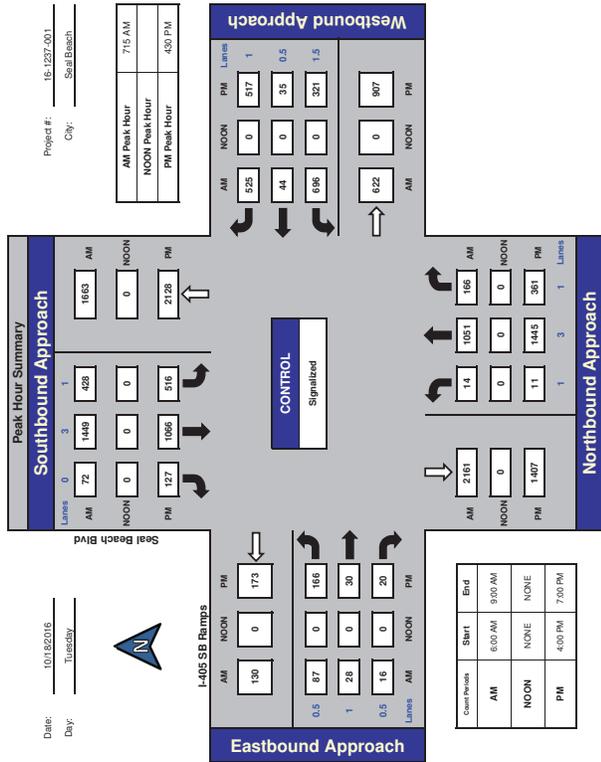


ITM Peak Hour Summary

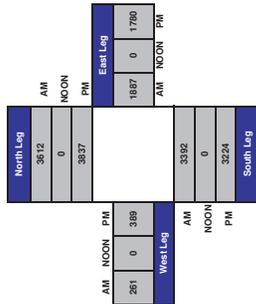
Prepared by: **NDS**

National Data & Surveying Services

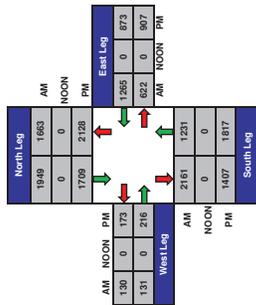
Seal Beach Blvd and I-405 SB Ramps - Seal Beach



Total Volume Per Leg



Total Ins & Outs



ITM Peak Hour Summary

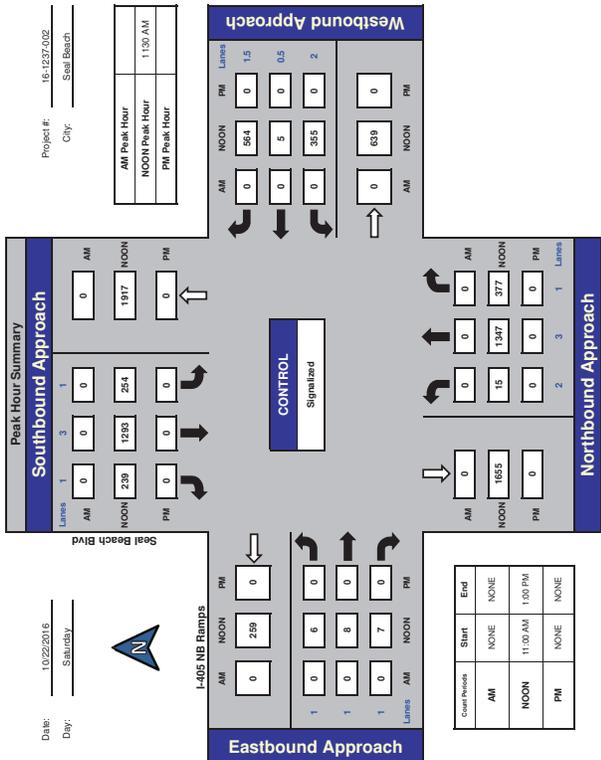
Prepared by: **NDS**

National Data & Surveying Services

Seal Beach Blvd and I-405 NB Ramps - Seal Beach

Date: 10/22/2016
Day: Saturday

Project #: 15-1237-002
City: Seal Beach



Total Volume Per Leg

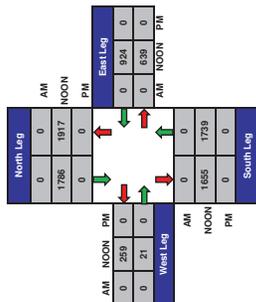
North Leg	AM	NOON	PM
0	3703	0	0

West Leg	AM	NOON	PM
0	260	0	0

East Leg	AM	NOON	PM
0	1563	0	0

South Leg	AM	NOON	PM
0	3394	0	0

Total Ins & Outs



ITM Peak Hour Summary

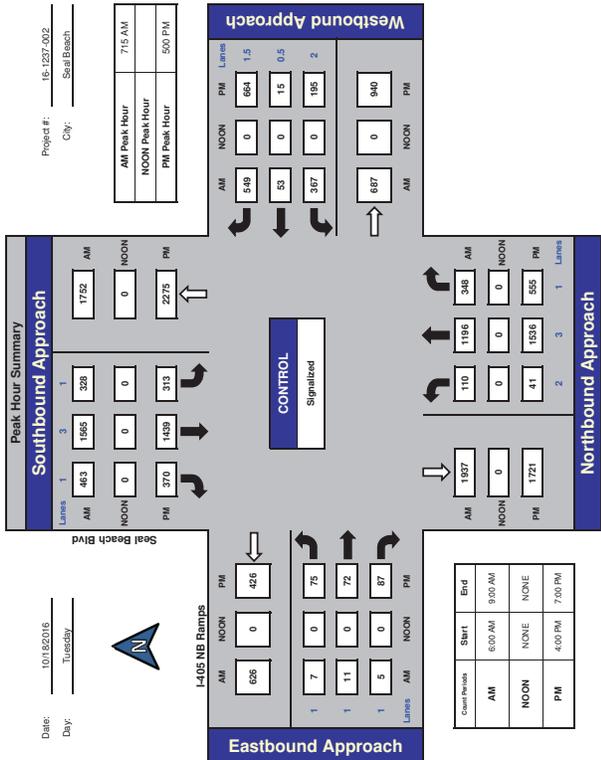
Prepared by: **NDS**

National Data & Surveying Services

Seal Beach Blvd and I-405 NB Ramps - Seal Beach

Date: 10/18/2016
Day: Tuesday

Project #: 15-1237-002
City: Seal Beach



Total Volume Per Leg

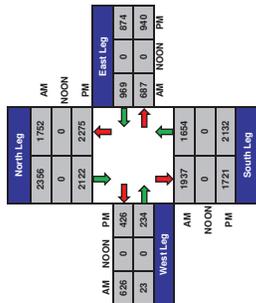
North Leg	AM	NOON	PM
4108	0	4397	0

West Leg	AM	NOON	PM
649	0	660	0

East Leg	AM	NOON	PM
1656	0	1814	0

South Leg	AM	NOON	PM
3591	0	3853	0

Total Ins & Outs



ITM Peak Hour Summary

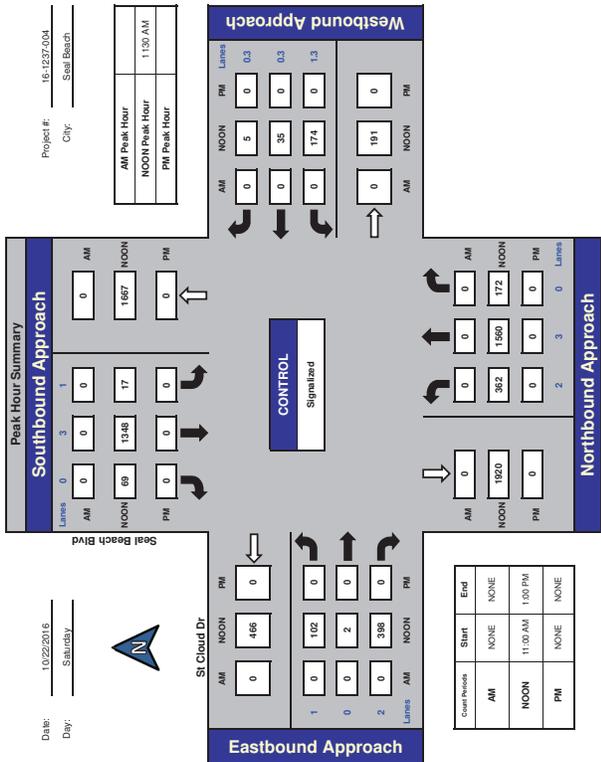
Prepared by: **NDS**

National Data & Surveying Services

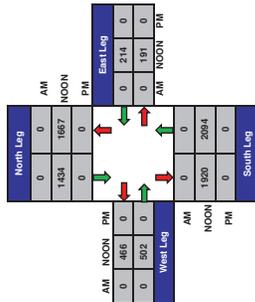
Seal Beach Blvd and St Cloud Dr. Seal Beach

Date: 10/22/2016
Day: Saturday

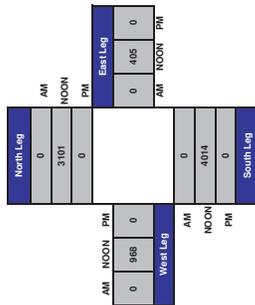
Project #: 15-1237-004
City: Seal Beach



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

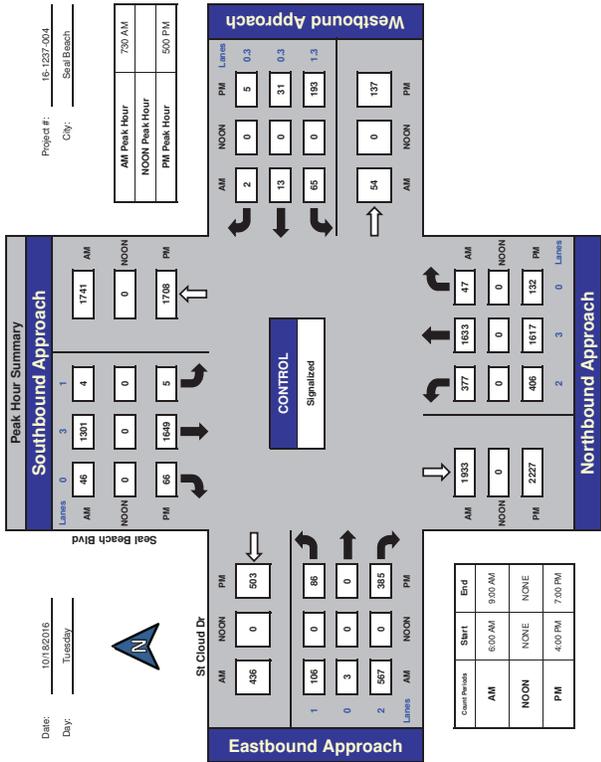
Prepared by: **NDS**

National Data & Surveying Services

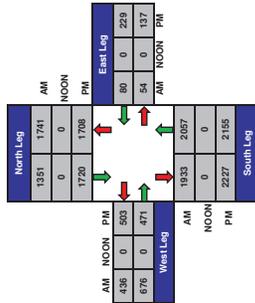
Seal Beach Blvd and St Cloud Dr. Seal Beach

Date: 10/18/2016
Day: Tuesday

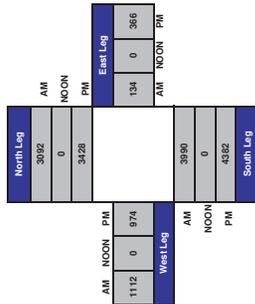
Project #: 15-1237-004
City: Seal Beach



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

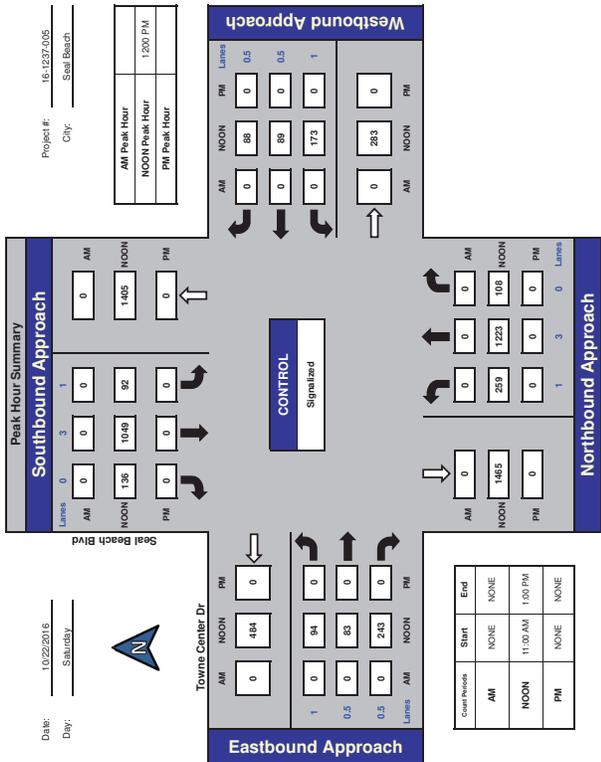
Prepared by: **NDS**

National Data & Surveying Services

Seal Beach Blvd and Towne Center Dr., Seal Beach

Date: 10/22/2016
Day: Saturday

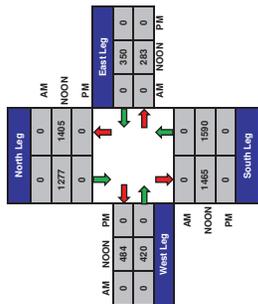
Project #: 16-1237-005
City: Seal Beach



Total Volume Per Leg

North Leg	AM	NOON	PM
0	2682	0	0
East Leg	AM	NOON	PM
0	633	0	0
West Leg	AM	NOON	PM
0	904	0	0
South Leg	AM	NOON	PM
0	3055	0	0

Total Ins & Outs



ITM Peak Hour Summary

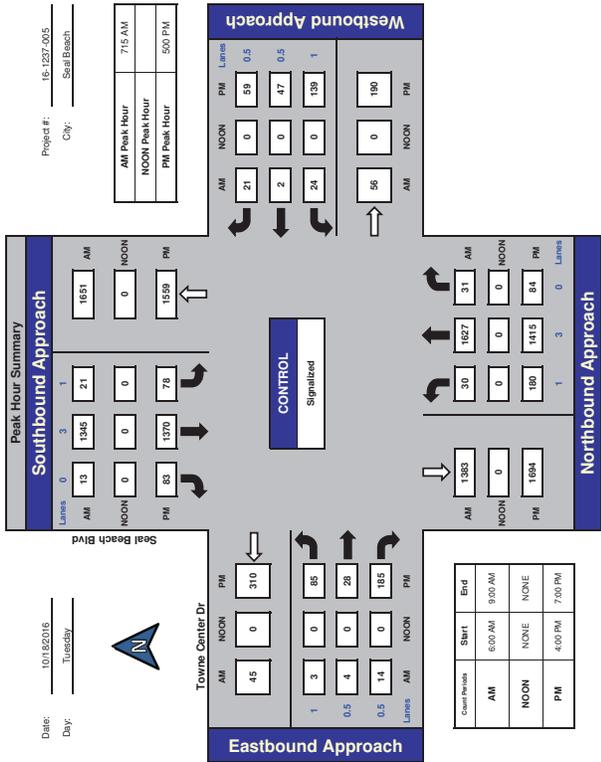
Prepared by: **NDS**

National Data & Surveying Services

Seal Beach Blvd and Towne Center Dr., Seal Beach

Date: 10/18/2016
Day: Tuesday

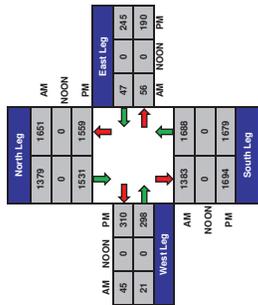
Project #: 16-1237-005
City: Seal Beach



Total Volume Per Leg

North Leg	AM	NOON	PM
3939	0	3090	0
East Leg	AM	NOON	PM
0	103	0	435
West Leg	AM	NOON	PM
66	0	608	0
South Leg	AM	NOON	PM
3971	0	3372	0

Total Ins & Outs



ITM Peak Hour Summary

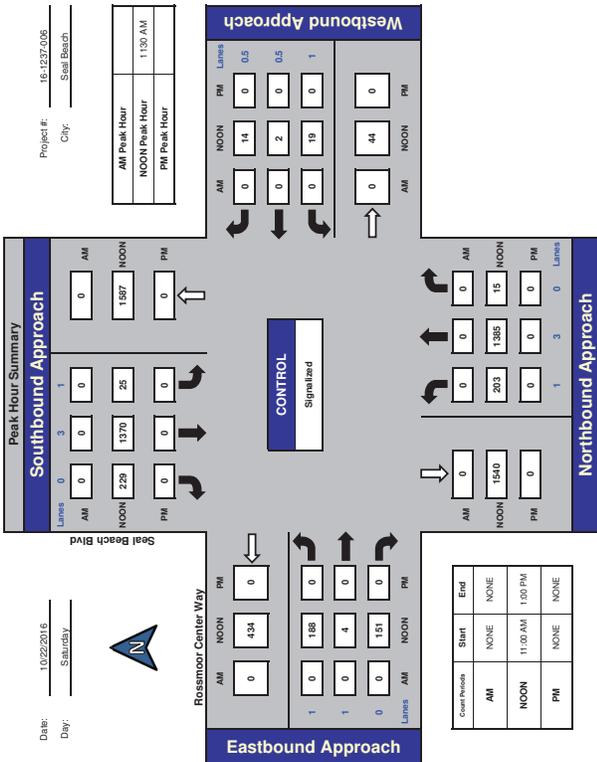
Prepared by: **NDS**

National Data & Surveying Services

Seal Beach Blvd and Rossmore Center Way - Seal Beach

Date: 10/22/2016
Day: Saturday

Project #: 15-1237-006
City: Seal Beach



AM Peak Hour	NOON Peak Hour	PM Peak Hour
0	0	0
1370	229	0
0	0	0

AM Peak Hour	NOON Peak Hour	PM Peak Hour
0	0	0
1507	1907	0
0	0	0

Total Volume Per Leg

North Leg	AM	NOON	PM
0	0	0	0
3211	0	0	0
0	0	0	0

Total Ins & Outs

North Leg	AM	NOON	PM
0	1624	1587	0
0	0	0	0
0	0	0	0

ITM Peak Hour Summary

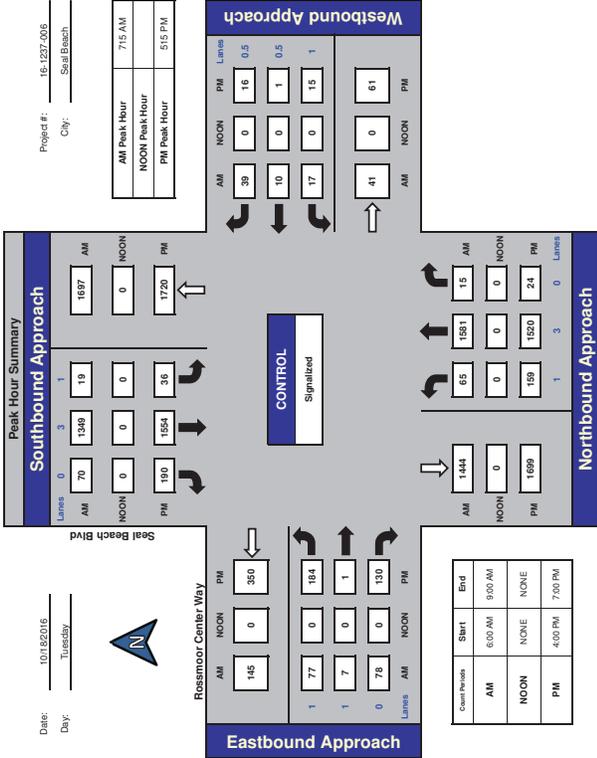
Prepared by: **NDS**

National Data & Surveying Services

Seal Beach Blvd and Rossmore Center Way - Seal Beach

Date: 10/18/2016
Day: Tuesday

Project #: 15-1237-006
City: Seal Beach



AM Peak Hour	NOON Peak Hour	PM Peak Hour
70	1349	19
0	0	0
1810	1554	36

AM Peak Hour	NOON Peak Hour	PM Peak Hour
1697	0	0
0	0	0
1720	0	0

Total Volume Per Leg

North Leg	AM	NOON	PM
3135	0	0	0
0	0	0	0
3500	0	0	0

Total Ins & Outs

North Leg	AM	NOON	PM
1438	1697	0	0
0	0	0	0
1780	1720	0	0

ITM Peak Hour Summary

Prepared by: **NDS**

National Data & Surveying Services

Seal Beach Blvd and Bradbury Rd., Seal Beach

Peak Hour Summary

Date: 10/22/2016
Day: Saturday

Project #: 15-1237-007
City: Seal Beach

Lanes	0	3	1
AM	0	0	0
NOON	120	1448	17
PM	0	0	0



Bradbury Rd

Lanes	1	3	0
AM	0	0	0
NOON	238	0	0
PM	0	0	0

Eastbound Approach

CONTROL
Signalized

Lanes	1	3	0
AM	0	0	0
NOON	12	0	1
PM	0	7	0

Westbound Approach

Count Period	Start	End
AM	NONE	NONE
NOON	11:00 AM	1:00 PM
PM	NONE	NONE

Northbound Approach

Lanes	1	3	0
AM	0	0	0
NOON	1627	111	1349
PM	0	0	0

AM Peak Hour	NOON Peak Hour	PM Peak Hour
7:15 AM	1:30 AM	5:00 PM

Lanes	1	3	0
AM	23	0	11
NOON	22	0	3
PM	70	0	48

Eastbound Approach

CONTROL
Signalized

Lanes	1	3	0
AM	1474	146	1593
NOON	0	0	0
PM	1812	130	1489

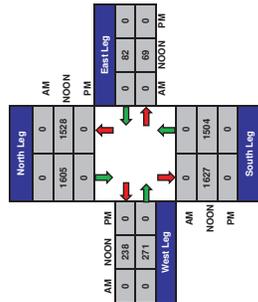
Northbound Approach

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

Total Volume Per Leg

North Leg	AM	NOON	PM
0	3133	0	0

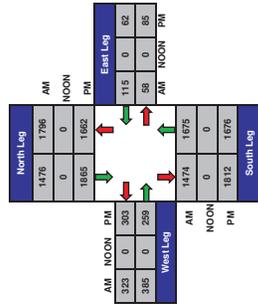
Total Ins & Outs



Total Volume Per Leg

North Leg	AM	NOON	PM
3272	0	3527	0

Total Ins & Outs



ITM Peak Hour Summary

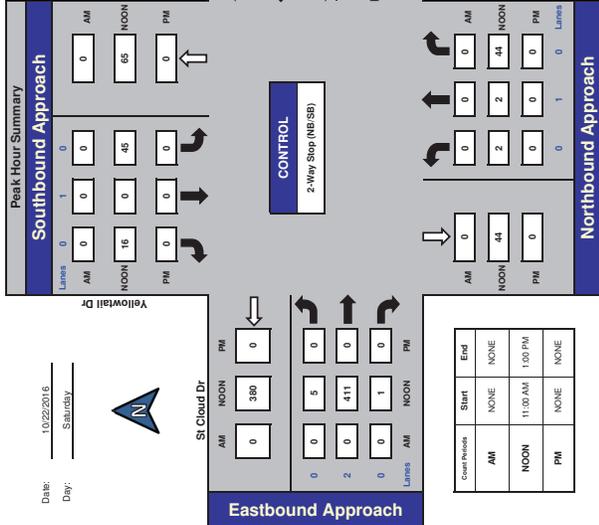
Prepared by: **NDS**

National Data & Surveying Services

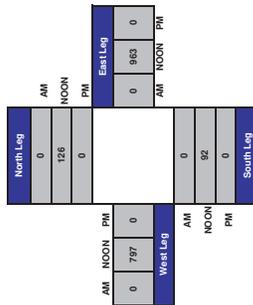
Yellowtail Dr and St Cloud Dr, Seal Beach

Date: 10/22/2016
Day: Saturday

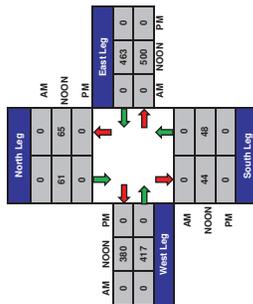
Project #: 15-1237-008
City: Seal Beach



Total Volume Per Leg



Total Ins & Outs



ITM Peak Hour Summary

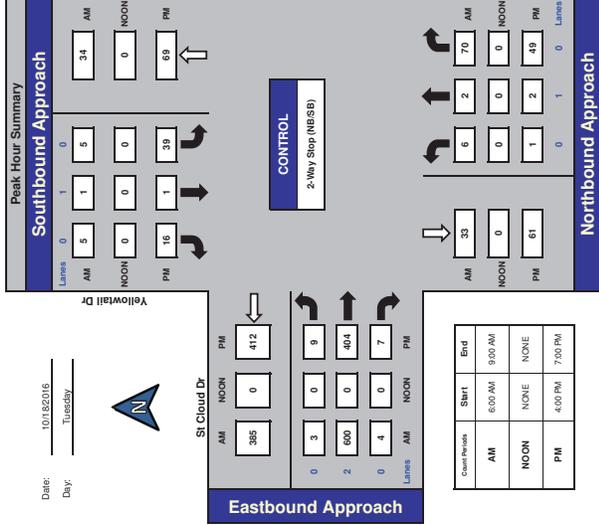
Prepared by: **NDS**

National Data & Surveying Services

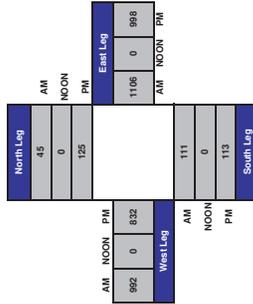
Yellowtail Dr and St Cloud Dr, Seal Beach

Date: 10/18/2016
Day: Tuesday

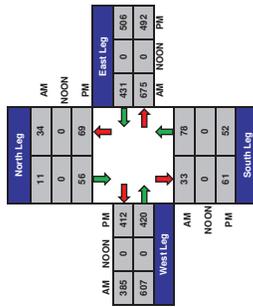
Project #: 15-1237-008
City: Seal Beach



Total Volume Per Leg



Total Ins & Outs



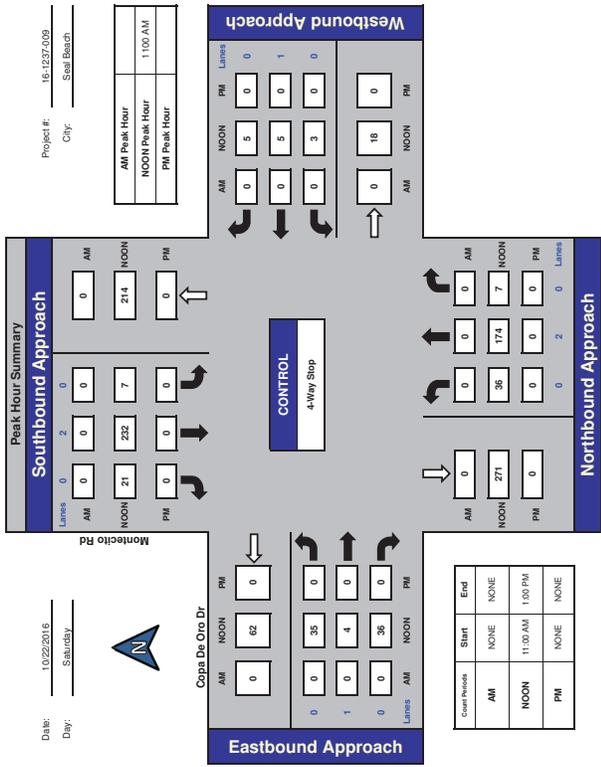
ITM Peak Hour Summary

Prepared by: **NDS**
National Data & Surveying Services

Montecito Rd and Copa De Oro Dr., Seal Beach

Date: 1/02/2016
Day: Saturday

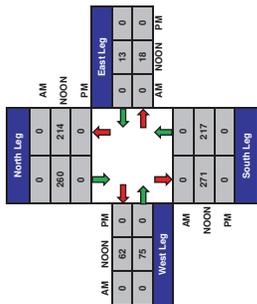
Project #: 15-1237-009
City: Seal Beach



Total Volume Per Leg

Leg	AM	NOON	PM
North Leg	0	0	0
East Leg	0	0	0
West Leg	0	137	0
South Leg	0	488	0

Total Ins & Outs



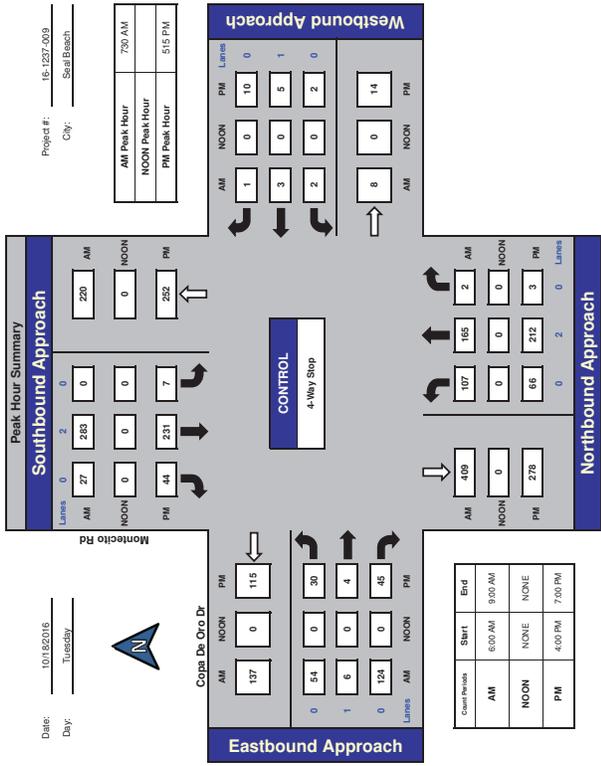
ITM Peak Hour Summary

Prepared by: **NDS**
National Data & Surveying Services

Montecito Rd and Copa De Oro Dr., Seal Beach

Date: 1/01/2016
Day: Tuesday

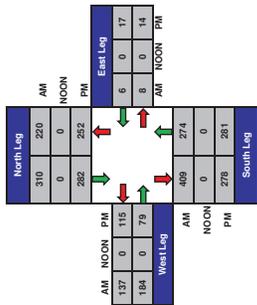
Project #: 15-1237-009
City: Seal Beach



Total Volume Per Leg

Leg	AM	NOON	PM
North Leg	530	0	534
East Leg	14	0	31
West Leg	321	0	194
South Leg	559	0	559

Total Ins & Outs



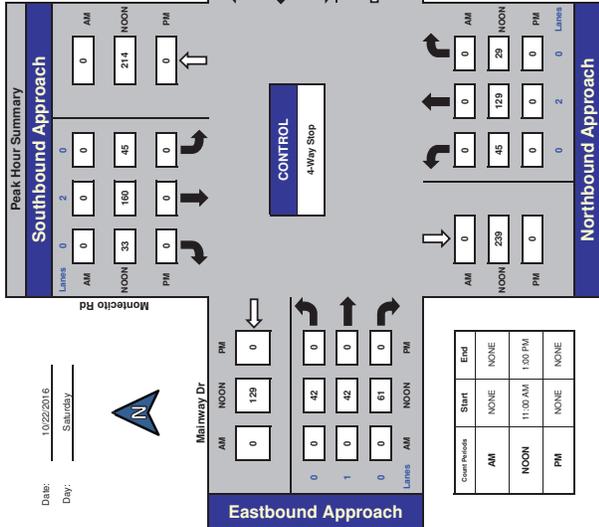
ITM Peak Hour Summary

Prepared by: **NDS**
National Data & Surveying Services

Montecito Rd and Mainway Dr., Seal Beach

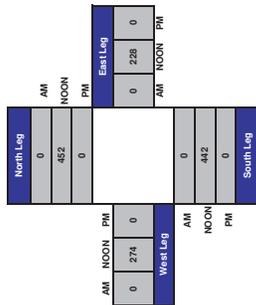
Date: 10/22/2016
Day: Saturday

Project #: 15-1237-010
City: Seal Beach

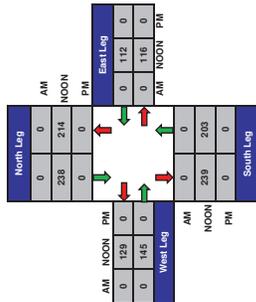


Count Period	Start	End
AM	NONE	NONE
NOON	11:00 AM	1:00 PM
PM	NONE	NONE

Total Volume Per Leg



Total Ins & Outs



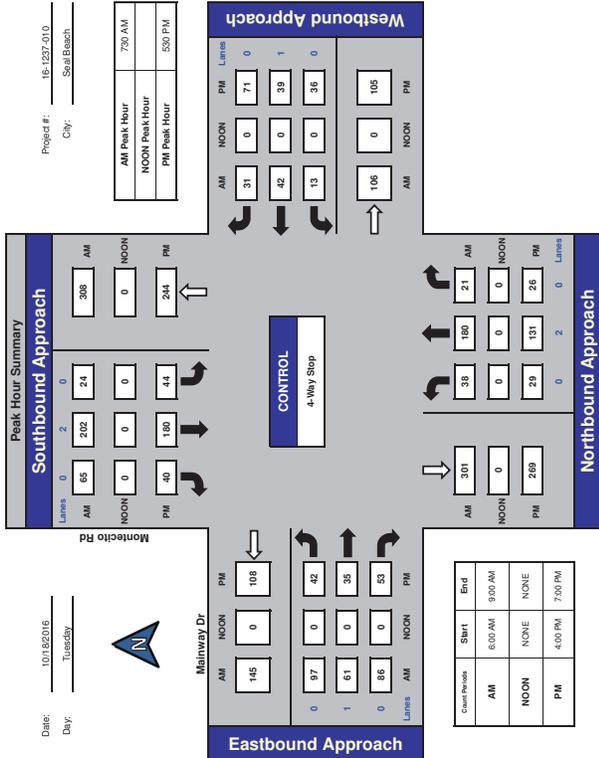
ITM Peak Hour Summary

Prepared by: **NDS**
National Data & Surveying Services

Montecito Rd and Mainway Dr., Seal Beach

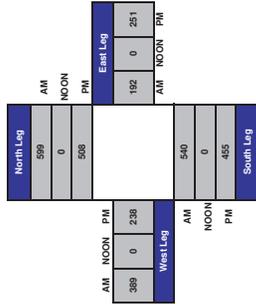
Date: 10/18/2016
Day: Tuesday

Project #: 15-1237-010
City: Seal Beach

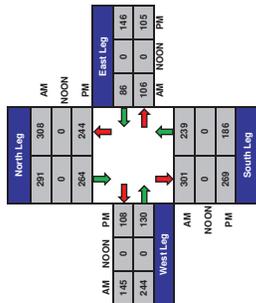


Count Period	Start	End
AM	6:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	7:00 PM

Total Volume Per Leg



Total Ins & Outs



ITM Peak Hour Summary

Prepared by: **NDS**

National Data & Surveying Services

Montecito Rd and Bradbury Rd - Seal Beach

Peak Hour Summary

Southbound Approach

Lanes	0	2	0
AM	0	0	0
NOON	2	89	36
PM	0	0	0

Date: 10/22/2016
Day: Saturday

Project #: 15-1237-011
City: Seal Beach



AM Peak Hour	NOON Peak Hour	PM Peak Hour	1:200 PM
0	0	0	0
0	0	0	0
0	0	0	0

Bradbury Rd

Lanes	AM	NOON	PM
0	0	25	0
1	0	1	0
0	0	15	0
0	0	4	0

Eastbound Approach

Lanes	AM	NOON	PM
0	0	1	0
1	0	15	0
0	0	4	0

CONTROL

4-Way Stop

Lanes	AM	NOON	PM
0	0	69	0
0	0	20	0
0	0	115	0

Lanes	AM	NOON	PM
0	0	145	0
0	0	0	0
0	0	0	0

Count Periods	Start	End
AM	NONE	NONE
NOON	11:00 AM	1:00 PM
PM	NONE	NONE

Northbound Approach

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

Total Volume Per Leg

North Leg	AM	NOON	PM
0	0	267	0
0	0	0	0
0	0	0	0

Total Ins & Outs

North Leg	AM	NOON	PM
0	0	140	0
0	0	0	0
0	0	0	0

ITM Peak Hour Summary

Prepared by: **NDS**

National Data & Surveying Services

Montecito Rd and Bradbury Rd - Seal Beach

Peak Hour Summary

Southbound Approach

Lanes	0	2	0
AM	2	131	74
NOON	0	0	0
PM	3	123	41

Date: 10/18/2016
Day: Tuesday

Project #: 15-1237-011
City: Seal Beach



AM Peak Hour	NOON Peak Hour	PM Peak Hour	7:50 AM
289	0	167	0
0	0	0	0
0	0	0	0

Bradbury Rd

Lanes	AM	NOON	PM
0	20	0	33
0	5	0	1
1	24	0	17
0	2	0	2

Eastbound Approach

Lanes	AM	NOON	PM
0	5	0	1
1	24	0	17
0	2	0	2

CONTROL

4-Way Stop

Lanes	AM	NOON	PM
0	146	0	64
0	18	0	25
0	135	0	148

Lanes	AM	NOON	PM
0	317	0	164
0	0	0	0
0	0	0	0

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

Northbound Approach

Lanes	AM	NOON	PM
0	268	0	138
0	0	0	0
0	0	0	0

Total Volume Per Leg

North Leg	AM	NOON	PM
466	0	334	0
0	0	0	0
0	0	0	0

Total Ins & Outs

North Leg	AM	NOON	PM
267	0	167	0
0	0	0	0
0	0	0	0

ITM Peak Hour Summary

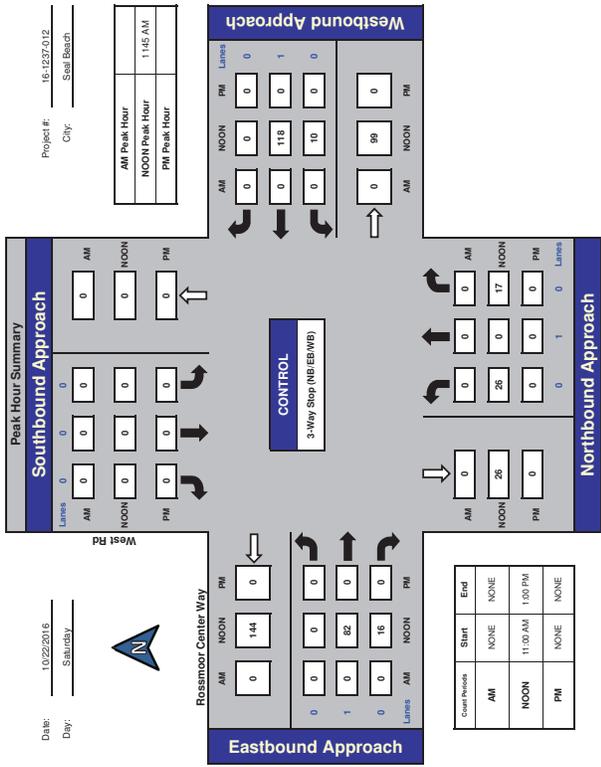
Prepared by: **NDS**

National Data & Surveying Services

West Rd and Rossmoor Center Way - Seal Beach

Date: 10/22/2016
Day: Saturday

Project #: 16-1237-012
City: Seal Beach



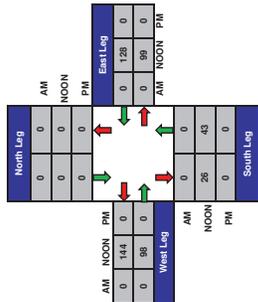
AM Peak Hour	NOON Peak Hour	PM Peak Hour
1:45 AM	1:45 AM	1:45 AM
0	0	0
0	0	0
0	0	0

Count Periods	Start	End
AM	NONE	NONE
NOON	11:00 AM	1:00 PM
PM	NONE	NONE

Total Volume Per Leg

North Leg	AM	NOON	PM
0	0	0	0
West Leg	0	242	0
East Leg	0	227	0
South Leg	0	69	0

Total Ins & Outs



ITM Peak Hour Summary

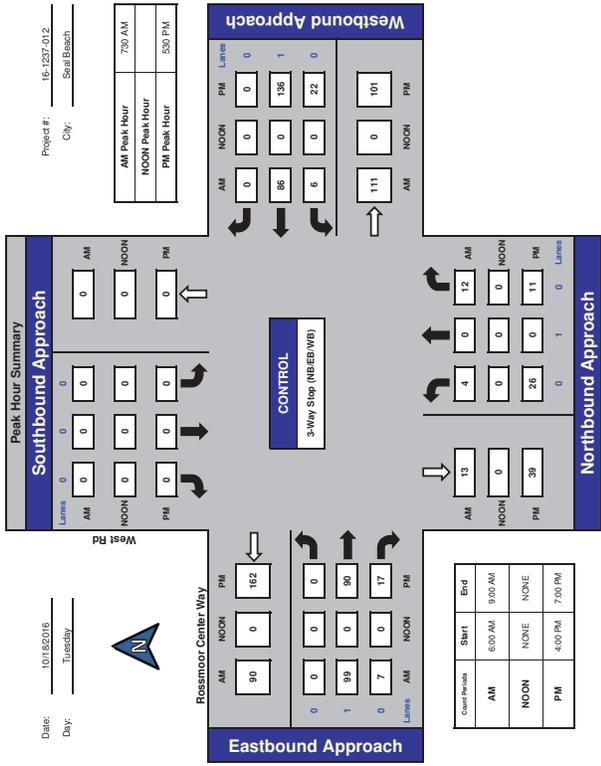
Prepared by: **NDS**

National Data & Surveying Services

West Rd and Rossmoor Center Way - Seal Beach

Date: 10/18/2016
Day: Tuesday

Project #: 16-1237-012
City: Seal Beach



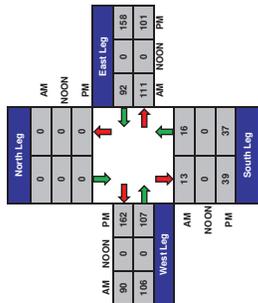
AM Peak Hour	NOON Peak Hour	PM Peak Hour
7:30 AM	7:30 AM	5:30 PM
0	0	0
0	0	0
0	0	0

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

Total Volume Per Leg

North Leg	AM	NOON	PM
0	0	0	0
West Leg	196	0	269
East Leg	203	0	259
South Leg	29	0	76

Total Ins & Outs



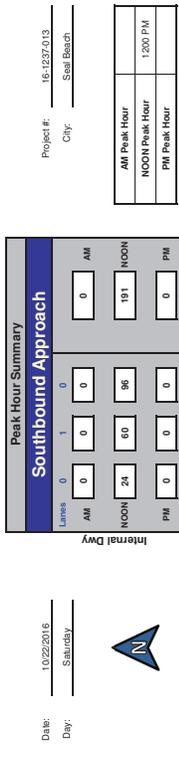
ITM Peak Hour Summary

Prepared by:

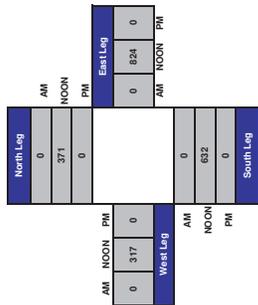


National Data & Surveying Services

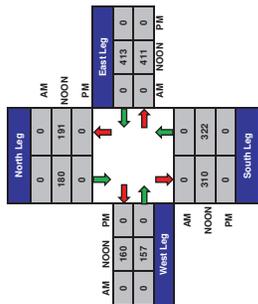
Internal Dwy and Rossmoor Center Way - Seal Beach



Total Volume Per Leg



Total Ins & Outs



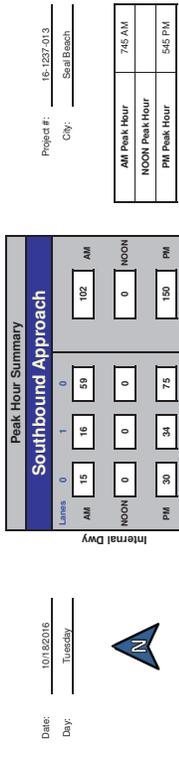
ITM Peak Hour Summary

Prepared by:

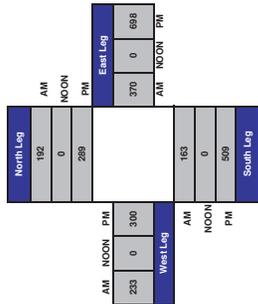


National Data & Surveying Services

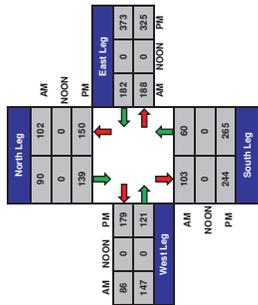
Internal Dwy and Rossmoor Center Way - Seal Beach



Total Volume Per Leg



Total Ins & Outs



ITM Peak Hour Summary

Prepared by:

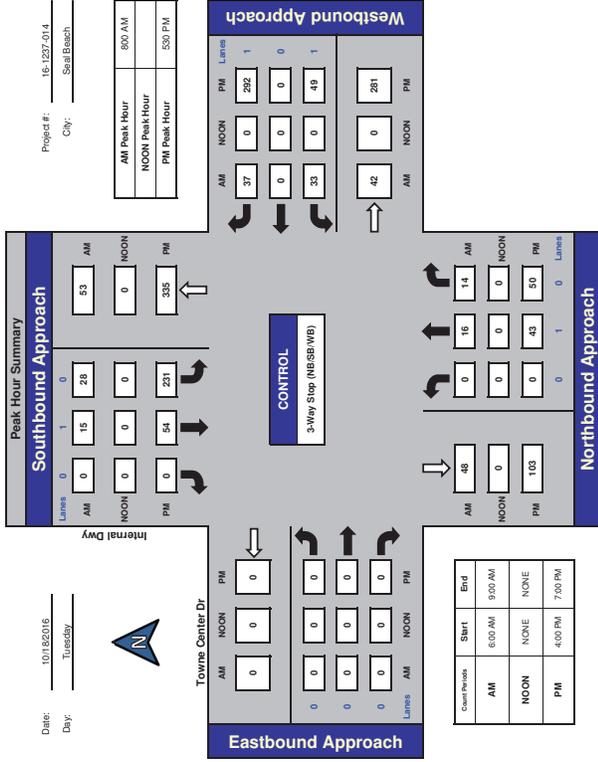


National Data & Surveying Services

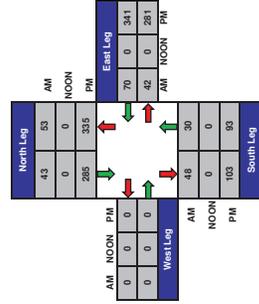
Internal Dwy and Towne Center Dr., Seal Beach

Date: 10/8/2016
Day: Tuesday

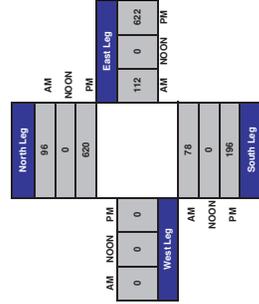
Project #: 15-1237-014
City: Seal Beach



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

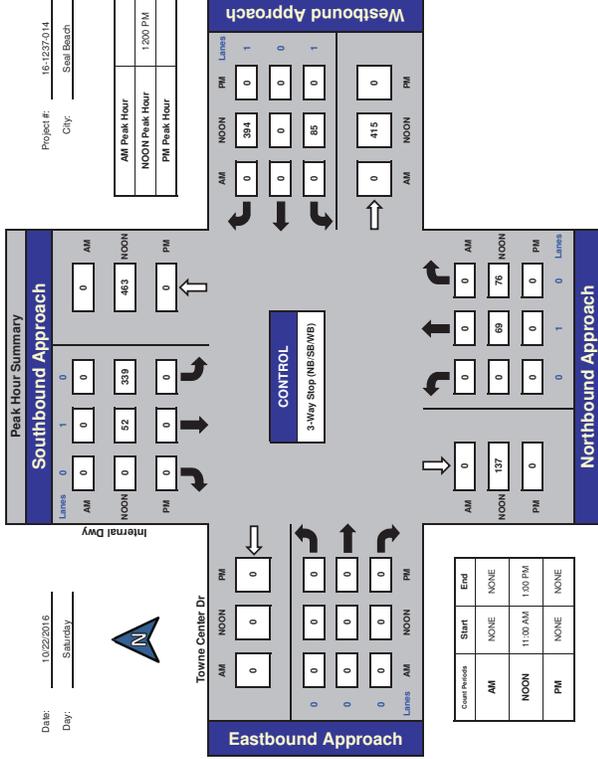


National Data & Surveying Services

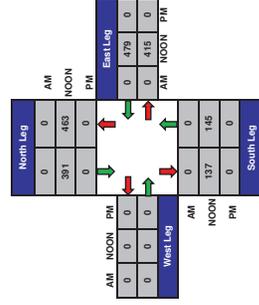
Internal Dwy and Towne Center Dr., Seal Beach

Date: 10/22/2016
Day: Saturday

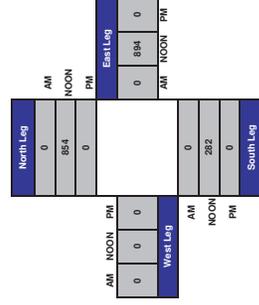
Project #: 15-1237-014
City: Seal Beach



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

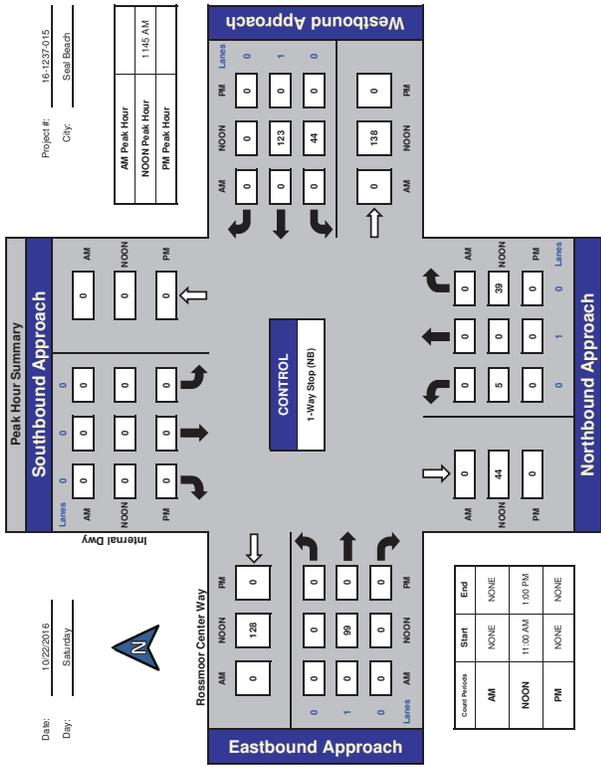
Prepared by:

 National Data & Surveying Services

Internal Dwy and Rossmoor Center Way - Seal Beach

Date: 10/22/2016
 Day: Saturday

Project #: 16-1237-015
 City: Seal Beach



Total Volume Per Leg

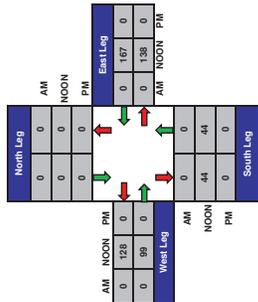
North Leg	AM	NOON	PM
0	0	0	0
0	0	0	0
0	0	0	0

West Leg	AM	NOON	PM
0	227	0	0
0	0	0	0
0	0	0	0

East Leg	AM	NOON	PM
0	305	0	0
0	0	0	0
0	0	0	0

South Leg	AM	NOON	PM
0	0	0	0
0	0	0	0
0	0	0	0

Total Ins & Outs



ITM Peak Hour Summary

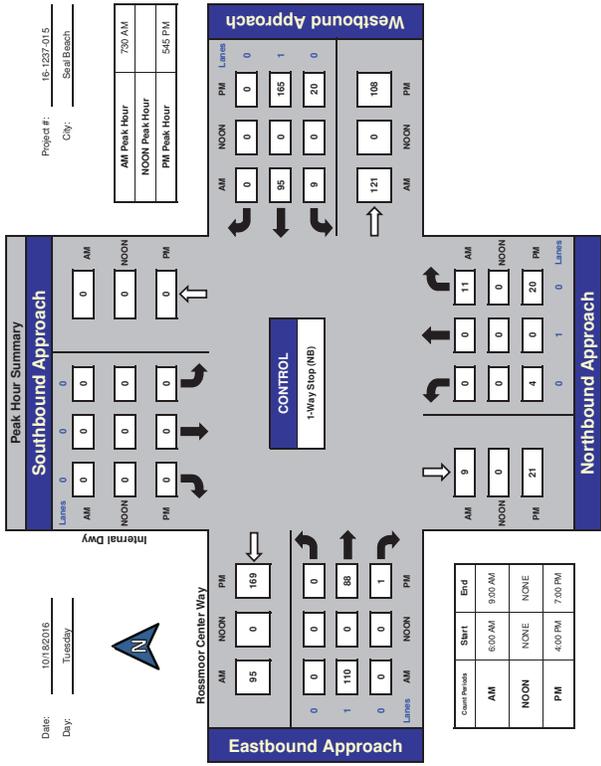
Prepared by:

 National Data & Surveying Services

Internal Dwy and Rossmoor Center Way - Seal Beach

Date: 10/18/2016
 Day: Tuesday

Project #: 16-1237-015
 City: Seal Beach



Total Volume Per Leg

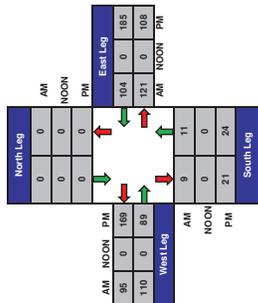
North Leg	AM	NOON	PM
0	0	0	0
0	0	0	0
0	0	0	0

West Leg	AM	NOON	PM
205	0	259	0
0	0	0	0
0	0	0	0

East Leg	AM	NOON	PM
225	0	293	0
0	0	0	0
0	0	0	0

South Leg	AM	NOON	PM
0	0	0	0
0	0	0	0
0	0	0	0

Total Ins & Outs



ITM Peak Hour Summary

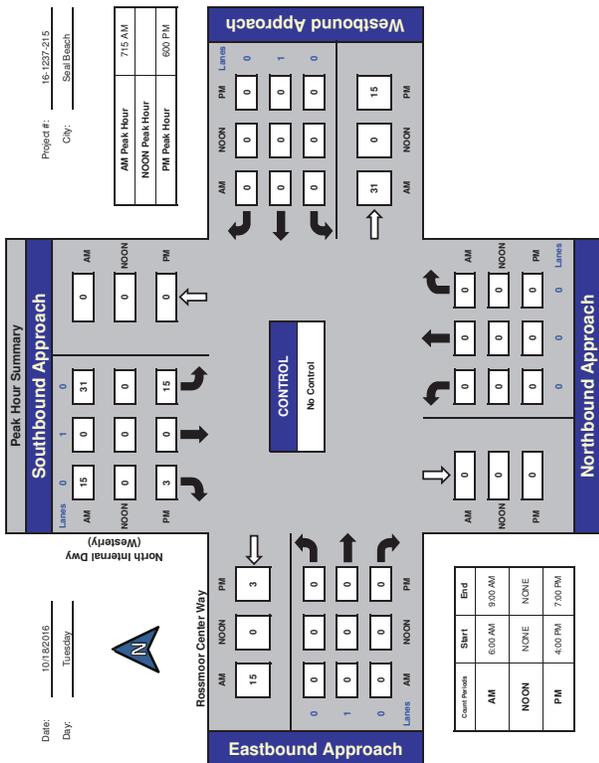
Prepared by: **NDS**

National Data & Surveying Services

North Internal Dwy (Westerly) and Rossmoor Center Way - Seal Beach

Date: 10/22/2016
Day: Tuesday

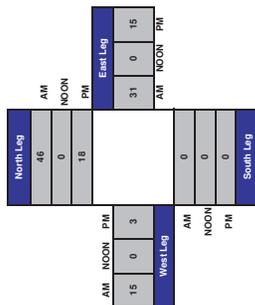
Project #: 15-1237-215
City: Seal Beach



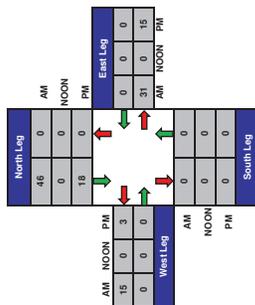
Count Period	Start	End
AM	6:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	7:00 PM

Count Period	Start	End
AM	11:00 AM	1:00 PM
NOON	NONE	NONE
PM	NONE	NONE

Total Volume Per Leg



Total Ins & Outs



ITM Peak Hour Summary

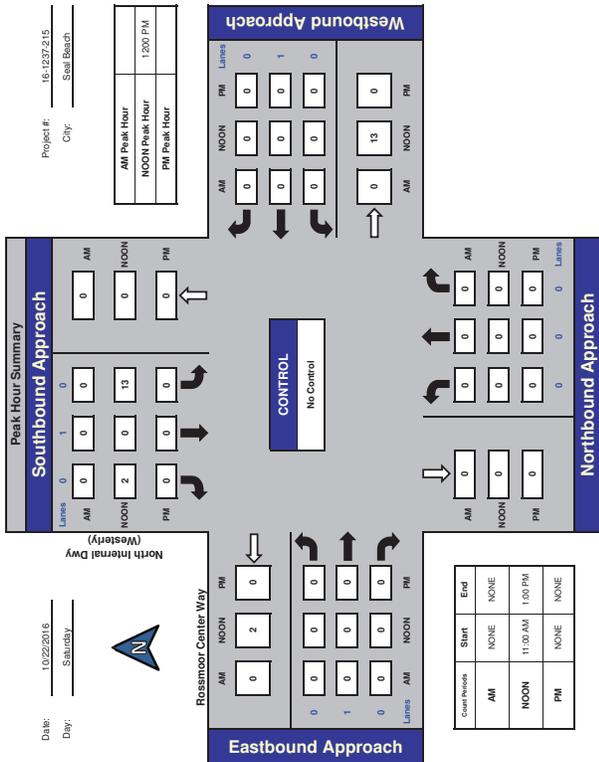
Prepared by: **NDS**

National Data & Surveying Services

North Internal Dwy (Westerly) and Rossmoor Center Way - Seal Beach

Date: 10/22/2016
Day: Saturday

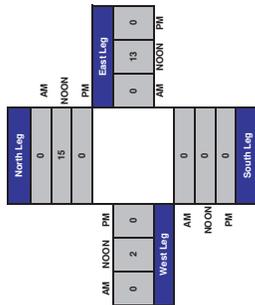
Project #: 15-1237-215
City: Seal Beach



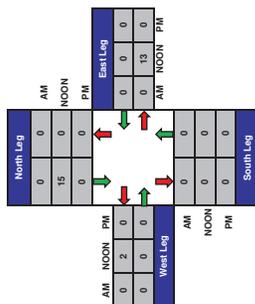
Count Period	Start	End
AM	NONE	NONE
NOON	11:00 AM	1:00 PM
PM	NONE	NONE

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

Total Volume Per Leg



Total Ins & Outs



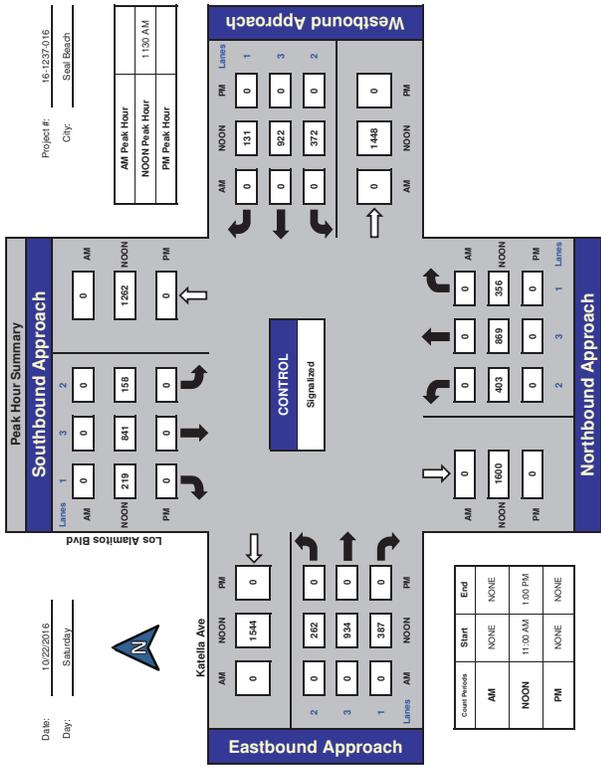
ITM Peak Hour Summary

Prepared by: **NDS**
National Data & Surveying Services

Los Alamitos Blvd and Katella Ave., Seal Beach

Date: 10/22/2016
Day: Saturday

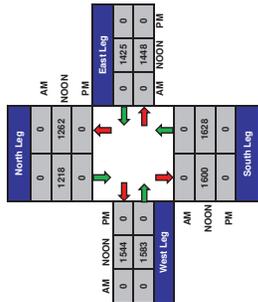
Project #: 15-1237-016
City: Seal Beach



Total Volume Per Leg

North Leg	AM	NOON	PM
0	2480	0	
East Leg	AM	NOON	PM
0	0	2873	0
West Leg	AM	NOON	PM
0	3127	0	
South Leg	AM	NOON	PM
0	3228	0	

Total Ins & Outs



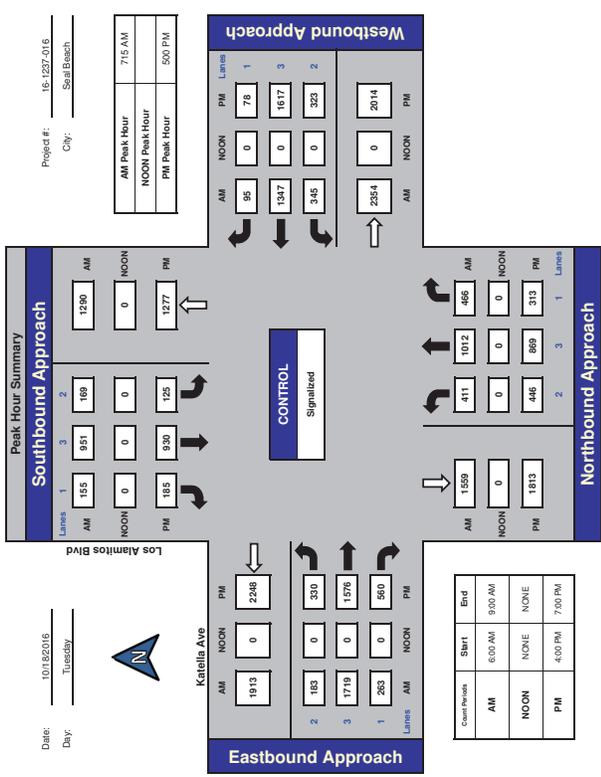
ITM Peak Hour Summary

Prepared by: **NDS**
National Data & Surveying Services

Los Alamitos Blvd and Katella Ave., Seal Beach

Date: 10/18/2016
Day: Tuesday

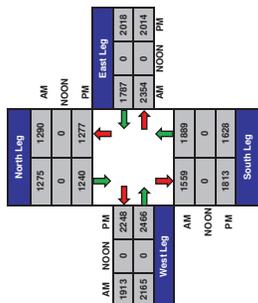
Project #: 15-1237-016
City: Seal Beach



Total Volume Per Leg

North Leg	AM	NOON	PM
2565	0	2517	
East Leg	AM	NOON	PM
4141	0	4032	
West Leg	AM	NOON	PM
4078	0	4714	
South Leg	AM	NOON	PM
3448	0	3441	

Total Ins & Outs



ITM Peak Hour Summary

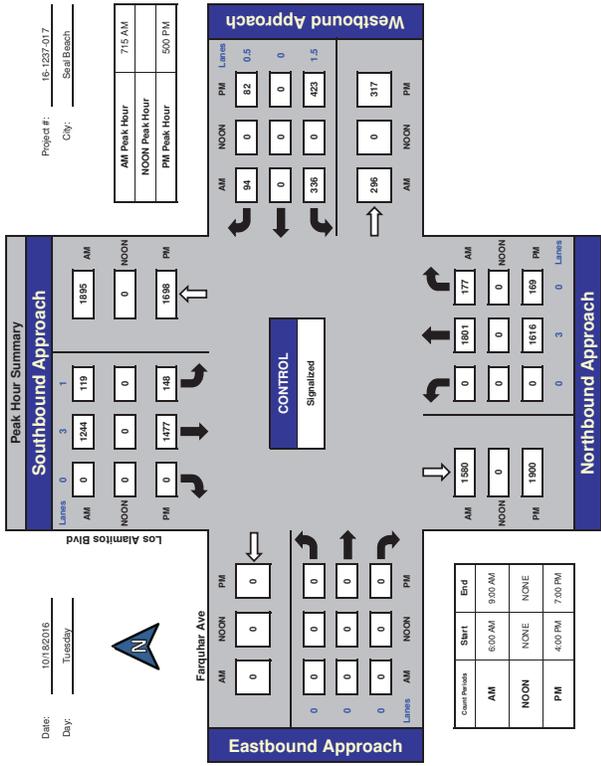
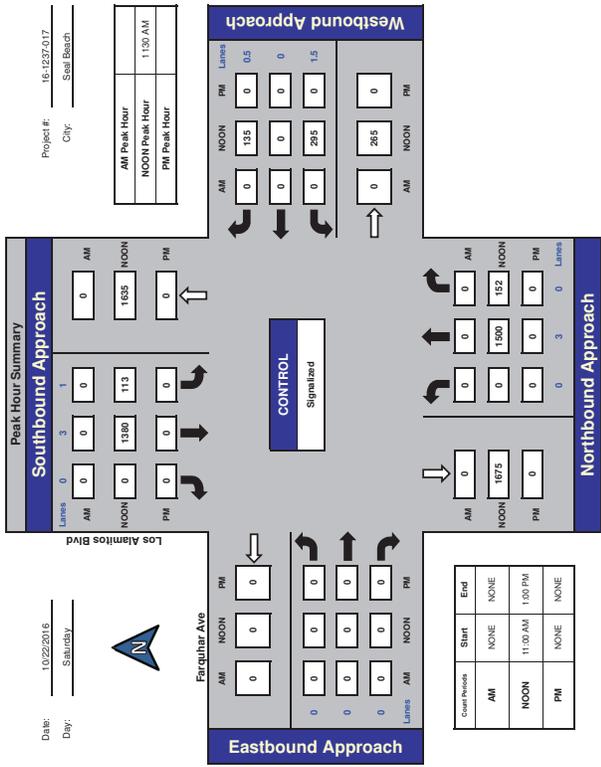
Prepared by: **NDS**

National Data & Surveying Services

Los Alamos Blvd and Farquhar Ave., Seal Beach

Date: 10/22/2016
Day: Saturday

Project #: 15-1237-017
City: Seal Beach



Total Volume Per Leg

Leg	AM	NOON	PM
North Leg	0	3128	0
East Leg	0	0	655
West Leg	0	0	0
South Leg	0	327	0

Total Ins & Outs

Leg	AM	NOON	PM
North Leg	0	1635	0
East Leg	0	430	0
West Leg	0	0	265
South Leg	0	1652	0

Total Volume Per Leg

Leg	AM	NOON	PM
North Leg	3258	0	3323
East Leg	726	0	822
West Leg	0	0	0
South Leg	3558	0	3685

Total Ins & Outs

Leg	AM	NOON	PM
North Leg	1385	1695	0
East Leg	430	565	317
West Leg	0	296	0
South Leg	1580	1670	0

ITM Peak Hour Summary

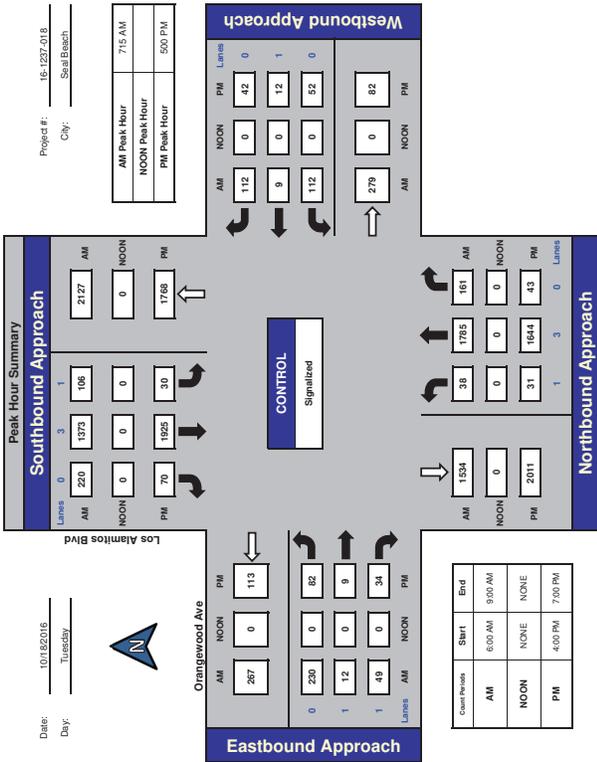
Prepared by: **NDS**

National Data & Surveying Services

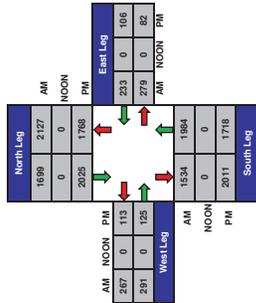
Los Alamitos Blvd and Orangewood Ave., Seal Beach

Date: 10/8/2016
Day: Tuesday

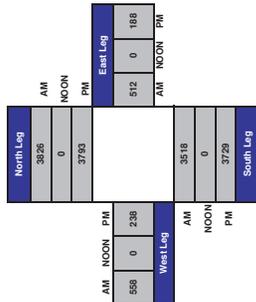
Project #: 15-1237-018
City: Seal Beach



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

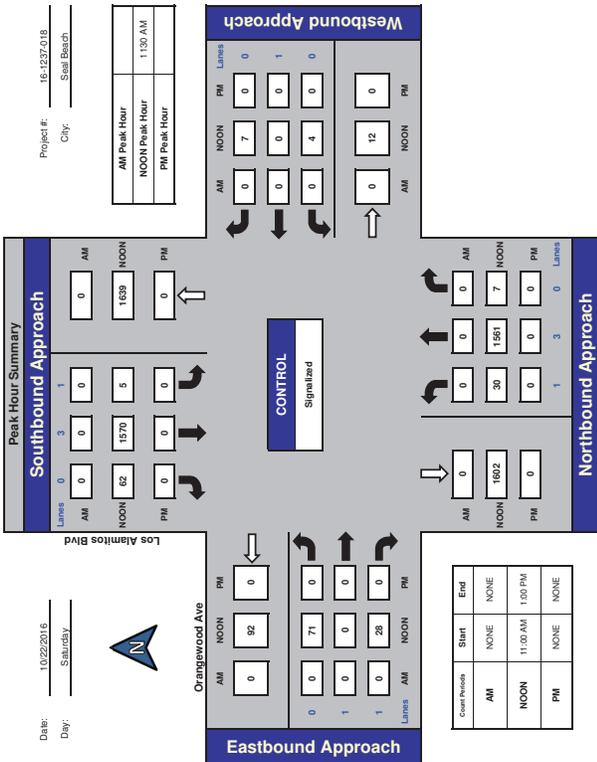
Prepared by: **NDS**

National Data & Surveying Services

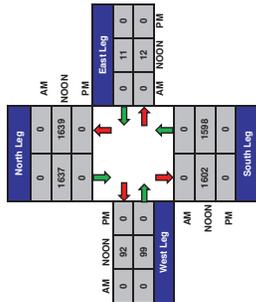
Los Alamitos Blvd and Orangewood Ave., Seal Beach

Date: 10/22/2016
Day: Saturday

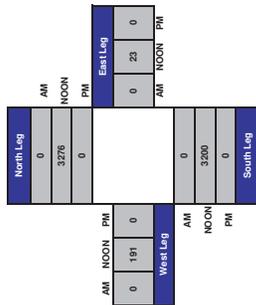
Project #: 15-1237-018
City: Seal Beach



Total Ins & Outs



Total Volume Per Leg

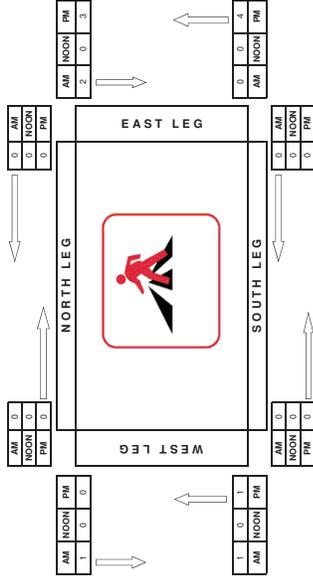


PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Pedestrian Count Peak Hour

PROJECT#: 16-1238-006
NS Street: Seal Beach Blvd
EW Sheet: S 6204 D
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00

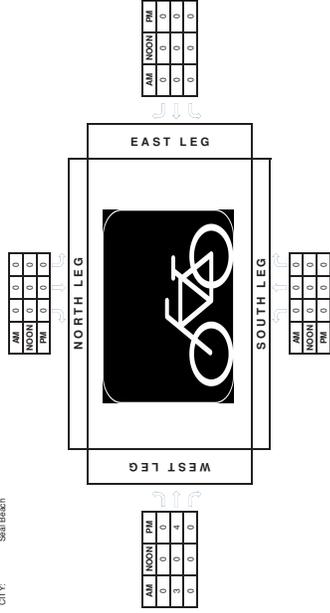


PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Bicycle Count Peak Hour

PROJECT#: 16-1238-008
NS Street: Seal Beach Blvd
EW Sheet: S 6204 D
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00

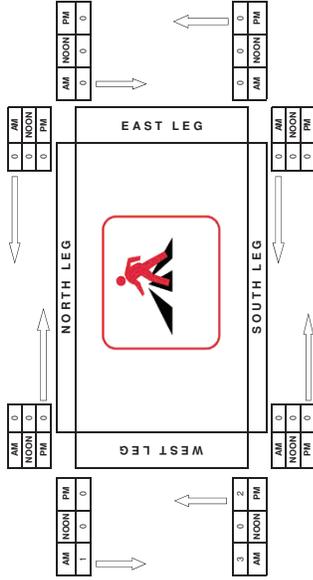


PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Pedestrian Count Peak Hour

PROJECT#: 16-1238-001
NS Street: Seal Beach Blvd
EW Sheet: S 6204 D
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00

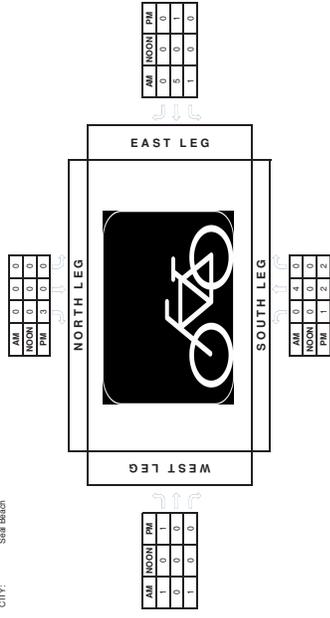


PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Bicycle Count Peak Hour

PROJECT#: 16-1238-001
NS Street: Seal Beach Blvd
EW Sheet: S 6204 D
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00

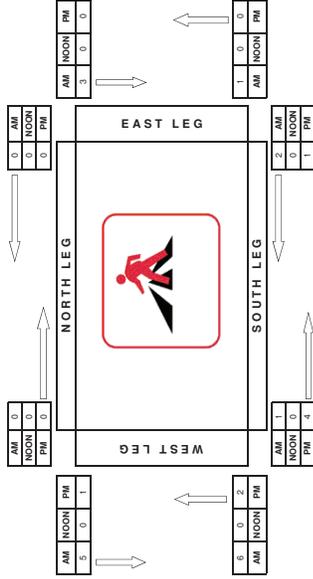


PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Pedestrian Count Peak Hour

PROJECT#: 16-1238-005
NS Street: Morongo Rd
EW Sheet: 10182016
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00



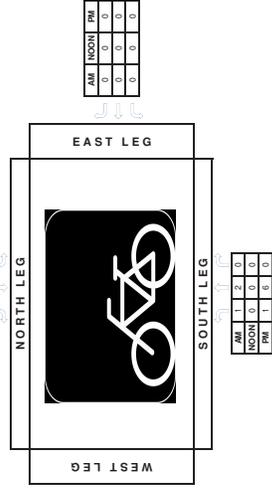
PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Bicycle Count Peak Hour

PROJECT#: 16-1238-005
NS Street: Morongo Rd
EW Sheet: 10182016
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00

Shift	AM	NOON	PM
AM	1	2	0
NOON	0	0	0
PM	0	4	2

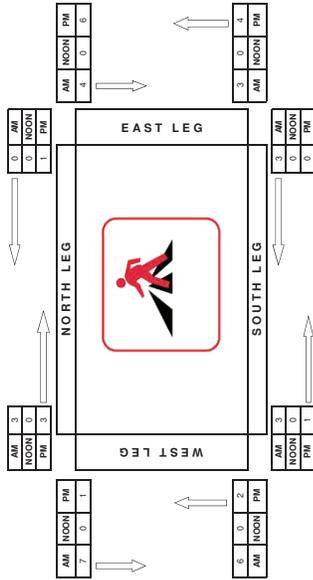


PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Pedestrian Count Peak Hour

PROJECT#: 16-1238-002
NS Street: Morongo Rd
EW Sheet: 10182016
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00



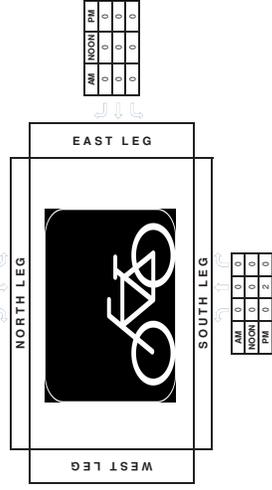
PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Bicycle Count Peak Hour

PROJECT#: 16-1238-002
NS Street: Morongo Rd
EW Sheet: 10182016
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00

Shift	AM	NOON	PM
AM	0	5	0
NOON	0	0	0
PM	0	4	0

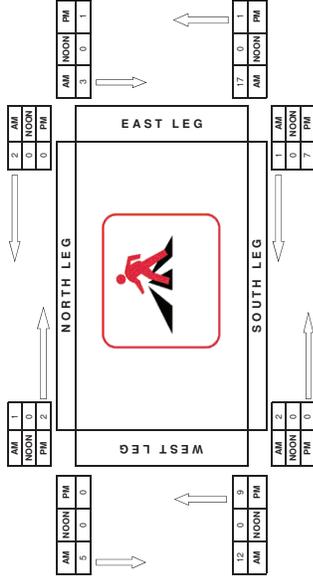


PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Pedestrian Count Peak Hour

PROJECT#: 16-1239-004
NS Street: Monrovia Rd
EW Sheet: 10/18/2016
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00

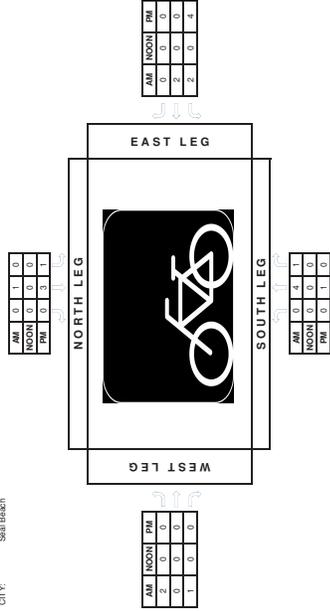


PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Bicycle Count Peak Hour

PROJECT#: 16-1239-004
NS Street: Monrovia Rd
EW Sheet: 10/18/2016
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00

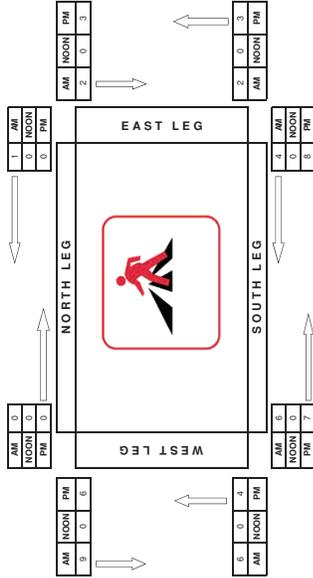


PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Pedestrian Count Peak Hour

PROJECT#: 16-1239-003
NS Street: Monrovia Rd
EW Sheet: 10/18/2016
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00

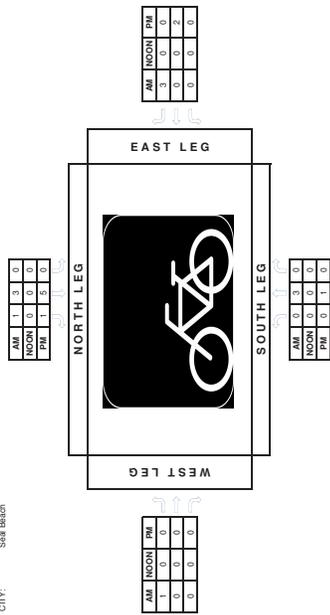


PREPARED BY NATIONAL DATA & SURVEYING SERVICES
Bicycle Count Peak Hour

PROJECT#: 16-1239-003
NS Street: Monrovia Rd
EW Sheet: 10/18/2016
DATE: 10/18/2016
CITY: Seal Beach

DAY: Tuesday

Shift	Start	End
AM	6:00	9:00
NOON	11:00	13:00
PM	16:00	19:00



Prepared by NDS/ATD
VOLUME
 St Cloud Dr Bet. Seal Beach Blvd & Yellowtail Dr
 City: Seal Beach
 Project #: CA16_1238_009

Day: Tuesday
 Date: 10/18/2016

DAILY TOTALS												Total		
AM Period	NB	SB	EB	WB	TOTAL	NB	SB	EB	WB	TOTAL	PM Period	NB	WB	TOTAL
00:00	6	8	101	88	199	0	0	6,646	5,649	12,295	12:00	35	42	77
00:15	8	9	105	83	197	0	0	0	0	0	12:15	36	42	78
00:30	4	3	94	84	178	0	0	0	0	0	12:30	44	47	91
00:45	1	1	86	86	172	0	0	0	0	0	12:45	28	39	67
01:00	2	4	111	95	206	0	0	0	0	0	13:00	37	54	91
01:15	3	3	87	86	173	0	0	0	0	0	13:15	44	44	88
01:30	1	3	72	96	168	0	0	0	0	0	13:30	51	51	102
01:45	3	9	105	108	213	0	0	0	0	0	13:45	44	208	252
02:00	1	2	82	134	216	0	0	0	0	0	14:00	86	44	130
02:15	4	4	107	99	206	0	0	0	0	0	14:15	58	55	113
02:30	3	4	156	114	270	0	0	0	0	0	14:30	62	100	162
02:45	2	10	141	486	643	0	0	0	0	0	14:45	48	254	302
03:00	0	1	122	109	231	0	0	0	0	0	15:00	47	51	98
03:15	1	1	126	106	232	0	0	0	0	0	15:15	56	71	127
03:30	4	4	132	133	265	0	0	0	0	0	15:30	42	76	118
03:45	1	8	139	519	667	0	0	0	0	0	15:45	49	194	243
04:00	7	4	121	96	220	0	0	0	0	0	16:00	45	61	106
04:15	6	5	97	119	216	0	0	0	0	0	16:15	61	59	120
04:30	15	8	109	95	204	0	0	0	0	0	16:30	49	63	112
04:45	28	56	110	440	644	0	0	0	0	0	16:45	80	235	315
05:00	20	2	115	107	222	0	0	0	0	0	17:00	59	47	106
05:15	33	1	120	126	246	0	0	0	0	0	17:15	64	65	129
05:30	42	10	112	127	239	0	0	0	0	0	17:30	63	58	121
05:45	49	144	127	474	745	0	0	0	0	0	17:45	91	277	368
06:00	64	18	137	112	269	0	0	0	0	0	18:00	56	80	136
06:15	60	190	146	165	415	0	0	0	0	0	18:15	65	90	155
06:30	86	22	98	112	207	0	0	0	0	0	18:30	54	90	144
06:45	116	329	70	383	820	0	0	0	0	0	18:45	59	217	276
07:00	131	43	68	106	244	0	0	0	0	0	19:00	62	26	88
07:15	132	55	65	88	153	0	0	0	0	0	19:15	44	44	88
07:30	149	104	58	79	337	0	0	0	0	0	19:30	36	24	60
07:45	182	594	372	352	966	0	0	0	0	0	19:45	29	155	184
08:00	204	77	63	69	313	0	0	0	0	0	20:00	35	27	62
08:15	142	81	50	81	254	0	0	0	0	0	20:15	43	17	60
08:30	109	81	65	65	220	0	0	0	0	0	20:30	50	29	79
08:45	115	552	68	216	643	0	0	0	0	0	20:45	35	210	245
09:00	123	123	78	54	284	0	0	0	0	0	21:00	35	104	139
09:15	97	50	27	35	162	0	0	0	0	0	21:15	13	15	28
09:30	104	74	18	39	225	0	0	0	0	0	21:30	24	9	33
09:45	100	416	22	95	611	0	0	0	0	0	21:45	12	41	53
10:00	101	82	31	37	221	0	0	0	0	0	22:00	15	12	27
10:15	107	68	19	30	204	0	0	0	0	0	22:15	13	10	23
10:30	90	73	13	20	183	0	0	0	0	0	22:30	13	8	21
10:45	76	374	13	76	510	0	0	0	0	0	22:45	5	46	51
11:00	146	68	3	15	232	0	0	0	0	0	23:00	7	3	10
11:15	178	87	8	11	274	0	0	0	0	0	23:15	7	2	9
11:30	107	87	5	8	207	0	0	0	0	0	23:30	1	2	3
11:45	87	382	3	20	438	0	0	0	0	0	23:45	1	8	9
TOTALS	2889	1712	4601	3757	9937	0	0	6,646	5,649	12,295	TOTALS	2354	1956	4310
SPLIT %	62.8%	37.2%	37.4%	48.8%	51.2%	0	0	34.7%	65.3%	37.5%	SPLIT %	50.1%	49.9%	62.5%

DAILY TOTALS												Total		
AM Period	NB	SB	EB	WB	TOTAL	NB	SB	EB	WB	TOTAL	PM Period	NB	WB	TOTAL
AM Peak Hour	07:30	07:30	1430	1715	3145	07:30	07:30	1430	1715	3145	PM Peak Hour	07:30	1430	1400
AM PK Volume	677	432	1109	545	2763	677	432	1109	545	2763	AM PK Volume	263	277	558
PK-Hr Factor	0.830	0.635	0.788	0.873	0.888	0.830	0.635	0.788	0.873	0.888	PK-Hr Factor	0.638	0.775	0.856
7 - 9 Volume	1146	680	1826	914	3566	377	660	1037	512	1586	7 - 9 Volume	377	489	1000
4 - 6 Peak Hour	07:30	07:30	1700	1700	3400	07:30	07:30	1700	1700	3400	4 - 6 Peak Hour	07:30	1700	1700
7 - 9 PK Volume	677	432	1109	545	2763	677	432	1109	545	2763	7 - 9 PK Volume	263	277	540
PK-Hr Factor	0.830	0.635	0.788	0.873	0.888	0.830	0.635	0.788	0.873	0.888	PK-Hr Factor	0.638	0.775	0.856

Prepared by NDS/ATD
VOLUME
 Montecito Rd Bet. Yellowtail Dr & Copa De Oro Dr
 City: Seal Beach
 Project #: CA16_1238_010

Day: Tuesday
 Date: 10/18/2016

DAILY TOTALS												Total		
AM Period	NB	SB	EB	WB	TOTAL	NB	SB	EB	WB	TOTAL	PM Period	NB	WB	TOTAL
00:00	5	1	12	0	18	0	0	0	0	0	12:00	35	42	77
00:15	4	1	12	0	17	0	0	0	0	0	12:15	36	42	78
00:30	3	2	12	0	17	0	0	0	0	0	12:30	44	47	91
00:45	1	1	13	1	16	0	0	0	0	0	12:45	28	39	67
01:00	2	0	13	0	15	0	0	0	0	0	13:00	37	54	91
01:15	0	0	13	0	13	0	0	0	0	0	13:15	44	44	88
01:30	1	1	13	0	15	0	0	0	0	0	13:30	51	51	102
01:45	1	4	1	3	9	0	0	0	0	0	13:45	44	208	252
02:00	1	0	0	0	1	0	0	0	0	0	14:00	86	44	130
02:15	0	0	0	0	0	0	0	0	0	0	14:15	58	55	113
02:30	0	0	0	0	0	0	0	0	0	0	14:30	62	100	162
02:45	1	2	0	0	3	0	0	0	0	0	14:45	48	254	302
03:00	1	0	0	0	1	0	0	0	0	0	15:00	47	51	98
03:15	1	1	0	0	2	0	0	0	0	0	15:15	56	71	127
03:30	0	3	0	0	3	0	0	0	0	0	15:30	42	76	118
03:45	0	2	0	0	2	0	0	0	0	0	15:45	49	194	243
04:00	1	4	0	0	5	0	0	0	0	0	16:00	45	61	106
04:15	1	6	0	0	7	0	0	0	0	0	16:15	61	59	120
04:30	1	4	0	0	5	0	0	0	0	0	16:30	49	63	112
04:45	1	4	13	27	45	0	0	0	0	0	16:45	80	235	315
05:00	2	13	15	27	57	0	0	0	0	0	17:00	59	47	106
05:15	4	23	27	27	81	0	0	0	0	0	17:15	64	65	129
05:30	5	20	20	20	65	0	0	0	0	0	17:30	63	58	121
05:45	7	18	21	77	123	0	0	0	0	0	17:45	91	277	368
06:00	9	28	37	56	130	0	0	0	0	0	18:00	56	80	136
06:15	7	28	46	65	146	0	0	0	0	0	18:15	65	90	155
06:30	14	48	94	94	250	0	0	0	0	0	18:30	54	90	144
06:45	21	52	73	187	333	0	0	0	0	0	18:45	59	217	276
07:00	26	60	62	60	208	0	0	0	0	0	19:00	62	26	88
07:15	33	72	28	44	177	0	0	0	0	0	19:15	44	44	88
07:30	68	76	144											

Prepared by NDS/ATD
VOLUME
 Montecito Rd Bet. Mainway Dr & Bradbury Rd
 City: Seal Beach
 Project #: CA16_1238_012

Day: Tuesday
 Date: 10/18/2016

Prepared by NDS/ATD
VOLUME
 Montecito Rd Bet. Mainway Dr & Bradbury Rd
 City: Seal Beach
 Project #: CA16_1238_012

Day: Tuesday
 Date: 10/18/2016

DAILY TOTALS		NB	SB	EB	WB	WB	0	Total		
DAILY TOTALS		2,773	2,874	0	0	0	0	5,647		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	WB	TOTAL
0:00	1	2	2	3	12:00	34	37			71
0:15	1	1	1	3	12:15	30	28			58
0:30	3	4	4	7	12:30	41	36			77
0:45	1	6	2	9	12:45	38	143	42	143	80
1:00	0	1	1	1	13:00	36	51			87
1:15	0	0	0	0	13:15	37	30			67
1:30	0	0	0	0	13:30	35	30			65
1:45	1	2	1	4	13:45	51	179	55	175	106
2:00	0	1	1	1	14:00	53	55			108
2:15	0	1	1	1	14:15	45	70			115
2:30	1	1	1	2	14:30	107	60			167
2:45	0	1	1	3	14:45	67	83	268		150
3:00	1	1	1	1	15:00	59	73			132
3:15	0	0	0	1	15:15	53	88			141
3:30	0	0	2	0	15:30	49	83			132
3:45	1	2	0	1	15:45	59	216	299		106
4:00	0	0	0	0	16:00	43	51			94
4:15	3	3	0	3	16:15	68	58			126
4:30	1	0	0	1	16:30	42	65			107
4:45	1	6	5	5	16:45	45	203	65	246	111
5:00	7	2	2	9	17:00	56	61			117
5:15	5	1	1	6	17:15	53	65			118
5:30	8	3	3	11	17:30	41	68			109
5:45	8	28	3	9	17:45	63	213	78	272	141
6:00	10	7	7	17	18:00	90	64			154
6:15	13	6	6	25	18:15	48	65			113
6:30	33	26	26	59	18:30	40	55			98
6:45	50	110	39	80	18:45	89	190			102
7:00	69	26	26	95	19:00	35	41			76
7:15	73	33	33	106	19:15	19	48			67
7:30	90	51	51	141	19:30	30	25	55	55	165
7:45	95	327	99	209	19:45	23	107	33	147	399
8:00	90	149	149	149	20:00	16	23			39
8:15	80	57	57	137	20:15	20	16			36
8:30	34	27	27	71	20:30	28	37			65
8:45	36	182	182	73	20:45	15	85	2	102	197
9:00	36	37	37	73	21:00	15	18			33
9:15	36	39	39	75	21:15	13	18			31
9:30	28	24	24	52	21:30	8	18			26
9:45	24	114	23	123	21:45	9	45	8	62	17
10:00	25	31	31	56	22:00	5	8			13
10:15	28	39	39	67	22:15	5	9			14
10:30	35	26	26	61	22:30	7	12			19
10:45	27	115	27	123	22:45	6	23	7	96	13
11:00	28	39	39	54	23:00	1	7			12
11:15	28	31	31	54	23:15	1	7			12
11:30	43	31	31	74	23:30	1	2			3
11:45	28	141	25	128	23:45	0	10	3	13	3
TOTALS	1100	877	877	1977	TOTALS	1673	1997			3670
SPLIT %	55.6%	44.4%	44.4%	35.0%	SPLIT %	45.6%	54.4%			65.0%

DAILY TOTALS		NB	SB	EB	WB	WB	0	Total	
DAILY TOTALS		2,773	2,874	0	0	0	0	5,647	
AM Peak Hour	7:30	7:30	7:30	7:30	PM Peak Hour	7:30	7:30	14:30	14:30
AM PK Volume	355	266	266	621	PM PK Volume	286	327	286	590
PK Hr Factor	0.934	0.672	0.672	0.800	PK Hr Factor	0.668	0.929	0.668	0.883
7 - 9 Volume	575	391	391	866	4 - 6 Volume	416	518	416	934
7 - 9 Peak Hour	7:30	7:30	7:30	7:30	4 - 6 Peak Hour	17:00	17:00	17:00	17:00
7 - 9 PK Volume	355	266	266	621	4 - 6 PK Volume	213	272	213	485
PK Hr Factor	0.934	0.672	0.672	0.800	PK Hr Factor	0.845	0.872	0.845	0.860

DAILY TOTALS		NB	SB	EB	WB	WB	0	Total		
DAILY TOTALS		2,553	3,342	0	0	0	0	5,895		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	WB	TOTAL
0:00	2	1	1	3	12:00	38	49			87
0:15	4	4	4	6	12:15	33	41			74
0:30	3	1	1	4	12:30	40	54			94
0:45	2	9	1	7	12:45	30	141	189		330
1:00	1	0	0	1	13:00	35	48			83
1:15	2	0	0	2	13:15	38	49			87
1:30	1	1	1	3	13:30	36	47			73
1:45	1	5	2	8	13:45	39	166	203		101
2:00	0	1	1	1	14:00	66	62			101
2:15	0	1	1	1	14:15	41	62			103
2:30	0	1	1	1	14:30	69	64			133
2:45	0	2	2	2	14:45	47	223	110	288	157
3:00	1	7	7	1	15:00	53	76			129
3:15	0	2	2	1	15:15	46	87			133
3:30	0	1	1	1	15:30	35	76			111
3:45	0	1	4	1	15:45	41	185	289		104
4:00	1	2	2	4	16:00	31	67			104
4:15	2	2	2	4	16:15	61	59			120
4:30	1	3	3	4	16:30	44	75			119
4:45	2	6	12	20	16:45	64	216	48	249	112
5:00	7	7	7	14	17:00	60	55			115
5:15	4	14	14	18	17:15	61	53			114
5:30	4	14	14	18	17:30	62	64			126
5:45	8	23	11	46	17:45	72	255	88	260	160
6:00	18	18	18	36	18:00	53	76			129
6:15	23	17	17	40	18:15	43	67			110
6:30	17	38	38	55	18:30	46	65			108
6:45	24	59	62	153	18:45	51	210	60	248	111
7:00	36	59	59	95	19:00	51	40			91
7:15	25	53	53	78	19:15	25	47			72
7:30	57	58	58	115	19:30	29	32			101
7:45	55	173	84	254	19:45	28	133	32	151	60
8:00	70	93	93	163	20:00	21	31			52
8:15	49	76	76	125	20:15	33	23			56
8:30	33	49	49	82	20:30	45	37			82
8:45	31	176	56	276	20:45	32	122	120		242
9:00	30	46	46	66	21:00	22	14			36
9:15	32	52	52	84	21:15	14	16			30
9:30	24	38	38	62	21:30	14	9			23
9:45	18	94	39	175	21:45	14	64	12	51	26
10:00	29	43	43	72	22:00	5	10			15
10:15	28	52	52	80	22:15	9	7			16
10:30	22	37	37	59	22:30	12	13			25
10:45	33	112	22	154	22:45	3	29	8	98	111
11:00	37	35	35	72	23:00	6	4			10
11:15	30	44	44	80	23:15	1	1			5
11:30	28	44	44	72	23:30	0	1			5
11:45	36	140	33	153	23:45	0	11	3	9	20
TOTALS	798	1247	1247	2045	TOTALS	1755	2095			3850
SPLIT %	39.0%	61.0%	61.0%	34.7%	SPLIT %	45.6%	54.4%			65.3%

DAILY TOTALS		NB	SB	EB	WB	WB	0	Total	
DAILY TOTALS		2,553	3,342	0	0	0	0	5,895	
AM Peak Hour	7:30	7:30	7:30	7:30	PM Peak Hour	7:30	7:30	14:30	14:30
AM PK Volume	231	311	311	542	PM PK Volume	255	349	255	552
PK Hr Factor	0.825	0.836	0.836	0.831	PK Hr Factor	0.885	0.793	0.831	0.879
7 - 9 Volume	349	530	530	879	4 - 6 Volume	471	509	471	980
7 - 9 Peak Hour	7:30	7:30	7:30	7:30	4 - 6 Peak Hour	17:00	17:00	17:00	17:00
7 - 9 PK Volume	231	311	311	542	4 - 6 PK Volume	255	260	255	515
PK Hr Factor	0.825	0.836	0.836	0.831	PK Hr Factor	0.885	0.793	0.831	0.865

APPENDIX B

INTERSECTION LOS WORKSHEETS

HCM 2010 Signalized Intersection Summary
 1.: Seal Beach Boulevard & I-405 SB Ramps

11/21/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	87	28	16	696	44	525	14	1051	166	428	1449	72
Traffic Volume (veh/h)	87	28	16	696	44	525	14	1051	166	428	1449	72
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	96	31	18	799	0	0	15	1155	182	470	1592	79
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	89	55	32	861	0	384	30	1232	384	643	3074	957
Arrive On Green	0.05	0.05	0.05	0.24	0.00	0.00	0.02	0.24	0.24	0.24	0.40	0.40
Sat Flow, veh/h	1774	1107	643	3548	0	1583	1774	5065	1583	1774	5065	1583
Grp Volume(v), veh/h	96	0	49	799	0	0	15	1155	182	470	1592	79
Grp Sat Flow(s), veh/h/ln	1774	0	1749	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	5.5	0.0	3.0	24.2	0.0	0.0	0.9	24.5	10.8	26.8	25.9	3.4
Cycle Q Clear(g.c), s	5.5	0.0	3.0	24.2	0.0	0.0	0.9	24.5	10.8	26.8	25.9	3.4
Prop In Lane	1.00	0.00	0.37	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	89	0	87	861	0	384	30	1232	384	643	3074	957
V/C Ratio(X)	1.08	0.00	0.56	0.93	0.00	0.00	0.51	0.94	0.47	0.73	0.52	0.08
Avail Cap(c.a), veh/h	89	0	87	861	0	384	30	1232	384	643	3074	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	0.0	51.1	40.7	0.0	0.0	53.6	40.9	35.7	36.7	20.7	13.9
Incr Delay (d2), s/veh	119.6	0.0	7.8	15.4	0.0	0.0	12.7	14.5	4.2	3.2	0.5	0.1
Initial Q Delay(d3), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	5.6	0.0	1.6	13.7	0.0	0.0	0.6	13.1	5.2	13.7	12.3	1.5
LnGrp Delay(d), s/veh	172.3	0.0	58.9	56.1	0.0	0.0	66.3	55.3	39.9	21.1	14.1	14.1
LnGrp LOS	F	E	E	E	E	E	E	E	D	D	C	B
Approach Vol, veh/h	145			799			1352				2141	
Approach Delay, s/veh	134.0			56.1			53.4				25.0	
Approach LOS	F			E			D				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	45.7	32.4	10.2	5.8	72.3	32.5						
Change Period (Y+Rc), s	5.8	* 5.8	* 4.7	4.0	5.8	5.8						
Max Green Setting (Gmax), s	30.0	* 27	* 7.5	5.0	51.7	27.5						
Max Q Clear Time (g_c+I), s	28.8	26.5	7.5	2.9	27.9	26.2						
Green Ext Time (p_c), s	0.2	0.2	0.0	0.0	14.2	0.5						
Intersection Summary	42.8											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

HCM 2010 Signalized Intersection Summary
 2.: Seal Beach Boulevard & I-405 NB Ramps

11/21/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	11	5	367	53	549	110	1196	348	328	1565	463
Traffic Volume (veh/h)	7	11	5	367	53	549	110	1196	348	328	1565	463
Future Volume (veh/h)	7	11	5	367	53	549	110	1196	348	328	1565	463
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	8	12	6	408	0	649	122	1329	0	364	1739	514
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	44	46	39	877	0	783	549	1885	587	306	1869	582
Arrive On Green	0.02	0.02	0.02	0.25	0.00	0.25	0.32	0.74	0.00	0.17	0.37	0.37
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	8	12	6	408	0	649	122	1329	0	364	1739	514
Grp Sat Flow(s), veh/h/ln	1863	1863	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g.s), s	0.5	0.7	0.4	10.8	0.0	21.3	2.9	15.6	0.0	19.0	36.2	33.4
Cycle Q Clear(g.c), s	0.5	0.7	0.4	10.8	0.0	21.3	2.9	15.6	0.0	19.0	36.2	33.4
Prop In Lane	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	44	46	39	877	0	783	549	1885	587	306	1869	582
V/C Ratio(X)	0.18	0.26	0.15	0.47	0.00	0.83	0.22	0.71	0.00	1.19	0.93	0.88
Avail Cap(c.a), veh/h	81	85	72	1258	0	1123	549	1885	587	306	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.59	0.59	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	52.6	52.5	35.2	0.0	39.2	32.5	11.0	0.0	45.5	33.4	32.6
Incr Delay (d2), s/veh	1.9	2.9	1.8	0.4	0.0	3.6	0.1	1.3	0.0	112.5	9.8	17.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.0	0.4	0.2	5.3	0.0	9.8	1.4	7.1	0.0	18.9	18.6	17.4
LnGrp Delay(d), s/veh	54.5	55.5	54.3	35.6	0.0	42.8	32.6	12.3	0.0	158.0	43.3	50.1
LnGrp LOS	D	E	D	D	D	D	C	B		F	D	D
Approach Vol, veh/h	26			1057			1451				2617	
Approach Delay, s/veh	54.9			40.0			14.0				60.6	
Approach LOS	D			D			B				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	46.6	33.0	7.4	23.3	46.2	33.0						
Change Period (Y+Rc), s	5.8	* 5.8	* 4.7	5.8	* 5.8	5.8						
Max Green Setting (Gmax), s	26.7	* 27	* 5.0	5.0	51.7	27.5						
Max Q Clear Time (g_c+I), s	17.6	17.6	2.7	4.9	38.2	23.3						
Green Ext Time (p_c), s	0.0	5.6	0.0	0.0	2.3	3.8						
Intersection Summary	43.2											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

Health Club within the Shops at Rossmoor
Existing (2016) Current Occupancy
AM Peak Hour

Level of Service Computation Report
ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
Intersection #3 Seal Beach Blvd/Lampson Ave
Cycle (sec): 100 Critical Vol./Cap. (X): 0.804
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 68 Level Of Service: D

Street Name: Seal Beach Blvd East Bound West Bound
Approach: North Bound South Bound Lampson Ave
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Permitted
Rights: Ovl Include Include Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 2 0 0 0 1

Volume Module:
Base Vol: 0 1445 305 296 1653 0 0 0 0 702 0 605
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 1445 305 296 1653 0 0 0 0 702 0 605
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 1591 336 326 1820 0 0 0 0 773 0 666
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1591 336 326 1820 0 0 0 0 773 0 666
OvLAdjVol: 0 0 0 0 0 0 0 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700

Capacity Analysis Module:
Vol/Sat: 0.00 0.31 0.20 0.10 0.36 0.00 0.00 0.00 0.00 0.23 0.00 0.39
OvLAdjV/S: 0.00 0.31 0.20 0.10 0.36 0.00 0.00 0.00 0.00 0.23 0.00 0.39
Crit Moves: ****

Health Club within the Shops at Rossmoor
Existing (2016) Current Occupancy
AM Peak Hour

Level of Service Computation Report
ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
Intersection #4 Seal Beach Blvd/St. Cloud Dr
Cycle (sec): 100 Critical Vol./Cap. (X): 0.626
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: B

Street Name: Seal Beach Blvd East Bound West Bound
Approach: North Bound South Bound St. Cloud Dr
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected
Rights: Ovl Include Include Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 1 0 1 0 2 1 0 0 1 0 0 2 1 0 1 0 0

Volume Module:
Base Vol: 377 1633 47 4 1301 46 106 3 567 65 13 2
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 377 1633 47 4 1301 46 106 3 567 65 13 2
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
PHF Volume: 429 1858 53 5 1480 52 121 3 645 74 15 2
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 429 1858 53 5 1480 52 121 3 645 74 15 2
OvLAdjVol: 0 0 0 0 0 0 0 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.92 0.08 1.00 2.90 0.10 0.97 0.03 2.00 1.63 0.32 0.05
Final Sat.: 3400 4957 143 1700 4926 174 1653 47 3400 2763 552 85

Capacity Analysis Module:
Vol/Sat: 0.13 0.37 0.37 0.00 0.30 0.30 0.07 0.07 0.19 0.03 0.03 0.03
OvLAdjV/S: 0.13 0.37 0.37 0.00 0.30 0.30 0.07 0.07 0.19 0.03 0.03 0.03
Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.535
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 35 Level Of Service: A

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0
 Volume Module:
 Base Vol: 65 1581 15 19 1349 70 77 7 78 17 10 39
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 65 1581 15 19 1349 70 77 7 78 17 10 39
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHE Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 PHF Volume: 71 1728 16 21 1474 77 84 8 85 19 11 43
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 71 1728 16 21 1474 77 84 8 85 19 11 43
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 71 1728 16 21 1474 77 84 8 85 19 11 43
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.97 0.03 1.00 2.85 0.15 1.00 0.08 0.92 1.00 0.20 0.80
 Final Sat.: 1700 5052 48 1700 4648 252 1700 140 1560 1700 347 1353
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.34 0.34 0.01 0.30 0.30 0.05 0.05 0.05 0.01 0.03 0.03
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.501
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 33 Level Of Service: A

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0
 Volume Module:
 Base Vol: 30 1627 31 21 1345 13 3 4 14 24 2 21
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 30 1627 31 21 1345 13 3 4 14 24 2 21
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHE Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
 PHF Volume: 33 1800 34 23 1488 14 3 4 15 27 2 23
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 33 1800 34 23 1488 14 3 4 15 27 2 23
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 33 1800 34 23 1488 14 3 4 15 27 2 23
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.94 0.06 1.00 2.97 0.03 1.00 0.22 0.78 1.00 0.09 0.91
 Final Sat.: 1700 5005 95 1700 5051 49 1700 378 1322 1700 148 1552
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.36 0.36 0.01 0.29 0.29 0.00 0.01 0.01 0.02 0.01 0.01
 Crit Moves: *****

Intersection		EBT		EBR		WBL		WBT		NBL		NBR	
Int Delay, s/veh		12											
Movement													
Traffic Vol, veh/h		605	4	28	403	6	70						
Future Vol, veh/h		605	4	28	403	6	70						
Conflicting Peds. #/hr		0	0	0	0	0	0						
Sign Control		Free	Free	Free	Free	Stop	Stop						
RT Channelized		-	None	-	None	-	None						
Storage Length		-	-	-	-	0	0						
Veh in Median Storage, #		0	-	-	0	0	0						
Grade, %		0	-	-	0	0	0						
Peak Hour Factor		79	79	79	79	79	79						
Heavy Vehicles, %		2	2	2	2	2	2						
Mvmt Flow		766	5	35	510	8	89						
Major/Minor													
Major1		Major2		Minor1		Minor2		Minor3		Minor4		Minor5	
Conflicting Flow All		0		0		771		0		1094		385	
Stage 1		-		-		-		-		-		768	
Stage 2		-		-		-		-		-		326	
Critical Hdwy		-		-		4.14		-		-		6.84	
Critical Hdwy Stg 1		-		-		-		-		-		5.84	
Critical Hdwy Stg 2		-		-		-		-		-		5.84	
Follow-up Hdwy		-		-		2.22		-		-		3.52	
Pot Cap-1 Maneuver		-		-		840		-		-		208	
Stage 1		-		-		-		-		-		418	
Stage 2		-		-		-		-		-		704	
Platoon blocked, %		-		-		-		-		-		-	
Mov Cap-1 Maneuver		-		-		840		-		-		196	
Mov Cap-2 Maneuver		-		-		-		-		-		196	
Stage 1		-		-		-		-		-		418	
Stage 2		-		-		-		-		-		663	
Approach													
EB		WB		WB		NB		NB		NB		NB	
HCM Control Delay, s		0		0.8		0.8		0.8		0.8		13.4	
HCM LOS		B		B		B		B		B		B	
Minor Lane/Major Mvmt													
NBLn1		EBT		EBR		WBL		WBT		NBL		NBR	
Capacity (veh/h)		525		-		840		-		-		-	
HCM Lane V/C Ratio		0.183		-		0.042		-		-		-	
HCM Control Delay (s)		13.4		-		9.5		0.2		-		-	
HCM Lane LOS		B		-		A		A		-		-	
HCM 95th %ile Q(veh)		0.7		-		0.1		-		-		-	

Existing Current Occ AM Mon Feb 20, 2017 15:09:00 Page 6-1
 Health Club within the Shops at Rossmore
 Existing (2016) Current Occupancy
 AM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.726
 Loss Time (sec): 10 Average Delay (ssec/veh): xxxxxx
 Optimal Cycle: 54 Level of Service: C
 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1
 Volume Module:
 Base Vol: 146 1503 26 14 1307 155 270 18 97 70 22 23
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 146 1503 26 14 1307 155 270 18 97 70 22 23
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
 PHF Volume: 156 1607 28 15 1398 166 289 19 104 75 24 25
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 156 1607 28 15 1398 166 289 19 104 75 24 25
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 156 1607 28 15 1398 166 289 19 104 75 24 25
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.95 0.05 1.00 2.68 0.32 1.00 0.16 0.84 0.76 0.24 1.00
 Final Sat: 1700 5013 87 1700 4559 541 1700 266 1434 1293 407 1700
 Capacity Analysis Module:
 Vol/Sat: 0.09 0.32 0.32 0.01 0.31 0.31 0.17 0.07 0.07 0.04 0.06 0.01
 Crit Moves: ****

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

11/21/2016

Intersection												
Intersection Delay, s/veh											11.3	
Intersection LOS											B	
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	54	6	124	0	2	3	1	0	107	165	2
Future Vol, veh/h	0	54	6	124	0	2	3	1	0	107	165	2
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	68	8	157	0	3	4	1	0	135	209	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2

Approach			EB	WB	WB	NB
Opposing Approach	WB	EB	EB	WB	NB	SB
Opposing Lanes	1	1	1	1	2	2
Conflicting Approach Left	SB	NB	NB	EB	EB	1
Conflicting Lanes Left	2	2	2	2	WB	1
Conflicting Approach Right	NB	SB	SB	WB	WB	1
Conflicting Lanes Right	2	2	2	2	1	1
HCM Control Delay	11.3	9.3	9.3	11.7	11.7	B
HCM LOS	B	A	A	B	B	

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	56%	0%	29%	33%	0%	0%
Vol Thru, %	44%	98%	3%	50%	100%	78%
Vol Right, %	0%	2%	67%	17%	0%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	85	184	6	189	121
LT Vol	107	0	54	2	0	0
Through Vol	83	83	6	3	189	94
RT Vol	0	2	124	1	0	27
Lane Flow Rate	240	107	233	8	239	154
Geometry Grp	7	7	2	2	7	7
Degree of Utl (X)	0.4	0.169	0.348	0.013	0.377	0.236
Departure Headway (Hd)	6	5.688	5.375	6.196	5.668	5.522
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	602	630	671	577	635	651
Service Time	3.727	3.424	3.404	4.241	3.405	3.247
HCM Lane V/C Ratio	0.399	0.17	0.347	0.014	0.376	0.237
HCM Control Delay	12.7	9.6	11.3	9.3	11.8	10
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.9	0.6	1.6	0	1.8	0.9

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

11/21/2016

Intersection						
Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR	SBR	SBR
Traffic Vol, veh/h	0	0	283	27	27	27
Future Vol, veh/h	0	0	283	27	27	27
Peak Hour Factor	0.92	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	358	34	34	34
Number of Lanes	0	0	2	2	0	0

Approach		SB	SB
Opposing Approach	Opposing Approach	NB	NB
Opposing Lanes	2	2	2
Conflicting Approach Left	WB	WB	1
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	EB	EB	1
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.1	11.1	11.1
HCM LOS	B	B	B

Lane

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmoor Center Way

11/21/2016

HCM 2010 AWSC

11: Montecito Road & Bradbury Road

Existing + Current Occupancy AM Peak Hour
02/22/2017

Intersection	Intersection Delay, s/veh 11.9															
Intersection LOS	B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	97	61	86	0	13	42	31	0	38	180	21	0	24	202	65
Future Vol, veh/h	0	97	61	86	0	13	42	31	0	38	180	21	0	24	202	65
Peak Hour Factor	0.92	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	117	73	104	0	16	51	37	0	46	217	25	0	29	243	78
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	2
Approach	EB				WB				NB				SB			
Opposing Approach	WB				EB				SB				NB			
Opposing Lanes	1				1				2				2			
Conflicting Approach Left	SB				NB				EB				WB			
Conflicting Lanes Left	2				2				1				1			
Conflicting Approach Right	NB				SB				WB				EB			
Conflicting Lanes Right	2				2				1				1			
HCM Control Delay	13.6				10.4				11.2				11.4			
HCM LOS	B				B				B				B			

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	30%	0%	40%	15%	19%	0%
Vol Thru, %	70%	81%	25%	49%	81%	61%
Vol Right, %	0%	19%	35%	36%	0%	39%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	111	244	86	125	166
LT Vol	38	0	97	13	24	0
Through Vol	90	90	61	42	101	101
RT Vol	0	21	86	31	0	65
Lane Flow Rate	154	134	294	104	151	200
Geometry Grp	7	7	2	2	7	7
Degree of Utl (X)	0.274	0.227	0.463	0.173	0.262	0.327
Departure Headway (Hd)	6.399	6.113	5.666	6.021	6.267	5.89
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	560	586	635	593	571	608
Service Time	4.159	3.872	3.722	4.095	4.025	3.648
HCM Lane V/C Ratio	0.275	0.229	0.463	0.175	0.264	0.329
HCM Control Delay	11.6	10.7	13.6	10.4	11.3	11.5
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-ile Q	1.1	0.9	2.4	0.6	1	1.4

Intersection	Intersection Delay, s/veh 12.8															
Intersection LOS	B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	5	24	2	0	135	18	146	0	0	138	219	0	0	138	219
Future Vol, veh/h	0	5	24	2	0	135	18	146	0	0	138	219	0	0	138	219
Peak Hour Factor	0.92	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	30	3	0	171	23	185	0	0	175	277	0	0	175	277
Number of Lanes	0	0	1	0	0	0	1	1	0	0	0	2	0	0	2	0
Approach	EB				WB				NB				SB			
Opposing Approach	WB				EB				SB				NB			
Opposing Lanes	2				1				2				2			
Conflicting Approach Left	SB				NB				WB				EB			
Conflicting Lanes Left	2				2				1				1			
Conflicting Approach Right	NB				SB				WB				EB			
Conflicting Lanes Right	2				2				2				2			
HCM Control Delay	10.9				12.5				13.6				13.6			
HCM LOS	B				B				B				B			

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	0%	0%	16%	88%	0%	53%
Vol Thru, %	100%	17%	77%	12%	0%	47%
Vol Right, %	0%	83%	6%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	92	265	31	153	146	140
LT Vol	0	0	5	135	0	74
Through Vol	92	46	24	18	0	66
RT Vol	0	219	2	0	146	0
Lane Flow Rate	116	335	39	194	185	177
Geometry Grp	7	7	6	7	7	7
Degree of Utl (X)	0.202	0.526	0.078	0.375	0.298	0.33
Departure Headway (Hd)	6.226	5.649	7.193	6.97	5.813	6.721
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	574	637	495	515	615	533
Service Time	3.991	3.403	5.276	4.725	3.568	4.482
HCM Lane V/C Ratio	0.202	0.526	0.079	0.377	0.301	0.332
HCM Control Delay	10.6	14.6	10.9	13.9	11	12.8
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-ile Q	0.7	3.1	0.3	1.7	1.2	1.4

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road
 Existing + Current Occupancy AM Peak Hour
 02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	74	131	2
Future Vol, veh/h	0	74	131	2
Peak Hour Factor	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	94	166	3
Number of Lanes	0	0	2	0
Approach	SB	SB		
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	2			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	12			
HCM LOS	B			

HCM 2010 AWSC
 1.2: West Road & Rossmore Center Way
 11/21/2016

Intersection	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	7.7								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Traffic Vol, veh/h	0	99	7	0	6	86	0	4	12
Future Vol, veh/h	0	99	7	0	6	86	0	4	12
Peak Hour Factor	0.92	0.85	0.85	0.92	0.85	0.85	0.92	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	116	8	0	7	101	0	5	14
Number of Lanes	0	1	0	0	0	1	0	1	0
Approach	EB	WB	WB	EB	EB	EB	NB	NB	NB
Opposing Approach	WB	WB							
Opposing Lanes	1						0		
Conflicting Approach Left				NB			EB		
Conflicting Lanes Left	0			1			1		
Conflicting Approach Right	NB						WB		
Conflicting Lanes Right	1			0			1		
HCM Control Delay	7.7			7.7			7.1		
HCM LOS	A			A			A		
Lane	NBU	NB	NB	WBU	WB	WB	NBU	NBL	NBR
Vol Left, %	25%	0%	7%						
Vol Thru, %	0%	93%	93%						
Vol Right, %	75%	7%	0%						
Sign Control	Stop	Stop	Stop						
Traffic Vol by Lane	16	106	92						
LT Vol	4	0	6						
Through Vol	0	99	86						
RT Vol	12	7	0						
Lane Flow Rate	19	125	108						
Geometry Grp	1	1	1						
Degree of Utl (X)	0.021	0.139	0.122						
Departure Headway (Hd)	4.031	4.008	4.074						
Convergence, Y/N	Yes	Yes	Yes						
Cap	893	893	879						
Service Time	2.031	2.038	2.105						
HCM Lane V/C Ratio	0.021	0.14	0.123						
HCM Control Delay	7.1	7.7	7.7						
HCM Lane LOS	A	A	A						
HCM 95th-ile Q	0.1	0.5	0.4						

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

11/21/2016

Intersection															
Intersection Delay, s/veh 8.7															
Intersection LOS A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	35	98	14	0	73	58	51	0	13	16	31	0	59	16
Future Vol, veh/h	0	35	98	14	0	73	58	51	0	13	16	31	0	59	16
Peak Hour Factor	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.92	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	105	15	0	78	62	55	0	14	17	33	0	63	17
Number of Lanes	0	0	2	0	0	0	1	0	0	0	1	0	0	0	1
Approach	EB	WB	WB	EB	NB	NB	WB	WB	NB	NB	WB	WB	SB	SB	SB
Opposing Approach	WB	EB	EB	WB	SB	SB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Opposing Lanes	1	2	2	2	1	1	2	2	1	1	2	2	1	1	1
Conflicting Approach Left	SB	NB	NB	EB	WB	WB	EB	EB	WB						
Conflicting Lanes Left	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1
Conflicting Approach Right	NB	SB	SB	WB	WB	WB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Conflicting Lanes Right	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
HCM Control Delay	8.5	8.5	8.5	8.5	8.1	8.1	8.7	8.7	8.1	8.1	8.7	8.7	8.7	8.7	8.7
HCM LOS	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Lane	NBLn1	EBLn1	EBLn1	EBLn2	WBLn1	WBLn1	WBLn1	WBLn1	NBLn1	NBLn1	NBLn1	NBLn1	WBLn2	WBLn2	WBLn2
Vol Left, %	22%	42%	0%	40%	66%	66%	66%	66%	27%	58%	78%	32%	18%	18%	18%
Vol Thru, %	27%	58%	78%	28%	17%	17%	17%	17%	52%	0%	22%	28%	17%	17%	17%
Vol Right, %	52%	0%	22%	28%	17%	17%	17%	17%	52%	0%	22%	28%	17%	17%	17%
Sign Control	Stop														
Traffic Vol by Lane	60	84	63	182	90	90	90	90	13	35	0	73	59	59	59
LT Vol	13	35	0	73	59	59	59	59	13	35	0	73	59	59	59
Through Vol	16	49	49	58	16	16	16	16	16	49	49	58	16	16	16
RT Vol	31	0	14	51	15	15	15	15	31	0	14	51	15	15	15
Lane Flow Rate	65	90	68	196	97	97	97	97	65	90	68	196	97	97	97
Geometry Grp	2	7	7	5	2	2	2	2	2	7	7	5	2	2	2
Degree of Utl (X)	0.083	0.133	0.093	0.246	0.131	0.131	0.131	0.131	0.083	0.133	0.093	0.246	0.131	0.131	0.131
Departure Headway (Hd)	4.626	5.298	4.932	4.529	4.876	4.876	4.876	4.876	4.626	5.298	4.932	4.529	4.876	4.876	4.876
Convergence, Y/N	Yes														
Cap	773	677	726	793	735	735	735	735	773	677	726	793	735	735	735
Service Time	2.664	3.03	2.663	2.559	2.912	2.912	2.912	2.912	2.664	3.03	2.663	2.559	2.912	2.912	2.912
HCM Lane V/C Ratio	0.084	0.133	0.094	0.247	0.132	0.132	0.132	0.132	0.084	0.133	0.094	0.247	0.132	0.132	0.132
HCM Control Delay	8.1	8.8	8.2	9	8.7	8.7	8.7	8.7	8.1	8.8	8.2	9	8.7	8.7	8.7
HCM Lane LOS	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.3	0.5	0.3	1	0.4	0.4	0.4	0.4	0.3	0.5	0.3	1	0.4	0.4	0.4

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

11/21/2016

Intersection														
Intersection Delay, s/veh 7.4														
Intersection LOS A														
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT				
Traffic Vol, veh/h	0	33	37	0	16	14	0	28	15	15				
Future Vol, veh/h	0	33	37	0	16	14	0	28	15	15				
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.87	0.87	0.87	0.87				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	38	43	0	18	16	0	32	17	17				
Number of Lanes	0	1	1	0	1	0	0	0	0	1				
Approach	WB	WB	NB	NB	SB	SB	WB	WB	SB	SB				
Opposing Approach	WB	WB	NB	NB	SB	SB	WB	WB	SB	SB				
Opposing Lanes	0	0	1	1	1	1	0	0	1	1				
Conflicting Approach Left	NB	NB	WB	WB	WB	WB	NB	NB	NB	NB				
Conflicting Lanes Left	1	1	0	0	0	0	1	1	1	1				
Conflicting Approach Right	SB	SB	WB	WB	WB	WB	SB	SB	SB	SB				
Conflicting Lanes Right	1	1	2	2	2	2	1	1	1	1				
HCM Control Delay	7.5	7.5	7	7	7.6	7.6	7.6	7.6	7.6	7.6				
HCM LOS	A	A	A	A	A	A	A	A	A	A				
Lane	NBLn1	WBLn1	WBLn2	WBLn2	SBLn1	SBLn1								
Vol Left, %	0%	100%	0%	66%	53%	0%								
Vol Thru, %	53%	0%	0%	35%	47%	0%								
Vol Right, %	47%	0%	100%	0%	53%	0%								
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	30	33	37	43	18	16								
LT Vol	0	33	0	28	18	16								
Through Vol	16	0	0	15	16	0								
RT Vol	14	0	37	0	14	0								
Lane Flow Rate	34	38	43	49	34	38								
Geometry Grp	2	7	7	2	2	2								
Degree of Utl (X)	0.037	0.055	0.047	0.068	0.037	0.055								
Departure Headway (Hd)	3.829	5.181	3.979	4.229	3.829	5.181								
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes								
Cap	924	690	897	840	924	690								
Service Time	1.898	2.92	1.718	2.291	1.898	2.92								
HCM Lane V/C Ratio	0.037	0.055	0.048	0.068	0.037	0.055								
HCM Control Delay	7	8.2	6.9	7.6	7	8.2								
HCM Lane LOS	A	A	A	A	A	A								
HCM 95th-tile Q	0.1	0.2	0.1	0.2	0.1	0.2								

Intersection	0.7			
Int Delay, s/veh	EBT	EBR	WBL	WBT
Movement	110	0	9	95
Traffic Vol, veh/h	110	0	9	95
Future Vol, veh/h	0	0	0	0
Conflicting Peds, #/hr	Free	Free	Free	Free
Sign Control	-	None	-	None
RT Channelized	-	None	-	None
Storage Length	0	-	0	0
Veh in Median Storage, #	0	-	0	0
Grade, %	89	89	89	89
Peak Hour Factor	2	2	2	2
Heavy Vehicles, %	124	0	10	107
Mvmt Flow				
	Major1	Major2	Minor1	
Conflicting Flow All	0	124	0	251
Stage 1	-	-	-	124
Stage 2	-	-	-	127
Critical Hwy	-	4.12	-	6.42
Critical Hwy Stg 1	-	-	-	5.42
Critical Hwy Stg 2	-	-	-	5.42
Follow-up Hwy	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	1463	-	738
Stage 1	-	-	-	902
Stage 2	-	-	-	899
Platoon blocked, %	-	-	-	733
Mov Cap-1 Maneuver	-	1463	-	733
Mov Cap-2 Maneuver	-	-	-	733
Stage 1	-	-	-	902
Stage 2	-	-	-	893
Approach	EB	WB	NB	
HCM Control Delay, s	0	0.6	8.9	
HCM LOS		A		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL
Capacity (veh/h)	927	-	-	1463
HCM Lane V/C Ratio	0.013	-	-	0.007
HCM Control Delay (s)	8.9	-	-	7.5
HCM Lane LOS	A	-	-	A
HCM 95th %ile Q(veh)	0	-	-	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4TB			4			4TB				
Traffic Volume (veh/h)	166	30	20	321	35	517	11	1445	31	516	1066	127
Future Volume (veh/h)	166	30	20	321	35	517	11	1445	31	516	1066	127
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	171	31	21	357	0	0	11	1490	372	532	1099	131
Adj No. of Lanes	0	2	0	2	0	0	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	127	74	50	416	0	186	23	1591	495	562	3218	1002
Arrive On Green	0.07	0.07	0.07	0.12	0.00	0.00	0.01	0.31	0.31	0.63	1.00	1.00
Sat Flow, veh/h	1774	1037	702	3548	0	1593	1774	5085	1593	1774	5085	1593
Grp Volume(v), veh/h	171	0	52	357	0	0	11	1490	372	532	1099	131
Grp Sat Flow(s), veh/h	1774	0	1739	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	7.9	0.0	3.1	10.9	0.0	0.0	0.7	31.3	23.2	30.2	0.0	0.0
Cycle Q Clear(g.c), s	7.9	0.0	3.1	10.9	0.0	0.0	0.7	31.3	23.2	30.2	0.0	0.0
Prop In Lane	1.00	0.00	0.40	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	127	0	125	416	0	186	23	1591	495	562	3218	1002
V/C Ratio(X)	1.34	0.00	0.42	0.86	0.00	0.00	0.48	0.94	0.75	0.95	0.34	0.13
Avail Cap(c,a), veh/h	127	0	125	426	0	190	81	1600	498	562	3218	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(i)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.88	0.88
Uniform Delay (d), s/veh	51.1	0.0	48.8	47.6	0.0	0.0	53.9	36.7	33.9	19.3	0.0	0.0
Incr Delay (d2), s/veh	197.2	0.0	2.2	15.6	0.0	0.0	14.6	11.8	10.1	23.3	0.3	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%) veh/h	10.8	0.0	1.6	6.2	0.0	0.0	0.4	16.4	11.5	17.8	0.1	0.1
LnGrp Delay(d), s/veh	248.3	0.0	51.0	63.2	0.0	0.0	68.5	48.6	44.0	42.7	0.3	0.2
LnGrp LOS	F	D	E	E	D	E	D	D	D	D	A	A
Approach Vol, veh/h	223			357			1873				1762	
Approach Delay, s/veh	202.3			63.2			47.8				13.1	
Approach LOS	F			E			D				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	40.6	40.2		12.6	5.4	75.4		18.7				
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8		5.8				
Max Green Setting (Gmax), s	34.0	* 35		* 7.9	5.0	63.6		13.2				
Max Q Clear Time (g_c+H), s	32.2	33.3		9.9	2.7	2.0		12.9				
Green Ext Time (p_c), s	0.4	1.1		0.0	0.0	13.3		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay	42.7											
HCM 2010 LOS	D											
Notes												

11/29/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	75	72	87	195	15	664	41	1536	555	313	1439	370
Future Volume (veh/h)	75	72	87	195	15	664	41	1536	555	313	1439	370
Number	7	4	0	14	3	8	18	5	2	12	1	6
Initial Q (Ob.) veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	77	74	90	201	0	695	42	1584	0	323	1484	381
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Cap. veh/h	81	85	72	909	0	811	519	1920	588	242	1763	549
Arrive On Green	0.05	0.05	0.05	0.26	0.00	0.26	0.30	0.76	0.00	0.14	0.35	0.35
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	77	74	90	201	0	695	42	1584	0	323	1484	381
Grp Sat Flow(s), veh/h/m/1774	1863	1863	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g.s.)	4.8	4.3	5.0	4.9	0.0	23.0	1.0	22.3	0.0	15.0	29.6	22.8
Cycle Q Clear(g.s.)	4.8	4.3	5.0	4.9	0.0	23.0	1.0	22.3	0.0	15.0	29.6	22.8
Prp In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	81	85	72	909	0	811	519	1920	588	242	1763	549
V/C Ratio(X)	0.95	0.87	1.25	0.22	0.00	0.86	0.08	0.83	0.00	1.34	0.84	0.69
Avail Cap(c), veh/h	81	85	72	1258	0	1123	519	1920	588	242	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.54	0.54	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	52.2	32.3	0.0	39.0	33.0	11.1	0.0	47.5	33.1	30.9	0.0
Incr Delay (d2), s/veh	84.8	58.3	187.7	0.1	0.0	5.0	0.0	2.3	0.0	176.2	5.1	7.1
Initial Q Delay(Q3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.6	5.9	2.4	0.0	10.6	0.5	10.4	0.0	19.2	14.7	11.0	0.0
LnGrp Delay(d), s/veh	137.2	110.5	240.2	32.4	0.0	44.0	33.0	13.4	0.0	223.7	38.2	38.0
LnGrp LOS	F	F	F	C	D	C	B	B	F	D	D	D
Approach Vol, veh/h	241			896			1626				2188	
Approach Delay, s/veh	167.5			41.4			13.9				65.6	
Approach LOS	F			D			B				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+Rc), s	9.0	47.3	9.7	22.4	43.9							
Change Period (Y+Rc), s	4.0	5.8	* 4.7	5.8	* 5.8							
Max Green Setting (Gmax), s	30.7	* 5.0	* 5.0	* 41								
Max Q Clear Time (g_c+I1), s	24.3	7.0	3.0	31.6								
Green Ext Time (p_c), s	0.0	4.7	0.0	1.7	6.5							

Intersection Summary
 HCM 2010 Ctrl Delay 49.2
 HCM 2010 LOS D
 Notes

Existing Current Occ PM Mon Feb 20, 2017 15:10:35 Page 2-1
 Health Club within the Shops at Rossmoor
 Existing (2016) Current Occupancy
 PM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.792
 Loss Time (sec): 65 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 65 Level Of Service: C
 Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Protected Protected Permitted
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 2 0 0 1
 Volume Module: 0 1691 544 630 1591 0 0 0 0 0 540 0 454
 Base Vol: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Growth Adj: 0 1691 544 630 1591 0 0 0 0 0 540 0 454
 Initial Base: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 User Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 0 1731 557 645 1628 0 0 0 0 0 553 0 465
 Reduct Vol: 0 1731 557 645 1628 0 0 0 0 0 553 0 465
 Reduced Vol: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1731 557 645 1628 0 0 0 0 0 553 0 465
 OvlAdjVol: 0 1731 557 645 1628 0 0 0 0 0 553 0 465
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 3.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 0 3400 0 1700
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.34 0.33 0.19 0.32 0.00 0.00 0.00 0.00 0.16 0.00 0.27
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.732
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 54 Level Of Service: C

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0	1	0	1
Lanes:	1	0	2	1	0	1	0	1

Volume Module:
 Base Vol: 180 1415 84 78 1370 83 85 28 185 139 47 59
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 180 1415 84 78 1370 83 85 28 185 139 47 59
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 190 1496 89 82 1448 88 90 30 196 147 50 62
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 190 1496 89 82 1448 88 90 30 196 147 50 62
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 190 1496 89 82 1448 88 90 30 196 147 50 62

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.83 0.17 1.00 2.83 0.17 1.00 0.13 0.87 1.00 0.44 0.56
 Final Sat.: 1700 4814 286 1700 4609 291 1700 223 1477 1700 754 946

Capacity Analysis Module:
 Vol/Sat: 0.11 0.31 0.05 0.30 0.30 0.05 0.13 0.13 0.09 0.07 0.07
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #4 Seal Beach Blvd/St. Cloud Dr

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.717
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 52 Level Of Service: C

 Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Split Phase	Split Phase
Rights:	0	0	0	0	OVI	Include
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	2	0	2	1	0	1
Lanes:	2	0	2	1	0	1

Volume Module:
 Base Vol: 406 1617 132 5 1649 66 86 0 385 193 31 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 406 1617 132 5 1649 66 86 0 385 193 31 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 437 1739 142 5 1773 71 92 0 414 208 33 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 437 1739 142 5 1773 71 92 0 414 208 33 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 437 1739 142 5 1773 71 92 0 414 208 33 5
 OrLAdjVol: 0

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.77 0.23 1.00 2.88 0.12 1.00 0.00 2.00 1.69 0.27 0.04
 Final Sat.: 3400 4715 385 1700 4904 196 1700 0 3400 2866 460 74

Capacity Analysis Module:
 Vol/Sat: 0.13 0.37 0.37 0.00 0.36 0.36 0.05 0.00 0.12 0.07 0.07 0.07
 OrLAdjV/S: 0.00
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.679
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 130 1489 57 19 1676 170 162 9 88 48 3 11
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 130 1489 57 19 1676 170 162 9 88 48 3 11
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 134 1530 59 20 1723 175 166 9 90 49 3 11
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 134 1530 59 20 1723 175 166 9 90 49 3 11
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 134 1530 59 20 1723 175 166 9 90 49 3 11

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.69 0.11 1.00 2.72 0.28 1.00 0.09 0.91 0.94 0.06 1.00
 Final Sat.: 1700 4912 188 1700 4630 470 1700 158 1542 1600 100 1700

Capacity Analysis Module:
 Vol/Sat: 0.08 0.31 0.31 0.01 0.37 0.37 0.10 0.06 0.06 0.03 0.03 0.01
 Crit Moves: *****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.686
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 159 1520 24 36 1554 190 184 1 130 15 1 16
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 159 1520 24 36 1554 190 184 1 130 15 1 16
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 168 1608 25 38 1644 201 195 1 138 16 1 17
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 168 1608 25 38 1644 201 195 1 138 16 1 17
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 168 1608 25 38 1644 201 195 1 138 16 1 17

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.95 0.05 1.00 2.67 0.33 1.00 0.01 0.99 1.00 0.06 0.94
 Final Sat.: 1700 5021 79 1700 4544 556 1700 13 1687 1700 100 1600

Capacity Analysis Module:
 Vol/Sat: 0.10 0.32 0.32 0.02 0.36 0.36 0.11 0.08 0.08 0.01 0.01 0.01
 Crit Moves: *****

HCM 2010 TWSC

8: Yellowtail Drive & Saint Cloud Drive

11/29/2016

Intersection	1 2												
Int Delay, s/veh	A												
Movement	EBT	EBR	WBL	WBT	NBL	NBR						NBR	
Traffic Vol, veh/h	443	7	53	453	3	49						49	
Future Vol, veh/h	443	7	53	453	3	49						49	
Conflicting Peds, #/hr	0	0	0	0	0	0						0	
Sign Control	Free	Free	Free	Free	Stop	Stop						Stop	
RT Channelized	-	None	-	None	-	None						None	
Storage Length	-	-	-	-	0	0						0	
Veh in Median Storage, #	0	-	-	0	0	0						0	
Grade, %	0	-	-	0	0	0						0	
Peak Hour Factor	90	90	90	90	90	90						90	
Heavy Vehicles, %	2	2	2	2	2	2						2	
Mvmt Flow	492	8	59	503	3	54						54	
Major/Minor	Major1						Major2						Minor1
Conflicting Flow All	0	0	500	0	865	250						250	
Stage 1	-	-	-	-	496	-						-	
Stage 2	-	-	-	-	369	-						-	
Critical Hwy	-	-	4.14	-	6.84	6.94						6.94	
Critical Hwy Stg 1	-	-	-	-	5.84	-						-	
Critical Hwy Stg 2	-	-	-	-	5.84	-						-	
Follow-up Hwy	-	-	2.22	-	3.52	3.32						3.32	
Pot Cap-1 Maneuver	-	-	1060	-	293	750						750	
Stage 1	-	-	-	-	577	-						-	
Stage 2	-	-	-	-	670	-						-	
Platoon blocked, %	-	-	-	-	-	-						-	
Mov Cap-1 Maneuver	-	-	1060	-	270	750						750	
Mov Cap-2 Maneuver	-	-	-	-	270	-						-	
Stage 1	-	-	-	-	577	-						-	
Stage 2	-	-	-	-	618	-						-	
Approach	EB						WB						NB
HCM/Control Delay, s	0						1.2						10.8
HCM LOS	B						B						B
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT								
Capacity (veh/h)	680	-	-	1060	-								
HCM Lane V/C Ratio	0.085	-	-	0.056	-								
HCM Control Delay (s)	10.8	-	-	8.6	0.3								
HCM Lane LOS	B	-	-	A	A								
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-								

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

11/29/2016

Intersection	9.5											
Intersection Delay	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	30	4	45	0	2	5	10	0	66	212	3
Future Vol, veh/h	0	30	4	45	0	2	5	10	0	66	212	3
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	5	54	0	2	6	12	0	79	252	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0
Approach	EB						WB					
Opposing Approach	WB						EB					
Opposing Lanes	1						1					
Conflicting Approach Left	SB						NB					
Conflicting Lanes Left	2						2					
Conflicting Approach Right	NB						SB					
Conflicting Lanes Right	2						2					
HCM Control Delay	9						8.5					
HCM LOS	A						A					
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2				
Vol Left, %	38%	0%	38%	0%	12%	6%	0%	0%				
Vol Thru, %	62%	97%	5%	29%	94%	72%	0%	28%				
Vol Right, %	0%	3%	57%	59%	0%	0%	0%	0%				
Sign Control	Stop											
Traffic Vol by Lane	172	109	79	17	123	160						
LT Vol	66	0	30	2	7	0						
Through Vol	106	106	4	5	116	116						
RT Vol	0	3	45	10	0	44						
Lane Flow Rate	205	130	94	20	146	190						
Geometry Grp	7	7	2	2	7	7						
Degree of Utl (X)	0.303	0.184	0.135	0.029	0.21	0.261						
Departure Headway (Ht)	5.328	5.115	5.16	5.228	5.176	4.953						
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes						
Cap	672	699	691	680	691	723						
Service Time	3.077	2.864	3.216	3.299	2.923	2.7						
HCM Lane V/C Ratio	0.305	0.186	0.136	0.029	0.211	0.263						
HCM Control Delay	10.4	9	9	8.5	9.3	9.5						
HCM Lane LOS	B	A	A	A	A	A						
HCM 95th-tile Q	1.3	0.7	0.5	0.1	0.8	1						

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

11/29/2016

Intersection						
Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR	SBL	SBR
Traffic Vol, veh/h	0	7	231	44		
Future Vol, veh/h	0	7	231	44		
Peak Hour Factor	0.92	0.84	0.84	0.84		
Heavy Vehicles, %	2	2	2	2		
Mvmt Flow	0	8	275	52		
Number of Lanes	0	0	2	0		
Approach						
Opposing Approach	SB	SB				
Opposing Lanes	NB	NB				
Conflicting Approach Left	WB	WB				
Conflicting Lanes Left	1	1				
Conflicting Approach Right	EB	EB				
Conflicting Lanes Right	1	1				
HCM Control Delay	9.4	9.4				
HCM LOS	A	A				
Lane						
	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	31%	0%	32%	25%	33%	0%
Vol Thru, %	69%	72%	27%	27%	67%	69%
Vol Right, %	0%	28%	41%	49%	0%	31%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	92	130	146	134	130
LT Vol	29	0	42	36	44	0
RT Vol	0	26	53	71	0	40
Lane Flow Rate	112	109	155	174	160	155
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.189	0.172	0.234	0.268	0.263	0.238
Departure Headway (Hd)	6.034	5.677	5.434	5.339	5.925	5.54
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	595	632	661	673	606	648
Service Time	3.769	3.412	3.471	3.376	3.657	3.273
HCM Lane V/C Ratio	0.188	0.172	0.234	0.259	0.264	0.239
HCM Control Delay	10.2	9.6	10.1	10.2	10.8	10
HCM Lane LOS	B	A	B	B	B	A
HCM 95th-ile Q	0.7	0.6	0.9	1	1.1	0.9

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmore Center Way

11/29/2016

Intersection															
Intersection Delay, s/veh10.2															
Intersection LOS															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	42	35	53	0	36	39	71	0	29	131	26	0	44	180
Future Vol, veh/h	0	42	35	53	0	36	39	71	0	29	131	26	0	44	180
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	50	42	63	0	43	46	85	0	35	156	31	0	52	214
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0	0	0	2
Approach															
Opposing Approach	WB	WB			WB	WB			NB	NB			SB	SB	
Opposing Lanes	1	1			1	1			2	2			2	2	
Conflicting Approach Left	SB	SB			NB	NB			EB	EB			WB	WB	
Conflicting Lanes Left	2	2			2	2			1	1			1	1	
Conflicting Approach Right	NB	NB			SB	SB			WB	WB			EB	EB	
Conflicting Lanes Right	2	2			2	2			1	1			1	1	
HCM Control Delay	10.1	10.1			10.2	10.2			9.9	9.9			10.4	10.4	
HCM LOS	B	B			B	B			A	A			B	B	
Lane															
	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2									
Vol Left, %	31%	0%	32%	25%	33%	0%									
Vol Thru, %	69%	72%	27%	27%	67%	69%									
Vol Right, %	0%	28%	41%	49%	0%	31%									
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop									
Traffic Vol by Lane	95	92	130	146	134	130									
LT Vol	29	0	42	36	44	0									
RT Vol	0	26	53	71	0	40									
Lane Flow Rate	112	109	155	174	160	155									
Geometry Grp	7	7	2	2	7	7									
Degree of Util (X)	0.189	0.172	0.234	0.268	0.263	0.238									
Departure Headway (Hd)	6.034	5.677	5.434	5.339	5.925	5.54									
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes									
Cap	595	632	661	673	606	648									
Service Time	3.769	3.412	3.471	3.376	3.657	3.273									
HCM Lane V/C Ratio	0.188	0.172	0.234	0.259	0.264	0.239									
HCM Control Delay	10.2	9.6	10.1	10.2	10.8	10									
HCM Lane LOS	B	A	B	B	B	A									
HCM 95th-ile Q	0.7	0.6	0.9	1	1.1	0.9									

HCM 2010 AWSC Existing + Current Occupancy PM Peak Hour
 1.1: Montecito Road & Bradbury Road 02/22/2017

Intersection	10.1											
Intersection Delay, s/veh	B											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations	0	1	17	2	0	148	25	64	0	5	102	106
Traffic Vol, veh/h	0	1	17	2	0	148	25	64	0	5	102	106
Future Vol, veh/h	0.92	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.92	0.87	0.87	0.87
Peak Hour Factor	2	2	2	2	2	2	2	2	2	2	2	2
Heavy Vehicles, %	0	1	20	2	0	170	29	74	0	6	117	122
Mvmt Flow	0	0	1	0	0	1	1	1	0	0	2	0
Number of Lanes												
Approach	EB						WB					
Opposing Approach	WB						EB					
Opposing Lanes	2						1					
Conflicting Approach Left	SB						NB					
Conflicting Lanes Left	2						2					
Conflicting Approach Right	NB						SB					
Conflicting Lanes Right	2						2					
HCM Control Delay	9.3						10.9					
HCM LOS	A						B					

HCM 2010 AWSC Existing + Current Occupancy PM Peak Hour
 1.1: Montecito Road & Bradbury Road 02/22/2017

Intersection	10.1											
Intersection Delay, s/veh	B											
Intersection LOS	B											
Movement	SBU	SBL	SBT	SBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	0	41	123	3	0	41	123	3	0	41	123	3
Traffic Vol, veh/h	0	41	123	3	0	41	123	3	0	41	123	3
Future Vol, veh/h	0.92	0.87	0.87	0.87	0.92	0.87	0.87	0.87	0.92	0.87	0.87	0.87
Peak Hour Factor	2	2	2	2	2	2	2	2	2	2	2	2
Heavy Vehicles, %	0	2	2	2	0	47	141	3	0	2	2	0
Mvmt Flow	0	0	0	2	0	0	2	0	0	0	2	0
Number of Lanes												
Approach	SB						NB					
Opposing Approach	NB						SB					
Opposing Lanes	2						2					
Conflicting Approach Left	WB						WB					
Conflicting Lanes Left	2						2					
Conflicting Approach Right	EB						EB					
Conflicting Lanes Right	1						1					
HCM Control Delay	9.7						9.7					
HCM LOS	A						A					

Lane	NBLn1	NBLn2	NBLn1	NBLn2	WBLn1	WBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	9%	0%	5%	0%	86%	0%	40%	0%	0%	0%
Vol Thru, %	91%	32%	85%	14%	0%	0%	60%	95%	0%	0%
Vol Right, %	0%	68%	10%	0%	0%	100%	0%	5%	0%	0%
Sign Control	Stop									
Traffic Vol by Lane	56	157	20	173	64	103	65	65	65	65
LT Vol	5	0	1	148	0	41	0	0	0	0
Through Vol	51	51	17	25	0	62	62	62	62	62
RT Vol	0	166	2	0	64	0	3	3	3	3
Lane Flow Rate	64	180	23	199	74	118	74	74	74	74
Geometry Grp	7	7	6	7	7	7	7	7	7	7
Degree of Utl (X)	0.101	0.256	0.039	0.335	0.101	0.191	0.115	0.115	0.115	0.115
Departure Headway (Hd)	5.634	5.112	6.095	6.064	4.929	5.828	5.593	5.593	5.593	5.593
Convergence, Y/N	Yes									
Cap	631	697	591	589	719	610	635	635	635	635
Service Time	3.416	2.894	4.095	3.854	2.719	3.617	3.381	3.381	3.381	3.381
HCM Lane V/C Ratio	0.101	0.258	0.039	0.338	0.103	0.193	0.117	0.117	0.117	0.117
HCM Control Delay	9.1	9.7	9.3	11.9	8.3	10	9.1	9.1	9.1	9.1
HCM Lane LOS	A	A	A	B	A	A	A	A	A	A
HCM 95th-ile Q	0.3	1	0.1	1.5	0.3	0.7	0.4	0.4	0.4	0.4

HCM 2010 AWSC

12: West Road & Rossmoor Center Way

11/29/2016

Intersection												
Intersection Delay, s/veh 8												
Intersection LOS A												
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR			
Traffic Vol, veh/h	0	90	17	0	22	136	0	26	11			
Future Vol, veh/h	0	90	17	0	22	136	0	26	11			
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	100	19	0	24	151	0	29	12			
Number of Lanes	0	1	0	0	0	1	0	1	0			

Approach												
Opposing Approach												
Opposing Lanes												
Conflicting Approach Left												
Conflicting Lanes Left												
Conflicting Approach Right												
Conflicting Lanes Right												
HCM Control Delay												
HCM LOS												
Approach	EB	WB	EB	NB								
Opposing Approach	WB	EB										
Opposing Lanes	1	1										
Conflicting Approach Left	0	NB	EB									
Conflicting Lanes Left	0	1	1									
Conflicting Approach Right	NB	0	WB									
Conflicting Lanes Right	1	0	1									
HCM Control Delay	7.7	8.2	7.8									
HCM LOS	A	A	A									

Lane												
Vol Left, %												
Vol Thru, %												
Vol Right, %												
Sign Control												
Traffic Vol by Lane												
LT Vol												
Through Vol												
RT Vol												
Lane Flow Rate												
Geometry Grp												
Degree of Util (X)												
Departure Headway (Hd)												
Convergence, Y/N												
Cap												
Service Time												
HCM Lane V/C Ratio												
HCM Control Delay												
HCM Lane LOS												
HCM 95th-tile Q												
NBLn1	EBLn1	WBLn1	NBLn1									
70%	0%	14%										
0%	84%	86%										
30%	16%	0%										
Stop	Stop	Stop										
37	107	158										
26	0	22										
0	90	136										
11	17	0										
41	119	176										
1	1	1										
0.052	0.134	0.201										
4.532	4.044	4.125										
Yes	Yes	Yes										
795	877	864										
2.532	2.113	2.179										
0.052	0.136	0.204										
7.8	7.7	8.2										
A	A	A										
0.2	0.5	0.7										

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

11/29/2016

Intersection														
Intersection Delay, s/veh 13														
Intersection LOS B														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	22	72	27	0	183	106	84	0	43	44	178	0	75
Future Vol, veh/h	0	22	72	27	0	183	106	84	0	43	44	178	0	75
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.92	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	75	28	0	191	110	88	0	45	46	185	0	78
Number of Lanes	0	0	2	0	0	0	1	0	0	1	0	0	0	1

Approach												
Opposing Approach												
Opposing Lanes												
Conflicting Approach Left												
Conflicting Lanes Left												
Conflicting Approach Right												
Conflicting Lanes Right												
HCM Control Delay												
HCM LOS												
Approach	EB	WB	EB	NB								
Opposing Approach	WB	EB										
Opposing Lanes	1	2										
Conflicting Approach Left	1	NB	EB									
Conflicting Lanes Left	1	1	2									
Conflicting Approach Right	NB	0	WB									
Conflicting Lanes Right	1	1	1									
HCM Control Delay	9.7	15.7	11.8									
HCM LOS	A	C	B									

Lane													
Vol Left, %													
Vol Thru, %													
Vol Right, %													
Sign Control													
Traffic Vol by Lane													
LT Vol													
Through Vol													
RT Vol													
Lane Flow Rate													
Geometry Grp													
Degree of Util (X)													
Departure Headway (Hd)													
Convergence, Y/N													
Cap													
Service Time													
HCM Lane V/C Ratio													
HCM Control Delay													
HCM Lane LOS													
HCM 95th-tile Q													
NBLn1	EBLn1	EBLn2	WBLn1	SBLn1									
16%	38%	0%	49%	54%									
17%	62%	57%	28%	24%									
67%	0%	43%	23%	22%									
Stop	Stop	Stop	Stop	Stop									
285	58	63	373	139									
43	22	0	183	75									
44	36	36	106	34									
178	0	27	84	30									
276	60	66	389	145									
2	7	7	5	2									
0.403	0.108	0.109	0.582	0.234									
5.259	6.457	5.959	5.383	5.825									
Yes	Yes	Yes	Yes	Yes									
682	553	600	668	614									
3.31	4.213	3.715	3.435	3.885									
0.405	0.108	0.11	0.582	0.236									
11.8	10	9.4	15.7	10.7									
B	A	A	C	B									
1.9	0.4	0.4	3.8	0.9									

HCM 2010 AWSC

14.: Restaurant Driveway & Towne Center Drive

11/29/2016

Intersection										
Intersection Delay, s/veh 11.5										
Intersection LOS B										
Movement	WBU	WBL	WBR	NBU	NBL	NBR	SBU	SBL	SBT	SB
Traffic Vol, veh/h	0	49	292	0	43	50	0	231	54	
Future Vol, veh/h	0	49	292	0	43	50	0	231	54	
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	55	328	0	48	56	0	260	61	
Number of Lanes	0	1	1	0	1	0	0	0	1	
Approach	WB		WB		NB		SB		SB	
Opposing Approach	0		0		1		1		1	
Opposing Lanes	0		0		1		1		1	
Conflicting Approach Left	1		0		0		2		2	
Conflicting Lanes Left	1		0		0		2		2	
Conflicting Approach Right	1		0		0		0		0	
Conflicting Lanes Right	1		0		0		0		0	
HCM Control Delay	11.3		8.9		12.5		12.5		12.5	
HCM LOS	B		A		A		B		B	
Lane	NBLn1 WBLn1 WBLn2		SBLn1		SBLn1		SBLn1		SBLn1	
Vol Left, %	0%		100%		0%		81%		0%	
Vol Thru, %	46%		0%		0%		19%		0%	
Vol Right, %	54%		0%		100%		0%		0%	
Sign Control	Stop		Stop		Stop		Stop		Stop	
Traffic Vol by Lane	93		49		292		285		231	
LT Vol	0		49		0		231		0	
Through Vol	43		0		0		54		0	
RT Vol	50		0		292		0		0	
Lane Flow Rate	104		55		328		320		231	
Geometry Grp	2		7		7		2		2	
Degree of Util (X)	0.144		0.093		0.446		0.467		0.467	
Departure Headway (Hd)	4.964		6.099		4.889		5.143		5.143	
Convergence, Y/N	Yes		Yes		Yes		Yes		Yes	
Cap	713		684		732		695		695	
Service Time	3.06		3.874		2.662		3.219		3.219	
HCM Lane V/C Ratio	0.146		0.094		0.448		0.46		0.46	
HCM Control Delay	8.9		9.5		11.6		12.5		12.5	
HCM Lane LOS	A		A		B		B		B	
HCM 95th-ile Q	0.5		0.3		2.3		2.4		2.4	

HCM 2010 TWSC

15.: Project Driveway & Rossmore Center Way

11/29/2016

Intersection										
Int Delay, s/veh 1.2										
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Traffic Vol, veh/h	88	1	20	165	4	20				
Future Vol, veh/h	88	1	20	165	4	20				
Conflicting Peds, #/hr	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Stop	Stop				
RT Channelized	-	None	-	None	-	None				
Storage Length	-	-	-	-	0	-				
Veh in Median Storage, #	0	-	-	0	0	-				
Grade, %	0	-	-	0	0	-				
Peak Hour Factor	93	93	93	93	93	93				
Heavy Vehicles, %	2	2	2	2	2	2				
Mvmt Flow	95	1	22	177	4	22				
Major/Minor	Major1		Major2		Minor1					
Conflicting Flow All	0	0	96	0	315	95				
Stage 1	-	-	-	-	220	-				
Stage 2	-	-	-	-	6.42	6.22				
Critical Hdwy	-	-	4.12	-	5.42	-				
Critical Hdwy Stg 1	-	-	-	-	5.42	-				
Critical Hdwy Stg 2	-	-	-	-	3.518	3.318				
Follow-up Hdwy	-	-	2.218	-	6.78	9.62				
Pot Cap-1 Maneuver	-	-	1498	-	929	-				
Stage 1	-	-	-	-	817	-				
Stage 2	-	-	-	-	667	962				
Platoon blocked, %	-	-	-	-	667	-				
Mov Cap-1 Maneuver	-	-	1498	-	929	-				
Mov Cap-2 Maneuver	-	-	-	-	804	-				
Stage 1	-	-	-	-	-	-				
Stage 2	-	-	-	-	-	-				
Approach	EB		WB		NB					
HCM Control Delay, s	0		0.8		9.1					
HCM LOS	A		A		A					
Minor Lane/Major Mvmt	NBLn1		EBT		WBL					
Capacity (veh/h)	896		-		1498					
HCM Lane V/C Ratio	0.029		-		0.014					
HCM Control Delay (s)	9.1		-		7.4					
HCM Lane LOS	A		-		A					
HCM 95th-ile Q(veh)	0.1		-		0					

HCM 2010 Signalized Intersection Summary
 1.: Seal Beach Boulevard & I-405 SB Ramps

11/18/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4TB			4								
Traffic Volume (veh/h)	147	26	16	544	37	488	9	1097	272	411	1110	131
Future Volume (veh/h)	147	26	16	544	37	488	9	1097	272	411	1110	131
Number	7	4	4	3	8	8	18	5	2	12	1	6
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pBT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	156	28	17	607	0	0	10	1167	289	437	1181	139
Adj No. of Lanes	0	2	0	2	0	2	1	3	1	3	1	3
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	118	72	44	679	0	303	21	1312	408	503	2775	864
Arrive On Green	0.07	0.07	0.07	0.19	0.00	0.00	0.01	0.26	0.26	0.57	1.00	1.00
Sat Flow, veh/h	1774	1087	660	3548	0	1583	1774	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	156	0	45	607	0	0	10	1167	289	437	1181	139
Grp Sat Flow(s), veh/h/ln	1774	0	1746	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	7.3	0.0	2.7	18.4	0.0	0.0	0.6	24.3	18.2	23.2	0.0	0.0
Cycle Q Clear(g.c), s	7.3	0.0	2.7	18.4	0.0	0.0	0.6	24.3	18.2	23.2	0.0	0.0
Prop In Lane	1.00	0.00	0.38	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	118	0	116	679	0	303	21	1312	408	503	2775	864
V/C Ratio(X)	1.33	0.00	0.39	0.89	0.00	0.00	0.47	0.89	0.71	0.87	0.43	0.16
Avail Cap(c.a), veh/h	118	0	116	748	0	334	81	1350	420	503	2775	864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	0.89
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	51.4	0.0	49.2	43.4	0.0	0.0	54.0	39.3	37.0	22.1	0.0	0.0
Incr Delay (d2), s/veh	193.4	0.0	2.1	12.4	0.0	0.0	15.3	9.3	9.9	13.7	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%) veh/ln	9.9	0.0	1.4	10.2	0.0	0.0	0.4	12.5	9.1	13.1	0.1	0.1
LnGrp Delay(d), s/veh	244.8	0.0	51.3	55.8	0.0	0.0	69.3	48.6	47.0	35.8	0.4	0.4
LnGrp LOS	F	D	E	E	D	E	D	D	D	D	A	A
Approach Vol, veh/h	201			607				1466				1757
Approach Delay, s/veh	201.4			55.8				48.4				9.2
Approach LOS	F			E				D				A
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	37.0	34.2		12.0	5.3	65.8		26.9				
Change Period (Y+Rc), s	5.8	*5.8		*4.7	4.0	5.8		5.8				
Max Green Setting (Gmax), s	30.0	*29		*7.3	5.0	54.2		23.2				
Max Q Clear Time (g_c+I), s	25.2	26.3		9.3	2.6	2.0		20.4				
Green Ext Time (p_c), s	1.0	2.1		0.0	0.0	13.6		0.7				
Intersection Summary	40.1											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

HCM 2010 Signalized Intersection Summary
 2.: Seal Beach Boulevard & I-405 NB Ramps

11/18/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	6	8	7	355	5	564	15	1347	377	254	1293	239
Traffic Volume (veh/h)	6	8	7	355	5	564	15	1347	377	254	1293	239
Future Volume (veh/h)	6	8	7	355	5	564	15	1347	377	254	1293	239
Number	7	4	4	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pBT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	6	8	7	374	0	597	16	1418	0	267	1361	252
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	38	40	34	815	0	728	754	2175	677	242	1672	521
Arrive On Green	0.02	0.02	0.02	0.23	0.00	0.23	0.44	0.86	0.00	0.14	0.33	0.33
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	6	8	7	374	0	597	16	1418	0	267	1361	252
Grp Sat Flow(s), veh/h/ln	1863	1863	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g.s), s	0.4	0.5	0.5	10.0	0.0	19.7	0.3	10.0	0.0	15.0	27.0	14.0
Cycle Q Clear(g.c), s	0.4	0.5	0.5	10.0	0.0	19.7	0.3	10.0	0.0	15.0	27.0	14.0
Prop In Lane	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	38	40	34	815	0	728	754	2175	677	242	1672	521
V/C Ratio(X)	0.16	0.20	0.21	0.46	0.00	0.82	0.02	0.65	0.00	1.10	0.81	0.48
Avail Cap(c.a), veh/h	81	85	72	1258	0	1123	754	2175	677	242	1682	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.68	0.68	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	52.9	52.9	36.5	0.0	40.2	24.2	5.3	0.0	47.5	33.8	29.5
Incr Delay (d2), s/veh	1.9	2.4	2.9	0.4	0.0	2.9	0.0	1.1	0.0	88.4	4.5	3.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%) veh/ln	2	0.3	0.2	4.9	0.0	8.9	0.1	4.4	0.0	13.3	13.3	6.6
LnGrp Delay(d), s/veh	54.7	55.3	55.8	36.9	0.0	43.1	24.2	6.3	0.0	135.9	38.3	32.7
LnGrp LOS	D	E	E	D	D	C	A	C	A	F	D	C
Approach Vol, veh/h	21			971				1434				1880
Approach Delay, s/veh	55.3			40.7				6.5				51.4
Approach LOS	E			D				A				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	52.9	52.9		7.1	29.9	42.0		31.1				
Change Period (Y+Rc), s	5.8	*4.0		*5.8	5.8	*5.8		5.8				
Max Green Setting (Gmax), s	30.7	*30.7		*5.0	5.0	*41		39.0				
Max Q Clear Time (g_c+I), s	12.0	2.5	2.3	29.0		21.7						
Green Ext Time (p_c), s	0.0	9.3	0.0	2.0	7.2	3.6						
Intersection Summary	34.1											
HCM 2010 Ctrl Delay	C											
HCM 2010 LOS	C											
Notes												

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.648
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 44 Level Of Service: B

Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Include Protected Include Split Phase Split Phase
 Rights: Ovl Include Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 1 0 1 0 2 1 0 0 1 0 0 2 1 0 1 0 0

Volume Module:
 Base Vol: 362 1560 172 17 1348 69 102 2 398 174 35 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 362 1560 172 17 1348 69 102 2 398 174 35 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 391 1683 186 18 1454 74 110 2 429 188 38 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 391 1683 186 18 1454 74 110 2 429 188 38 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 391 1683 186 18 1454 74 110 2 429 188 38 5
 OvlAdjVol: 391 1683 186 18 1454 74 110 2 429 188 38 5

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.70 0.30 1.00 2.85 0.15 0.98 0.02 2.00 1.62 0.33 0.05
 Final Sat.: 3400 4594 506 1700 4852 248 1667 33 3400 2764 556 79

Capacity Analysis Module:
 Vol/Sat: 0.11 0.37 0.37 0.01 0.30 0.30 0.07 0.07 0.13 0.07 0.07 0.07
 OvlAdjV/S: 0.11 0.37 0.37 0.01 0.30 0.30 0.07 0.07 0.13 0.07 0.07 0.07
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.764
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: C

Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Include Protected Include Permitted Permitted
 Rights: Ovl Include Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 2 0 0 0 1

Volume Module:
 Base Vol: 0 1520 360 502 1438 0 0 0 0 360 0 543
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1520 360 502 1438 0 0 0 0 360 0 543
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 0 1634 387 540 1546 0 0 0 0 387 0 584
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1634 387 540 1546 0 0 0 0 387 0 584
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1634 387 540 1546 0 0 0 0 387 0 584
 OvlAdjVol: 0 1634 387 540 1546 0 0 0 0 387 0 584

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.32 0.23 0.16 0.30 0.00 0.00 0.00 0.00 0.11 0.00 0.34
 OvlAdjV/S: 0.00 0.32 0.23 0.16 0.30 0.00 0.00 0.00 0.00 0.11 0.00 0.34
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.815
 Loss Time (sec): 70 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 70 Level of Service: D

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0

Volume Module:
 Base Vol: 259 1223 108 92 1049 136 94 83 243 173 89 88
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 259 1223 108 92 1049 136 94 83 243 173 89 88
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 273 1290 114 97 1107 143 99 88 256 182 94 93
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 273 1290 114 97 1107 143 99 88 256 182 94 93
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 273 1290 114 97 1107 143 99 88 256 182 94 93

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 2.76 0.24 1.00 2.66 0.34 1.00 0.25 0.75 1.00 0.50 0.50
 Final Sat.: 1700 4686 414 1700 4515 585 1700 433 1267 1700 855 845
 Capacity Analysis Module:
 Vol/Sat: 0.16 0.28 0.28 0.06 0.25 0.25 0.06 0.20 0.20 0.11 0.11 0.11
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.668
 Loss Time (sec): 46 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 46 Level of Service: B

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0

Volume Module:
 Base Vol: 203 1385 15 25 1370 229 188 4 151 19 2 14
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 203 1385 15 25 1370 229 188 4 151 19 2 14
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 208 1422 15 26 1407 235 193 4 155 20 2 14
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 208 1422 15 26 1407 235 193 4 155 20 2 14
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 208 1422 15 26 1407 235 193 4 155 20 2 14

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 2.97 0.03 1.00 2.57 0.43 1.00 0.03 0.97 1.00 0.13 0.87
 Final Sat.: 1700 5045 55 1700 4370 730 1700 44 1656 1700 213 1487
 Capacity Analysis Module:
 Vol/Sat: 0.12 0.28 0.28 0.02 0.32 0.32 0.11 0.09 0.09 0.01 0.01 0.01
 Crit Moves: *****

Intersection									
Int Delay, s/veh									
1									
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Traffic Vol, veh/h	456	1	43	420	4	44			
Future Vol, veh/h	456	1	43	420	4	44			
Conflicting Peds, #/hr	0	0	0	0	0	0			
Sign Control	Free	Free	Free	Free	Stop	Stop			
RT Channelized	-	None	-	None	-	None			
Storage Length	-	-	-	-	0	0			
Veh in Median Storage, #	0	-	-	0	0	0			
Grade, %	0	-	-	0	0	0			
Peak Hour Factor	94	94	94	94	94	94			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	485	1	46	447	4	47			
Major/Minor									
Major1 Major2 Major3 Minor1									
Conflicting Flow All	0	0	486	0	801	243			
Stage 1	-	-	-	-	486	-			
Stage 2	-	-	-	-	315	-			
Critical Hdwy	-	-	4.14	-	6.84	6.94			
Critical Hdwy Stg 1	-	-	-	-	5.84	-			
Critical Hdwy Stg 2	-	-	-	-	5.84	-			
Follow-up Hdwy	-	-	2.22	-	3.52	3.32			
Pot Cap-1 Maneuver	-	-	1073	-	322	768			
Stage 1	-	-	-	-	584	-			
Stage 2	-	-	-	-	713	-			
Platoon blocked, %	-	-	-	-	-	-			
Mov Cap-1 Maneuver	-	-	1073	-	304	768			
Mov Cap-2 Maneuver	-	-	-	-	304	-			
Stage 1	-	-	-	-	584	-			
Stage 2	-	-	-	-	672	-			
Approach									
EB WB NB									
HCM Control Delay, s	0	1	10.8						
HCM LOS	B								
Minor Lane/Major Mvmt									
NBLn1 EBT EBR WBL WBT									
Capacity (veh/h)	674	-	1073						
HCM Lane V/C Ratio	0.076	-	0.043						
HCM Control Delay (s)	10.8	-	8.5	0.2					
HCM Lane LOS	B	-	A	A					
HCM 95th %ile Q(veh)	0.2	-	0.1	-					

Existing Current Occ Sat Mon Feb 20, 2017 15:11:30 Page 6-1
 Health Club within the Shops at Rossmore
 Existing (2016) Current Occupancy
 Saturday Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.627
 Loss Time (sec): 42 Average Delay (ssec/veh): xxxxxx
 Optimal Cycle: 42 Level of Service: B

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R

Control: Protected Protected Permitted Permitted Permitted
 Rights: Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1

Volume Module:
 Base Vol: 111 1349 44 17 1468 120 167 8 96 63 7 12
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 111 1349 44 17 1468 120 167 8 96 63 7 12
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 113 1377 45 17 1498 122 170 8 98 64 7 12
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 113 1377 45 17 1498 122 170 8 98 64 7 12
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 113 1377 45 17 1498 122 170 8 98 64 7 12

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.91 0.09 2.00 2.77 0.23 1.00 0.08 0.92 0.90 0.10 1.00
 Final Sat.: 1700 4939 161 1700 4715 385 1700 131 1569 1530 170 1700

Capacity Analysis Module:
 Vol/Sat: 0.07 0.28 0.28 0.01 0.32 0.32 0.10 0.06 0.06 0.04 0.04 0.01
 Crit Moves: ****

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

11/18/2016

Intersection	8.8															
Intersection Delay, s/veh	A															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBR	WBT	WBR	NBU	NBL	NBT	NBR			
Traffic Vol, veh/h	0	35	4	36	0	3	5	5	5	0	36	174	7			
Future Vol, veh/h	0	35	4	36	0	3	5	5	5	0	36	174	7			
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	0.92			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	38	4	39	0	3	5	5	5	0	39	189	8			
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	0	2			
Approach	EB		WB		WB		WB		NB		NB					
Opposing Approach	WB		EB		EB		SB		SB		SB					
Opposing Lanes	1		1		1		2		2		2					
Conflicting Approach Left	SB		NB		EB		EB		EB		1					
Conflicting Lanes Left	2		2		2		2		2		1					
Conflicting Approach Right	NB		SB		WB		WB		WB		1					
Conflicting Lanes Right	2		2		2		2		2		1					
HCM Control Delay	8.6		8.6		8.2		8.8		8.8		8.8					
HCM LOS	A		A		A		A		A		A					

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	29%	0%	47%	23%	6%	0%
Vol Thru, %	71%	93%	5%	38%	94%	85%
Vol Right, %	0%	7%	48%	38%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	123	94	75	13	123	137
LT Vol	36	0	35	3	7	0
Through Vol	87	87	4	5	116	116
RT Vol	0	7	36	5	0	21
Lane Flow Rate	134	102	82	14	134	149
Geometry Grp	7	7	2	2	7	7
Degree of Utlr (X)	0.192	0.141	0.111	0.02	0.186	0.202
Departure Headway (Hd)	5.167	4.967	4.915	5.029	5.011	4.875
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	695	721	728	710	717	736
Service Time	2.898	2.699	2.952	3.074	2.741	2.604
HCM Lane V/C Ratio	0.193	0.141	0.113	0.02	0.187	0.202
HCM Control Delay	9.1	8.5	8.6	8.2	8.9	8.8
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.7	0.5	0.4	0.1	0.7	0.8

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

11/18/2016

Intersection	8.8															
Intersection Delay, s/veh	A															
Intersection LOS	A															
Movement	SBU	SBL	SBT	SBR	SBU	SBL	SBT	SBR	SBU	SBL	SBT	SBR				
Traffic Vol, veh/h	0	7	232	21	0	7	232	21	0	7	232	21				
Future Vol, veh/h	0	7	232	21	0	7	232	21	0	7	232	21				
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				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	8	252	23	0	8	252	23	0	8	252	23				
Number of Lanes	0	0	0	2	0	0	0	2	0	0	0	2				
Approach	SB				SB				SB							
Opposing Approach	NB				NB				NB							
Opposing Lanes	2				2				2							
Conflicting Approach Left	WB				WB				WB							
Conflicting Lanes Left	1				1				1							
Conflicting Approach Right	EB				EB				EB							
Conflicting Lanes Right	1				1				1							
HCM Control Delay	8.8				8.8				8.8							
HCM LOS	A				A				A							
Lane																

HCM 2010 AWSC
 10: Montecito Road & Mainway Drive/Rossmoor Center Way
 11/18/2016

Intersection	Intersection Delay, s/veh 9.6															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	42	42	61	0	18	51	43	0	45	129	29	0	45	160	33
Future Vol, veh/h	0	42	42	61	0	18	51	43	0	45	129	29	0	45	160	33
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	47	47	68	0	20	57	48	0	50	143	32	0	50	178	37
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	2
Approach	EB				WB				NB				SB			
Opposing Approach	WB				EB				SB				NB			
Opposing Lanes	1				1				2				2			
Conflicting Approach Left	SB				NB				EB				WB			
Conflicting Lanes Left	2				2				1				1			
Conflicting Approach Right	NB				SB				WB				EB			
Conflicting Lanes Right	2				2				1				1			
HCM Control Delay	9.7				9.4				9.6				9.7			
HCM LOS	A				A				A				A			

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	41%	0%	29%	16%	36%	0%	0%	0%
Vol Thru, %	59%	69%	29%	46%	64%	71%	71%	71%
Vol Right, %	0%	31%	42%	38%	0%	29%	0%	29%
Sign Control	Stop							
Traffic Vol by Lane	110	94	145	112	125	113	113	113
LT Vol	45	0	42	18	45	0	0	0
Through Vol	65	65	42	51	80	80	0	0
RT Vol	0	29	61	43	0	33	0	33
Lane Flow Rate	122	104	161	124	139	126	126	126
Geometry Grp	7	7	2	2	7	7	7	7
Degree of Utl (X)	0.198	0.154	0.228	0.178	0.219	0.185	0.185	0.185
Departure Headway (Hd)	5.858	5.331	5.105	5.259	5.689	5.4	5.4	5.4
Convergence, Y/N	Yes							
Cap	617	665	694	687	624	668	668	668
Service Time	3.558	3.13	3.2	3.259	3.488	3.1	3.1	3.1
HCM Lane V/C Ratio	0.198	0.156	0.232	0.18	0.223	0.189	0.189	0.189
HCM Control Delay	10	9.1	9.7	9.4	10.1	9.3	9.3	9.3
HCM Lane LOS	A	A	A	A	B	A	A	A
HCM 95th-ile Q	0.7	0.5	0.9	0.6	0.8	0.7	0.7	0.7

HCM 2010 AWSC
 11: Montecito Road & Bradbury Road
 Existing + Current Occupancy Saturday Peak Hour
 02/22/2017

Intersection	Intersection Delay, s/veh 8.9															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR				
Traffic Vol, veh/h	0	1	15	4	0	115	20	69	0	3	70	94				
Future Vol, veh/h	0	1	15	4	0	115	20	69	0	3	70	94				
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.92	0.97	0.97	0.97				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	1	15	4	0	119	21	71	0	3	72	97				
Number of Lanes	0	0	1	0	0	0	1	1	0	0	0	2				
Approach	EB				WB				NB							
Opposing Approach	WB				EB				SB							
Opposing Lanes	2				1				2							
Conflicting Approach Left	SB				NB				EB							
Conflicting Lanes Left	2				2				1							
Conflicting Approach Right	NB				SB				WB							
Conflicting Lanes Right	2				2				2							
HCM Control Delay	8.7				9.3				8.5							
HCM LOS	A				A				A							

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	8%	0%	5%	5%	85%	0%	45%	0%
Vol Thru, %	92%	27%	75%	15%	0%	55%	96%	96%
Vol Right, %	0%	73%	20%	0%	100%	0%	0%	4%
Sign Control	Stop							
Traffic Vol by Lane	38	129	20	135	69	81	47	47
LT Vol	3	0	1	115	0	36	0	0
Through Vol	35	35	15	20	0	45	45	45
RT Vol	0	94	4	0	69	0	2	2
Lane Flow Rate	39	133	21	139	71	83	48	48
Geometry Grp	7	7	6	7	7	7	7	7
Degree of Utl (X)	0.058	0.176	0.031	0.221	0.091	0.128	0.07	0.07
Departure Headway (Hd)	5.33	4.776	5.447	5.724	4.594	5.54	5.285	5.285
Convergence, Y/N	Yes							
Cap	671	750	655	626	777	646	677	677
Service Time	3.068	2.514	3.502	3.466	2.335	3.281	3.025	3.025
HCM Lane V/C Ratio	0.058	0.177	0.032	0.222	0.091	0.128	0.071	0.071
HCM Control Delay	8.4	8.5	8.7	10.1	7.8	9.1	8.4	8.4
HCM Lane LOS	A	A	A	B	A	A	A	A
HCM 95th-ile Q	0.2	0.6	0.1	0.8	0.3	0.4	0.4	0.4

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road
 Existing + Current Occupancy Saturday Peak Hour
 02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	36	89	2
Future Vol, veh/h	0	36	89	2
Peak Hour Factor	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	92	2
Number of Lanes	0	0	2	0
Approach	SB	SB		
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	2			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	8.8			
HCM LOS	A			

HCM 2010 AWSC
 1.2: West Road & Rossmore Center Way
 11/18/2016

Intersection	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	7.8								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Traffic Vol, veh/h	0	82	16	0	10	118	0	26	17
Future Vol, veh/h	0	82	16	0	10	118	0	26	17
Peak Hour Factor	0.92	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	90	18	0	11	130	0	29	19
Number of Lanes	0	1	0	0	0	1	0	1	0
Approach	EB	EB	WB	WB	EB	NB	NB		
Opposing Approach	WB								
Opposing Lanes	1								
Conflicting Approach Left				NB		EB			
Conflicting Lanes Left	0			1		1			
Conflicting Approach Right	NB					WB			
Conflicting Lanes Right	1			0		1			
HCM Control Delay	7.6			8		7.6			
HCM LOS	A			A		A			
Lane	NBU	NBU	NBU	NBU	NBU	NBU	NBU	NBU	NBU
Vol Left, %	60%	0%	8%						
Vol Thru, %	0%	84%	92%						
Vol Right, %	40%	16%	0%						
Sign Control	Stop	Stop	Stop						
Traffic Vol by Lane	43	98	128						
LT Vol	26	0	10						
Through Vol	0	82	118						
RT Vol	17	16	0						
Lane Flow Rate	47	108	141						
Geometry Grp	1	1	1						
Degree of Util (X)	0.057	0.12	0.161						
Departure Headway (Hd)	4.353	4.025	4.114						
Convergence, Y/N	Yes	Yes	Yes						
Cap	828	883	866						
Service Time	2.353	2.086	2.165						
HCM Lane V/C Ratio	0.057	0.122	0.163						
HCM Control Delay	7.6	7.6	8						
HCM Lane LOS	A	A	A						
HCM 95th-ile Q	0.2	0.4	0.6						

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

11/18/2016

Intersection Delay, s/veh 18																
Intersection LOS C																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	21	100	36	0	214	93	106	0	43	64	215	0	96	60	24
Future Vol, veh/h	0	21	100	36	0	214	93	106	0	43	64	215	0	96	60	24
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	106	38	0	228	99	113	0	46	68	229	0	102	64	26
Number of Lanes	0	0	2	0	0	0	1	0	0	0	0	1	0	0	0	1

Intersection Delay, s/veh 15.5																
Intersection LOS C																
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT						
Traffic Vol, veh/h	0	85	394	0	69	76	0	339	52							
Future Vol, veh/h	0	85	394	0	69	76	0	339	52							
Peak Hour Factor	0.92	0.97	0.97	0.92	0.97	0.97	0.92	0.97	0.97	0.97						
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2						
Mvmt Flow	0	88	406	0	71	78	0	349	54							
Number of Lanes	0	1	1	0	1	0	0	0	0	1						

Intersection Delay, s/veh 15.5																
Intersection LOS C																
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT						
Traffic Vol, veh/h	0	85	394	0	69	76	0	339	52							
Future Vol, veh/h	0	85	394	0	69	76	0	339	52							
Peak Hour Factor	0.92	0.97	0.97	0.92	0.97	0.97	0.92	0.97	0.97	0.97						
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2						
Mvmt Flow	0	88	406	0	71	78	0	349	54							
Number of Lanes	0	1	1	0	1	0	0	0	0	1						

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	NB	SB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	11.1	24	16.3	13.2
HCM LOS	B	C	C	B

Health Club within The Shops at Rossmoor TIA 5:00 pm 3/23/2016 Existing + Current Occupancy Saturday Peak Hour Synchro 9 Report LSA Associates, Inc. - DL Page 18

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

11/18/2016

Intersection Delay, s/veh 15.5																
Intersection LOS C																
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT						
Traffic Vol, veh/h	0	85	394	0	69	76	0	339	52							
Future Vol, veh/h	0	85	394	0	69	76	0	339	52							
Peak Hour Factor	0.92	0.97	0.97	0.92	0.97	0.97	0.92	0.97	0.97	0.97						
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2						
Mvmt Flow	0	88	406	0	71	78	0	349	54							
Number of Lanes	0	1	1	0	1	0	0	0	0	1						

Intersection Delay, s/veh 15.5																
Intersection LOS C																
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT						
Traffic Vol, veh/h	0	85	394	0	69	76	0	339	52							
Future Vol, veh/h	0	85	394	0	69	76	0	339	52							
Peak Hour Factor	0.92	0.97	0.97	0.92	0.97	0.97	0.92	0.97	0.97	0.97						
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2						
Mvmt Flow	0	88	406	0	71	78	0	349	54							
Number of Lanes	0	1	1	0	1	0	0	0	0	1						

Approach	WB	NB	SB
Opposing Approach	WB <td>NB</td> <td>SB</td>	NB	SB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB	WB	NB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	NB
Conflicting Lanes Right	1	2	0
HCM Control Delay	15.1	10.3	17.9
HCM LOS	C	B	C

Lane	NBU1	WBL1	WBL2	SBL1
Vol Left, %	0%	100%	0%	87%
Vol Thru, %	48%	0%	0%	13%
Vol Right, %	52%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	145	85	394	391
LT Vol	0	85	0	339
Through Vol	69	0	0	52
RT Vol	76	0	394	0
Lane Flow Rate	149	88	406	403
Geometry Grp	2	7	7	2
Degree of Utl (X)	0.232	0.161	0.607	0.632
Departure Headway (Hd)	5.589	6.599	5.383	5.642
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	641	543	670	641
Service Time	3.638	4.337	3.12	3.679
HCM Lane V/C Ratio	0.232	0.162	0.606	0.629
HCM Control Delay	10.3	10.6	16.1	17.9
HCM Lane LOS	B	B	C	C
HCM 95th-tile Q	0.9	0.6	4.1	4.5

Health Club within The Shops at Rossmoor TIA 5:00 pm 3/23/2016 Existing + Current Occupancy Saturday Peak Hour Synchro 9 Report LSA Associates, Inc. - DL Page 19

Intersection	2.4					
Int Delay, s/veh	EBT	EBR	WBL	WBT	NBL	NBR
Movement	99	0	44	123	5	39
Traffic Vol, veh/h	99	0	44	123	5	39
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	Free	Free	Free	Free	Stop	Stop
Sign Control	-	None	-	None	-	None
RT Channelized	-	-	-	-	-	-
Storage Length	0	-	0	0	0	-
Veh in Median Storage, #	0	-	0	0	0	-
Grade, %	92	92	92	92	92	92
Peak Hour Factor	2	2	2	2	2	2
Heavy Vehicles, %	108	0	48	134	5	42
Mvmt Flow						
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	108	0	337	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	229	-
Critical Hwy	-	-	4.12	-	6.42	6.22
Critical Hwy Stg 1	-	-	-	-	5.42	-
Critical Hwy Stg 2	-	-	-	-	3.518	3.318
Follow-up Hwy	-	-	2.218	-	6.58	9.46
Pot Cap-1 Maneuver	-	-	1.483	-	9.16	-
Stage 1	-	-	-	-	809	-
Stage 2	-	-	-	-	635	9.46
Platoon blocked, %	-	-	1.483	-	635	-
Mov Cap-1 Maneuver	-	-	-	-	635	-
Mov Cap-2 Maneuver	-	-	-	-	916	-
Stage 1	-	-	-	-	781	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	NB			
HCM Control/Delay, s	0	2	9.2			
HCM LOS		A				
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	896	-	-	1483	-	
HCM Lane V/C Ratio	0.053	-	-	0.032	-	
HCM Control/Delay (s)	9.2	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	87	28	16	696	44	530	14	1056	166	434	1453	72
Traffic Volume (veh/h)	87	28	16	696	44	530	14	1056	166	434	1453	72
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Cb), veh	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Sat Flow, veh/h	96	31	18	799	0	0	15	1160	182	477	1597	79
Adj Flow Rate, veh/h	0	2	0	2	0	1	3	1	1	1	3	1
Adj No. of Lanes	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Peak Hour Factor	2	2	2	2	2	2	2	2	2	2	2	2
Percent Heavy Veh, %	89	55	32	861	0	384	30	1233	384	682	3187	992
Cap, veh/h	0.05	0.05	0.05	0.24	0.00	0.00	0.24	0.24	0.24	0.26	0.42	0.42
Arrive On Green	1774	1107	643	3548	0	1583	1774	5085	1583	1774	5085	1583
Sat Flow, veh/h	96	0	49	799	0	0	15	1160	182	477	1597	79
Grp Volume(v), veh/h	1774	0	1749	1774	0	1583	1774	1695	1583	1774	1695	1583
Grp Sat Flow(s),veh/h	5.5	0.0	3.0	24.2	0.0	0.0	0.9	24.6	10.8	26.8	25.4	3.3
Q Serve(g.s), s	5.5	0.0	3.0	24.2	0.0	0.0	0.9	24.6	10.8	26.8	25.4	3.3
Cycle Q Clear(g.c), s	1.00	1.00	0.37	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop In Lane	89	0	87	861	0	384	30	1233	384	682	3187	992
Lane Grp Cap(c), veh/h	1.08	0.00	0.56	0.93	0.00	0.00	0.51	0.94	0.47	0.70	0.50	0.08
V/C Ratio(X)	89	0	87	887	0	396	81	1234	384	682	3187	992
Avail Cap(c,a), veh/h	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Platoon Ratio	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.74	0.74	0.74
Upstream Filter(i)	52.3	0.0	51.1	40.7	0.0	0.0	53.6	40.9	35.7	35.1	19.3	12.9
Uniform Delay (d), s/veh	119.6	0.0	7.8	15.4	0.0	0.0	12.7	14.8	4.1	2.4	0.4	0.1
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	5.6	0.0	1.6	13.7	0.0	0.0	0.6	13.2	5.2	13.6	12.0	1.5
%ile Back(Q)(50%) veh/h	172.3	0.0	58.9	56.1	0.0	0.0	66.3	55.7	39.8	37.4	19.7	13.0
LnGrp Delay(d),s/veh	F	E	E	E	E	E	E	E	D	D	B	B
LnGrp LOS	F	E	E	E	E	E	E	E	D	D	B	B
Approach Vol, veh/h	145			799			1357				2153	
Approach Delay, s/veh	134.0			56.1			53.7				23.4	
Approach LOS	F	E	E	E			D				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+Rc), s	48.1	32.5	10.2	5.8	7.47	32.5						
Change Period (Y+Rc), s	5.8	* 5.8	* 4.7	4.0	5.8	5.8						
Max Green Setting (Gmax), s	30.0	* 27	* 5.5	5.0	51.7	27.5						
Max Q Clear Time (g_c+I), s	28.8	26.6	7.5	2.9	27.4	26.2						
Green Ext Time (p_c), s	0.2	0.1	0.0	0.0	14.5	0.5						
Intersection Summary												
HCM 2010 Ctrl Delay	42.1											
HCM 2010 LOS	D											
Notes												

12/1/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	9	1	1	3	3	3	3	3	3	3	3	3
Traffic Volume (veh/h)	9	11	5	367	53	557	110	1206	348	332	1575	464
Future Volume (veh/h)	9	11	5	367	53	557	110	1206	348	332	1575	464
Number	7	4	4	3	8	18	5	2	12	1	6	16
Initial Q (Ob.) veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	10	12	6	408	0	658	122	1340	0	369	1750	516
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Cap. veh/h	46	49	41	887	0	791	534	1865	581	306	1871	583
Arrive On Green	0.03	0.03	0.03	0.25	0.00	0.25	0.31	0.73	0.00	0.17	0.37	0.37
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	10	12	6	408	0	658	122	1340	0	369	1750	516
Grp SatFlow(s),veh/h/m74	1863	1583	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g.s), s	0.6	0.7	0.4	10.7	0.0	21.6	2.9	16.3	0.0	19.0	36.5	33.6
Cycle Q Clear(g.s)	0.6	0.7	0.4	10.7	0.0	21.6	2.9	16.3	0.0	19.0	36.5	33.6
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	46	49	41	887	0	791	534	1865	581	306	1871	583
V/C Ratio(X)	0.22	0.25	0.15	0.46	0.00	0.83	0.23	0.72	0.00	1.20	0.94	0.89
Avail Cap(c), veh/h	81	85	72	1258	0	1123	534	1865	581	306	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.58	0.58	0.58	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	52.5	52.5	52.5	0.0	39.1	33.1	11.5	0.0	45.5	33.5	32.6
Incr Delay (d2), s/veh	2.3	2.6	1.6	0.4	0.0	3.8	0.1	1.4	0.0	118.7	10.3	17.8
Initial Q Delay(Q3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%)veh/In.3	0.4	0.2	0.2	5.3	0.0	9.9	1.4	7.4	0.0	19.4	18.8	17.5
LnGrp Delay(d),s/veh	54.8	55.1	53.9	35.3	0.0	42.8	33.2	12.9	0.0	164.2	43.8	50.4
LnGrp LOS	D	E	D	D	D	C	B	B	F	D	D	D
Approach Vol, veh/h	28	54.7	39.9	1066	0	1462	14.6	619	0	2635	619	0
Approach Delay, s/veh	54.7	54.7	39.9	39.9	0	39.9	14.6	619	0	619	619	0
Approach LOS	D	D	D	B	B	B	B	E	E	E	E	E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1	46.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
Max Q Clear Time (g_c+d), s	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary
 HCM 2010 Ctrl Delay 44.0
 HCM 2010 LOS D
 Notes

Existing Full Occ AM Mon Feb 20, 2017 15:11:53 Page 2-1
 Health Club within the Shops at Rossmoor
 Existing (2016) Full Occupancy
 AM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.812
 Loss Time (sec): 69 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 69 Level Of Service: D
 Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control	Protected	Include	Protected	Include	Protected	Include	Permitted
Rights:	Ovl	Include	Ovl	Include	Ovl	Include	Ovl
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	0 0 3 0 1	2 0 3 0 0	0 0 0 0 0	0 0 0 0 0	2 0 0 0 1	2 0 0 0 1	2 0 0 0 1

Volume Module:
 Base Vol: 0 1465 305 301 1669 0 0 0 0 702 0 611
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1465 305 301 1669 0 0 0 0 702 0 611
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
 PHF Volume: 0 1613 336 331 1838 0 0 0 0 773 0 673
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1613 336 331 1838 0 0 0 0 773 0 673
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1613 336 331 1838 0 0 0 0 773 0 673
 OvlAdjVol: 0 1613 336 331 1838 0 0 0 0 773 0 673

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 3.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.32 0.20 0.10 0.36 0.00 0.00 0.00 0.00 0.23 0.00 0.40
 OvlAdjV/S: *****
 Crit Moves: *****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.501
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 33 Level Of Service: A

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 0 1 0	1 0 0 1 0

Volume Module:
 Base Vol: 56 1627 31 21 1356 25 21 4 14 24 2 21
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 56 1627 31 21 1356 25 21 4 14 24 2 21
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
 PHF Volume: 62 1800 34 23 1500 28 23 4 15 27 2 23
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 62 1800 34 23 1500 28 23 4 15 27 2 23
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 62 1800 34 23 1500 28 23 4 15 27 2 23

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.94 0.06 1.00 2.95 0.05 1.00 0.22 0.78 1.00 0.09 0.91
 Final Sat.: 1700 5005 95 1700 5008 92 1700 378 1322 1700 148 1552

Capacity Analysis Module:
 Vol/Sat: 0.04 0.36 0.36 0.01 0.30 0.30 0.01 0.01 0.01 0.02 0.01 0.01
 Crit Moves: *****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #4 Seal Beach Blvd/St. Cloud Dr

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.631
 Loss Time (sec): 43 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 43 Level Of Service: B

 Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Split Phase	Split Phase
Rights:	Include	Include	OVI	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	2 0 2 1 0	1 0 2 1 0	0 1 0 0 2	1 0 1 1 0

Volume Module:
 Base Vol: 377 1659 47 4 1322 46 106 3 567 65 13 2
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 377 1659 47 4 1322 46 106 3 567 65 13 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
 PHF Volume: 429 1887 53 5 1504 52 121 3 645 74 15 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 429 1887 53 5 1504 52 121 3 645 74 15 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 429 1887 53 5 1504 52 121 3 645 74 15 2
 OriAdjVol: *****

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.92 0.08 1.00 2.90 0.10 0.97 0.03 2.00 1.63 0.32 0.05
 Final Sat.: 3400 4959 141 1700 4929 171 1653 47 3400 2763 552 85

Capacity Analysis Module:
 Vol/Sat: 0.13 0.38 0.38 0.00 0.31 0.31 0.07 0.07 0.19 0.03 0.03 0.03
 OriAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.731
 Loss Time (sec): 54 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 54 Level Of Service: C

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Include	Permitted
Rights:	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 146 1521 26 14 1330 155 270 18 97 70 22 23
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 146 1521 26 14 1330 155 270 18 97 70 22 23
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHE Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
 PHF Volume: 156 1627 28 15 1422 166 289 19 104 75 24 25
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 156 1627 28 15 1422 166 289 19 104 75 24 25
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 156 1627 28 15 1422 166 289 19 104 75 24 25

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.97 0.05 1.00 2.69 0.31 1.00 0.16 0.84 0.76 0.24 1.00
 Final Sat.: 1700 5014 86 1700 4568 532 1700 266 1434 1293 407 1700

Capacity Analysis Module:
 Vol/Sat: 0.09 0.32 0.32 0.01 0.31 0.31 0.17 0.07 0.07 0.04 0.06 0.01
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.539
 Loss Time (sec): 36 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 36 Level Of Service: A

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Include	Permitted
Rights:	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 65 1599 15 19 1372 70 77 7 78 17 10 39
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 65 1599 15 19 1372 70 77 7 78 17 10 39
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHE Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 PHF Volume: 71 1748 16 21 1499 77 84 8 85 19 11 43
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 71 1748 16 21 1499 77 84 8 85 19 11 43
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 71 1748 16 21 1499 77 84 8 85 19 11 43

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.97 0.05 1.00 2.85 0.15 1.00 0.08 0.92 1.00 0.20 0.80
 Final Sat.: 1700 5053 47 1700 4852 248 1700 140 1560 1700 347 1353

Capacity Analysis Module:
 Vol/Sat: 0.04 0.35 0.35 0.01 0.31 0.31 0.05 0.05 0.05 0.01 0.03 0.03
 Crit Moves: *****

12/1/2016

8: Yellowtail Drive & Saint Cloud Drive

12/1/2016

Intersection												
Int Delay, s/veh											1.3	
Movement												
Traffic Vol, veh/h	EBT	EBR	WBL	WBT	NBL	NBR						
605	4	28	403	8	70	70						
Future Vol, veh/h	605	4	28	403	8	70						
Conflicting Peds, #/hr	0	0	0	0	0	0						
Sign Control	Free	Free	Free	Free	Stop	Stop						
RT Channelized	-	None	-	None	-	None						
Storage Length	-	-	-	-	0	-						
Veh in Median Storage, #	0	-	-	0	0	-						
Grade, %	0	-	-	0	0	-						
Peak Hour Factor	79	79	79	79	79	79						
Heavy Vehicles, %	2	2	2	2	2	2						
Mvmt Flow	766	5	35	510	10	89						
Major/Minor												
Major1											Major2	
Major1											Minor1	
Conflicting Flow All	0	0	771	0	1094	385						
Stage 1	-	-	-	-	768	-						
Stage 2	-	-	-	-	326	-						
Critical Hwy	-	-	4.14	-	6.84	6.94						
Critical Hwy Stg 1	-	-	-	-	5.84	-						
Critical Hwy Stg 2	-	-	-	-	5.84	-						
Follow-up Hwy	-	-	2.22	-	3.52	3.32						
Pot Cap-1 Maneuver	-	-	840	-	208	613						
Stage 1	-	-	-	-	418	-						
Stage 2	-	-	-	-	704	-						
Platoon blocked, %	-	-	-	-	-	-						
Mov Cap-1 Maneuver	-	-	840	-	196	613						
Mov Cap-2 Maneuver	-	-	-	-	196	-						
Stage 1	-	-	-	-	418	-						
Stage 2	-	-	-	-	663	-						
Approach												
EB											WB	
0											0.8	
HCM/Control Delay, s												
0											13.9	
HCM LOS												
B											B	
Minor Lane/Major Mvmt												
NBLn1											EBT	
503											-	
Capacity (veh/h)											840	
HCM Lane V/C Ratio											0.196	
0.196											-	
HCM Control Delay (s)											13.9	
13.9											-	
HCM Lane LOS											B	
B											A	
HCM 95th %tile Q(veh)											0.7	
0.7											0.1	

12/1/2016

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection																
Int Delay, s/veh											11.4					
Movement																
Traffic Vol, veh/h	EBU	EBL	EBT	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBR				
0	54	6	126	0	2	3	1	0	108	167	2					
Future Vol, veh/h	0	54	6	126	0	2	3	1	0	108	167					
Peak Hour Factor	0.92	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79					
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2					
Mvmt Flow	0	68	8	159	0	3	4	1	0	137	211					
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2					
Approach																
EB											WB					
WB											EB					
Opposing Approach	1											1				
Opposing Lanes	SB											NB				
Conflicting Approach Left	2											2				
Conflicting Lanes Left	NB											SB				
Conflicting Approach Right	2											2				
Conflicting Lanes Right	NB											SB				
HCM Control Delay	11.3											9.4				
HCM LOS	B											A				
Lane																
NBLn1											NBLn2	EBLn1	EBLn2	SBLn1	SBLn2	
Vol Left, %	56%											0%	29%	33%	0%	0%
Vol Thru, %	44%											98%	3%	50%	100%	78%
Vol Right, %	0%											2%	68%	17%	0%	22%
Sign Control	Stop											Stop	Stop	Stop	Stop	
Traffic Vol by Lane	192											86	186	6	191	122
LT Vol	108											0	54	2	0	0
Through Vol	84											84	6	3	191	95
RT Vol	0											2	126	1	0	27
Lane Flow Rate	242											108	235	8	241	155
Geometry Grp	7											7	2	2	7	7
Degree of Util (X)	0.405											0.172	0.352	0.013	0.382	0.238
Departure Headway (Ht)	6.017											5.715	5.389	6.224	5.697	5.541
Convergence, Y/N	Yes											Yes	Yes	Yes	Yes	Yes
Cap	599											629	669	574	632	649
Service Time	3.741											3.439	3.418	4.269	3.42	3.264
HCM Lane V/C Ratio	0.404											0.172	0.351	0.014	0.381	0.239
HCM Control Delay	12.8											9.6	11.3	9.4	11.9	10
HCM Lane LOS	B											A	B	A	B	A
HCM 95th %tile Q	2											0.6	1.6	0	1.8	0.9

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR	SBL	SBR
Traffic Vol, veh/h	0	0	286	27		
Future Vol, veh/h	0	0	286	27		
Peak Hour Factor	0.92	0.79	0.79	0.79		
Heavy Vehicles, %	2	2	2	2		
Mvmt Flow	0	0	362	34		
Number of Lanes	0	0	2	0		
Approach						
Approach	SB		SB			
Opposing Approach	NB		NB			
Opposing Lanes	2		2			
Conflicting Approach Left	WB		WB			
Conflicting Lanes Left	1		1			
Conflicting Approach Right	EB		EB			
Conflicting Lanes Right	1		1			
HCM Control Delay	11.2		11.2			
HCM LOS	B		B			

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmore Center Way

12/1/2016

Intersection Delay, s/veh11.9																
Intersection LOS																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR	
Traffic Vol, veh/h	0	97	61	88	0	13	42	31	0	39	181	21	0	24	203	
Future Vol, veh/h	0	97	61	88	0	13	42	31	0	39	181	21	0	24	203	
Peak Hour Factor	0.92	0.83	0.83	0.83	0.92	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.92	0.83	0.83	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	117	73	106	0	16	51	37	0	47	218	25	0	29	245	
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0	0	0	2	
Approach																
Approach	EB		WB		WB		EB		NB		NB		SB		SB	
Opposing Approach	WB		EB		EB		WB		SB		SB		NB		NB	
Opposing Lanes	1		1		1		1		2		2		2		2	
Conflicting Approach Left	SB		NB		NB		EB		WB		WB		WB		WB	
Conflicting Lanes Left	2		2		2		1		1		1		1		1	
Conflicting Approach Right	NB		SB		SB		WB		WB		WB		EB		EB	
Conflicting Lanes Right	2		2		2		1		1		1		1		1	
HCM Control Delay	13.7		10.4		10.4		11.2		11.2		11.5		11.5		11.5	
HCM LOS	B		B		B		B		B		B		B		B	
Lane																
Lane	NBU1		NBLn2		EBLn1		WBLn1		SBLn1		SBLn2					
Vol Left, %	30%		0%		39%		15%		19%		0%					
Vol Thru, %	70%		81%		25%		49%		81%		61%					
Vol Right, %	0%		19%		36%		0%		39%		0%					
Sign Control	Stop															
Traffic Vol by Lane	130		112		246		86		126		167					
LT Vol	39		0		97		13		24		0					
Through Vol	91		91		61		42		102		102					
RT Vol	0		21		88		31		0		65					
Lane Flow Rate	156		134		296		104		151		201					
Geometry Grp	7		7		2		2		7		7					
Degree of Util (X)	0.278		0.229		0.467		0.174		0.264		0.329					
Departure Headway (Hd)	6.412		6.125		5.674		6.04		6.281		5.905					
Convergence, Y/N	Yes															
Cap	559		584		631		591		570		606					
Service Time	4.175		3.887		3.733		4.116		4.04		3.665					
HCM Lane V/C Ratio	0.279		0.229		0.469		0.176		0.265		0.332					
HCM Control Delay	11.6		10.7		13.7		10.4		11.3		11.6					
HCM Lane LOS	B		B		B		B		B		B					
HCM 95th-ile Q	1.1		0.9		2.5		0.6		1.1		1.4					

HCM 2010 AWSC Existing Full Occupancy AM Peak Hour
 11: Montecito Road & Bradbury Road 02/22/2017

Intersection													
Intersection Delay, s/veh	12.8												
Intersection LOS	B												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	
Lane Configurations	0	5	24	2	0	135	18	146	0	0	139	219	
Traffic Vol, veh/h	0	5	24	2	0	135	18	146	0	0	139	219	
Future Vol, veh/h	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	
Peak Hour Factor	2	2	2	2	2	2	2	2	2	2	2	2	
Heavy Vehicles, %	0	6	30	3	0	171	23	185	0	0	176	277	
Mvmt Flow	0	0	1	0	0	1	1	1	0	0	2	0	
Number of Lanes													

Approach	EB	WB	WB	NB	NB
Opposing Approach	WB	EB	WB	EB	WB
Opposing Lanes	2	1	1	2	2
Conflicting Approach Left	SB	NB	NB	EB	EB
Conflicting Lanes Left	2	2	2	1	1
Conflicting Approach Right	NB	SB	SB	WB	WB
Conflicting Lanes Right	2	2	2	2	2
HCM Control Delay	10.9	12.5	12.5	13.6	13.6
HCM LOS	B	B	B	B	B

Lane	NBLn1	NBLn2	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	16%	88%	0%	53%	0%	
Vol Thru, %	100%	17%	77%	12%	0%	47%	97%	
Vol Right, %	0%	83%	6%	0%	100%	0%	3%	
Sign Control	Stop							
Traffic Vol by Lane	93	265	31	153	146	140	68	
LT Vol	0	0	5	135	0	74	0	
Through Vol	93	46	24	18	0	66	66	
RT Vol	0	219	2	0	146	0	2	
Lane Flow Rate	117	336	39	194	185	177	86	
Geometry Grp	7	7	6	7	7	7	7	
Degree of Utl (X)	0.203	0.528	0.079	0.375	0.299	0.331	0.154	
Departure Headway (Hd)	6.242	5.655	7.204	6.977	5.82	6.726	6.406	
Convergence, Y/N	Yes							
Cap	574	635	495	515	533	555	555	
Service Time	3.996	3.409	5.284	4.733	3.576	4.487	4.197	
HCM Lane V/C Ratio	0.204	0.529	0.079	0.377	0.301	0.332	0.155	
HCM Control Delay	10.6	14.6	10.9	13.9	11.1	12.8	10.4	
HCM Lane LOS	B	B	B	B	B	B	B	
HCM 95th-tile Q	0.8	3.1	0.3	1.7	1.3	1.4	0.5	

HCM 2010 AWSC Existing Full Occupancy AM Peak Hour
 11: Montecito Road & Bradbury Road 02/22/2017

Intersection													
Intersection Delay, s/veh	12.8												
Intersection LOS	B												
Movement	SBU	SBL	SBT	SBR									
Lane Configurations	0	74	132	2									
Traffic Vol, veh/h	0	74	132	2									
Future Vol, veh/h	0.92	0.79	0.79	0.79									
Peak Hour Factor	2	2	2	2									
Heavy Vehicles, %	0	94	167	3									
Mvmt Flow	0	0	2	0									
Number of Lanes													

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12
HCM LOS	B

HCM 2010 AWSC

12: West Road & Rossmoor Center Way

12/1/2016

Intersection												
Intersection Delay, s/veh 7.7												
Intersection LOS A												
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR			
Traffic Vol, veh/h	0	99	7	0	6	86	0	4	12			
Future Vol, veh/h	0	99	7	0	6	86	0	4	12			
Peak Hour Factor	0.92	0.85	0.85	0.92	0.85	0.85	0.92	0.85	0.85			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	116	8	0	7	101	0	5	14			
Number of Lanes	0	1	0	0	0	1	0	1	0			

Approach												
EB			WB			NB			SB			
Opposing Approach	WB			EB			NB			SB		
Opposing Lanes	1			1			0			0		
Conflicting Approach Left	0			NB			EB			0		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			0			WB			1		
Conflicting Lanes Right	1			0			1			1		
HCM Control Delay	7.7			7.7			7.1			A		
HCM LOS	A			A			A			A		

Lane												
NBLn1			EBLn1			WBLn1			SBLn1			
Vol Left, %	25%			0%			7%			0%		
Vol Thru, %	0%			93%			93%			0%		
Vol Right, %	75%			7%			0%			0%		
Sign Control	Stop			Stop			Stop			Stop		
Traffic Vol by Lane	16			106			92			4		
LT Vol	4			0			6			0		
Through Vol	0			99			86			0		
RT Vol	12			7			0			0		
Lane Flow Rate	19			125			108			1		
Geometry Grp	1			1			1			1		
Degree of Util (X)	0.021			0.139			0.122			0.021		
Departure Headway (Hd)	4.031			4.008			4.074			4.031		
Convergence, Y/N	Yes			Yes			Yes			Yes		
Cap	893			893			879			879		
Service Time	2.031			2.038			2.105			2.031		
HCM Lane V/C Ratio	0.021			0.14			0.123			0.021		
HCM Control Delay	7.1			7.7			7.7			7.7		
HCM Lane LOS	A			A			A			A		
HCM 95th-tile Q	0.1			0.5			0.4			0.4		

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection												
Intersection Delay, s/veh 8.7												
Intersection LOS A												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBT	NBR	SBL
Traffic Vol, veh/h	0	35	98	14	0	73	58	51	0	13	16	31
Future Vol, veh/h	0	35	98	14	0	73	58	51	0	13	16	31
Peak Hour Factor	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	105	15	0	78	62	55	0	14	17	33
Number of Lanes	0	0	2	0	0	0	1	0	0	1	0	0

Approach												
EB			WB			NB			SB			
Opposing Approach	WB			EB			NB			SB		
Opposing Lanes	1			2			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			2			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			2		
HCM Control Delay	8.5			9			8.1			8.7		
HCM LOS	A			A			A			A		

Lane												
NBLn1			EBLn1			WBLn1			SBLn1			
Vol Left, %	22%			42%			0%			40%		
Vol Thru, %	27%			58%			78%			32%		
Vol Right, %	52%			0%			22%			17%		
Sign Control	Stop			Stop			Stop			Stop		
Traffic Vol by Lane	60			84			63			182		
LT Vol	13			35			0			73		
Through Vol	16			49			49			58		
RT Vol	31			0			14			51		
Lane Flow Rate	65			90			68			196		
Geometry Grp	2			7			7			5		
Degree of Util (X)	0.083			0.133			0.093			0.246		
Departure Headway (Hd)	4.626			5.298			4.932			4.876		
Convergence, Y/N	Yes			Yes			Yes			Yes		
Cap	773			677			726			735		
Service Time	2.664			3.03			2.663			2.559		
HCM Lane V/C Ratio	0.084			0.133			0.094			0.247		
HCM Control Delay	8.1			8.8			8.2			9		
HCM Lane LOS	A			A			A			A		
HCM 95th-tile Q	0.3			0.5			0.3			1		

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection										
Intersection Delay, s/veh 7.8										
Intersection LOS A										
Movement	WBU	WBL	WBR	NBU	NBL	NBR	SBU	SBL	SBT	SBT
Traffic Vol, veh/h	0	71	37	0	16	32	0	28	15	15
Future Vol, veh/h	0	71	37	0	16	32	0	28	15	15
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	82	43	0	18	37	0	32	17	17
Number of Lanes	0	1	1	0	1	0	0	0	0	1
Approach	WB		WB		NB		SB		SB	
Opposing Approach	0		0		SB		NB		NB	
Opposing Lanes	0		0		1		1		1	
Conflicting Approach Left	NB		0		WB		WB		2	
Conflicting Lanes Left	1		0		0		0		2	
Conflicting Approach Right	SB		0		WB		WB		0	
Conflicting Lanes Right	1		0		2		2		0	
HCM Control Delay	8.1		7.1		7.1		7.7		A	
HCM LOS	A		A		A		A		A	
Lane	NBLn1 WBLn1 WBLn2		SBLn1		SBLn1		SBLn1		SBLn1	
Vol Left, %	0%		100%		0%		65%		65%	
Vol Thru, %	33%		0%		0%		35%		35%	
Vol Right, %	67%		0%		100%		0%		0%	
Sign Control	Stop		Stop		Stop		Stop		Stop	
Traffic Vol by Lane	48		71		37		43		43	
LT Vol	0		71		0		28		28	
Through Vol	16		0		0		15		15	
RT Vol	32		0		37		0		0	
Lane Flow Rate	55		82		43		49		49	
Geometry Grp	2		7		7		2		2	
Degree of Util (X)	0.06		0.118		0.047		0.061		0.061	
Departure Headway (Hd)	3.897		5.216		4.014		4.428		4.428	
Convergence, Y/N	Yes		Yes		Yes		Yes		Yes	
Cap	924		685		885		814		814	
Service Time	1.899		2.97		1.768		2.43		2.43	
HCM Lane V/C Ratio	0.06		0.12		0.049		0.06		0.06	
HCM Control Delay	7.1		8.7		7		7.7		7.7	
HCM Lane LOS	A		A		A		A		A	
HCM 95th-ile Q	0.2		0.4		0.1		0.2		0.2	

HCM 2010 TWSC

15: Project Driveway & Rossmore Center Way

12/1/2016

Intersection										
Int Delay, s/veh 0.7										
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Traffic Vol, veh/h	110	0	9	95	0	11				
Future Vol, veh/h	110	0	9	95	0	11				
Conflicting Peds, #/hr	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Stop	Stop				
RT Channelized	-	None	-	None	-	None				
Storage Length	-	-	-	-	0	-				
Veh in Median Storage, #	0	-	-	0	0	-				
Grade, %	0	-	-	0	0	-				
Peak Hour Factor	89	89	89	89	89	89				
Heavy Vehicles, %	2	2	2	2	2	2				
Mvmt Flow	124	0	10	107	0	12				
Major/Minor	Major1		Major2		Minor1					
Conflicting Flow All	0	0	124	0	251	124				
Stage 1	-	-	-	-	127	-				
Stage 2	-	-	-	-	124	-				
Critical Hdwy	-	-	4.12	-	6.42	6.22				
Critical Hdwy Stg 1	-	-	-	-	5.42	-				
Critical Hdwy Stg 2	-	-	-	-	5.42	-				
Follow-up Hdwy	-	-	2.218	-	3.518	3.318				
Pot Cap-1 Maneuver	-	-	1463	-	738	927				
Stage 1	-	-	-	-	902	-				
Stage 2	-	-	-	-	899	-				
Platoon blocked, %	-	-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	1463	-	733	927				
Mov Cap-2 Maneuver	-	-	-	-	733	-				
Stage 1	-	-	-	-	902	-				
Stage 2	-	-	-	-	893	-				
Approach	EB		WB		NB					
HCM Control Delay, s	0		0.6		8.9					
HCM LOS	A		A		A					
Minor Lane/Major Mvmt	NBLn1		EBT		WBL					
Capacity (veh/h)	927		-		1463					
HCM Lane V/C Ratio	0.013		-		0.007					
HCM Control Delay (s)	8.9		-		7.5					
HCM Lane LOS	A		-		A					
HCM 95th-ile Q(veh)	0		-		0					

HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations	4TB			4							
Traffic Volume (veh/h)	166	30	20	321	35	522	11	1450	361	521	1069
Future Volume (veh/h)	166	30	20	321	35	522	11	1450	361	521	1069
Number	7	4	14	3	8	18	5	2	12	1	6
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pBT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	171	31	21	357	0	0	11	1495	372	537	1102
Adj No. of Lanes	0	2	0	2	0	0	1	3	1	1	3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	127	74	50	416	0	186	23	1592	496	570	3242
Arrive On Green	0.07	0.07	0.07	0.12	0.00	0.00	0.01	0.31	0.31	0.64	1.00
Sat Flow, veh/h	1774	1037	702	3548	0	1583	1774	5085	1583	1774	5085
Grp Volume(v), veh/h	171	0	52	357	0	0	11	1495	372	537	1102
Grp Sat Flow(s), veh/h/ln	1774	0	1739	1774	0	1583	1774	1695	1583	1774	1695
Q Serve(g.s), s	7.9	0.0	3.1	10.9	0.0	0.0	0.7	31.5	23.2	30.2	0.0
Cycle Q Clear(g.c), s	7.9	0.0	3.1	10.9	0.0	0.0	0.7	31.5	23.2	30.2	0.0
Prop In Lane	1.00	0.00	0.40	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	127	0	125	416	0	186	23	1592	496	570	3242
V/C Ratio(X)	1.34	0.00	0.42	0.86	0.00	0.00	0.48	0.94	0.75	0.94	0.34
Avail Cap(c.a), veh/h	127	0	125	426	0	190	81	1600	498	570	3242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.88	0.88
Uniform Delay (d), s/veh	51.1	0.0	48.8	47.6	0.0	0.0	53.9	36.8	33.9	18.8	0.0
Incr Delay (d2), s/veh	197.2	0.0	2.2	15.6	0.0	0.0	14.6	12.1	10.0	22.3	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	10.8	0.0	1.6	6.2	0.0	0.0	0.4	16.5	11.5	17.8	0.1
LnGrp Delay(d), s/veh	248.3	0.0	51.0	63.2	0.0	0.0	68.5	48.9	44.0	41.0	0.3
LnGrp LOS	F	D	E	E	D	E	D	D	D	D	A
Approach Vol, veh/h	223			357				1878			1770
Approach Delay, s/veh	202.3			63.2				48.0			12.6
Approach LOS	F			E				D			B
Timer	1	2	3	4	5	6	7	8			
Assigned Phs	1	2		4	5	6		8			
Phs Duration (G+Y+Rc), s	41.1	40.2		12.6	5.4	75.9		16.7			
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8		5.8			
Max Green Setting (Gmax), s	34.0	* 35		7.9	5.0	63.6		13.2			
Max Q Clear Time (g_c+I), s	32.2	33.5		9.9	2.7	2.0		12.9			
Green Ext Time (p_c), s	0.5	1.0		0.0	0.0	13.4		0.1			
Intersection Summary											
HCM 2010 Ctrl Delay	42.6										
HCM 2010 LOS	D										
Notes											

HCM 2010 Signalized Intersection Summary
 1: Seal Beach Boulevard & I-405 SB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations	7	4	14	3	8	18	5	2	12	1	6
Traffic Volume (veh/h)	77	72	87	195	15	672	41	1546	555	317	1447
Future Volume (veh/h)	77	72	87	195	15	672	41	1546	555	317	1447
Number	7	4	14	3	8	18	5	2	12	1	6
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pBT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	79	74	90	201	0	703	42	1594	0	327	1492
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	81	85	72	917	0	819	507	1907	594	242	1768
Arrive On Green	0.05	0.05	0.05	0.26	0.00	0.26	0.29	0.75	0.00	0.14	0.35
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085
Grp Volume(v), veh/h	79	74	90	201	0	703	42	1594	0	327	1492
Grp Sat Flow(s), veh/h/ln	1863	1863	1774	0	1583	1721	1695	1583	1774	1695	1583
Q Serve(g.s), s	4.9	4.3	5.0	4.9	0.0	23.3	1.0	23.1	0.0	15.0	29.8
Cycle Q Clear(g.c), s	4.9	4.3	5.0	4.9	0.0	23.3	1.0	23.1	0.0	15.0	29.8
Prop In Lane	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	81	85	72	917	0	819	507	1907	594	242	1768
V/C Ratio(X)	0.98	0.87	1.25	0.22	0.00	0.86	0.08	0.84	0.00	1.35	0.84
Avail Cap(c.a), veh/h	81	85	72	1258	0	1123	507	1907	594	242	1882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.54	0.54	0.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	52.5	32.0	32.0	0.0	38.9	33.4	11.5	0.0	47.5	33.1
Incr Delay (d2), s/veh	93.1	58.3	187.7	0.1	0.0	5.1	0.0	2.5	0.0	183.0	5.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.6	5.9	2.4	0.0	10.7	0.5	10.8	0.0	19.6	14.8	11.1
LnGrp Delay(d), s/veh	145.6	110.5	240.2	32.2	0.0	44.0	33.4	14.0	0.0	230.5	38.3
LnGrp LOS	F	F	F	C	D	C	B	D	F	D	D
Approach Vol, veh/h	243			904				1636			2201
Approach Delay, s/veh	170.0			41.3				14.5			66.8
Approach LOS	F			D				B			E
Timer	1	2	3	4	5	6	7	8			
Assigned Phs	1	2		4	5	6		8			
Phs Duration (G+Y+Rc), s	41.1	40.2		12.6	5.4	75.9		16.7			
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8		5.8			
Max Green Setting (Gmax), s	34.0	* 35		7.9	5.0	63.6		13.2			
Max Q Clear Time (g_c+I), s	32.2	33.5		9.9	2.7	2.0		12.9			
Green Ext Time (p_c), s	0.5	1.0		0.0	0.0	13.4		0.1			
Intersection Summary											
HCM 2010 Ctrl Delay	50.0										
HCM 2010 LOS	D										
Notes											

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.720
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 53 Level Of Service: C

Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Include Protected Split Phase Split Phase
 Rights: Ovl Include Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 0 0 2 1 0 1 0 0

Volume Module:
 Base Vol: 406 1642 132 5 1666 66 86 0 385 193 31 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 406 1642 132 5 1666 66 86 0 385 193 31 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHE Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 437 1766 142 5 1791 71 92 0 414 208 33 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 437 1766 142 5 1791 71 92 0 414 208 33 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 437 1766 142 5 1791 71 92 0 414 208 33 5
 OvlAdjVol: 0

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.89 0.11 1.00 0.00 2.00 1.69 0.27 0.04
 Final Sat.: 3400 4721 379 1700 4906 194 1700 0 3400 2866 460 74

Capacity Analysis Module:
 Vol/Sat: 0.13 0.37 0.37 0.00 0.37 0.05 0.00 0.12 0.07 0.07 0.07
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.797
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 66 Level Of Service: C

Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Include Protected Permitted
 Rights: Ovl Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 2 0 0 0 1

Volume Module:
 Base Vol: 0 1710 544 634 1604 0 0 0 0 540 0 460
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1710 544 634 1604 0 0 0 0 540 0 460
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHE Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 0 1750 557 649 1642 0 0 0 553 0 471
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1750 557 649 1642 0 0 0 553 0 471
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1750 557 649 1642 0 0 0 553 0 471
 OvlAdjVol: 0

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.34 0.33 0.19 0.32 0.00 0.00 0.00 0.16 0.00 0.28
 OvlAdjV/S: *****
 Crit Moves: *****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.691
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 49 Level Of Service: B

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 0 1 0 1 0 0 1 0
 Volume Module:
 Base Vol: 159 1535 24 36 1576 190 184 1 130 15 1 16
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 159 1535 24 36 1576 190 184 1 130 15 1 16
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 168 1624 25 38 1668 201 195 1 138 16 1 17
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 168 1624 25 38 1668 201 195 1 138 16 1 17
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 168 1624 25 38 1668 201 195 1 138 16 1 17
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.95 0.05 1.00 2.68 0.32 1.00 0.01 0.99 1.00 0.06 0.94
 Final Sat.: 1700 5021 79 1700 4551 549 1700 13 1687 1700 100 1600
 Capacity Analysis Module:
 Vol/Sat: 0.10 0.32 0.32 0.02 0.37 0.37 0.11 0.08 0.08 0.01 0.01 0.01
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.752
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 57 Level Of Service: C

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 0 1 0 1 0 0 1 0
 Volume Module:
 Base Vol: 205 1415 84 78 1381 94 100 28 185 139 47 59
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 205 1415 84 78 1381 94 100 28 185 139 47 59
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 217 1496 89 82 1460 99 106 30 196 147 50 62
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 217 1496 89 82 1460 99 106 30 196 147 50 62
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 217 1496 89 82 1460 99 106 30 196 147 50 62
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.83 0.17 1.00 2.81 0.19 1.00 0.13 0.87 1.00 0.44 0.56
 Final Sat.: 1700 4814 286 1700 4775 325 1700 223 1477 1700 754 946
 Capacity Analysis Module:
 Vol/Sat: 0.13 0.31 0.31 0.05 0.31 0.31 0.06 0.13 0.13 0.09 0.07 0.07
 Crit Moves: ****

Intersection	12					
Int Delay, s/veh	12					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	443	7	53	453	3	49
Future Vol, veh/h	443	7	53	453	3	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	492	8	59	503	3	54
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	500	0	865	250
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	369	-
Critical Hdwy	-	-	4.14	-	7.54	6.94
Critical Hdwy Stg 1	-	-	-	-	6.54	-
Critical Hdwy Stg 2	-	-	-	-	6.54	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1060	-	248	750
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	623	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1060	-	233	750
Mov Cap-2 Maneuver	-	-	-	-	524	-
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	WB	NB	NB	
HCM Control Delay, s	0	12	12	10.9	10.9	B
HCM LOS						
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	665	-	-	1060	-	
HCM Lane V/C Ratio	0.087	-	-	0.056	-	
HCM Control Delay (s)	10.9	-	-	8.6	0.3	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %ile Q(veh)	0.3	-	-	0.2	-	

Existing Full Occ PM Mon Feb 20, 2017 15:12:10 Page 6-1
 Health Club within the Shops at Rossmore
 Existing (2016) Full Occupancy
 PM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.684
 Loss Time (sec): 48 Average Delay (ssec/veh): xxxxxx
 Optimal Cycle: 10 Level Of Service: B

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1

 Volume Module:
 Base Vol: 130 1504 57 19 1698 170 162 9 88 48 3 11
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 130 1504 57 19 1698 170 162 9 88 48 3 11
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 134 1546 59 20 1745 175 166 9 90 49 3 11
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 134 1546 59 20 1745 175 166 9 90 49 3 11
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 134 1546 59 20 1745 175 166 9 90 49 3 11

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.69 0.11 1.00 2.73 0.27 1.00 0.09 0.91 0.94 0.06 1.00
 Final Sat.: 1700 4914 186 1700 4636 464 1700 158 1542 1600 100 1700

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.31 0.31 0.01 0.38 0.38 0.10 0.06 0.06 0.03 0.03 0.01
 Crit Moves: ****

HCM 2010 AWSC

9. Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection													
Intersection Delay, s/veh													9.6
Intersection LOS													A
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBR	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	30	4	47	0	2	5	10	0	67	214	3	3
Future Vol, veh/h	0	30	4	47	0	2	5	10	0	67	214	3	3
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	5	56	0	2	6	12	0	80	255	4	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0

Approach		EB	WB	WB	NB
Opposing Approach	WB	EB	WB	NB	SB
Opposing Lanes	1	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB	1
Conflicting Lanes Left	2	2	2	2	1
Conflicting Approach Right	NB	SB	WB	NB	1
Conflicting Lanes Right	2	2	2	2	1
HCM Control Delay	9.1	8.5	8.5	10	A
HCM LOS	A	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	39%	0%	37%	12%	6%	0%
Vol Thru, %	61%	97%	5%	29%	94%	73%
Vol Right, %	0%	3%	58%	59%	0%	27%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	174	110	81	17	124	161
LT Vol	67	0	30	2	7	0
Through Vol	107	107	4	5	117	117
RT Vol	0	3	47	10	0	44
Lane Flow Rate	207	131	96	20	148	192
Geometry Grp	7	7	2	2	7	7
Degree of Utl (X)	0.307	0.187	0.138	0.029	0.213	0.265
Departure Headway (Hd)	5.341	5.128	5.167	5.247	5.189	4.968
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	671	689	690	677	689	721
Service Time	3.089	2.876	3.225	3.322	2.935	2.714
HCM Lane V/C Ratio	0.308	0.188	0.139	0.03	0.215	0.266
HCM Control Delay	10.5	9.1	8.5	9.3	9.5	9.5
HCM Lane LOS	B	A	A	A	A	A
HCM 95th-tile Q	1.3	0.7	0.5	0.1	0.8	1.1

HCM 2010 AWSC

9. Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection						
Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR	SBU	SBR
Traffic Vol, veh/h	0	7	234	44	0	44
Future Vol, veh/h	0	7	234	44	0	44
Peak Hour Factor	0.92	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	279	52	0	0
Number of Lanes	0	0	2	0	2	0

Approach		SB	SB
Opposing Approach	WB	NB	NB
Opposing Lanes	2	2	2
Conflicting Approach Left	WB	WB	WB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	EB	EB	EB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.4	9.4	9.4
HCM LOS	A	A	A

Lane

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmoor Center Way

12/1/2016

Intersection	Intersection Delay, s/veh 10.2															
Intersection LOS	B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	42	35	55	0	36	39	71	0	30	132	26	0	44	181	40
Future Vol, veh/h	0	42	35	55	0	36	39	71	0	30	132	26	0	44	181	40
Peak Hour Factor	0.92	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	50	42	65	0	43	46	85	0	36	157	31	0	52	215	48
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	2
Approach	EB				WB				NB				SB			
Opposing Approach	WB				EB				SB				NB			
Opposing Lanes	1				1				2				2			
Conflicting Approach Left	SB				NB				EB				WB			
Conflicting Lanes Left	2				2				1				1			
Conflicting Approach Right	NB				SB				WB				EB			
Conflicting Lanes Right	2				2				1				1			
HCM Control Delay	10.2				10.3				9.9				10.4			
HCM LOS	B				B				A				B			

HCM 2010 AWSC

11: Montecito Road & Bradbury Road

Existing Full Occupancy PM Peak Hour
02/22/2017

Intersection	Intersection Delay, s/veh 10.1															
Intersection LOS	B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR				
Traffic Vol, veh/h	0	1	17	2	0	148	25	64	0	5	103	106				
Future Vol, veh/h	0	1	17	2	0	148	25	64	0	5	103	106				
Peak Hour Factor	0.92	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.92	0.87	0.87	0.87				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	1	20	2	0	170	29	74	0	6	118	122				
Number of Lanes	0	0	1	0	0	0	1	1	0	0	0	2				
Approach	EB				WB				NB							
Opposing Approach	WB				EB				SB							
Opposing Lanes	2				1				2							
Conflicting Approach Left	SB				NB				EB							
Conflicting Lanes Left	2				2				1							
Conflicting Approach Right	NB				SB				WB							
Conflicting Lanes Right	2				2				2							
HCM Control Delay	9.3				10.9				9.5							
HCM LOS	A				B				A							

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	9%	0%	5%	5%	86%	0%	40%	0%
Vol Thru, %	91%	33%	85%	14%	0%	0%	60%	95%
Vol Right, %	0%	67%	10%	0%	100%	0%	0%	5%
Sign Control	Stop							
Traffic Vol by Lane	57	158	20	173	64	103	65	65
LT Vol	5	0	1	148	0	41	0	0
Through Vol	52	52	17	25	0	62	62	62
RT Vol	65	181	23	199	74	118	75	75
Lane Flow Rate	65	181	23	199	74	118	75	75
Geometry Grp	7	7	6	7	7	7	7	7
Degree of Utl (X)	0.102	0.257	0.039	0.335	0.101	0.192	0.116	0.116
Departure Headway (Hd)	5.635	5.115	6.101	6.07	4.935	5.829	5.595	5.595
Convergence, Y/N	Yes							
Cap	631	695	590	587	717	610	634	634
Service Time	3.418	2.897	4.101	3.861	2.725	3.617	3.383	3.383
HCM Lane V/C Ratio	0.103	0.26	0.039	0.339	0.103	0.193	0.118	0.118
HCM Control Delay	9.1	9.7	9.3	11.9	8.3	10	9.1	9.1
HCM Lane LOS	A	A	A	B	A	A	A	A
HCM 95th-ile Q	0.3	1	0.1	1.5	0.3	0.7	0.4	0.4

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road

Existing Full Occupancy PM Peak Hour
 02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh			41	
Intersection LOS			A	
Movement				
Lane Configurations				
Traffic Vol, veh/h	0	41	124	3
Future Vol, veh/h	0	41	124	3
Peak Hour Factor	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	47	143	3
Number of Lanes	0	0	2	0
Approach	SB	SB	SB	SB
Opposing Approach	NB	NB	NB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	WB	WB	WB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	EB	EB	EB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	9.7	9.7	9.7
HCM LOS	A	A	A	A

HCM 2010 AWSC
 1.2: West Road & Rossmoor Center Way

12/1/2016

Intersection	EBU	EBT	EBR	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	8							
Intersection LOS	A							
Movement								
Traffic Vol, veh/h	0	90	17	0	22	136	0	26
Future Vol, veh/h	0	90	17	0	22	136	0	26
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	0	100	19	0	24	151	0	29
Number of Lanes	0	1	0	0	0	1	0	1
Approach	EB	WB	WB	EB	EB	WB	NB	NB
Opposing Approach	WB	WB	WB	EB	EB	WB	NB	NB
Opposing Lanes	1	1	1	1	1	1	0	0
Conflicting Approach Left	EB	NB	NB	EB	EB	WB	EB	EB
Conflicting Lanes Left	0	1	1	1	1	1	1	1
Conflicting Approach Right	NB	NB	NB	EB	EB	WB	WB	WB
Conflicting Lanes Right	1	0	0	0	0	1	1	1
HCM Control Delay	7.7	8.2	8.2	7.8	7.8	7.8	7.8	7.8
HCM LOS	A	A	A	A	A	A	A	A
Lane	NBU	NBU	NBU	NBU	NBU	NBU	NBU	NBU
Vol Left, %	70%	0%	14%					
Vol Thru, %	0%	84%	86%					
Vol Right, %	30%	16%	0%					
Sign Control	Stop	Stop	Stop					
Traffic Vol by Lane	37	107	158					
LT Vol	26	0	22					
Through Vol	0	90	136					
RT Vol	11	17	0					
Lane Flow Rate	41	119	176					
Geometry Grp	1	1	1					
Degree of Util (X)	0.052	0.134	0.201					
Departure Headway (Hd)	4.532	4.044	4.125					
Convergence, Y/N	Yes	Yes	Yes					
Cap	795	877	864					
Service Time	2.532	2.113	2.179					
HCM Lane V/C Ratio	0.052	0.136	0.204					
HCM Control Delay	7.8	7.7	8.2					
HCM Lane LOS	A	A	A					
HCM 95th-ile Q	0.2	0.5	0.7					

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection Delay, s/veh 13															
Intersection LOS B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	22	72	27	0	183	106	84	0	43	44	178	0	75	34
Future Vol, veh/h	0	22	72	27	0	183	106	84	0	43	44	178	0	75	34
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	75	28	0	191	110	88	0	45	46	185	0	78	35
Number of Lanes	0	0	2	0	0	1	0	0	0	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	NB	SB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9.7	15.7	11.8	10.7
HCM LOS	A	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	16%	38%	0%	49%	54%
Vol Thru, %	17%	62%	57%	28%	24%
Vol Right, %	67%	0%	43%	23%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	265	58	63	373	139
LT Vol	43	22	0	183	75
Through Vol	44	36	36	106	34
RT Vol	178	0	27	84	30
Lane Flow Rate	276	60	66	389	145
Geometry Grp	2	7	7	5	2
Degree of Utl (X)	0.403	0.108	0.109	0.582	0.234
Departure Headway (Hd)	5.259	6.457	5.959	5.383	5.825
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	682	553	600	668	614
Service Time	3.31	4.213	3.715	3.435	3.885
HCM Lane V/C Ratio	0.405	0.108	0.11	0.582	0.236
HCM Control Delay	11.8	10	9.4	15.7	10.7
HCM Lane LOS	B	A	A	C	B
HCM 95th-tile Q	1.9	0.4	0.4	3.8	0.9

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection Delay, s/veh 11.6														
Intersection LOS B														
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT				
Traffic Vol, veh/h	0	86	292	0	43	43	65	0	231	54				
Future Vol, veh/h	0	86	292	0	43	43	65	0	231	54				
Peak Hour Factor	0.92	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	97	328	0	48	73	0	260	61	1				
Number of Lanes	0	1	1	0	1	0	0	0	0	1				

Approach	WB	NB	SB
Opposing Approach	WB <td>NB <td>SB</td> </td>	NB <td>SB</td>	SB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB	WB	NB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	NB
Conflicting Lanes Right	1	2	0
HCM Control Delay	11.4	9.2	12.9
HCM LOS	B	A	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	81%
Vol Thru, %	40%	0%	0%	19%
Vol Right, %	60%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	108	86	292	285
LT Vol	0	86	0	231
Through Vol	43	0	0	54
RT Vol	65	0	292	0
Lane Flow Rate	121	97	328	320
Geometry Grp	2	7	7	2
Degree of Utl (X)	0.173	0.165	0.45	0.467
Departure Headway (Hd)	5.125	6.147	4.936	5.249
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	704	579	722	679
Service Time	3.125	3.94	2.728	3.338
HCM Lane V/C Ratio	0.172	0.168	0.454	0.471
HCM Control Delay	9.2	10.2	11.8	12.9
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.6	0.6	2.3	2.5

HCM 2010 TWSC

15: Project Driveway & Rossmoor Center Way

12/1/2016

Intersection	1 2			
Int Delay, s/veh	EBT	EBR	WBL	WBT
Movement	88	1	20	165
Traffic Vol, veh/h	88	1	20	165
Future Vol, veh/h	0	0	0	0
Conflicting Peds, #/hr	Free	Free	Free	Free
Sign Control	-	None	-	None
RT Channelized	-	None	-	None
Storage Length	0	-	0	0
Veh in Median Storage, #	0	-	0	0
Grade, %	93	93	93	93
Peak Hour Factor	2	2	2	2
Heavy Vehicles, %	95	1	22	177
Mvmt Flow				
Major/Minor	Major1	Major2	Minor1	
Conflicting Flow All	0	96	0	315
Stage 1	-	-	-	95
Stage 2	-	-	-	220
Critical Hwy	-	4.12	-	6.42
Critical Hwy Stg 1	-	-	-	5.42
Critical Hwy Stg 2	-	-	-	5.42
Follow-up Hwy	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	1498	-	678
Stage 1	-	-	-	929
Stage 2	-	-	-	817
Platoon blocked, %	-	-	-	667
Mov Cap-1 Maneuver	-	1498	-	667
Mov Cap-2 Maneuver	-	-	-	667
Stage 1	-	-	-	929
Stage 2	-	-	-	804
Approach	EB	WB	NB	
HCM Control Delay, s	0	0.8	9.1	
HCM LOS			A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL
Capacity (veh/h)	896	-	1498	-
HCM Lane V/C Ratio	0.029	-	0.014	-
HCM Control Delay (s)	9.1	-	7.4	0
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0.1	-	0	-

HCM 2010 Signalized Intersection Summary

1: Seal Beach Boulevard & I-405 SB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4TB			4			4TB				
Traffic Volume (veh/h)	147	26	16	544	37	495	9	1103	272	420	1115	131
Future Volume (veh/h)	147	26	16	544	37	495	9	1103	272	420	1115	131
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Cb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	156	28	17	607	0	0	10	1173	289	447	1186	139
Adj No. of Lanes	0	2	0	2	0	2	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	118	72	44	679	0	303	21	1314	409	502	2775	864
Arrive On Green	0.07	0.07	0.07	0.19	0.00	0.00	0.01	0.26	0.26	0.57	1.00	1.00
Sat Flow, veh/h	1774	1087	660	3548	0	1593	1774	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	156	0	45	607	0	0	10	1173	289	447	1186	139
Grp Sat Flow(s), veh/h	1774	0	1746	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	7.3	0.0	2.7	18.4	0.0	0.0	0.6	24.5	18.2	24.3	0.0	0.0
Cycle Q Clear(g.c), s	7.3	0.0	2.7	18.4	0.0	0.0	0.6	24.5	18.2	24.3	0.0	0.0
Prop In Lane	1.00	0.38	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	118	0	116	679	0	303	21	1314	409	502	2775	864
V/C Ratio(X)	1.33	0.00	0.39	0.89	0.00	0.00	0.47	0.89	0.71	0.89	0.43	0.16
Avail Cap(c.a), veh/h	118	0	116	748	0	334	81	1350	420	502	2775	864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(i)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	51.4	0.0	49.2	43.4	0.0	0.0	54.0	39.3	37.0	22.4	0.0	0.0
Incr Delay (d2), s/veh	193.4	0.0	2.1	12.4	0.0	0.0	15.3	9.5	9.8	16.3	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back(Q(50%)) veh/h	99	0.0	1.4	10.2	0.0	0.0	0.4	12.6	9.1	13.9	0.1	0.1
LnGrp Delay(d), s/veh	244.8	0.0	51.3	55.8	0.0	0.0	69.3	48.8	46.8	38.7	0.4	0.4
LnGrp LOS	F	D	E	E	D	E	D	D	D	D	A	A
Approach Vol, veh/h	201			607			1472				1772	
Approach Delay, s/veh	201.4			55.8			48.6				10.1	
Approach LOS	F			E			D				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	36.9	34.2		12.0	5.3	65.8	26.9					
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8	5.8					
Max Green Setting (Gmax), s	30.0	* 29		* 7.3	5.0	54.2	23.2					
Max Q Clear Time (g_c+H), s	26.3	26.5		9.3	2.6	2.0	20.4					
Green Ext Time (p_c), s	0.7	2.0		0.0	0.0	13.7	0.7					
Intersection Summary												
HCM 2010 Ctrl Delay							40.4					
HCM 2010 LOS							D					
Notes												

12/1/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	8	8	7	355	5	574	15	1360	377	260	1307	241
Traffic Volume (veh/h)	8	8	7	355	5	574	15	1360	377	260	1307	241
Future Volume (veh/h)	8	8	7	355	5	574	15	1360	377	260	1307	241
Number	7	4	0	14	3	8	18	5	2	12	1	6
Initial Q (Obs.) veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	8	8	7	374	0	607	16	1432	0	274	1376	254
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Cap. veh/h	41	43	36	827	0	738	730	2152	670	242	1683	524
Arrive On Green	0.02	0.02	0.02	0.23	0.00	0.23	0.42	0.85	0.00	0.14	0.33	0.33
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	8	8	7	374	0	607	16	1432	0	274	1376	254
Grp SatFlow(s),veh/h/m174	1863	1583	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g.s.)	0.5	0.5	0.5	9.9	0.0	20.0	0.3	10.9	0.0	15.0	27.3	14.1
Cycle Q Clear(g.c.s)	0.5	0.5	0.5	9.9	0.0	20.0	0.3	10.9	0.0	15.0	27.3	14.1
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	41	43	36	827	0	738	730	2152	670	242	1683	524
V/C Ratio(X)	0.20	0.19	0.19	0.45	0.00	0.82	0.02	0.67	0.00	1.13	0.82	0.48
Avail Cap(c), veh/h	81	85	72	1258	0	1123	730	2152	670	242	1682	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	52.7	52.7	36.2	0.0	40.0	25.0	5.7	0.0	47.5	33.8	29.3
Incr Delay (d2), s/veh	2.3	2.1	2.5	0.4	0.0	3.1	0.0	1.1	0.0	98.3	4.5	3.2
Initial Q Delay(Q3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/In0.3	0.3	0.2	0.2	4.9	0.0	9.0	0.1	5.0	0.0	13.9	13.4	6.6
LnGrp Delay(d), s/veh	55.1	54.8	55.3	36.6	0.0	43.1	25.0	6.8	0.0	145.8	38.3	32.5
LnGrp LOS	E	D	E	D	D	C	C	A	F	D	D	C
Approach Vol, veh/h	23	981	1448									
Approach Delay, s/veh	55.0	40.6	7.0									
Approach LOS	E	D	A									
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+Rc), s	52.3	7.2	29.1	42.2	31.4							
Change Period (Y+Rc), s	4.0	5.8	* 4.7	5.8	* 5.8							
Max Green Setting (Gmax), s	30.7	* 5.0	* 5.0	* 41	39.0							
Max Q Clear Time (g_c+IY), s	12.9	2.5	2.3	29.3	22.0							
Green Ext Time (p_c), s	0.0	9.1	0.0	2.0	7.1							

Intersection Summary	34.9
HCM 2010 Ctrl Delay	
HCM 2010 LOS	C
Notes	

Health Club within the Shops at Rossmoor
 Existing (2016) Full Occupancy
 Saturday Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave

Cycle (sec):	100	Critical Vol./Cap. (X):	0.774
Loss Time (sec):	61	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	C
Street Name:	Seal Beach Blvd	Lampson Ave	
Approach:	North Bound	South Bound	East Bound
Movement:	L - I - R	L - I - R	L - I - R
Control:	Protected	Protected	Protected
Rights:	Ovl	Include	Permitted
Min. Green:	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	0 0 3 0 1	2 0 3 0 0	0 0 0 0 0
Volume Module:	0 1544 360 509 1459	0 0 0 0 0	0 360 0 551
Base Vol:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Growth Adj:	0 1544 360 509 1459	0 0 0 0 0	0 360 0 551
Initial Base:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
User Adj:	0.93 0.93 0.93 0.93 0.93	0.93 0.93 0.93 0.93 0.93	0.93 0.93 0.93 0.93
PHF Adj:	0.1660 387 547 1569	0 0 0 0 0	0 387 0 592
PHF Volume:	0 1660 387 547 1569	0 0 0 0 0	0 387 0 592
Reduced Vol:	0 1660 387 547 1569	0 0 0 0 0	0 387 0 592
PCE Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Final Volume:	0 1660 387 547 1569	0 0 0 0 0	0 387 0 592
OvAdjVol:			
Saturation Flow Module:			
Sat/Lane:	1700 1700 1700 1700 1700	1700 1700 1700 1700 1700	1700 1700 1700 1700
Adjustment:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Lanes:	0.00 3.00 1.00 2.00 3.00	0.00 0.00 0.00 0.00 0.00	2.00 0.00 1.00 1.00
Final Sat.:	0 5100 1700 3400 5100	0 0 0 0 0	0 3400 0 1700
Capacity Analysis Module:			
Vol/Sat:	0.00 0.33 0.23 0.16 0.31	0.00 0.00 0.00 0.00	0.11 0.00 0.35 0.19
OvAdjV/S:	****	****	****
Crit Moves:	*****	*****	*****

Health Club within the Shops at Rossmoor
Existing (2016) Full Occupancy
Saturday Peak Hour

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.841
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 77 Level Of Service: D

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0	1	0	1
Lanes:	1	0	2	1	0	1	0	1

Volume Module:
 Base Vol: 291 1223 108 92 1063 151 119 83 243 173 89 88
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 291 1223 108 92 1063 151 119 83 243 173 89 88
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 307 1290 114 97 1121 159 126 88 256 182 94 93
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 307 1290 114 97 1121 159 126 88 256 182 94 93
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 307 1290 114 97 1121 159 126 88 256 182 94 93

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.76 0.24 1.00 2.63 0.37 1.00 0.25 0.75 1.00 0.50 0.50
 Final Sat.: 1700 4686 414 1700 4466 634 1700 433 1267 1700 855 845

Capacity Analysis Module:
 Vol/Sat: 0.18 0.28 0.28 0.06 0.25 0.25 0.07 0.20 0.20 0.11 0.11 0.11
 Crit Moves: ****

Health Club within the Shops at Rossmoor
Existing (2016) Full Occupancy
Saturday Peak Hour

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #4 Seal Beach Blvd/St. Cloud Dr

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.654
 Loss Time (sec): 45 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 45 Level Of Service: B

 Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	2	0	2	1	0	1	0	2
Lanes:	2	0	2	1	0	1	0	2

Volume Module:
 Base Vol: 362 1592 172 17 1376 69 102 2 398 174 35 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 362 1592 172 17 1376 69 102 2 398 174 35 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 391 1717 186 18 1484 74 110 2 429 188 38 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 391 1717 186 18 1484 74 110 2 429 188 38 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 391 1717 186 18 1484 74 110 2 429 188 38 5
 OrLAdjVol: *****

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.71 0.29 1.00 2.86 0.14 0.98 0.02 2.00 1.62 0.33 0.05
 Final Sat.: 3400 4603 497 1700 4856 284 1667 33 3400 2764 556 79

Capacity Analysis Module:
 Vol/Sat: 0.11 0.37 0.37 0.01 0.31 0.31 0.07 0.07 0.13 0.07 0.07 0.07
 OrLAdjV/S: *****
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.632
 Loss Time (sec): 43 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 43 Level Of Service: B

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Include
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 111 1374 44 17 1496 120 167 8 96 63 7 12
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 111 1374 44 17 1496 120 167 8 96 63 7 12
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 113 1402 45 17 1527 122 170 8 98 64 7 12
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 113 1402 45 17 1527 122 170 8 98 64 7 12
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 113 1402 45 17 1527 122 170 8 98 64 7 12

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.91 0.09 1.00 2.78 0.22 1.00 0.08 0.92 0.90 0.10
 Final Sat.: 1700 4942 158 1700 4721 379 1700 131 1569 1530 170 1700

Capacity Analysis Module:
 Vol/Sat: 0.07 0.28 0.28 0.01 0.32 0.32 0.10 0.06 0.06 0.04 0.04 0.01
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.673
 Loss Time (sec): 47 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 47 Level Of Service: B

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Include
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 203 1410 15 25 1398 229 188 4 151 19 2 14
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 203 1410 15 25 1398 229 188 4 151 19 2 14
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 208 1448 15 26 1435 235 193 4 155 20 2 14
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 208 1448 15 26 1435 235 193 4 155 20 2 14
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 208 1448 15 26 1435 235 193 4 155 20 2 14

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.97 0.03 1.00 2.58 0.42 1.00 0.03 0.97 1.00 0.13 0.87
 Final Sat.: 1700 5046 54 1700 4382 718 1700 44 1656 1700 213 1487

Capacity Analysis Module:
 Vol/Sat: 0.12 0.29 0.29 0.02 0.33 0.33 0.11 0.09 0.09 0.01 0.01 0.01
 Crit Moves: ****

HCM 2010 TWSC

8: Yellowtail Drive & Saint Cloud Drive

12/1/2016

Intersection											
Int Delay, s/veh											
1											
A											
Movement	EBT	EBR	WBL	WBT	NBL	NBR					
Traffic Vol, veh/h	456	1	43	420	4	44					
Future Vol, veh/h	456	1	43	420	4	44					
Conflicting Peds, #/hr	0	0	0	0	0	0					
Sign Control	Free	Free	Free	Free	Stop	Stop					
RT Channelized	-	None	-	None	-	None					
Storage Length	-	-	-	-	0	-					
Veh in Median Storage, #	0	-	-	0	0	-					
Grade, %	0	-	-	0	0	-					
Peak Hour Factor	94	94	94	94	94	94					
Heavy Vehicles, %	2	2	2	2	2	2					
Mvmt Flow	485	1	46	447	4	47					
Major/Minor	Major1	Major2	Major1		Minor1						
Conflicting Flow All	0	0	486	0	801	243					
Stage 1	-	-	-	-	486	-					
Stage 2	-	-	-	-	315	-					
Critical Hwy	-	-	4.14	-	6.84	6.94					
Critical Hwy Stg 1	-	-	-	-	5.84	-					
Critical Hwy Stg 2	-	-	-	-	3.52	3.32					
Follow-up Hwy	-	-	2.22	-	3.52	7.68					
Pot Cap-1 Maneuver	-	-	1073	-	322	-					
Stage 1	-	-	-	-	584	-					
Stage 2	-	-	-	-	713	-					
Platoon blocked, %	-	-	-	-	-	-					
Mov Cap-1 Maneuver	-	-	1073	-	304	768					
Mov Cap-2 Maneuver	-	-	-	-	304	-					
Stage 1	-	-	-	-	584	-					
Stage 2	-	-	-	-	672	-					
Approach	EB	WB	WB	NB							
HCM Control Delay, s	0	1	10.8	B							
HCM LOS											
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT						
Capacity (veh/h)	674	-	-	1073	-						
HCM Lane V/C Ratio	0.076	-	-	0.043	-						
HCM Control Delay (s)	10.8	-	-	8.5	0.2						
HCM Lane LOS	B	-	-	A	A						
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-						

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection												
Int Delay, s/veh												
8.8												
A												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBR	WBT	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	35	4	38	0	3	5	5	0	38	177	7
Future Vol, veh/h	0	35	4	38	0	3	5	5	0	38	177	7
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	4	41	0	3	5	5	0	41	192	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0
Approach	EB	WB	WB	NB								
Opposing Approach	WB	EB	EB	SB								
Opposing Lanes	1	1	1	2								
Conflicting Approach Left	SB	NB	NB	EB								
Conflicting Lanes Left	2	2	2	1								
Conflicting Approach Right	NB	SB	SB	WB								
Conflicting Lanes Right	2	2	2	1								
HCM Control Delay	8.6	8.6	8.2	8.9								
HCM LOS	A	A	A	A								
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2						
Vol Left, %	30%	0%	45%	23%	6%	0%						
Vol Thru, %	70%	93%	5%	38%	94%	85%						
Vol Right, %	0%	7%	49%	38%	0%	15%						
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop						
Traffic Vol by Lane	127	96	77	13	125	139						
LT Vol	38	0	35	3	7	0						
Through Vol	89	89	4	5	118	118						
RT Vol	0	7	38	5	0	21						
Lane Flow Rate	138	104	84	14	135	151						
Geometry Grp	7	7	2	2	7	7						
Degree of Utl (X)	0.198	0.144	0.115	0.02	0.189	0.204						
Departure Headway (Ht)	5.182	4.979	4.926	5.055	5.024	4.889						
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes						
Cap	693	719	727	706	715	735						
Service Time	2.914	2.712	2.961	3.1	2.755	2.62						
HCM Lane V/C Ratio	0.199	0.145	0.116	0.02	0.189	0.205						
HCM Control Delay	9.2	8.6	8.6	8.2	8.9	8.9						
HCM Lane LOS	A	A	A	A	A	A						
HCM 95th %tile Q	0.7	0.5	0.4	0.1	0.7	0.8						

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection		Intersection Delay, s/veh			
Intersection LOS		SBL	SBT	SBR	SBR
Movement		SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	7	235	21	21
Future Vol, veh/h	0	7	235	21	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2
Mvmt Flow	0	8	255	23	23
Number of Lanes	0	0	2	0	0

Approach	SB	SB
Opposing Approach	NB	NB
Opposing Lanes	2	2
Conflicting Approach Left	WB	WB
Conflicting Lanes Left	1	1
Conflicting Approach Right	EB	EB
Conflicting Lanes Right	1	1
HCM Control Delay	8.9	8.9
HCM LOS	A	A

Lane

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmore Center Way

12/1/2016

Intersection		Intersection Delay, s/veh 9.7														
Intersection LOS		A														
Movement		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	42	42	63	0	18	51	43	0	47	130	29	0	45	161	33
Future Vol, veh/h	0	42	42	63	0	18	51	43	0	47	130	29	0	45	161	33
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	47	47	70	0	20	57	48	0	52	144	32	0	50	179	37
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	2

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	9.8	9.5	9.7	9.8
HCM LOS	A	A	A	A

Lane

	NBUr1	NBLr2	EBU	WBU	NBU	SBU	NBLr1	SBUr1	SBUr2
Vol Left, %	42%	0%	29%	16%	36%	0%			
Vol Thru, %	58%	69%	29%	46%	64%	71%			
Vol Right, %	0%	31%	43%	38%	0%	29%			
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop			
Traffic Vol by Lane	112	94	147	112	126	114			
LT Vol	47	0	42	18	45	0			
Through Vol	65	65	42	51	81	81			
RT Vol	0	29	63	43	0	33			
Lane Flow Rate	124	104	163	124	139	126			
Geometry Grp	7	7	2	2	7	7			
Degree of Util (X)	0.203	0.158	0.232	0.182	0.225	0.19			
Departure Headway (Hd)	5.875	5.444	5.229	5.272	5.8	5.413			
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes			
Cap	614	661	691	682	622	666			
Service Time	3.588	3.157	3.229	3.285	3.512	3.125			
HCM Lane V/C Ratio	0.202	0.157	0.236	0.182	0.223	0.189			
HCM Control Delay	10.1	9.2	9.8	9.5	10.2	9.4			
HCM Lane LOS	B	A	A	A	B	A			
HCM 95th-ile Q	0.8	0.6	0.9	0.7	0.9	0.7			

HCM 2010 AWSC Existing + Full Occupancy Saturday Peak Hour
 11: Montecito Road & Bradbury Road 02/22/2017

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations	0	1	15	4	0	115	20	69	0	3	71	94
Traffic Vol, veh/h	0	1	15	4	0	115	20	69	0	3	71	94
Future Vol, veh/h	0	1	15	4	0	115	20	69	0	3	71	94
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	15	4	0	119	21	71	0	3	73	97
Number of Lanes	0	1	0	1	0	1	1	1	0	0	2	0

Approach	EB	WB	WB	NB	NB
Opposing Approach	WB	EB	WB	SB	SB
Opposing Lanes	2	1	1	2	2
Conflicting Approach Left	SB	NB	NB	EB	EB
Conflicting Lanes Left	2	2	2	1	1
Conflicting Approach Right	NB	SB	SB	WB	WB
Conflicting Lanes Right	2	2	2	2	2
HCM Control Delay	8.7	8.7	9.3	8.6	8.6
HCM LOS	A	A	A	A	A

Lane	NBLn1	NBLn2	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	8%	0%	5%	5%	85%	0%	44%	0%	0%
Vol Thru, %	92%	27%	75%	15%	0%	56%	96%	0%	0%
Vol Right, %	0%	73%	20%	0%	100%	0%	4%	0%	4%
Sign Control	Stop								
Traffic Vol by Lane	39	130	20	135	69	81	47	0	0
LT Vol	3	0	1	115	0	36	0	0	0
Through Vol	36	36	15	20	0	45	45	0	0
RT Vol	0	94	4	0	69	0	2	0	0
Lane Flow Rate	40	134	21	139	71	84	48	0	0
Geometry Grp	7	7	6	7	7	7	7	7	7
Degree of Utl (X)	0.059	0.177	0.031	0.221	0.091	0.129	0.071	0.071	0.071
Departure Headway (Hd)	5.33	4.779	5.453	5.729	4.599	5.54	5.266	5.54	5.266
Convergence, Y/N	Yes								
Cap	671	749	654	626	777	646	676	646	676
Service Time	3.069	2.518	3.509	3.472	2.341	3.281	3.027	3.281	3.027
HCM Lane V/C Ratio	0.06	0.179	0.032	0.222	0.091	0.13	0.071	0.13	0.071
HCM Control Delay	8.4	8.6	8.7	10.1	7.8	9.1	8.4	8.4	8.4
HCM Lane LOS	A	A	A	B	A	A	A	A	A
HCM 95th-tile Q	0.2	0.6	0.1	0.8	0.3	0.4	0.2	0.4	0.2

HCM 2010 AWSC Existing + Full Occupancy Saturday Peak Hour
 11: Montecito Road & Bradbury Road 02/22/2017

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations	0	36	90	2
Traffic Vol, veh/h	0	36	90	2
Future Vol, veh/h	0	36	90	2
Peak Hour Factor	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	93	2
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.8
HCM LOS	A

HCM 2010 AWSC

12: West Road & Rossmoor Center Way

12/1/2016

Intersection												
Intersection Delay, s/veh 7.8												
Intersection LOS A												
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR			
Traffic Vol, veh/h	0	82	16	0	10	118	0	26	17			
Future Vol, veh/h	0	82	16	0	10	118	0	26	17			
Peak Hour Factor	0.92	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	90	18	0	11	130	0	29	19			
Number of Lanes	0	1	0	0	0	1	0	1	0			

Approach												
Opposing Approach												
Opposing Lanes												
Conflicting Approach Left												
Conflicting Lanes Left												
Conflicting Approach Right												
Conflicting Lanes Right												
HCM Control Delay												
HCM LOS												
Approach	EB	WB	EB	NB	NB							
Opposing Approach	WB	EB										
Opposing Lanes	1	1										
Conflicting Approach Left	0	NB	EB									
Conflicting Lanes Left	0	1	1									
Conflicting Approach Right	NB	0	WB									
Conflicting Lanes Right	1	0	1									
HCM Control Delay	7.6	8	7.6									
HCM LOS	A	A	A									

Lane												
NBLn1 EBLn1 WBLn1												
Vol Left, %												
Vol Thru, %												
Vol Right, %												
Sign Control												
Traffic Vol by Lane												
LT Vol												
Through Vol												
RT Vol												
Lane Flow Rate												
Geometry Grp												
Degree of Util (X)												
Departure Headway (Hd)												
Convergence, Y/N												
Cap												
Service Time												
HCM Lane V/C Ratio												
HCM Control Delay												
HCM Lane LOS												
HCM 95th-tile Q												
NBLn1	60%	0%	8%									
EBLn1	0%	84%	92%									
WBLn1	40%	16%	0%									
Sign Control	Stop	Stop	Stop									
Traffic Vol by Lane	43	98	128									
LT Vol	26	0	10									
Through Vol	0	82	118									
RT Vol	17	16	0									
Lane Flow Rate	47	108	141									
Geometry Grp	1	1	1									
Degree of Util (X)	0.057	0.12	0.161									
Departure Headway (Hd)	4.353	4.025	4.114									
Convergence, Y/N	Yes	Yes	Yes									
Cap	828	883	866									
Service Time	2.353	2.086	2.165									
HCM Lane V/C Ratio	0.057	0.122	0.163									
HCM Control Delay	7.6	7.6	8									
HCM Lane LOS	A	A	A									
HCM 95th-tile Q	0.2	0.4	0.6									

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection														
Intersection Delay, s/veh 18														
Intersection LOS C														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	21	100	36	0	214	93	106	0	43	64	215	0	96
Future Vol, veh/h	0	21	100	36	0	214	93	106	0	43	64	215	0	96
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	106	38	0	228	99	113	0	46	68	229	0	102
Number of Lanes	0	0	2	0	0	0	1	0	0	0	1	0	0	1

Approach												
Opposing Approach												
Opposing Lanes												
Conflicting Approach Left												
Conflicting Lanes Left												
Conflicting Approach Right												
Conflicting Lanes Right												
HCM Control Delay												
HCM LOS												
Approach	EB	WB	EB	NB	NB							
Opposing Approach	WB	EB										
Opposing Lanes	1	2										
Conflicting Approach Left	SB	NB	EB									
Conflicting Lanes Left	1	1	2									
Conflicting Approach Right	NB	SB	WB									
Conflicting Lanes Right	1	1	1									
HCM Control Delay	11.1	24	16.3									
HCM LOS	B	C	C									

Lane												
NBLn1 EBLn1 EBLn2 WBLn1 SBLn1												
Vol Left, %												
Vol Thru, %												
Vol Right, %												
Sign Control												
Traffic Vol by Lane												
LT Vol												
Through Vol												
RT Vol												
Lane Flow Rate												
Geometry Grp												
Degree of Util (X)												
Departure Headway (Hd)												
Convergence, Y/N												
Cap												
Service Time												
HCM Lane V/C Ratio												
HCM Control Delay												
HCM Lane LOS												
HCM 95th-tile Q												
NBLn1	13%	30%	0%	52%	53%							
EBLn1	20%	70%	58%	23%	33%							
WBLn1	67%	0%	42%	26%	13%							
Sign Control	Stop	Stop	Stop	Stop	Stop							
Traffic Vol by Lane	322	71	86	413	160							
LT Vol	43	21	0	214	96							
Through Vol	64	50	50	93	60							
RT Vol	215	0	36	106	24							
Lane Flow Rate	343	76	91	439	191							
Geometry Grp	2	7	7	5	2							
Degree of Util (X)	0.561	0.151	0.172	0.735	0.352							
Departure Headway (Hd)	5.894	7.205	6.753	6.026	6.61							
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes							
Cap	610	497	530	598	544							
Service Time	3.941	4.963	4.511	4.071	4.665							
HCM Lane V/C Ratio	0.562	0.153	0.172	0.734	0.351							
HCM Control Delay	16.3	11.3	10.9	24	13.2							
HCM Lane LOS	C	B	B	C	B							
HCM 95th-tile Q	3.5	0.5	0.6	6.3	1.6							

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection												
Intersection Delay, s/veh 16												
Intersection LOS C												
Movement	WBU	WBL	WBR	NBU	NBL	NBR	SBU	SBL	SBT			
Traffic Vol, veh/h	0	132	394	0	69	101	0	339	52			
Future Vol, veh/h	0	132	394	0	69	101	0	339	52			
Peak Hour Factor	0.92	0.97	0.97	0.92	0.97	0.97	0.92	0.97	0.97			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	136	406	0	71	104	0	349	54			
Number of Lanes	0	1	1	0	1	0	0	0	1			
Approach												
	WB	WB	WB	NB	NB	NB	SB	SB	SB			
Opposing Approach	0	0	0	1	1	1	1	1	1			
Opposing Lanes	0	0	0	1	1	1	1	1	1			
Conflicting Approach Left	NB	NB	NB	WB	WB	WB	WB	WB	WB			
Conflicting Lanes Left	1	1	1	0	0	0	0	0	0			
Conflicting Approach Right	SB	SB	SB	WB	WB	WB	WB	WB	WB			
Conflicting Lanes Right	1	1	1	2	2	2	2	2	2			
HCM Control Delay	15.4	15.4	15.4	10.9	10.9	10.9	18.9	18.9	18.9			
HCM LOS	C	C	C	B	B	B	C	C	C			
Lane												
	NBLn1	WBLn1	WBLn2	SBLn1	SBLn1	SBLn1	SBLn1	SBLn1	SBLn1			
Vol Left, %	0%	100%	0%	0%	87%	0%	0%	0%	0%			
Vol Thru, %	41%	0%	0%	0%	13%	0%	0%	0%	0%			
Vol Right, %	59%	0%	100%	0%	0%	0%	0%	0%	0%			
Sign Control	Stop											
Traffic Vol by Lane	170	132	394	391	0	339	0	339	0			
LT Vol	0	132	0	0	52	0	0	0	0			
Through Vol	101	0	394	0	0	0	0	0	0			
RT Vol	175	136	406	403	0	339	0	339	0			
Lane Flow Rate	2	7	7	2	2	2	2	2	2			
Geometry Grp	0.275	0.253	0.617	0.647	0.647	0.647	0.647	0.647	0.647			
Degree of Util (X)	5.656	6.685	5.468	5.777	5.777	5.777	5.777	5.777	5.777			
Departure Headway (Hd)	Yes											
Convergence, Y/N	Yes											
Cap	633	538	658	625	625	625	625	625	625			
Service Time	3.709	4.429	3.212	3.819	3.819	3.819	3.819	3.819	3.819			
HCM Lane V/C Ratio	0.276	0.253	0.617	0.645	0.645	0.645	0.645	0.645	0.645			
HCM Control Delay	10.9	11.7	16.7	18.9	18.9	18.9	18.9	18.9	18.9			
HCM Lane LOS	B	B	C	C	C	C	C	C	C			
HCM 95th-ile Q	1.1	1	4.3	4.7	4.7	4.7	4.7	4.7	4.7			

HCM 2010 TWSC

15: Project Driveway & Rossmore Center Way

12/1/2016

Intersection												
Intersection Delay, s/veh 2.4												
Movement	EBT	EBR	WBL	WBT	NBL	NBR						
Traffic Vol, veh/h	99	0	44	123	5	39						
Future Vol, veh/h	99	0	44	123	5	39						
Conflicting Peds, #/hr	0	0	0	0	0	0						
Sign Control	Free	Free	Free	Free	Stop	Stop						
RT Channelized	-	None	-	None	-	None						
Storage Length	-	-	-	-	0	0						
Veh in Median Storage, #	0	0	0	0	0	0						
Grade, %	0	0	0	0	0	0						
Peak Hour Factor	92	92	92	92	92	92						
Heavy Vehicles, %	2	2	2	2	2	2						
Mvmt Flow	108	0	48	134	5	42						
Major/Minor												
	Major1	Major2	Major2	Minor1	Minor1	Minor1						
Conflicting Flow All	0	0	108	0	337	108						
Stage 1	-	-	-	-	229	-						
Stage 2	-	-	-	-	6.42	-						
Critical Hdwy	-	-	4.12	-	5.42	-						
Critical Hdwy Stg 1	-	-	-	-	5.42	-						
Critical Hdwy Stg 2	-	-	-	-	3.518	-						
Follow-up Hdwy	-	-	2.218	-	6.58	9.46						
Pot Cap-1 Maneuver	-	-	1483	-	916	-						
Stage 1	-	-	-	-	809	-						
Stage 2	-	-	-	-	635	9.46						
Platoon blocked, %	-	-	-	-	635	-						
Mov Cap-1 Maneuver	-	-	1483	-	635	-						
Mov Cap-2 Maneuver	-	-	-	-	916	-						
Stage 1	-	-	-	-	781	-						
Stage 2	-	-	-	-	-	-						
Approach												
	EB	WB	WB	NB	NB	NB						
HCM Control Delay, s	0	0	2	9.2	9.2	9.2						
HCM LOS	A	A	A	A	A	A						
Minor Lane/Major Mvmt												
	NBLn1	EBT	EBR	WBL	WBT	WBT						
Capacity (veh/h)	896	-	-	1483	-	-						
HCM Lane V/C Ratio	0.053	-	-	0.032	-	-						
HCM Control Delay (s)	9.2	-	-	7.5	0	0						
HCM Lane LOS	A	-	-	A	A	A						
HCM 95th-ile Q(veh)	0.2	-	-	0.1	-	-						

HCM 2010 Signalized Intersection Summary
1: Seal Beach Boulevard & I-405 SB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	87	28	16	696	44	533	14	1068	166	438	1455	72
Traffic Volume (veh/h)	87	28	16	696	44	533	14	1068	166	438	1455	72
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	96	31	18	799	0	0	15	1163	182	481	1599	79
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	89	55	32	861	0	384	30	1234	384	704	3250	1012
Arrive On Green	0.05	0.05	0.05	0.24	0.00	0.00	0.02	0.24	0.24	0.27	0.43	0.43
Sat Flow, veh/h	1774	1107	643	3548	0	1583	1774	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	96	0	49	799	0	0	15	1163	182	481	1599	79
Grp Sat Flow(s), veh/h/ln	1774	0	1749	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	5.5	0.0	3.0	24.2	0.0	0.0	0.9	24.7	10.8	26.8	25.1	3.2
Cycle Q Clear(g.c), s	5.5	0.0	3.0	24.2	0.0	0.0	0.9	24.7	10.8	26.8	25.1	3.2
Prop In Lane	1.00	0.00	0.37	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	89	0	87	861	0	384	30	1234	384	704	3250	1012
V/C Ratio(X)	1.08	0.00	0.56	0.93	0.00	0.00	0.51	0.94	0.47	0.68	0.49	0.08
Avail Cap(c.a), veh/h	89	0	87	861	0	384	30	1234	384	704	3250	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	0.0	51.1	40.7	0.0	0.0	53.6	40.9	35.6	34.2	18.5	12.3
Incr Delay (d2), s/veh	119.6	0.0	7.8	15.4	0.0	0.0	12.7	15.1	4.1	2.0	0.4	0.1
Initial Q Delay(d3), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%) veh/ln	5.6	0.0	1.6	13.7	0.0	0.0	0.6	13.2	5.2	13.5	11.9	1.5
LnGrp Delay(d), s/veh	172.3	0.0	58.9	56.1	0.0	0.0	66.3	55.9	39.8	36.2	18.9	12.4
LnGrp LOS	F	E	E	E	E	E	E	E	D	D	B	B
Approach Vol, veh/h	145			799			1360				2159	
Approach Delay, s/veh	134.0			56.1			53.9				22.5	
Approach LOS	F			E			D				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	49.4	32.5		10.2	5.8	76.1						
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8						
Max Green Setting (Gmax), s	30.0	* 27		* 5.5	5.0	51.7						
Max Q Clear Time (g_c+I), s	28.8	26.7		7.5	2.9	27.1						
Green Ext Time (p_c), s	0.3	0.0		0.0	0.0	14.6						
Intersection Summary	41.7											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

HCM 2010 Signalized Intersection Summary
2: Seal Beach Boulevard & I-405 NB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	10	11	5	367	53	561	110	1211	348	335	1581	465
Traffic Volume (veh/h)	10	11	5	367	53	561	110	1211	348	335	1581	465
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	11	12	6	408	0	662	122	1346	0	372	1757	517
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	47	50	42	891	0	795	527	1855	578	306	1872	583
Arrive On Green	0.03	0.03	0.03	0.25	0.00	0.25	0.31	0.73	0.00	0.17	0.37	0.37
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	11	12	6	408	0	662	122	1346	0	372	1757	517
Grp Sat Flow(s), veh/h/ln	1863	1863	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g.s), s	0.7	0.7	0.4	10.7	0.0	21.8	2.9	16.7	0.0	19.0	36.7	33.7
Cycle Q Clear(g.c), s	0.7	0.7	0.4	10.7	0.0	21.8	2.9	16.7	0.0	19.0	36.7	33.7
Prop In Lane	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	47	50	42	891	0	795	527	1855	578	306	1872	583
V/C Ratio(X)	0.23	0.24	0.14	0.46	0.00	0.83	0.23	0.73	0.00	1.21	0.94	0.89
Avail Cap(c.a), veh/h	81	85	72	1258	0	1123	527	1855	578	306	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.58	0.58	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	52.4	52.3	34.8	0.0	39.0	33.3	11.7	0.0	45.5	33.5	32.6
Incr Delay (d2), s/veh	2.5	2.5	1.5	0.4	0.0	3.8	0.1	1.5	0.0	12.5	10.6	17.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%) veh/ln	0.4	0.2	0.2	5.3	0.0	9.9	1.4	7.7	0.0	19.7	18.9	17.5
LnGrp Delay(d), s/veh	54.9	54.9	53.8	35.2	0.0	42.8	33.5	13.2	0.0	168.0	44.1	50.5
LnGrp LOS	D	D	D	D	D	D	C	B	F	D	D	D
Approach Vol, veh/h	29			1070			1468				2646	
Approach Delay, s/veh	54.7			39.9			14.9				62.8	
Approach LOS	D			D			B				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	45.9	45.9		7.6	22.6	46.3						
Change Period (Y+Rc), s	5.8	* 4.0		* 4.7	5.8	* 5.8						
Max Green Setting (Gmax), s	30.0	* 27		* 5.0	5.0	51.7						
Max Q Clear Time (g_c+I), s	28.8	26.7		7.5	2.9	27.1						
Green Ext Time (p_c), s	0.3	0.0		0.0	0.0	14.6						
Intersection Summary	44.5											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.816
 Loss Time (sec): 70 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 70 Level Of Service: D

Street Name: Seal Beach Blvd East Bound West Bound
 Approach: North Bound South Bound Lampson Ave
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Permitted
Rights:	Ovl	Include	Ovl	Include	Ovl
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	0 0 3 0 1	2 0 3 0 0	0 0 0 0 0	2 0 0 0 1	0 0 0 0 1

Volume Module:
 Base Vol: 0 1475 305 304 1679 0 0 0 0 702 0 614
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1475 305 304 1679 0 0 0 0 702 0 614
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
 PHF Volume: 0 1624 336 335 1849 0 0 0 0 773 0 676
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1624 336 335 1849 0 0 0 0 773 0 676
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1624 336 335 1849 0 0 0 0 773 0 676
 OvlAdjVol: 0 0 0 0 0 0 0 0 0 0 0 509

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.32 0.20 0.10 0.36 0.00 0.00 0.00 0.00 0.23 0.00 0.40
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.634
 Loss Time (sec): 43 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 43 Level Of Service: B

Street Name: Seal Beach Blvd East Bound West Bound
 Approach: North Bound South Bound St. Cloud Dr
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Split Phase
Rights:	Protected	Include	Protected	Include	Split Phase
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	2 0 2 1 0	1 0 2 1 0	0 1 0 0 2	1 0 1 0 0	1 0 1 0 0

Volume Module:
 Base Vol: 378 1670 47 4 1333 46 106 3 568 65 13 2
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 378 1670 47 4 1333 46 106 3 568 65 13 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
 PHF Volume: 430 1900 53 5 1516 52 121 3 646 74 15 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 430 1900 53 5 1516 52 121 3 646 74 15 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 430 1900 53 5 1516 52 121 3 646 74 15 2
 OvlAdjVol: 0 0 0 0 0 0 0 0 0 0 0 216

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.92 0.08 1.00 2.90 0.10 0.97 0.03 2.00 1.63 0.32 0.05
 Final Sat.: 3400 4960 140 1700 4930 170 1653 47 3400 2763 552 85

Capacity Analysis Module:
 Vol/Sat: 0.13 0.38 0.38 0.00 0.31 0.31 0.07 0.07 0.19 0.03 0.03 0.03
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.503
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 34 Level Of Service: A

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1
Volume Module:	56	1638	31	21
Base Vol:	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00
Initial Base:	56	1638	31	21
User Adj:	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90
PHF Volume:	62	1812	34	23
Reduct Vol:	0	0	0	0
Reduced Vol:	62	1812	34	23
PCE Adj:	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00
Final Volume:	62	1812	34	23

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.94 0.06 1.00
 Final Sat.: 1700 5005 95 1700
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.36 0.01 0.30
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.548
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 36 Level Of Service: A

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1
Volume Module:	76	1599	15	19
Base Vol:	1.00	1.00	1.00	1.00
Growth Adj:	1.00	1.00	1.00	1.00
Initial Base:	76	1599	15	19
User Adj:	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92
PHF Volume:	83	1748	16	21
Reduct Vol:	0	0	0	0
Reduced Vol:	83	1748	16	21
PCE Adj:	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00
Final Volume:	83	1748	16	21

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.97 0.03 1.00
 Final Sat.: 1700 5053 47 1700
 Capacity Analysis Module:
 Vol/Sat: 0.05 0.35 0.01 0.31
 Crit Moves: *****

Intersection
 Int Delay, s/veh 1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	606	4	28	404	8	70
Future Vol, veh/h	606	4	28	404	8	70
Conflicting Peds. #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	767	5	35	511	10	89

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1097
Stage 1	-	-	770
Stage 2	-	-	327
Critical Hdwy	-	4.14	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	2.22	3.52
Pot Cap-1 Maneuver	-	839	207
Stage 1	-	-	417
Stage 2	-	-	703
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	839	195
Mov Cap-2 Maneuver	-	-	417
Stage 1	-	-	662
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	13.9
HCM LOS		B	

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	502	-	-	839	-
HCM Lane V/C Ratio	0.197	-	-	0.042	-
HCM Control Delay (s)	13.9	-	-	9.5	0.2
HCM Lane LOS	B	-	-	A	A
HCM 95th %ile Q(veh)	0.7	-	-	0.1	-

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.733
 Loss Time (sec): 10 Average Delay (ssec/veh): xxxxxx
 Optimal Cycle: 55 Level of Service: C
 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R

Control:	Protected	Protected	Protected	Protected	Permitted	Permitted
Include	0	0	0	0	0	0
Exclude	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1

Volume Module:	26	14	1341	155	270	18	97	70	22	23
Base Vol:	146	1532	146	1532	146	1532	146	1532	146	1532
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	1532	146	1532	146	1532	146	1532	146	1532
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	156	1639	156	1639	156	1639	156	1639	156	1639
Reduced Vol:	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	156	1639	156	1639	156	1639	156	1639	156	1639

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.95 0.05 1.00 2.69 0.31 1.00 0.16 0.84 0.76 0.24 1.00
 Final Sat.: 1700 5015 85 1700 4572 528 1700 266 1434 1293 407 1700
 Capacity Analysis Module:
 Vol/Sat: 0.09 0.33 0.33 0.01 0.31 0.31 0.17 0.07 0.07 0.04 0.06 0.01
 Crit Moves: ****

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection												
Intersection Delay, s/veh											11.4	
Intersection LOS											B	
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBR	WBU	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	54	7	126	0	2	4	1	0	108	168	2
Future Vol, veh/h	0	54	7	126	0	2	4	1	0	108	168	2
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	68	9	159	0	3	5	1	0	137	213	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2

Approach												
Approach	EB	WB	WB	WB	NB	NB						
Opposing Approach	WB	EB	EB	WB	SB	SB						
Opposing Lanes	1		1		2	2						
Conflicting Approach Left	SB	NB	NB	EB	EB	1						
Conflicting Lanes Left	2		2		WB	1						
Conflicting Approach Right	NB	SB	SB	WB	WB	1						
Conflicting Lanes Right	2		2		1	1						
HCM Control Delay	11.4		9.4		11.8							
HCM LOS	B		A		B							

Lane												
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2						
Vol Left, %	56%	0%	29%	29%	0%	0%						
Vol Thru, %	44%	96%	4%	57%	100%	78%						
Vol Right, %	0%	2%	67%	14%	0%	22%						
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop						
Traffic Vol by Lane	192	86	187	7	191	123						
LT Vol	108	0	54	2	0	0						
Through Vol	84	84	7	4	191	96						
RT Vol	0	2	126	1	0	27						
Lane Flow Rate	243	109	237	9	242	155						
Geometry Grp	7	7	2	2	7	7						
Degree of Utl (X)	0.407	0.173	0.355	0.015	0.384	0.239						
Departure Headway (Hd)	6.027	5.726	5.4	6.239	5.707	5.551						
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes						
Cap	598	627	668	573	632	647						
Service Time	3.754	3.463	3.431	4.287	3.434	3.278						
HCM Lane V/C Ratio	0.406	0.174	0.355	0.016	0.383	0.24						
HCM Control Delay	12.8	9.7	11.4	9.4	12	10						
HCM Lane LOS	B	A	B	A	B	A						
HCM 95th-tile Q	2	0.6	1.6	0	1.8	0.9						

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection						
Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR		
Traffic Vol, veh/h	0	0	287	27		
Future Vol, veh/h	0	0	287	27		
Peak Hour Factor	0.92	0.79	0.79	0.79		
Heavy Vehicles, %	2	2	2	2		
Mvmt Flow	0	0	363	34		
Number of Lanes	0	0	2	0		

Approach	
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.2
HCM LOS	B

Lane	
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HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road
 Existing Full Occupancy + Project AM Peak Hour
 02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	74	133	2
Future Vol, veh/h	0	74	133	2
Peak Hour Factor	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	94	168	3
Number of Lanes	0	0	2	0
Approach	SB	SB		
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	2			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	12			
HCM LOS	B			

HCM 2010 AWSC
 1.2: West Road & Rossmoor Center Way
 12/1/2016

Intersection	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	7.7								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Traffic Vol, veh/h	0	99	10	0	6	86	0	7	12
Future Vol, veh/h	0	99	10	0	6	86	0	7	12
Peak Hour Factor	0.92	0.85	0.85	0.92	0.85	0.85	0.92	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	116	12	0	7	101	0	8	14
Number of Lanes	0	1	0	0	0	1	0	1	0
Approach	EB	EB	WB	WB	EB		NB		
Opposing Approach	WB						EB		
Opposing Lanes	1						0		
Conflicting Approach Left				NB			EB		
Conflicting Lanes Left	0			1			1		
Conflicting Approach Right	NB						WB		
Conflicting Lanes Right	1			0			1		
HCM Control Delay	7.7			7.7			7.2		
HCM LOS	A			A			A		
Lane	NBU	NBL	EBU	WBU	WBL	NBL			
Vol Left, %	37%	0%	7%						
Vol Thru, %	0%	91%	93%						
Vol Right, %	63%	9%	0%						
Sign Control	Stop	Stop	Stop						
Traffic Vol by Lane	19	109	92						
LT Vol	7	0	6						
Through Vol	0	99	86						
RT Vol	12	10	0						
Lane Flow Rate	22	128	108						
Geometry Grp	1	1	1						
Degree of Util (X)	0.026	0.142	0.123						
Departure Headway (Hd)	4.133	3.999	4.082						
Convergence, Y/N	Yes	Yes	Yes						
Cap	871	894	876						
Service Time	2.133	2.034	2.118						
HCM Lane V/C Ratio	0.025	0.143	0.123						
HCM Control Delay	7.2	7.7	7.7						
HCM Lane LOS	A	A	A						
HCM 95th-ile Q	0.1	0.5	0.4						

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection Delay, s/veh 8.9															
Intersection LOS A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	35	121	14	0	73	81	51	0	13	16	31	0	59	16
Future Vol, veh/h	0	35	121	14	0	73	81	51	0	13	16	31	0	59	16
Peak Hour Factor	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.92	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	130	15	0	78	87	55	0	14	17	33	0	63	17
Number of Lanes	0	0	2	0	0	0	1	0	0	0	1	0	0	0	1

Approach		EB	WB	NB	SB
Opposing Approach	WB	EB	WB	NB	SB
Opposing Lanes	1	2	2	1	1
Conflicting Approach Left	SB	NB	NB	WB	WB
Conflicting Lanes Left	1	1	2	2	1
Conflicting Approach Right	NB	SB	WB	WB	EB
Conflicting Lanes Right	1	1	1	1	2
HCM Control Delay	8.7	9.4	8.2	8.2	8.8
HCM LOS	A	A	A	A	A

Lane		NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %		22%	37%	0%	36%	66%
Vol Thru, %		27%	63%	81%	40%	18%
Vol Right, %		52%	0%	19%	25%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	96	75	205	90	
LT Vol	13	35	0	73	59	
Through Vol	16	61	61	81	16	
RT Vol	31	0	14	51	15	
Lane Flow Rate	65	103	80	220	97	
Geometry Grp	2	7	7	5	2	
Degree of Utl (X)	0.085	0.151	0.111	0.28	0.134	
Departure Headway (Hd)	4.744	5.301	4.984	4.573	4.991	
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	
Cap	752	676	718	785	716	
Service Time	2.79	3.039	2.722	2.608	3.035	
HCM Lane V/C Ratio	0.086	0.152	0.111	0.28	0.135	
HCM Control Delay	8.2	9	8.3	9.4	8.8	
HCM Lane LOS	A	A	A	A	A	
HCM 95th-tile Q	0.3	0.5	0.4	1.1	0.5	

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection Delay, s/veh 7.8														
Intersection LOS A														
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT				
Traffic Vol, veh/h	0	71	37	0	16	32	0	28	15	15				
Future Vol, veh/h	0	71	37	0	16	32	0	28	15	15				
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87	0.87				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	82	43	0	18	37	0	32	17	17				
Number of Lanes	0	1	1	0	1	0	0	0	0	1				

Approach		WB	NB	SB
Opposing Approach	WB <td>WB <td>NB <td>SB</td> </td></td>	WB <td>NB <td>SB</td> </td>	NB <td>SB</td>	SB
Opposing Lanes	0	1	1	1
Conflicting Approach Left	NB	NB	WB	WB
Conflicting Lanes Left	1	0	0	2
Conflicting Approach Right	SB	WB	WB	0
Conflicting Lanes Right	1	2	2	0
HCM Control Delay	8.1	7.1	7.1	7.7
HCM LOS	A	A	A	A

Lane		NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %		0%	100%	0%	65%
Vol Thru, %		33%	0%	0%	35%
Vol Right, %		67%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	71	37	43	
LT Vol	0	71	0	28	
Through Vol	16	0	0	15	
RT Vol	32	0	37	0	
Lane Flow Rate	55	82	43	49	
Geometry Grp	2	7	7	2	
Degree of Utl (X)	0.06	0.118	0.047	0.061	
Departure Headway (Hd)	3.897	5.216	4.014	4.428	
Convergence, Y/N	Yes	Yes	Yes	Yes	
Cap	924	685	885	814	
Service Time	1.899	2.97	1.768	2.43	
HCM Lane V/C Ratio	0.06	0.12	0.049	0.06	
HCM Control Delay	7.1	8.7	7	7.7	
HCM Lane LOS	A	A	A	A	
HCM 95th-tile Q	0.2	0.4	0.1	0.2	

Intersection	Major1		Major2		Minor1	
Int Delay, s/veh	EBT	EBR	WBL	WBT	NBL	NBR
Movement	110	0	32	95	0	34
Traffic Vol, veh/h	110	0	32	95	0	34
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	Free	Free	Free	Free	Stop	Stop
Sign Control	-	None	-	None	-	None
RT Channelized	-	-	-	-	-	-
Storage Length	0	-	0	0	0	-
Veh in Median Storage, #	0	-	0	0	0	-
Grade, %	89	89	89	89	89	89
Peak Hour Factor	2	2	2	2	2	2
Heavy Vehicles, %	124	0	36	107	0	38
Mvmt Flow						
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	124	0	303	124
Stage 1	-	-	-	-	124	-
Stage 2	-	-	-	-	179	-
Critical Hwy	-	-	4.12	-	6.42	6.22
Critical Hwy Stg 1	-	-	-	-	5.42	-
Critical Hwy Stg 2	-	-	-	-	5.42	-
Follow-up Hwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1463	-	689	927
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	852	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1463	-	671	927
Mov Cap-2 Maneuver	-	-	-	-	671	-
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	830	-
Approach	EB	WB	WB	WB	NB	NB
HCM Control Delay, s	0		1.9		9.1	
HCM LOS			A		A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	927	-	-	1463	-	
HCM Lane V/C Ratio	0.041	-	-	0.025	-	
HCM Control Delay (s)	9.1	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %ile Q(veh)	0.1	-	-	0.1	-	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4TB										
Traffic Volume (veh/h)	166	30	20	321	35	529	11	1457	361	529	1074	127
Future Volume (veh/h)	166	30	20	321	35	529	11	1457	361	529	1074	127
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Cb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	171	31	21	357	0	0	11	1502	372	545	1107	131
Adj No. of Lanes	0	2	0	2	0	0	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	127	74	50	416	0	186	23	1593	496	582	3279	1021
Arrive On Green	0.07	0.07	0.07	0.12	0.00	0.00	0.01	0.31	0.31	0.66	1.00	1.00
Sat Flow, veh/h	1774	1037	702	3548	0	1593	1774	5085	1593	1774	5085	1593
Grp Volume(v), veh/h	171	0	52	357	0	0	11	1502	372	545	1107	131
Grp Sat Flow(s), veh/h	1774	0	1739	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	7.9	0.0	3.1	10.9	0.0	0.0	0.7	31.7	23.2	30.1	0.0	0.0
Cycle Q Clear(g.c), s	7.9	0.0	3.1	10.9	0.0	0.0	0.7	31.7	23.2	30.1	0.0	0.0
Prop In Lane	1.00	0.00	0.40	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	127	0	125	416	0	186	23	1593	496	582	3279	1021
V/C Ratio(X)	1.34	0.00	0.42	0.86	0.00	0.00	0.48	0.94	0.75	0.94	0.34	0.13
Avail Cap(c.a), veh/h	127	0	125	426	0	190	81	1600	498	582	3279	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(i)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87
Uniform Delay (d), s/veh	51.1	0.0	48.8	47.6	0.0	0.0	53.9	36.8	33.9	17.9	0.0	0.0
Incr Delay (d2), s/veh	197.2	0.0	2.2	15.6	0.0	0.0	14.6	12.5	10.0	20.8	0.2	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back(Q)(50%) veh/h	10.8	0.0	1.6	6.2	0.0	0.0	0.4	16.6	11.5	17.6	0.1	0.1
LnGrp Delay(d), s/veh	248.3	0.0	51.0	63.2	0.0	0.0	68.5	49.3	43.9	38.7	0.2	0.2
LnGrp LOS	F	D	D	E	E	E	D	D	D	D	A	A
Approach Vol, veh/h	223			357			1885				1783	
Approach Delay, s/veh	202.3			63.2			48.3				12.0	
Approach LOS	F			E			D				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	41.9	40.3		12.6	5.4	76.7		18.7				
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8		5.8				
Max Green Setting (Gmax), s	34.0	* 35		* 7.9	5.0	63.6		13.2				
Max Q Clear Time (g_c+H), s	32.1	33.7		9.9	2.7	2.0		12.9				
Green Ext Time (p_c), s	0.5	0.8		0.0	0.0	13.6		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay	42.4											
HCM 2010 LOS	D											
Notes												

12/1/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	79	72	87	195	15	663	41	1560	555	323	1460	373
Future Volume (veh/h)	79	72	87	195	15	663	41	1560	555	323	1460	373
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob.) veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	81	74	90	201	0	714	42	1608	0	333	1505	385
Adj No. of Lanes	1	1	1	2	0	2	2	2	3	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	81	85	72	930	0	830	491	1890	588	242	1775	563
Arrive On Green	0.05	0.05	0.05	0.26	0.00	0.26	0.29	0.74	0.00	0.14	0.35	0.36
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	81	74	90	201	0	714	42	1608	0	333	1505	385
Grp Sat Flow(s), veh/h/m/1774	1863	1863	1863	1863	0	1863	1721	1695	1583	1774	1695	1583
Q Serve(g.s), s	5.0	4.3	5.0	4.9	0.0	23.6	1.0	24.3	0.0	15.0	30.1	23.0
Cycle Q Clear(g.s)	5.0	4.3	5.0	4.9	0.0	23.6	1.0	24.3	0.0	15.0	30.1	23.0
Prop In Lane	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	81	85	72	930	0	830	491	1890	588	242	1775	563
V/C Ratio(X)	1.00	0.87	1.25	0.22	0.00	0.86	0.09	0.85	0.00	1.38	0.85	0.70
Avail Cap(c), veh/h	81	85	72	1258	0	1123	491	1890	588	242	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.00	2.00	2.00	2.00	0.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.53	0.53	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	52.5	31.8	0.0	38.7	34.1	12.0	0.0	47.5	33.1	30.8	0.0
Incr Delay (d2), s/veh	101.5	58.3	187.7	0.1	0.0	5.3	0.0	2.8	0.0	193.3	5.2	7.1
Initial Q Delay(Q3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.6	5.9	2.4	0.0	10.9	0.5	11.2	0.0	20.3	14.9	11.1	0.0
LnGrp Delay(d), s/veh	151.0	110.5	240.2	31.9	0.0	44.0	34.1	14.8	0.0	240.8	38.3	37.9
LnGrp LOS	F	F	F	C	D	C	B	B	F	D	D	D
Approach Vol, veh/h	245	915	1650	2223								
Approach Delay, s/veh	172.5	41.3	15.3	68.6								
Approach LOS	F	D	B	E								
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+Rc), s	46.7	9.7	21.5	44.2								
Change Period (Y+Rc), s	4.0	5.8	*4.7	5.8	*5.8							
Max Green Setting (Gmax), s	30.7	*5.0	*4.1	39.0								
Max Q Clear Time (g_c+I+I), s	26.3	7.0	3.0	32.1	25.6							
Green Ext Time (p_c), s	0.0	3.4	0.0	1.7	6.3							

Intersection Summary	51.2
HCM 2010 Ctrl Delay	D
HCM 2010 LOS	D
Notes	

Existing Full Occ + P PM Mon Feb 20, 2017 15:13:32 Page 2-1
 Health Club within the Shops at Rossmore
 Existing (2016) Full Occupancy Plus Project
 PM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave

Cycle (sec):	100	Critical Vol./Cap. (X):	0.804
Loss Time (sec):	68	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	D

Street Name: Seal Beach Blvd East Bound Lampson Ave West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R L - I - R

Control:	Protected	Include	Protected	Include	Permitted
Rights:	Ovl	Include	Ovl	Include	Ovl
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	0 0 3 0 1	2 0 3 0 0	0 0 0 0 0	0 0 0 0 0	2 0 0 0 1

Volume Module:
 Base Vol: 0 1737 544 641 1625 0 0 0 0 0 540 0 469
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1737 544 641 1625 0 0 0 0 0 540 0 469
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 0 1778 557 656 1663 0 0 0 0 0 553 0 480
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1778 557 656 1663 0 0 0 0 0 553 0 480
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1778 557 656 1663 0 0 0 0 0 553 0 480
 OvlAdjVol: 0 1778 557 656 1663 0 0 0 0 0 553 0 480

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 3.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.35 0.33 0.19 0.33 0.00 0.00 0.00 0.00 0.16 0.00 0.28
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.690
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 49 Level Of Service: B

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 130 1528 57 19 1730 170 162 9 88 48 3 11
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 130 1528 57 19 1730 170 162 9 88 48 3 11
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 134 1570 59 20 1778 175 166 9 90 49 3 11
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 134 1570 59 20 1778 175 166 9 90 49 3 11
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 134 1570 59 20 1778 175 166 9 90 49 3 11

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.69 0.11 1.00 2.73 0.27 1.00 0.09 0.91 0.94 0.06 1.00
 Final Sat.: 1700 4917 183 1700 4644 456 1700 158 1542 1600 100 1700

Capacity Analysis Module:
 Vol/Sat: 0.08 0.32 0.32 0.01 0.38 0.38 0.10 0.06 0.06 0.03 0.03 0.01
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.733
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 54 Level Of Service: C

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 192 1535 24 36 1576 222 208 1 155 15 1 16
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 192 1535 24 36 1576 222 208 1 155 15 1 16
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 203 1624 25 38 1668 235 220 1 164 16 1 17
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 203 1624 25 38 1668 235 220 1 164 16 1 17
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 203 1624 25 38 1668 235 220 1 164 16 1 17

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.95 0.05 1.00 2.63 0.37 1.00 0.01 0.99 1.00 0.06 0.94
 Final Sat.: 1700 5021 79 1700 4470 630 1700 11 1689 1700 100 1600

Capacity Analysis Module:
 Vol/Sat: 0.12 0.32 0.32 0.02 0.37 0.37 0.13 0.10 0.10 0.01 0.01 0.01
 Crit Moves: *****

12/1/2016

12/1/2016

8: Yellowtail Drive & Saint Cloud Drive

12/1/2016

12/1/2016

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection										
Int Delay, s/veh										1.2
Intersection LOS										A
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Traffic Vol, veh/h	446	7	53	457	3	49				
Future Vol, veh/h	446	7	53	457	3	49				
Conflicting Peds, #/hr	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Stop	Stop				
RT Channelized	-	None	-	None	-	None				
Storage Length	-	-	-	-	0	-				
Veh in Median Storage, #	0	-	-	0	0	-				
Grade, %	0	-	-	0	0	-				
Peak Hour Factor	90	90	90	90	90	90				
Heavy Vehicles, %	2	2	2	2	2	2				
Mvmt Flow	496	8	59	508	3	54				
Major/Minor	Major1	Major2	Minor1							
Conflicting Flow All	0	0	503	0	871	252				
Stage 1	-	-	-	-	499	-				
Stage 2	-	-	-	-	372	-				
Critical Hdwy	-	-	4.14	-	6.84	6.94				
Critical Hdwy Stg 1	-	-	-	-	5.84	-				
Critical Hdwy Stg 2	-	-	-	-	5.84	-				
Follow-up Hdwy	-	-	2.22	-	3.52	3.32				
Pot Cap-1 Maneuver	-	-	1058	-	290	748				
Stage 1	-	-	-	-	575	-				
Stage 2	-	-	-	-	667	-				
Platoon blocked, %	-	-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	1058	-	267	748				
Mov Cap-2 Maneuver	-	-	-	-	267	-				
Stage 1	-	-	-	-	575	-				
Stage 2	-	-	-	-	615	-				
Approach	EB	WB	NB		NB					
HCM/Control Delay, s	0	1.2	10.8		10.8					
HCM LOS	B									
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT					
Capacity (veh/h)	678	-	-	1058	-					
HCM Lane V/C Ratio	0.085	-	-	0.056	-					
HCM Control Delay (s)	10.8	-	-	8.6	0.3					
HCM Lane LOS	B	-	-	A	A					
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-					

Intersection											
Int Delay, s/veh										9.6	
Intersection LOS										A	
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBR
Traffic Vol, veh/h	0	30	5	47	0	3	6	10	0	67	217
Future Vol, veh/h	0	30	5	47	0	3	6	10	0	67	217
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	6	56	0	4	7	12	0	80	258
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2
Approach	EB	WB	WB		WB		NB		NB		
Opposing Approach	WB	EB	EB		SB		SB		SB		
Opposing Lanes	1	1	1		1		1		1		
Conflicting Approach Left	SB	SB	NB		EB		EB		EB		
Conflicting Lanes Left	2	2	2		2		1		1		
Conflicting Approach Right	NB	NB	SB		WB		WB		WB		
Conflicting Lanes Right	2	2	2		2		1		1		
HCM Control Delay	9.1	9.1	8.6		8.6		10		10		
HCM LOS	A										
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2					
Vol Left, %	38%	0%	37%	16%	6%	0%					
Vol Thru, %	62%	96%	6%	32%	94%	73%					
Vol Right, %	0%	4%	57%	53%	0%	27%					
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop					
Traffic Vol by Lane	176	113	82	19	125	162					
LT Vol	67	0	30	3	7	0					
Through Vol	109	109	5	6	118	118					
RT Vol	0	4	47	10	0	44					
Lane Flow Rate	209	134	98	23	149	193					
Geometry Grp	7	7	2	2	7	7					
Degree of Utl (X)	0.311	0.191	0.141	0.033	0.215	0.267					
Departure Headway (Ht)	5.353	5.136	5.189	5.31	5.205	4.965					
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes					
Cap	669	696	687	668	688	717					
Service Time	3.106	2.889	3.25	3.388	2.956	2.736					
HCM Lane V/C Ratio	0.312	0.193	0.143	0.034	0.217	0.269					
HCM Control Delay	10.5	9.1	9.1	8.6	9.4	9.6					
HCM Lane LOS	B	A	A	A	A	A					
HCM 95th %tile Q	1.3	0.7	0.5	0.1	0.8	1.1					

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR		
Traffic Vol, veh/h	0	7	236	44		
Future Vol, veh/h	0	7	236	44		
Peak Hour Factor	0.92	0.84	0.84	0.84		
Heavy Vehicles, %	2	2	2	2		
Mvmt Flow	0	8	281	52		
Number of Lanes	0	0	2	0		
Approach	SB		SB			
Opposing Approach	NB		NB			
Opposing Lanes	2		2			
Conflicting Approach Left	WB		WB			
Conflicting Lanes Left	1		1			
Conflicting Approach Right	EB		EB			
Conflicting Lanes Right	1		1			
HCM Control Delay	9.5		9.5			
HCM LOS	A		A			
Lane						

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmore Center Way

12/1/2016

Intersection Delay, s/veh10.3																
Intersection LOS																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR	
Traffic Vol, veh/h	0	42	37	55	0	38	41	73	0	30	132	29	0	46	181	
Future Vol, veh/h	0	42	37	55	0	38	41	73	0	30	132	29	0	46	181	
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.92	0.84	0.84	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	50	44	65	0	45	49	87	0	36	157	35	0	55	215	
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0	0	0	2	
Approach	EB		WB		WB		NB		NB		SB		SB		SB	
Opposing Approach	WB		EB		EB		SB		SB		NB		NB		NB	
Opposing Lanes	1		1		1		2		2		2		2		2	
Conflicting Approach Left	SB		NB		NB		EB		WB		WB		WB		WB	
Conflicting Lanes Left	2		2		2		1		1		1		1		1	
Conflicting Approach Right	NB		SB		SB		WB		WB		EB		EB		EB	
Conflicting Lanes Right	2		2		2		1		1		1		1		1	
HCM Control Delay	10.3		10.4		10.4		10		10		10.5		10.5		10.5	
HCM LOS	B		B		B		A		A		B		B		B	
Lane			NBU1		NBU2		EBU1		WBU1		SBU1		SBU2			
Vol Left, %	31%		0%		31%		25%		34%		0%		0%		0%	
Vol Thru, %	69%		69%		28%		27%		66%		69%		69%		69%	
Vol Right, %	0%		31%		41%		48%		0%		31%		0%		31%	
Sign Control	Stop		Stop													
Traffic Vol by Lane	96		95		134		152		137		131		0		0	
LT Vol	30		0		42		38		46		0		0		0	
RT Vol	0		29		55		73		0		40		0		40	
Lane Flow Rate	114		113		160		181		162		155		0		0	
Geometry Grp	7		7		2		2		7		7		7		7	
Degree of Util (X)	0.193		0.18		0.243		0.271		0.27		0.241		0.241		0.241	
Departure Headway (Hd)	6.09		5.715		5.479		5.388		5.983		5.595		5.595		5.595	
Convergence, Y/N	Yes		Yes													
Cap	590		628		654		666		601		642		642		642	
Service Time	3.827		3.452		3.518		3.425		3.718		3.329		3.329		3.329	
HCM Lane V/C Ratio	0.193		0.18		0.245		0.272		0.27		0.241		0.241		0.241	
HCM Control Delay	10.3		9.7		10.3		10.4		10.9		10.1		10.1		10.1	
HCM Lane LOS	B		A		B		B		B		B		B		B	
HCM 95th-ile Q	0.7		0.7		0.9		1.1		1.1		0.9		0.9		0.9	

HCM 2010 AWSC Existing Full Occupancy + Project PM Peak Hour
 1.1: Montecito Road & Bradbury Road 02/22/2017

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Intersection Delay, s/veh	10.1											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations	0	1	17	2	0	148	25	64	0	5	105	106
Traffic Vol, veh/h	0	1	17	2	0	148	25	64	0	5	105	106
Future Vol, veh/h	0	1	17	2	0	148	25	64	0	5	105	106
Peak Hour Factor	0.92	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	20	2	0	170	29	74	0	6	121	122
Number of Lanes	0	1	0	0	0	1	1	1	0	0	2	2

Approach	EB	WB	WB	NB	NB
Opposing Approach	WB	EB	WB	NB	SB
Opposing Lanes	2	1	1	2	2
Conflicting Approach Left	SB	NB	NB	EB	EB
Conflicting Lanes Left	2	2	2	1	1
Conflicting Approach Right	NB	SB	SB	WB	WB
Conflicting Lanes Right	2	2	2	2	2
HCM Control Delay	9.4	A	11	9.5	A
HCM LOS	A	B	B	A	A

Lane	NBLn1	NBLn2	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	9%	0%	5%	0%	86%	0%	39%	0%
Vol Thru, %	91%	33%	85%	14%	0%	61%	95%	95%
Vol Right, %	0%	67%	10%	0%	100%	0%	0%	5%
Sign Control	Stop							
Traffic Vol by Lane	58	159	20	173	64	104	66	66
LT Vol	5	0	1	148	0	41	0	0
Through Vol	53	53	17	25	0	63	63	63
RT Vol	0	106	2	0	64	0	3	3
Lane Flow Rate	66	182	23	199	74	120	76	76
Geometry Grp	7	7	6	7	7	7	7	7
Degree of Utl (X)	0.104	0.259	0.039	0.336	0.101	0.194	0.118	0.118
Departure Headway (Hd)	5.638	5.121	6.116	6.081	4.946	5.829	5.598	5.598
Convergence, Y/N	Yes							
Cap	630	694	589	587	716	610	634	634
Service Time	3.422	2.905	4.116	3.873	2.737	3.621	3.389	3.389
HCM Lane V/C Ratio	0.105	0.262	0.039	0.339	0.103	0.197	0.12	0.12
HCM Control Delay	9.1	9.7	9.4	12	8.3	10	9.1	9.1
HCM Lane LOS	A	A	A	B	A	A	A	A
HCM 95th-tile Q	0.3	1	0.1	1.5	0.3	0.7	0.4	0.4

HCM 2010 AWSC Existing Full Occupancy + Project PM Peak Hour
 1.1: Montecito Road & Bradbury Road 02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh	10.1			
Intersection LOS	B			
Movement	SBU	SBL	SBT	SBR
Lane Configurations	0	41	126	3
Traffic Vol, veh/h	0	41	126	3
Future Vol, veh/h	0	41	126	3
Peak Hour Factor	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	47	145	3
Number of Lanes	0	0	2	0

Approach	SB	NB
Opposing Approach	SB	NB
Opposing Lanes	2	2
Conflicting Approach Left	WB	WB
Conflicting Lanes Left	2	2
Conflicting Approach Right	EB	EB
Conflicting Lanes Right	1	1
HCM Control Delay	9.7	9.7
HCM LOS	A	A

HCM 2010 AWSC

12: West Road & Rossmoor Center Way

12/1/2016

Intersection												
Intersection Delay, s/veh 8.1												
Intersection LOS A												
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR			
Traffic Vol, veh/h	0	90	24	0	22	136	0	32	11			
Future Vol, veh/h	0	90	24	0	22	136	0	32	11			
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	100	27	0	24	151	0	36	12			
Number of Lanes	0	1	0	0	0	1	0	1	0			

Approach			WB			NB		
Opposing Approach	WB	EB						
Opposing Lanes	1	1				0		
Conflicting Approach Left	0	NB				EB		
Conflicting Lanes Left	1	1				1		
Conflicting Approach Right	NB	0				WB		
Conflicting Lanes Right	1	0				1		
HCM Control Delay	7.8	8.3				7.9		
HCM LOS	A	A				A		

Lane												
NBLn1 EBLn1 WBLn1												
Vol Left, %	74% 0% 14%											
Vol Thru, %	0% 79% 86%											
Vol Right, %	26% 21% 0%											
Sign Control	Stop	Stop	Stop									
Traffic Vol by Lane	43	114	158									
LT Vol	32	0	22									
Through Vol	0	90	136									
RT Vol	11	24	0									
Lane Flow Rate	48	127	176									
Geometry Grp	1											
Degree of Util (X)	0.061 0.142 0.202											
Departure Headway (Hd)	4.582 4.023 4.141											
Convergence, Y/N	Yes	Yes	Yes									
Cap	786	880	858									
Service Time	2.582 2.101 2.204											
HCM Lane V/C Ratio	0.061 0.144 0.205											
HCM Control Delay	7.9 7.8 8.3											
HCM Lane LOS	A A A											
HCM 95th-tile Q	0.2 0.5 0.8											

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection														
Intersection Delay, s/veh 15.8														
Intersection LOS C														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	22	121	27	0	183	170	84	0	43	44	178	0	75
Future Vol, veh/h	0	22	121	27	0	183	170	84	0	43	44	178	0	75
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.92	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	126	28	0	191	177	88	0	45	46	185	0	78
Number of Lanes	0	0	2	0	0	0	1	0	0	0	1	0	0	1

Approach			WB			NB		
Opposing Approach	WB	EB						
Opposing Lanes	1	2				1		
Conflicting Approach Left	SB	NB				EB		
Conflicting Lanes Left	1	1				2		
Conflicting Approach Right	NB	SB				WB		
Conflicting Lanes Right	1	1				1		
HCM Control Delay	10.4	20.9				13		
HCM LOS	B	C				B		

Lane												
NBLn1 EBLn1 EBLn2 WBLn1 SBLn1												
Vol Left, %	16% 27% 0% 42% 54%											
Vol Thru, %	17% 73% 69% 39% 24%											
Vol Right, %	67% 0% 31% 19% 22%											
Sign Control	Stop	Stop	Stop	Stop	Stop							
Traffic Vol by Lane	285	83	88	437	139							
LT Vol	43	22	0	183	75							
Through Vol	44	61	61	170	34							
RT Vol	178	0	27	84	30							
Lane Flow Rate	276	86	91	455	145							
Geometry Grp	2 7 7 5 2											
Degree of Util (X)	0.433 0.158 0.158 0.704 0.251											
Departure Headway (Hd)	5.644 6.603 6.246 5.571 6.253											
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes							
Cap	632	540	570	646	569							
Service Time	3.722 4.39 4.034 3.637 4.347											
HCM Lane V/C Ratio	0.437 0.159 0.16 0.704 0.255											
HCM Control Delay	13 10.6 10.2 20.9 11.5											
HCM Lane LOS	B B B C B											
HCM 95th-tile Q	2.2 0.6 0.6 5.7 1											

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection										
Intersection Delay, s/veh 11.6										
Intersection LOS B										
Movement	WBU	WBL	WBR	NBU	NBL	NBR	SBU	SBL	SBT	SBT
Traffic Vol, veh/h	0	86	292	0	43	65	0	231	54	54
Future Vol, veh/h	0	86	292	0	43	65	0	231	54	54
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	97	328	0	48	73	0	260	61	61
Number of Lanes	0	1	1	0	1	0	0	0	0	1
Approach	WB		NB		SB		SB			
Opposing Approach	0		SB		NB		NB			
Opposing Lanes	0		1		1		1			
Conflicting Approach Left	NB		WB		WB		WB			
Conflicting Lanes Left	1		0		2		2			
Conflicting Approach Right	SB		WB		WB		WB			
Conflicting Lanes Right	1		2		0		0			
HCM Control Delay	11.4		9.2		12.9		12.9			
HCM LOS	B		A		B		B			
Lane	NBLn1 WBLn1 WBLn2		SBLn1		SBLn1		SBLn1			
Vol Left, %	0%		100%		0%		81%			
Vol Thru, %	40%		0%		0%		19%			
Vol Right, %	60%		0%		100%		0%			
Sign Control	Stop		Stop		Stop		Stop			
Traffic Vol by Lane	108		86		292		285			
LT Vol	0		86		0		231			
Through Vol	43		0		0		54			
RT Vol	65		0		292		0			
Lane Flow Rate	121		97		328		320			
Geometry Grp	2		7		7		2			
Degree of Util (X)	0.173		0.165		0.45		0.467			
Departure Headway (Hd)	5.125		6.147		4.936		5.249			
Convergence, Y/N	Yes		Yes		Yes		Yes			
Cap	704		579		722		679			
Service Time	3.125		3.94		2.728		3.338			
HCM Lane V/C Ratio	0.172		0.168		0.454		0.471			
HCM Control Delay	9.2		10.2		11.8		12.9			
HCM Lane LOS	A		B		B		B			
HCM 95th-tile Q	0.6		0.6		2.3		2.5			

HCM 2010 TWSC

15: Project Driveway & Rossmore Center Way

12/1/2016

Intersection										
Int Delay, s/veh 3.2										
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Traffic Vol, veh/h	88	1	84	165	4	69				
Future Vol, veh/h	88	1	84	165	4	69				
Conflicting Peds, #/hr	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Stop	Stop				
RT Channelized	-	None	-	None	-	None				
Storage Length	-	-	-	-	0	-				
Veh in Median Storage, #	0	-	-	0	0	-				
Grade, %	0	-	-	0	0	-				
Peak Hour Factor	93	93	93	93	93	93				
Heavy Vehicles, %	2	2	2	2	2	2				
Mvmt Flow	95	1	90	177	4	74				
Major/Minor	Major1		Major2		Minor1					
Conflicting Flow All	0	0	96	0	453	95				
Stage 1	-	-	-	-	95	-				
Stage 2	-	-	-	-	358	-				
Critical Hdwy	-	-	4.12	-	6.42	6.22				
Critical Hdwy Stg 1	-	-	-	-	5.42	-				
Critical Hdwy Stg 2	-	-	-	-	5.42	-				
Follow-up Hdwy	-	-	2.218	-	3.518	3.318				
Pot Cap-1 Maneuver	-	-	1498	-	565	962				
Stage 1	-	-	-	-	929	-				
Stage 2	-	-	-	-	707	-				
Platoon blocked, %	-	-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	1498	-	527	962				
Mov Cap-2 Maneuver	-	-	-	-	527	-				
Stage 1	-	-	-	-	929	-				
Stage 2	-	-	-	-	660	-				
Approach	EB		WB		NB					
HCM Control Delay, s	0		2.5		9.3					
HCM LOS	A		A		A					
Minor Lane/Major Mvmt	NBLn1		EBT		WBL					
Capacity (veh/h)	920		-		1498					
HCM Lane V/C Ratio	0.085		-		0.06					
HCM Control Delay (s)	9.3		-		7.6					
HCM Lane LOS	A		-		A					
HCM 95th-tile Q(veh)	0.3		-		0.2					

HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	9	8	7	355	5	581	15	1369	377	266	1321	243
Traffic Volume (veh/h)	9	8	7	355	5	581	15	1369	377	266	1321	243
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	9	8	7	374	0	615	16	1441	0	280	1391	256
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	42	44	37	836	0	746	712	2136	665	242	1694	527
Arrive On Green	0.02	0.02	0.02	0.24	0.00	0.24	0.41	0.84	0.00	0.14	0.33	0.33
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	9	8	7	374	0	615	16	1441	0	280	1391	256
Grp Sat Flow(s), veh/h/ln	1863	1863	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g.s), s	0.5	0.5	0.5	9.9	0.0	20.3	0.3	11.5	0.0	15.0	27.6	14.1
Cycle Q Clear(g.c), s	0.5	0.5	0.5	9.9	0.0	20.3	0.3	11.5	0.0	15.0	27.6	14.1
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	42	44	37	836	0	746	712	2136	665	242	1694	527
V/C Ratio(X)	0.21	0.18	0.19	0.45	0.00	0.82	0.02	0.67	0.00	1.16	0.82	0.49
Avail Cap(c.a), veh/h	81	85	72	1258	0	1123	712	2136	665	242	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.66	0.66	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	52.7	52.7	35.9	0.0	39.9	25.7	6.0	0.0	47.5	33.7	29.2
Incr Delay (d2), s/veh	2.5	2.0	2.4	0.4	0.0	3.2	0.0	1.2	0.0	107.0	4.6	3.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3	0.3	0.2	4.9	0.0	9.2	0.1	5.3	0.0	14.5	13.6	6.7
LnGrp Delay(d), s/veh	55.2	54.6	55.0	36.3	0.0	43.1	25.7	7.2	0.0	154.5	38.3	32.4
LnGrp LOS	E	D	E	D	D	C	D	C	A	F	D	C
Approach Vol, veh/h	24	24	24	989	0	1457	0	1457	0	1927	0	0
Approach Delay, s/veh	55.0	55.0	55.0	40.5	0	40.5	0	40.5	0	54.4	0	0
Approach LOS	D	D	D	D	D	D	D	D	D	A	D	D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	52.0	52.0	52.0	7.3	26.6	42.4	31.7					
Change Period (Y+Rc), s	4.0	5.8	5.8	* 4.7	5.8	* 5.8	5.8					
Max Green Setting (Gmax), s	30.7	30.7	30.7	* 5.0	5.0	* 4.1	39.0					
Max Q Clear Time (g_c+I), s	13.5	13.5	13.5	2.5	2.3	29.6	22.3					
Green Ext Time (p_c), s	0.0	9.0	9.0	0.0	0.0	2.0	7.0					
Intersection Summary	35.7											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

Health Club within The Shops at Rossmore TIA 5:00 pm 3/23/2016 Existing + Full Occupancy + P Saturday Peak Hour Synchro 9 Report
 LSA Associates, Inc. - DL Page 3

HCM 2010 Signalized Intersection Summary
 1: Seal Beach Boulevard & I-405 SB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	147	26	16	544	37	500	9	1107	272	429	1120	131
Traffic Volume (veh/h)	147	26	16	544	37	500	9	1107	272	429	1120	131
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	156	28	17	607	0	0	10	1178	289	456	1191	139
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	118	72	44	679	0	303	21	1317	410	501	2775	864
Arrive On Green	0.07	0.07	0.07	0.19	0.00	0.00	0.01	0.26	0.26	0.56	1.00	1.00
Sat Flow, veh/h	1774	1087	1087	3548	0	1583	1774	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	156	0	45	607	0	0	10	1178	289	456	1191	139
Grp Sat Flow(s), veh/h/ln	1774	0	1746	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	7.3	0.0	2.7	18.4	0.0	0.0	0.6	24.6	18.2	25.3	0.0	0.0
Cycle Q Clear(g.c), s	7.3	0.0	2.7	18.4	0.0	0.0	0.6	24.6	18.2	25.3	0.0	0.0
Prop In Lane	1.00	0.00	0.38	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	118	0	116	679	0	303	21	1317	410	501	2775	864
V/C Ratio(X)	1.33	0.00	0.39	0.89	0.00	0.00	0.47	0.89	0.71	0.91	0.43	0.16
Avail Cap(c.a), veh/h	118	0	116	748	0	334	81	1350	420	501	2775	864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	51.4	0.0	49.2	43.4	0.0	0.0	54.0	39.3	37.0	22.7	0.0	0.0
Incr Delay (d2), s/veh	19.3	0.0	2.1	12.4	0.0	0.0	15.3	9.7	9.8	18.8	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	9.9	0.0	1.4	10.2	0.0	0.0	0.4	12.6	9.1	14.8	0.1	0.1
LnGrp Delay(d), s/veh	244.8	0.0	51.3	55.8	0.0	0.0	69.3	49.0	46.7	41.5	0.4	0.4
LnGrp LOS	F	D	E	D	D	D	D	D	D	D	A	A
Approach Vol, veh/h	201	201	201	607	0	1477	0	1477	0	1786	0	0
Approach Delay, s/veh	201.4	201.4	201.4	55.8	0	55.8	0	55.8	0	48.7	10.9	10.9
Approach LOS	F	F	F	E	E	E	D	D	D	B	B	B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.9	34.3	36.9	12.0	5.3	65.8	26.9					
Change Period (Y+Rc), s	5.8	* 5.8	5.8	* 4.7	4.0	5.8	5.8					
Max Green Setting (Gmax), s	30.0	* 29	30.0	* 7.3	5.0	54.2	23.2					
Max Q Clear Time (g_c+I), s	27.3	26.6	27.3	9.3	2.6	2.0	20.4					
Green Ext Time (p_c), s	0.6	1.9	0.6	0.0	0.0	13.9	0.7					
Intersection Summary	40.7											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

Health Club within The Shops at Rossmore TIA 5:00 pm 3/23/2016 Existing + Full Occupancy + P Saturday Peak Hour Synchro 9 Report
 LSA Associates, Inc. - DL Page 1

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.660
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 45 Level Of Service: B

Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Split Phase Split Phase
 Rights: Ovl Include Include Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 0 1 0 0 2 1 0 1 0 0

Volume Module:
 Base Vol: 364 1613 172 17 1401 69 102 2 401 174 35 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 364 1613 172 17 1401 69 102 2 401 174 35 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 393 1740 186 18 1511 74 110 2 433 188 38 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 393 1740 186 18 1511 74 110 2 433 188 38 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 393 1740 186 18 1511 74 110 2 433 188 38 5
 OvlAdjVol: 0 0 0 0 0 0 0 0 0 0 0

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.71 0.29 1.00 2.86 0.14 0.98 0.02 2.00 1.62 0.33 0.05
 Final Sat.: 3400 4609 491 1700 4861 239 1667 33 3400 2764 556 79

Capacity Analysis Module:
 Vol/Sat: 0.12 0.38 0.38 0.01 0.31 0.07 0.07 0.13 0.07 0.07 0.07
 OvlAdjV/S: 0.01
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.781
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 63 Level Of Service: C

Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Permitted
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 2 0 0 0 1

Volume Module:
 Base Vol: 0 1561 360 516 1480 0 0 0 0 360 0 557
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1561 360 516 1480 0 0 0 0 360 0 557
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 0 1678 387 555 1591 0 0 0 0 387 0 599
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1678 387 555 1591 0 0 0 0 387 0 599
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1678 387 555 1591 0 0 0 0 387 0 599
 OvlAdjVol: 0 0 0 0 0 0 0 0 0 0 0 0

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.33 0.23 0.16 0.31 0.00 0.00 0.00 0.00 0.11 0.00 0.35
 OvlAdjV/S: 0.19
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.846
 Loss Time (sec): 79 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 79 Level Of Service: D

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0

 Volume Module:
 Base Vol: 291 1244 108 92 1088 151 119 83 243 173 89 88
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 291 1244 108 92 1088 151 119 83 243 173 89 88
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 307 1312 114 97 1148 159 126 88 256 182 94 93
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 307 1312 114 97 1148 159 126 88 256 182 94 93
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 307 1312 114 97 1148 159 126 88 256 182 94 93

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.76 0.24 1.00 2.63 0.57 1.00 0.25 0.75 1.00 0.50 0.50
 Final Sat.: 1700 4693 407 1700 4478 622 1700 433 1267 1700 855 845

 Capacity Analysis Module:
 Vol/Sat: 0.18 0.28 0.28 0.06 0.26 0.26 0.07 0.20 0.20 0.11 0.11 0.11
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.705
 Loss Time (sec): 51 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 51 Level Of Service: C

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0

 Volume Module:
 Base Vol: 224 1410 15 25 1398 249 213 4 176 19 2 14
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 224 1410 15 25 1398 249 213 4 176 19 2 14
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 230 1448 15 26 1435 256 219 4 181 20 2 14
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 230 1448 15 26 1435 256 219 4 181 20 2 14
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 230 1448 15 26 1435 256 219 4 181 20 2 14

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.97 0.03 1.00 2.55 0.45 1.00 0.02 0.98 1.00 0.13 0.87
 Final Sat.: 1700 5046 54 1700 4329 771 1700 38 1662 1700 213 1487

 Capacity Analysis Module:
 Vol/Sat: 0.14 0.29 0.29 0.02 0.33 0.33 0.13 0.11 0.11 0.01 0.01 0.01
 Crit Moves: ****

Intersection		EBT		EBR		WBL		WBT		NBL		NBR	
IntDelay, s/veh		1											
Movement													
Traffic Vol, veh/h		459	1	43	422	4	44						
Future Vol, veh/h		459	1	43	422	4	44						
Conflicting Peds. #/hr		0	0	0	0	0	0						
Sign Control		Free	Free	Free	Free	Stop	Stop						
RT Channelized		-	None	-	None	-	None						
Storage Length		-	-	-	-	0	0						
Veh in Median Storage, #		0	-	-	0	0	0						
Grade, %		0	-	-	0	0	0						
Peak Hour Factor		94	94	94	94	94	94						
Heavy Vehicles, %		2	2	2	2	2	2						
Mvmt Flow		488	1	46	449	4	47						
Major/Minor													
Major1 Major2 Minor1 Minor2													
Conflicting Flow All		0	0	489	0	805	245						
Stage 1		-	-	-	-	489	-						
Stage 2		-	-	-	-	-	316						
Critical Hdwy		-	-	4.14	-	7.54	6.94						
Critical Hdwy Stg 1		-	-	-	-	6.54	-						
Critical Hdwy Stg 2		-	-	-	-	6.54	-						
Follow-up Hdwy		-	-	2.22	-	3.52	3.32						
Pot Cap-1 Maneuver		-	-	1070	-	274	755						
Stage 1		-	-	-	-	529	-						
Stage 2		-	-	-	-	670	-						
Platoon blocked, %		-	-	-	-	-	-						
Mov Cap-1 Maneuver		-	-	1070	-	262	755						
Mov Cap-2 Maneuver		-	-	-	-	262	-						
Stage 1		-	-	-	-	529	-						
Stage 2		-	-	-	-	632	-						
Approach													
EB WB NB													
HCM Control Delay, s		0		1		11							
HCM LOS						B							
Minor Lane/Major Mvmt													
NBLn1 EBT EBR WBL WBT													
Capacity (veh/h)		653	-	-	1070	-	-						
HCM Lane V/C Ratio		0.078	-	-	0.043	-	-						
HCM Control Delay (s)		11	-	-	8.5	0.2	-						
HCM Lane LOS		B	-	-	A	A	-						
HCM 95th %ile Q(veh)		0.3	-	-	0.1	-	-						

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.636
 Loss Time (sec): 43 Average Delay (ssec/veh): xxxxxx
 Optimal Cycle: 43 Level of Service: B
 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1
 Volume Module:
 Base Vol: 111 1399 44 17 1516 120 167 8 96 63 7 12
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 111 1399 44 17 1516 120 167 8 96 63 7 12
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 113 1428 45 17 1547 122 170 8 98 64 7 12
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 113 1428 45 17 1547 122 170 8 98 64 7 12
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 113 1428 45 17 1547 122 170 8 98 64 7 12
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.91 0.09 1.00 2.78 0.22 1.00 0.08 0.92 0.90 0.10 1.00
 Final Sat.: 1700 4944 156 1700 4726 374 1700 131 1569 1530 170 1700
 Capacity Analysis Module:
 Vol/Sat: 0.07 0.29 0.01 0.33 0.33 0.10 0.06 0.06 0.04 0.04 0.04 0.01
 Crit Moves: ****

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection													
Intersection Delay, s/veh												8.8	
Intersection LOS												A	
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBR	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	35	5	38	0	4	6	5	0	5	0	38	179
Future Vol, veh/h	0	35	5	38	0	4	6	5	0	5	0	38	179
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	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	5	41	0	4	7	5	0	4	1	195	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	0	2

Approach		EB	WB	WB	NB
Opposing Approach	WB	EB	WB	WB	NB
Opposing Lanes	1	1	1	1	2
Conflicting Approach Left	SB	NB	NB	EB	EB
Conflicting Lanes Left	2	2	2	2	1
Conflicting Approach Right	NB	SB	SB	WB	WB
Conflicting Lanes Right	2	2	2	2	1
HCM Control Delay	8.6	8.6	8.3	8.3	8.9
HCM LOS	A	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	30%	0%	45%	27%	6%	0%
Vol Thru, %	70%	93%	6%	40%	94%	85%
Vol Right, %	0%	7%	49%	33%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	97	78	15	126	140
LT Vol	38	0	35	4	7	0
Through Vol	90	90	5	6	119	119
RT Vol	0	7	38	5	0	21
Lane Flow Rate	139	105	85	16	136	152
Geometry Grp	7	7	2	2	7	7
Degree of Utlr (X)	0.2	0.145	0.116	0.023	0.191	0.206
Departure Headway (Hd)	5.194	4.933	4.941	5.105	5.036	4.902
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	692	719	725	699	712	732
Service Time	2.925	2.724	2.977	3.15	2.766	2.632
HCM Lane V/C Ratio	0.201	0.146	0.117	0.023	0.191	0.208
HCM Control Delay	9.2	8.6	8.6	8.3	8.9	8.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.7	0.5	0.4	0.1	0.7	0.8

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection						
Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR	SBR	SBR
Traffic Vol, veh/h	0	7	237	21		
Future Vol, veh/h	0	7	237	21		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Heavy Vehicles, %	2	2	2	2		
Mvmt Flow	0	8	258	23		
Number of Lanes	0	0	2	0		

Approach		SB	SB
Opposing Approach	WB	NB	NB
Opposing Lanes	2	2	2
Conflicting Approach Left	WB	WB	WB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	EB	EB	EB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.9	8.9	8.9
HCM LOS	A	A	A

Lane

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmoor Center Way

12/1/2016

Intersection	Intersection Delay, s/veh 9.8															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	42	43	63	0	20	53	45	0	47	130	31	0	46	161	33
Future Vol, veh/h	0	42	43	63	0	20	53	45	0	47	130	31	0	46	161	33
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	47	48	70	0	22	59	50	0	52	144	34	0	51	179	37
Number of Lanes	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2
Approach	EB				WB				NB				SB			
Opposing Approach	WB				EB				SB				NB			
Opposing Lanes	1				1				2				2			
Conflicting Approach Left	SB				NB				EB				WB			
Conflicting Lanes Left	2				2				1				1			
Conflicting Approach Right	NB				SB				WB				EB			
Conflicting Lanes Right	2				2				1				1			
HCM Control Delay	9.9				9.6				9.7				9.9			
HCM LOS	A				A				A				A			

HCM 2010 AWSC

11: Montecito Road & Bradbury Road

02/22/2017

Intersection	Intersection Delay, s/veh 8.9															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR				
Traffic Vol, veh/h	0	1	15	4	0	115	20	69	0	3	73	94				
Future Vol, veh/h	0	1	15	4	0	115	20	69	0	3	73	94				
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.92	0.97	0.97	0.97				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	1	15	4	0	119	21	71	0	3	75	97				
Number of Lanes	0	0	1	0	0	0	1	1	0	0	0	2				
Approach	EB				WB				NB							
Opposing Approach	WB				EB				SB							
Opposing Lanes	2				1				2							
Conflicting Approach Left	SB				NB				EB							
Conflicting Lanes Left	2				2				1							
Conflicting Approach Right	NB				SB				WB							
Conflicting Lanes Right	2				2				2							
HCM Control Delay	8.7				9.3				8.6							
HCM LOS	A				A				A							

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	8%	0%	5%	5%	85%	0%	44%	0%
Vol Thru, %	92%	28%	75%	15%	0%	0%	56%	96%
Vol Right, %	0%	72%	20%	0%	100%	0%	0%	4%
Sign Control	Stop							
Traffic Vol by Lane	40	131	20	135	69	82	48	0
LT Vol	3	0	1	115	0	36	0	0
Through Vol	37	37	15	20	0	46	46	0
RT Vol	0	94	4	0	69	0	2	0
Lane Flow Rate	41	135	21	139	71	84	49	0
Geometry Grp	7	7	6	7	7	7	7	7
Degree of Utl (X)	0.06	0.179	0.031	0.222	0.091	0.129	0.072	0.072
Departure Headway (Hd)	5.33	4.785	5.46	5.736	4.605	5.54	5.288	0
Convergence, Y/N	Yes							
Cap	671	748	653	625	775	646	676	0
Service Time	3.07	2.524	3.517	3.479	2.348	3.032	3.032	0
HCM Lane V/C Ratio	0.061	0.18	0.032	0.222	0.092	0.13	0.072	0.072
HCM Control Delay	8.4	8.6	8.7	10.1	7.8	9.1	8.4	0
HCM Lane LOS	A	A	A	B	A	A	A	A
HCM 95th-ile Q	0.2	0.6	0.1	0.8	0.3	0.4	0.4	0.2

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road
 Existing + Full Occupancy + P Saturday Peak Hour
 02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	36	91	2
Future Vol, veh/h	0	36	91	2
Peak Hour Factor	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	94	2
Number of Lanes	0	0	2	0
Approach	SB	SB		
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	2			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	8.8			
HCM LOS	A			

HCM 2010 AWSC
 1.2: West Road & Rossmoor Center Way
 12/1/2016

Intersection	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	7.8								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Traffic Vol, veh/h	0	82	21	0	10	118	0	32	17
Future Vol, veh/h	0	82	21	0	10	118	0	32	17
Peak Hour Factor	0.92	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	90	23	0	11	130	0	35	19
Number of Lanes	0	1	0	0	0	1	0	1	0
Approach	EB	EB	WB	WB	EB	NB	NB		
Opposing Approach	WB								
Opposing Lanes	1								
Conflicting Approach Left	EB								
Conflicting Lanes Left	0								
Conflicting Approach Right	NB								
Conflicting Lanes Right	1								
HCM Control Delay	7.7								
HCM LOS	A								
Lane	NBU	NBU	EBU	WBU	WBU	NBU			
Vol Left, %	65%	0%	8%						
Vol Thru, %	0%	80%	92%						
Vol Right, %	35%	20%	0%						
Sign Control	Stop	Stop	Stop						
Traffic Vol by Lane	49	103	128						
LT Vol	32	0	10						
Through Vol	0	82	118						
RT Vol	17	21	0						
Lane Flow Rate	54	113	141						
Geometry Grp	1	1	1						
Degree of Util (X)	0.066	0.126	0.161						
Departure Headway (Hd)	4.403	4.013	4.131						
Convergence, Y/N	Yes	Yes	Yes						
Cap	818	884	862						
Service Time	2.403	2.08	2.188						
HCM Lane V/C Ratio	0.066	0.128	0.164						
HCM Control Delay	7.7	7.7	8						
HCM Lane LOS	A	A	A						
HCM 95th-ile Q	0.2	0.4	0.6						

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection															
Intersection Delay, s/veh 22.9															
Intersection LOS C															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	21	150	36	0	214	134	106	0	43	64	215	0	96	60
Future Vol, veh/h	0	21	150	36	0	214	134	106	0	43	64	215	0	96	60
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	160	38	0	228	143	113	0	46	68	229	0	102	64
Number of Lanes	0	0	2	0	0	1	0	0	0	0	1	0	0	0	1
Approach	EB	EBL	EBT	EBR	WB	WBL	WBT	WBR	NB	NBL	NBT	NBR	SB	SBT	SBR
Opposing Approach	WB				EB				SB				NB		
Opposing Lanes	1				2				1				1		
Conflicting Approach Left	SB				NB				EB				WB		
Conflicting Lanes Left	1				1				2				1		
Conflicting Approach Right	NB				SB				WB				EB		
Conflicting Lanes Right	1				1				1				2		
HCM Control Delay	12.1				34.3				18.4				14.4		
HCM LOS	B				D				C				B		
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1										
Vol Left, %	13%	22%	0%	47%	53%										
Vol Thru, %	20%	78%	68%	30%	33%										
Vol Right, %	67%	0%	32%	23%	13%										
Sign Control	Stop	Stop	Stop	Stop	Stop										
Traffic Vol by Lane	322	96	111	454	160										
LT Vol	43	21	0	214	96										
Through Vol	64	75	75	134	60										
RT Vol	215	0	36	106	24										
Lane Flow Rate	343	102	118	483	191										
Geometry Grp	2	7	7	5	2										
Degree of Utl (X)	0.599	0.21	0.232	0.842	0.376										
Departure Headway (Hd)	6.3	7.419	7.074	6.274	7.077										
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes										
Cap	569	481	505	575	506										
Service Time	4.371	5.202	4.856	4.337	5.162										
HCM Lane V/C Ratio	0.603	0.212	0.234	0.84	0.377										
HCM Control Delay	18.4	12.2	12	34.3	14.4										
HCM Lane LOS	C	B	B	D	B										
HCM 95th-ile Q	3.9	0.8	0.9	8.9	1.7										

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection														
Intersection Delay, s/veh 16														
Intersection LOS C														
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR				
Traffic Vol, veh/h	0	132	394	0	69	101	0	339	52					
Future Vol, veh/h	0	132	394	0	69	101	0	339	52					
Peak Hour Factor	0.92	0.97	0.97	0.92	0.97	0.97	0.92	0.97	0.97					
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2					
Mvmt Flow	0	136	406	0	71	104	0	349	54					
Number of Lanes	0	1	1	0	1	0	0	0	1					
Approach	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB				
Opposing Approach			SB	SB	1									
Opposing Lanes			1	1	1									
Conflicting Approach Left	NB							WB						
Conflicting Lanes Left	1							2						
Conflicting Approach Right	SB							WB						
Conflicting Lanes Right	1							2						
HCM Control Delay	15.4				10.9			18.9						
HCM LOS	C				B			C						
Lane	NBLn1	WBLn1	WBLn2	SBLn1										
Vol Left, %	0%	100%	0%	87%										
Vol Thru, %	41%	0%	0%	13%										
Vol Right, %	59%	0%	100%	0%										
Sign Control	Stop	Stop	Stop	Stop										
Traffic Vol by Lane	170	132	394	391										
LT Vol	0	132	0	339										
Through Vol	69	0	0	52										
RT Vol	101	0	394	0										
Lane Flow Rate	175	136	406	403										
Geometry Grp	2	7	7	2										
Degree of Utl (X)	0.275	0.253	0.617	0.647										
Departure Headway (Hd)	5.656	6.685	5.468	5.777										
Convergence, Y/N	Yes	Yes	Yes	Yes										
Cap	633	538	668	625										
Service Time	3.709	4.429	3.212	3.819										
HCM Lane V/C Ratio	0.276	0.253	0.617	0.645										
HCM Control Delay	10.9	11.7	16.7	18.9										
HCM Lane LOS	B	B	C	C										
HCM 95th-ile Q	1.1	1	4.3	4.7										

15: Project Driveway & Rossmoor Center Way

Intersection	3.8					
Int Delay, s/veh						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	99	0	85	123	5	89
Future Vol, veh/h	99	0	85	123	5	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	0	0	0	-
Grade, %	0	-	0	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	0	92	134	5	97
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	108	0	426	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	318	-
Critical Hwy	-	-	4.12	-	6.42	6.22
Critical Hwy Stg 1	-	-	-	-	5.42	-
Critical Hwy Stg 2	-	-	-	-	5.42	-
Follow-up Hwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	585	946
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1483	-	546	946
Mov Cap-2 Maneuver	-	-	-	-	546	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	689	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	3.1	9.5			
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	911	-	-	1483	-	
HCM Lane V/C Ratio	0.112	-	-	0.062	-	
HCM Control Delay (s)	9.5	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %ile Q(veh)	0.4	-	-	0.2	-	

HCM 2010 Signalized Intersection Summary
1: Seal Beach Boulevard & I-405 SB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		EBT		WBT		NBT		NBR		SBT	
Traffic Volume (veh/h)	88	28	16	703	44	539	14	1067	168	440	1467
Future Volume (veh/h)	88	28	16	703	44	539	14	1067	168	440	1467
Number	7	4	14	3	8	18	5	2	12	1	6
Initial Q (Cb), veh	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	97	31	18	807	0	15	1173	185	484	1612	80
Adj No. of Lanes	0	2	0	2	0	1	3	1	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	89	55	32	867	0	387	30	1234	384	734	3337
Arrive On Green	0.05	0.05	0.05	0.24	0.00	0.00	0.24	0.24	0.24	0.28	0.44
Sat Flow, veh/h	1774	1107	643	3548	0	1583	1774	5085	1583	1774	5085
Grp Volume(v), veh/h	97	0	49	807	0	15	1173	185	484	1612	80
Grp Sat Flow(s), veh/h/ln	1774	0	1749	1774	0	1583	1774	1695	1583	1774	1695
Q Serve(g.s), s	5.5	0.0	3.0	24.5	0.0	0.9	25.0	11.0	26.5	24.8	3.2
Cycle Q Clear(g.c), s	5.5	0.0	3.0	24.5	0.0	0.9	25.0	11.0	26.5	24.8	3.2
Prop In Lane	1.00	0.00	0.37	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	89	0	87	867	0	387	30	1234	384	734	3337
V/C Ratio(X)	1.09	0.00	0.56	0.93	0.00	0.51	0.95	0.48	0.86	0.48	0.08
Avail Cap(c,a), veh/h	89	0	87	867	0	396	81	1234	384	734	3337
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	0.0	51.1	40.7	0.0	53.6	41.0	35.7	32.9	17.5	11.5
Incr Delay (d2), s/veh	123.2	0.0	7.8	15.9	0.0	12.7	16.2	4.3	1.6	0.4	0.1
Initial Q Delay(d3), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%) veh/ln	5.7	0.0	1.6	13.9	0.0	0.6	13.5	5.3	13.3	11.7	1.4
LnGrp Delay(d), s/veh	175.6	0.0	58.9	56.6	0.0	66.3	57.2	40.0	34.5	17.9	11.6
LnGrp LOS	F	E	E	E	E	E	D	C	B	B	B
Approach Vol, veh/h	146			807		1373				2176	
Approach Delay, s/veh	136.4			56.6		55.0				21.4	
Approach LOS	F			E		D				C	
Timer	1	2	3	4	5	6	7	8			
Assigned Phs	1	2		4	5	6					
Phs Duration (G+Y+Rc), s	51.3	32.5		10.2	5.8	78.0					
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8					
Max Green Setting (Gmax), s	30.0	* 27		* 5.5	5.0	51.7					
Max Q Clear Time (g_c+I), s	28.5	27.0		7.5	2.9	26.8					
Green Ext Time (p_c), s	0.3	0.0		0.0	0.0	14.9					
Intersection Summary	41.7										
HCM 2010 Ctrl Delay	D										
HCM 2010 LOS	D										
Notes											

12/1/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	9	1	1	1	1	1	1	1	1	1	1	1
Traffic Volume (veh/h)	9	11	5	371	54	565	111	1222	351	338	1593	469
Future Volume (veh/h)	9	11	5	371	54	565	111	1222	351	338	1593	469
Number	7	4	4	14	3	8	18	5	2	12	1	6
Initial Q (Ob.) veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	10	12	6	412	0	668	123	1358	0	376	1770	521
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Cap. veh/h	46	49	41	898	0	802	520	1848	575	306	1875	584
Arrive On Green	0.03	0.03	0.03	0.25	0.00	0.25	0.30	0.73	0.00	0.17	0.37	0.37
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	10	12	6	412	0	668	123	1358	0	376	1770	521
Grp SatFlow(s), veh/h/m	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Q Serve(g.s.)	0.6	0.7	0.4	10.8	0.0	22.0	3.0	17.2	0.0	19.0	37.1	34.1
Cycle Q Clear(g.s.)	0.6	0.7	0.4	10.8	0.0	22.0	3.0	17.2	0.0	19.0	37.1	34.1
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	46	49	41	898	0	802	520	1848	575	306	1875	584
V/C Ratio(X)	0.22	0.25	0.15	0.46	0.00	0.83	0.24	0.73	0.00	1.23	0.94	0.89
Avail Cap(c), veh/h	81	85	72	1258	0	1123	520	1848	575	306	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.57	0.57	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	52.5	52.5	52.4	34.7	0.0	38.9	33.6	11.9	0.0	45.5	33.6
Incr Delay (d2), s/veh	2.3	2.6	1.6	0.4	0.0	3.9	0.1	1.5	0.0	127.6	11.2	18.5
Initial Q Delay(Q3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/In0.3	0.4	0.2	0.2	5.3	0.0	10.0	1.4	8.0	0.0	20.1	19.3	17.9
LnGrp Delay(d), s/veh	54.8	55.1	53.9	35.1	0.0	42.8	33.7	13.4	0.0	173.1	44.8	51.2
LnGrp LOS	D	E	D	D	D	D	C	B	F	D	D	D
Approach Vol, veh/h	28	54.7	1080	1481	64.2	2667	15.1	64.2	64.2	15.1	64.2	64.2
Approach Delay, s/veh	54.7	54.7	1080	1481	64.2	2667	15.1	64.2	64.2	15.1	64.2	64.2
Approach LOS	D	D	D	D	D	D	B	B	E	E	E	E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+R), s	45.8	45.8	7.6	22.4	46.4	33.6						
Change Period (Y+R), s	4.0	5.8	* 4.7	5.8	* 5.8	5.8						
Max Green Setting (Gmax), s	26.7	26.7	* 5.0	5.0	* 41	39.0						
Max Q Clear Time (g_c+d), s	19.2	19.2	2.7	5.0	39.1	24.0						
Green Ext Time (p_c), s	0.0	4.9	0.0	0.0	1.5	3.9						
Intersection Summary	45.3											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

Opening Year NP AM Mon Feb 20, 2017 15:14:26 Page 2-1
 Health Club within the Shops at Rossmoor
 Opening Year (2018) No Project
 AM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.822
 Loss Time (sec): 72 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 72 Level Of Service: D
 Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Protected Protected Permitted
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 2 0 0 1
 Volume Module: 0 1491 308 336 1709 0 0 0 0 709 0 617
 Base Vol: 0 1491 308 336 1709 0 0 0 0 709 0 617
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1491 308 336 1709 0 0 0 0 709 0 617
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
 PHF Volume: 0 1642 339 370 1882 0 0 0 0 781 0 680
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1642 339 370 1882 0 0 0 0 781 0 680
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1642 339 370 1882 0 0 0 0 781 0 680
 OvlAdjVol: 0 1642 339 370 1882 0 0 0 0 781 0 680
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.32 0.20 0.11 0.37 0.00 0.00 0.00 0.00 0.23 0.00 0.40
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.507
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 34 Level Of Service: A

Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Permitted Permitted Permitted
 Rights: Include Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
 Base Vol: 56 1655 31 21 1424 32 21 4 14 24 2 21
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 56 1655 31 21 1424 32 21 4 14 24 2 21
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
 PHF Volume: 62 1831 34 23 1575 35 23 4 15 27 2 23
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 62 1831 34 23 1575 35 23 4 15 27 2 23
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 62 1831 34 23 1575 35 23 4 15 27 2 23

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.94 0.06 1.00 2.93 0.07 1.00 0.22 0.78 1.00 0.09 0.91
 Final Sat.: 1700 5006 94 1700 4988 112 1700 378 1322 1700 148 1552

Capacity Analysis Module:
 Vol/Sat: 0.04 0.37 0.37 0.01 0.32 0.32 0.01 0.01 0.01 0.02 0.01 0.01 0.02 0.01 0.01 0.01
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.650
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 44 Level Of Service: B

Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Split Phase Split Phase
 Rights: Include Include OVI Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 1 0 1 0 2 1 0 0 1 0 0 2 1 0 1 1 0 0

Volume Module:
 Base Vol: 381 1687 47 4 1390 53 107 3 573 66 13 2
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 381 1687 47 4 1390 53 107 3 573 66 13 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
 PHF Volume: 433 1919 53 5 1581 60 122 3 652 75 15 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 433 1919 53 5 1581 60 122 3 652 75 15 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 433 1919 53 5 1581 60 122 3 652 75 15 2
 OrLAdjVol: 433 1919 53 5 1581 60 122 3 652 75 15 2

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.92 0.08 1.00 2.89 0.11 0.97 0.03 2.00 1.63 0.32 0.05
 Final Sat.: 3400 4962 138 1700 4913 187 1654 46 3400 2770 546 84

Capacity Analysis Module:
 Vol/Sat: 0.13 0.39 0.39 0.00 0.32 0.32 0.07 0.07 0.19 0.03 0.03 0.03 0.03 0.03 0.03
 OrLAdjV/S: 0.13 0.39 0.39 0.00 0.32 0.32 0.07 0.07 0.19 0.03 0.03 0.03 0.03 0.03 0.03
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.759
 Loss Time (sec): 59 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 59 Level Of Service: C

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 147 1548 26 29 1405 172 282 18 98 71 22 29
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 147 1548 26 29 1405 172 282 18 98 71 22 29
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
 PHF Volume: 157 1656 28 31 1503 184 302 19 105 76 24 31
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 157 1656 28 31 1503 184 302 19 105 76 24 31
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 157 1656 28 31 1503 184 302 19 105 76 24 31

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 2.95 0.05 1.00 2.67 0.33 1.00 0.16 0.84 0.76 0.24 1.00
 Final Sat.: 1700 5016 84 1700 4544 556 1700 264 1436 1298 402 1700

Capacity Analysis Module:
 Vol/Sat: 0.09 0.33 0.33 0.02 0.33 0.33 0.18 0.07 0.07 0.04 0.06 0.02
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.549
 Loss Time (sec): 36 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 36 Level Of Service: A

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 66 1627 15 19 1447 71 78 7 79 17 10 39
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 66 1627 15 19 1447 71 78 7 79 17 10 39
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 PHF Volume: 72 1778 16 21 1581 78 85 8 86 19 11 43
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 72 1778 16 21 1581 78 85 8 86 19 11 43
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 72 1778 16 21 1581 78 85 8 86 19 11 43

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 2.97 0.03 1.00 2.86 0.14 1.00 0.08 0.92 1.00 0.20 0.80
 Final Sat.: 1700 5053 47 1700 4861 239 1700 138 1562 1700 347 1353

Capacity Analysis Module:
 Vol/Sat: 0.04 0.35 0.35 0.01 0.33 0.33 0.05 0.06 0.06 0.01 0.03 0.03
 Crit Moves: ****

12/1/2016

8: Yellowtail Drive & Saint Cloud Drive

12/1/2016

Intersection												
Int Delay, s/veh											1.3	
Movement	EBT	EBR	WBL	WBT	NBL	NBR						
Traffic Vol, veh/h	611	4	28	407	8	71						
Future Vol, veh/h	611	4	28	407	8	71						
Conflicting Peds, #/hr	0	0	0	0	0	0						
Sign Control	Free	Free	Free	Free	Stop	Stop						
RT Channelized	-	None	-	None	-	None						
Storage Length	-	-	-	-	0	-						
Veh in Median Storage, #	0	-	-	0	0	-						
Grade, %	0	-	-	0	0	-						
Peak Hour Factor	79	79	79	79	79	79						
Heavy Vehicles, %	2	2	2	2	2	2						
Mvmt Flow	773	5	35	515	10	90						
Major/Minor	Major1		Major2		Minor1							
Conflicting Flow All	0	0	778	0	1104	389						
Stage 1	-	-	-	-	776	-						
Stage 2	-	-	-	-	328	-						
Critical Hwy	-	-	4.14	-	6.84	6.94						
Critical Hwy Stg 1	-	-	-	-	5.84	-						
Critical Hwy Stg 2	-	-	-	-	5.84	-						
Follow-up Hwy	-	-	2.22	-	3.52	3.32						
Pot Cap-1 Maneuver	-	-	834	-	205	610						
Stage 1	-	-	-	-	414	-						
Stage 2	-	-	-	-	702	-						
Platoon blocked, %	-	-	-	-	-	-						
Mov Cap-1 Maneuver	-	-	834	-	193	610						
Mov Cap-2 Maneuver	-	-	-	-	193	-						
Stage 1	-	-	-	-	414	-						
Stage 2	-	-	-	-	661	-						
Approach	EB		WB		NB							
HCM Control Delay, s	0		0.8		14							
HCM LOS	B		B		B							
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT							
Capacity (veh/h)	500	-	-	834	-							
HCM Lane V/C Ratio	0.2	-	-	0.042	-							
HCM Control Delay (s)	14	-	-	9.5	0.2							
HCM Lane LOS	B	-	-	A	A							
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-							

12/1/2016

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection												
Int Delay, s/veh											11.5	
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBR	NBU	NBL	NBT	NBR	
Traffic Vol, veh/h	0	55	6	127	0	2	3	1	0	109	169	
Future Vol, veh/h	0	55	6	127	0	2	3	1	0	109	169	
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.92	0.79	0.79	0.79	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	70	8	161	0	3	4	1	0	138	214	
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	
Approach	EB		WB		WB		NB					
Opposing Approach	WB		EB		EB		SB					
Opposing Lanes	1		1		1		2					
Conflicting Approach Left	SB		NB		EB		EB					
Conflicting Lanes Left	2		2		2		1					
Conflicting Approach Right	NB		SB		WB		WB					
Conflicting Lanes Right	2		2		2		1					
HCM Control Delay	11.4		9.4		11.9		11.9					
HCM LOS	B		A		B		B					
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2						
Vol Left, %	56%	0%	29%	33%	0%	0%						
Vol Thru, %	44%	98%	3%	50%	100%	78%						
Vol Right, %	0%	2%	68%	17%	0%	22%						
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop						
Traffic Vol by Lane	194	87	188	6	193	123						
LT Vol	109	0	55	2	0	0						
Through Vol	85	85	6	3	193	96						
RT Vol	0	2	127	1	0	27						
Lane Flow Rate	245	109	238	8	244	156						
Geometry Grp	7	7	2	2	7	7						
Degree of Utl (X)	0.411	0.174	0.358	0.013	0.387	0.241						
Departure Headway (Ht)	6.034	5.733	5.409	6.253	5.714	5.559						
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes						
Cap	598	626	666	571	632	646						
Service Time	3.761	3.46	3.439	4.301	3.441	3.286						
HCM Lane V/C Ratio	0.41	0.174	0.357	0.014	0.386	0.241						
HCM Control Delay	12.9	9.7	11.4	9.4	12	10.1						
HCM Lane LOS	B	A	B	A	B	B						
HCM 95th %tile Q	2	0.6	1.6	0	1.8	0.9						

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection						
Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR	SBL	SBR
Traffic Vol, veh/h	0	0	289	27		
Future Vol, veh/h	0	0	289	27		
Peak Hour Factor	0.92	0.79	0.79	0.79		
Heavy Vehicles, %	2	2	2	2		
Mvmt Flow	0	0	366	34		
Number of Lanes	0	0	2	0		
Approach						
Approach	SB		SB			
Opposing Approach	NB		NB			
Opposing Lanes	2		2			
Conflicting Approach Left	WB		WB			
Conflicting Lanes Left	1		1			
Conflicting Approach Right	EB		EB			
Conflicting Lanes Right	1		1			
HCM Control Delay	11.3		11.3			
HCM LOS	B		B			
Lane						
Lane	NBLn1		EBLn1		SBLn1	
Vol Left, %	30%		0%		0%	
Vol Thru, %	70%		81%		25%	
Vol Right, %	0%		19%		36%	
Sign Control	Stop		Stop		Stop	
Traffic Vol by Lane	131	113	249	86	127	169
LT Vol	39	0	98	13	24	0
Through Vol	92	92	62	42	103	103
RT Vol	0	21	89	31	0	66
Lane Flow Rate	157	136	300	104	152	203
Geometry Grp	7	7	2	2	7	7
Degree of Utl (X)	0.281	0.232	0.475	0.175	0.267	0.334
Departure Headway (Hd)	6.436	6.15	5.694	6.072	6.302	5.927
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	557	581	630	587	568	605
Service Time	4.201	3.915	3.752	4.149	4.064	3.689
HCM Lane V/C Ratio	0.282	0.234	0.476	0.177	0.268	0.336
HCM Control Delay	11.7	10.8	13.8	10.4	11.4	11.7
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.1	0.9	2.5	0.6	1.1	1.5

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmore Center Way

12/1/2016

Intersection																
Intersection Delay, s/veh																
Intersection LOS																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR	
Traffic Vol, veh/h	0	98	62	89	0	13	42	31	0	39	183	21	0	24	205	
Future Vol, veh/h	0	98	62	89	0	13	42	31	0	39	183	21	0	24	205	
Peak Hour Factor	0.92	0.83	0.83	0.83	0.92	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.92	0.83	0.83	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	118	75	107	0	16	51	37	0	47	220	25	0	29	247	
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0	0	2	
Approach																
Approach	EB		WB		WB		EB		NB		NB		SB		SB	
Opposing Approach	WB		EB		EB		WB		SB		SB		NB		NB	
Opposing Lanes	1		1		1		1		2		2		2		2	
Conflicting Approach Left	SB		NB		NB		EB		WB		WB		WB		WB	
Conflicting Lanes Left	2		2		2		1		1		1		1		1	
Conflicting Approach Right	NB		SB		SB		WB		WB		WB		EB		EB	
Conflicting Lanes Right	2		2		2		1		1		1		1		1	
HCM Control Delay	13.8		10.4		10.4		11.3		11.3		11.6		11.6		11.6	
HCM LOS	B		B		B		B		B		B		B		B	
Lane																
Lane	NBLn1		NBLn2		EBLn1		WBLn1		SBLn1		SBLn2					
Vol Left, %	30%		0%		39%		15%		19%		0%					
Vol Thru, %	70%		81%		25%		49%		81%		61%					
Vol Right, %	0%		19%		36%		0%		39%		0%					
Sign Control	Stop		Stop		Stop		Stop		Stop		Stop					
Traffic Vol by Lane	131	113	249	86	127	169										
LT Vol	39	0	98	13	24	0										
Through Vol	92	92	62	42	103	103										
RT Vol	0	21	89	31	0	66										
Lane Flow Rate	157	136	300	104	152	203										
Geometry Grp	7	7	2	2	7	7										
Degree of Utl (X)	0.281	0.232	0.475	0.175	0.267	0.334										
Departure Headway (Hd)	6.436	6.15	5.694	6.072	6.302	5.927										
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes										
Cap	557	581	630	587	568	605										
Service Time	4.201	3.915	3.752	4.149	4.064	3.689										
HCM Lane V/C Ratio	0.282	0.234	0.476	0.177	0.268	0.336										
HCM Control Delay	11.7	10.8	13.8	10.4	11.4	11.7										
HCM Lane LOS	B	B	B	B	B	B										
HCM 95th-tile Q	1.1	0.9	2.5	0.6	1.1	1.5										

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road
 Opening Year AM Peak Hour
 02/22/2017

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↔				↔				↔	
Traffic Vol, veh/h	0	5	24	2	0	136	18	147	0	0	140	221
Future Vol, veh/h	0	5	24	2	0	136	18	147	0	0	140	221
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	30	3	0	172	23	186	0	0	177	280
Number of Lanes	0	0	1	0	0	1	1	1	0	0	2	0

Approach	EB	WB	WB	NB
Opposing Approach	WB	EB	WB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	NB	EB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	SB	WB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.9	12.6	12.6	13.7
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	16%	88%	0%	53%	0%	0%	0%	0%
Vol Thru, %	100%	17%	77%	12%	0%	47%	97%	0%	0%	97%
Vol Right, %	0%	83%	6%	0%	100%	0%	3%	0%	0%	3%
Sign Control	Stop									
Traffic Vol by Lane	93	268	31	154	147	142	69			
LT Vol	0	0	5	136	0	75	0			
Through Vol	93	47	24	18	0	67	67			
RT Vol	0	221	2	0	147	0	2			
Lane Flow Rate	118	339	39	195	186	179	87			
Geometry Grp	7	7	6	7	7	7	7			
Degree of Utl (X)	0.205	0.534	0.079	0.379	0.302	0.335	0.155			
Departure Headway (Hd)	6.257	5.67	7.227	6.994	5.837	6.742	6.462			
Convergence, Y/N	Yes									
Cap	572	634	493	513	614	532	554			
Service Time	4.012	3.425	5.313	4.751	3.593	4.507	4.216			
HCM Lane V/C Ratio	0.206	0.535	0.079	0.38	0.303	0.336	0.157			
HCM Control Delay	10.6	14.8	10.9	14	11.1	12.9	10.4			
HCM Lane LOS	B	B	B	B	B	B	B			
HCM 95th-tile Q	0.8	3.2	0.3	1.8	1.3	1.5	0.5			

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road
 Opening Year AM Peak Hour
 02/22/2017

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↔	
Traffic Vol, veh/h	0	75	133	2
Future Vol, veh/h	0	75	133	2
Peak Hour Factor	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	95	168	3
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.1
HCM LOS	B

HCM 2010 AWSC

12: West Road & Rossmoor Center Way

12/1/2016

Intersection												
Intersection Delay, s/veh 7.7												
Intersection LOS A												
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR			
Traffic Vol, veh/h	0	100	7	0	6	87	0	4	12			
Future Vol, veh/h	0	100	7	0	6	87	0	4	12			
Peak Hour Factor	0.92	0.85	0.85	0.92	0.85	0.85	0.92	0.85	0.85			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	118	8	0	7	102	0	5	14			
Number of Lanes	0	1	0	0	0	1	0	1	0			
Approach	EB	WB	WB	EB	NB	NB						
Opposing Approach	WB	EB							0			
Opposing Lanes	1	1							0			
Conflicting Approach Left	0	NB							1			
Conflicting Lanes Left	0	1							1			
Conflicting Approach Right	NB	0							1			
Conflicting Lanes Right	1	0							1			
HCM Control Delay	7.7	7.7							7.1			
HCM LOS	A	A							A			
Lane	NBLn1	EBLn1	WBLn1	NBLn1								
Vol Left, %	25%	0%	6%									
Vol Thru, %	0%	93%	94%									
Vol Right, %	75%	7%	0%									
Sign Control	Stop	Stop	Stop									
Traffic Vol by Lane	16	107	93									
LT Vol	4	0	6									
Through Vol	0	100	87									
RT Vol	12	7	0									
Lane Flow Rate	19	126	109									
Geometry Grp	1	1	1									
Degree of Utl (X)	0.021	0.14	0.124									
Departure Headway (Hd)	4.036	4.01	4.075									
Convergence, Y/N	Yes	Yes	Yes									
Cap	892	893	879									
Service Time	2.036	2.04	2.106									
HCM Lane V/C Ratio	0.021	0.141	0.124									
HCM Control Delay	7.1	7.7	7.7									
HCM Lane LOS	A	A	A									
HCM 95th-tile Q	0.1	0.5	0.4									

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection														
Intersection Delay, s/veh 8.7														
Intersection LOS A														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	35	99	14	0	74	59	52	0	13	16	31	0	60
Future Vol, veh/h	0	35	99	14	0	74	59	52	0	13	16	31	0	60
Peak Hour Factor	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.92	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	106	15	0	80	63	56	0	14	17	33	0	65
Number of Lanes	0	0	2	0	0	0	1	0	0	0	1	0	0	1
Approach	EB	WB	WB	EB	NB	NB								
Opposing Approach	WB	EB							SB					
Opposing Lanes	1	2							1					
Conflicting Approach Left	SB	NB							EB					
Conflicting Lanes Left	1	1							2					
Conflicting Approach Right	NB	SB							WB					
Conflicting Lanes Right	1	1							1					
HCM Control Delay	8.6	9.1							8.1					
HCM LOS	A	A							A					
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1									
Vol Left, %	22%	41%	0%	40%	66%									
Vol Thru, %	27%	59%	78%	32%	18%									
Vol Right, %	52%	0%	22%	28%	16%									
Sign Control	Stop	Stop	Stop	Stop	Stop									
Traffic Vol by Lane	60	85	64	185	91									
LT Vol	13	35	0	74	60									
Through Vol	16	50	50	59	16									
RT Vol	31	0	14	52	15									
Lane Flow Rate	65	91	68	199	98									
Geometry Grp	2	7	7	5	2									
Degree of Utl (X)	0.083	0.134	0.094	0.25	0.133									
Departure Headway (Hd)	4.638	5.301	4.938	4.532	4.889									
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes									
Cap	771	676	725	792	733									
Service Time	2.677	3.035	2.672	2.564	2.924									
HCM Lane V/C Ratio	0.084	0.135	0.094	0.251	0.134									
HCM Control Delay	8.1	8.9	8.2	9.1	8.7									
HCM Lane LOS	A	A	A	A	A									
HCM 95th-tile Q	0.3	0.5	0.3	1	0.5									

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection												
Intersection Delay, s/veh 7.8												
Intersection LOS A												
Movement	WBU	WBL	WBR	NBU	NBL	NBR	SBU	SBL	SBT			
Traffic Vol, veh/h	0	71	37	0	16	32	0	28	15			
Future Vol, veh/h	0	71	37	0	16	32	0	28	15			
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	82	43	0	18	37	0	32	17			
Number of Lanes	0	1	1	0	1	0	0	0	1			
Approach	WB		WB		NB		SB					
Opposing Approach	0		0		SB		NB					
Opposing Lanes	0		0		1		1					
Conflicting Approach Left	NB		NB		WB		WB					
Conflicting Lanes Left	1		0		0		2					
Conflicting Approach Right	SB		WB		WB		0					
Conflicting Lanes Right	1		2		2		0					
HCM Control Delay	8.1		7.1		7.7		7.7					
HCM LOS	A		A		A		A					
Lane	NBLn1 WBLn1 WBLn2		SBLn1									
Vol Left, %	0%		100%		0%		65%					
Vol Thru, %	33%		0%		0%		35%					
Vol Right, %	67%		0%		100%		0%					
Sign Control	Stop		Stop		Stop		Stop					
Traffic Vol by Lane	48		71		37		43					
LT Vol	0		71		0		28					
Through Vol	16		0		0		15					
RT Vol	32		0		37		0					
Lane Flow Rate	55		82		43		49					
Geometry Grp	2		7		7		2					
Degree of Util (X)	0.06		0.118		0.047		0.061					
Departure Headway (Hd)	3.897		5.216		4.014		4.428					
Convergence, Y/N	Yes		Yes		Yes		Yes					
Cap	924		685		885		814					
Service Time	1.899		2.97		1.768		2.43					
HCM Lane V/C Ratio	0.06		0.12		0.049		0.06					
HCM Control Delay	7.1		8.7		7		7.7					
HCM Lane LOS	A		A		A		A					
HCM 95th-ile Q	0.2		0.4		0.1		0.2					

HCM 2010 TWSC

15: Project Driveway & Rossmore Center Way

12/1/2016

Intersection												
Int Delay, s/veh 0.7												
Movement	EBT	EBR	WBL	WBT	NBL	NBR						
Traffic Vol, veh/h	111	0	9	96	0	11						
Future Vol, veh/h	111	0	9	96	0	11						
Conflicting Peds, #/hr	0	0	0	0	0	0						
Sign Control	Free	Free	Free	Free	Stop	Stop						
RT Channelized	-	None	-	None	-	None						
Storage Length	-	-	-	-	0	-						
Veh in Median Storage, #	0	-	-	0	0	-						
Grade, %	0	-	-	0	0	-						
Peak Hour Factor	89	89	89	89	89	89						
Heavy Vehicles, %	2	2	2	2	2	2						
Mvmt Flow	125	0	10	108	0	12						
Major/Minor	Major1		Major2		Minor1							
Conflicting Flow All	0	0	125	0	253	125						
Stage 1	-	-	-	-	128	-						
Stage 2	-	-	-	-	128	-						
Critical Hdwy	-	-	-	-	4.12	-						
Critical Hdwy Stg 1	-	-	-	-	6.42	-						
Critical Hdwy Stg 2	-	-	-	-	5.42	-						
Follow-up Hdwy	-	-	-	-	3.518	-						
Pol Cap-1 Maneuver	-	-	-	-	1462	-						
Stage 1	-	-	-	-	901	-						
Stage 2	-	-	-	-	898	-						
Platoon blocked, %	-	-	-	-	-	-						
Mov Cap-1 Maneuver	-	-	-	-	1462	-						
Mov Cap-2 Maneuver	-	-	-	-	731	-						
Stage 1	-	-	-	-	901	-						
Stage 2	-	-	-	-	892	-						
Approach	EB		WB		NB							
HCM Control Delay, s	0		0.6		8.9							
HCM LOS	A		A		A							
Minor Lane/Major Mvmt	NBLn1		EBT		WBL		WBT					
Capacity (veh/h)	926		-		1462		-					
HCM Lane V/C Ratio	0.013		-		0.007		-					
HCM Control Delay (s)	8.9		-		7.5		0					
HCM Lane LOS	A		-		A		A					
HCM 95th %ile Q(veh)	0		-		0		-					

HCM 2010 Signalized Intersection Summary
 1.: Seal Beach Boulevard & I-405 SB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	188	30	20	324	35	530	11	1464	365	529	1080	128
Traffic Volume (veh/h)	168	30	20	324	35	530	11	1464	365	529	1080	128
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Ob), veh	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pBT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Sat Flow, veh/h/ln	173	31	21	360	0	0	11	1509	376	545	1113	132
Adj Flow Rate, veh/h	0	2	0	2	0	0	1	1	3	1	3	1
Adj No. of Lanes	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Peak Hour Factor	2	2	2	2	2	2	2	2	2	2	2	2
Percent Heavy Veh. %	127	74	50	419	0	187	23	1595	497	583	3284	1023
Cap. veh/h	0.07	0.07	0.07	0.12	0.00	0.00	0.01	0.31	0.31	0.66	1.00	1.00
Arrive On Green	1774	1037	702	3548	0	1583	1774	5085	1583	1774	5085	1583
Sat Flow, veh/h	173	0	52	360	0	0	11	1509	376	545	1113	132
Grp Volume(v), veh/h	1774	0	1739	1774	0	1583	1774	1695	1583	1774	1695	1583
Grp Sat Flow(s), veh/h/ln	7.9	0.0	3.1	11.0	0.0	0.0	0.7	31.9	23.5	30.0	0.0	0.0
Q Serve(g.s), s	7.9	0.0	3.1	11.0	0.0	0.0	0.7	31.9	23.5	30.0	0.0	0.0
Cycle Q Clear(g.c), s	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop In Lane	1.36	0.00	0.42	0.86	0.00	0.00	0.48	0.95	0.76	0.93	0.34	0.13
Lane Grp Cap(c), veh/h	127	0	125	419	0	187	23	1595	497	583	3284	1023
V/C Ratio(X)	127	0	125	426	0	190	81	1600	498	583	3284	1023
Avail Cap(c.a), veh/h	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Platoon Ratio	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.87	0.87	0.87
Upstream Filter(I)	51.1	0.0	48.8	47.6	0.0	0.0	53.9	36.8	34.0	17.8	0.0	0.0
Uniform Delay (d), s/veh	203.5	0.0	2.2	15.9	0.0	0.0	14.6	12.9	10.3	20.3	0.2	0.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	11.1	0.0	1.6	6.3	0.0	0.0	0.4	16.7	11.7	17.5	0.1	0.1
%ile BackOfQ(50%), veh/ln	254.5	0.0	51.0	63.5	0.0	0.0	68.5	49.8	44.3	38.1	0.2	0.2
LnGrp Delay(d), s/veh	225	0.0	2.2	15.9	0.0	0.0	14.6	12.9	10.3	20.3	0.2	0.2
LnGrp LOS	F	D	E	E	D	E	D	D	D	D	A	A
Approach Vol, veh/h	225			360			1886				1790	
Approach Delay, s/veh	207.5			63.5			48.8				11.8	
Approach LOS	F			E			D				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	42.0	40.3		12.6	5.4	76.8		18.8				
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8		5.8				
Max Green Setting (Gmax), s	34.0	* 35		* 7.9	5.0	63.6		13.2				
Max Q Clear Time (g_c+I), s	32.0	33.9		9.9	2.7	2.0		13.0				
Green Ext Time (p_c), s	0.5	0.6		0.0	0.0	13.7		0.0				
Intersection Summary	42.9											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

HCM 2010 Signalized Intersection Summary
 2.: Seal Beach Boulevard & I-405 NB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	78	73	88	197	15	663	41	1564	561	323	1464	375
Traffic Volume (veh/h)	78	73	88	197	15	663	41	1564	561	323	1464	375
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Ob), veh	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pBT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Sat Flow, veh/h/ln	80	75	91	203	0	714	42	1612	0	333	1509	387
Adj Flow Rate, veh/h	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Peak Hour Factor	2	2	2	2	2	2	2	2	2	2	2	2
Percent Heavy Veh. %	81	85	72	930	0	830	489	1890	588	242	1777	553
Cap. veh/h	0.05	0.05	0.05	0.26	0.00	0.26	0.28	0.74	0.00	0.14	0.35	0.36
Arrive On Green	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Sat Flow, veh/h	80	75	91	203	0	714	42	1612	0	333	1509	387
Grp Volume(v), veh/h	1863	1863	1863	1774	0	1583	1721	1695	1583	1774	1695	1583
Grp Sat Flow(s), veh/h/ln	5.0	4.4	5.0	4.9	0.0	23.6	1.0	24.5	0.0	15.0	30.2	23.1
Q Serve(g.s), s	5.0	4.4	5.0	4.9	0.0	23.6	1.0	24.5	0.0	15.0	30.2	23.1
Cycle Q Clear(g.c), s	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop In Lane	0.99	0.89	1.26	0.22	0.00	0.86	0.09	0.85	0.00	1.38	0.85	0.70
Lane Grp Cap(c), veh/h	81	85	72	930	0	830	489	1890	588	242	1777	553
V/C Ratio(X)	81	85	72	1258	0	1123	489	1890	588	242	1882	586
Avail Cap(c.a), veh/h	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.00	1.00	0.52	0.52	0.00	1.00	1.00	1.00
Upstream Filter(I)	52.2	52.5	31.8	0.0	38.7	34.1	12.0	0.0	47.5	33.1	30.8	0.0
Uniform Delay (d), s/veh	97.4	61.6	192.8	0.1	0.0	5.3	0.0	2.8	0.0	193.3	5.3	7.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	3.7	6.0	2.4	0.0	10.9	0.5	11.2	0.0	20.3	15.0	11.2	0.0
%ile BackOfQ(50%), veh/ln	149.9	113.8	245.3	31.9	0.0	44.0	34.2	14.8	0.0	240.8	38.4	38.0
LnGrp Delay(d), s/veh	246			917			1654				2229	
LnGrp LOS	F	F	F	C	D	C	D	C	B	F	D	D
Approach Vol, veh/h	246			917			1654				2229	
Approach Delay, s/veh	174.2			41.3			15.3				68.5	
Approach LOS	F			D			B				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.7	9.7	21.4	44.2			34.6					
Change Period (Y+Rc), s	5.8	* 4.7	5.8	* 5.8			5.8					
Max Green Setting (Gmax), s	30.7	* 5.0	* 4.1	39.0			39.0					
Max Q Clear Time (g_c+I), s	26.5	7.0	3.0	32.2			25.6					
Green Ext Time (p_c), s	0.0	3.3	0.0	1.7			6.3					
Intersection Summary	51.3											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.807
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 68 Level Of Service: D

Street Name: Seal Beach Blvd East Bound West Bound
 Approach: North Bound South Bound Lampson Ave
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Protected	Protected	Include	Permitted
Rights:	Ovl	Include	Include	Ovl	Ovl
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	0 0 3 0 1	2 0 3 0 0	0 0 0 0 0	2 0 0 0 1	2 0 0 0 1

Volume Module:
 Base Vol: 0 1744 549 640 1628 0 0 0 0 545 0 481
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1744 549 640 1628 0 0 0 0 545 0 481
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 0 1785 562 655 1666 0 0 0 0 558 0 492
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1785 562 655 1666 0 0 0 0 558 0 492
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1785 562 655 1666 0 0 0 0 558 0 492
 OvlAdjVol: 0 165

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.35 0.33 0.19 0.33 0.00 0.00 0.00 0.00 0.16 0.00 0.29
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.734
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 55 Level Of Service: C

Street Name: Seal Beach Blvd East Bound West Bound
 Approach: North Bound South Bound St. Cloud Dr
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Protected	Protected	Include	Split Phase	Split Phase
Rights:	Include	Include	Include	Ovl	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	2 0 2 1 0	1 0 2 1 0	0 1 0 0 2	1 0 1 0 1	1 0 1 0 1	1 0 1 0 1

Volume Module:
 Base Vol: 410 1691 133 5 1690 70 95 0 389 195 31 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 410 1691 133 5 1690 70 95 0 389 195 31 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 441 1818 143 5 1817 75 102 0 418 210 33 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 441 1818 143 5 1817 75 102 0 418 210 33 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 441 1818 143 5 1817 75 102 0 418 210 33 5
 OvlAdjVol: 0

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.78 0.22 1.00 2.88 0.12 1.00 0.00 2.00 1.69 0.27 0.04
 Final Sat.: 3400 4728 372 1700 4897 203 1700 0 3400 2870 456 74

Capacity Analysis Module:
 Vol/Sat: 0.13 0.38 0.38 0.00 0.37 0.37 0.06 0.00 0.12 0.07 0.07 0.07
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.699
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 50 Level Of Service: B

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 0 1 0 1 0 1 0
 Volume Module:
 Base Vol: 161 1591 24 36 1603 192 186 1 131 15 1 16
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 161 1591 24 36 1603 192 186 1 131 15 1 16
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 170 1684 25 38 1696 203 197 1 139 16 1 17
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 170 1684 25 38 1696 203 197 1 139 16 1 17
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 170 1684 25 38 1696 203 197 1 139 16 1 17
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.96 0.04 1.00 2.68 0.32 1.00 0.01 0.99 1.00 0.06 0.94
 Final Sat.: 1700 5024 76 1700 4554 546 1700 13 1687 1700 100 1600
 Capacity Analysis Module:
 Vol/Sat: 0.10 0.34 0.02 0.37 0.37 0.12 0.08 0.08 0.01 0.01 0.01 0.01
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.761
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 59 Level Of Service: C

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 0 1 0 1 0 1 0
 Volume Module:
 Base Vol: 207 1470 85 79 1406 95 101 28 187 140 47 60
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 207 1470 85 79 1406 95 101 28 187 140 47 60
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 219 1554 90 84 1486 100 107 30 198 148 50 63
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 219 1554 90 84 1486 100 107 30 198 148 50 63
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 219 1554 90 84 1486 100 107 30 198 148 50 63
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.84 0.16 1.00 2.81 0.19 1.00 0.13 0.87 1.00 0.44 0.56
 Final Sat.: 1700 4821 279 1700 4777 323 1700 221 1479 1700 747 953
 Capacity Analysis Module:
 Vol/Sat: 0.13 0.32 0.32 0.05 0.31 0.31 0.06 0.13 0.13 0.09 0.07 0.07
 Crit Moves: ****

Intersection	12	
Int Delay, s/veh	12	
Movement	EBT EBR	WBL WBT
Traffic Vol, veh/h	447 7	54 458
Future Vol, veh/h	447 7	54 458
Conflicting Peds, #/hr	0 0	0 0
Sign Control	Free Free	Free Free
RT Channelized	- None	- None
Storage Length	- -	- -
Veh in Median Storage, #	0 -	0 0
Grade, %	0 -	0 0
Peak Hour Factor	90 90	90 90
Heavy Vehicles, %	2 2	2 2
Mvmt Flow	497 8	60 509
Major/Minor	Major1	Major2
Conflicting Flow All	0 0	504 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- -	4.14 -
Critical Hdwy Stg 1	- -	6.84 -
Critical Hdwy Stg 2	- -	5.84 -
Follow-up Hdwy	- -	2.22 -
Pot Cap-1 Maneuver	- -	1057 -
Stage 1	- -	- -
Stage 2	- -	- -
Platoon blocked, %	- -	- -
Mov Cap-1 Maneuver	- -	1057 -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -
Approach	EB	WB
HCM Control Delay, s	0	12
HCM LOS		B
Minor Lane/Major Mvmt	NBLn1	EBR WBL WBT
Capacity (veh/h)	677	- - 1057 -
HCM Lane V/C Ratio	0.085	- - 0.057 -
HCM Control Delay (s)	10.8	- - 8.6 0.3
HCM Lane LOS	B	- - A A
HCM 95th %ile Q(veh)	0.3	- - 0.2 -

Opening Year NP PM Mon Feb 20, 2017 15:14:44 Page 6-1
 Health Club within the Shops at Rossmore
 Opening Year (2018) No Project
 PM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.698
 Loss Time (sec): 50 Average Delay (ssec/veh): xxxxxx
 Optimal Cycle: 50 Level of Service: B
 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1
 Volume Module:
 Base Vol: 131 1560 58 24 1726 177 173 9 89 48 3 20
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 131 1560 58 24 1726 177 173 9 89 48 3 20
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 135 1603 60 25 1774 182 178 9 91 49 3 21
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 135 1603 60 25 1774 182 178 9 91 49 3 21
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 135 1603 60 25 1774 182 178 9 91 49 3 21
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat: 1700 4917 183 1700 4626 474 1700 156 1544 1600 100 1700
 Capacity Analysis Module:
 Vol/Sat: 0.08 0.33 0.33 0.01 0.38 0.38 0.10 0.06 0.06 0.03 0.03 0.01
 Crit Moves: ****

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection	9.6											
Intersection Delay, s/veh	A											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBR	WBU	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	30	4	47	0	2	5	10	0	68	216	3
Future Vol, veh/h	0	30	4	47	0	2	5	10	0	68	216	3
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	5	56	0	2	6	12	0	81	257	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0

Approach	EB	WB	WB	NB
Opposing Approach	WB	EB	WB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	EB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	WB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	9.1	8.5	8.5	10
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	39%	0%	37%	12%	6%	0%
Vol Thru, %	61%	97%	5%	29%	94%	73%
Vol Right, %	0%	3%	58%	59%	0%	27%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	176	111	81	17	125	162
LT Vol	68	0	30	2	7	0
Through Vol	108	108	4	5	118	118
RT Vol	0	3	47	10	0	44
Lane Flow Rate	210	132	96	20	149	193
Geometry Grp	7	7	2	2	7	7
Degree of Utlr (X)	0.311	0.188	0.139	0.03	0.215	0.266
Departure Headway (Hd)	5.345	5.131	5.178	5.258	5.191	4.972
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	670	696	689	675	689	719
Service Time	3.096	2.883	3.237	3.335	2.942	2.723
HCM Lane V/C Ratio	0.313	0.19	0.139	0.03	0.216	0.268
HCM Control Delay	10.5	9.1	9.1	8.5	9.4	9.5
HCM Lane LOS	B	A	A	A	A	A
HCM 95th-tile Q	1.3	0.7	0.5	0.1	0.8	1.1

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection	9.5					
Intersection Delay, s/veh	A					
Intersection LOS	A					
Movement	SBU	SBL	SBT	SBR	SBU	SBR
Traffic Vol, veh/h	0	7	236	44	0	44
Future Vol, veh/h	0	7	236	44	0	44
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	281	52	0	52
Number of Lanes	0	0	2	0	2	0

Approach	SB	SB
Opposing Approach	NB	NB
Opposing Lanes	2	2
Conflicting Approach Left	WB	WB
Conflicting Lanes Left	1	1
Conflicting Approach Right	EB	EB
Conflicting Lanes Right	1	1
HCM Control Delay	9.5	9.5
HCM LOS	A	A

Lane

HCM 2010 AWSC
10: Montecito Road & Mainway Drive/Rossmoor Center Way

12/1/2016

Intersection	10.1															
Intersection Delay, s/veh	B															
Intersection LOS	B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	42	35	56	0	36	39	72	0	30	133	26	0	44	183	40
Future Vol, veh/h	0	42	35	56	0	36	39	72	0	30	133	26	0	44	183	40
Peak Hour Factor	0.92	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	50	42	67	0	43	46	86	0	36	158	31	0	52	218	48
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	2
Approach	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Opposing Approach	WB	WB	WB	WB	EB	EB	EB	EB	SB	SB	SB	SB	WB	WB	WB	WB
Opposing Lanes	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Approach Left	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Lanes Left	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Approach Right	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Lanes Right	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
HCM Control Delay	10.2	10.2	10.3	10.3	10.3	10.3	10.3	10.3	9.9	9.9	9.9	10.5	10.5	10.5	10.5	10.5
HCM LOS	B	B	B	B	B	B	B	B	A	A	A	B	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	31%	0%	32%	24%	32%	0%	0%	0%
Vol Thru, %	69%	72%	26%	27%	68%	70%	70%	70%
Vol Right, %	0%	28%	42%	49%	0%	30%	0%	30%
Sign Control	Stop							
Traffic Vol by Lane	97	93	133	147	136	132	0	0
LT Vol	30	0	42	36	44	0	0	0
Through Vol	67	67	35	39	92	92	0	0
RT Vol	0	26	56	72	0	40	0	0
Lane Flow Rate	115	110	158	175	161	157	0	0
Geometry Grp	7	7	2	2	7	7	0	0
Degree of Util (X)	0.193	0.174	0.24	0.261	0.267	0.242	0	0
Departure Headway (Hd)	6.061	5.704	5.449	5.365	5.948	5.567	0	0
Convergence, Y/N	Yes							
Cap	592	629	659	669	605	645	0	0
Service Time	3.797	3.44	3.486	3.402	3.679	3.299	0	0
HCM Lane V/C Ratio	0.194	0.175	0.24	0.262	0.266	0.243	0	0
HCM Control Delay	10.2	9.6	10.2	10.3	10.8	10.1	0	0
HCM Lane LOS	B	A	B	B	B	B	0	0
HCM 95th-ile Q	0.7	0.6	0.9	1	1.1	0.9	0	0

HCM 2010 AWSC
11: Montecito Road & Bradbury Road

02/22/2017

Intersection	10.1															
Intersection Delay, s/veh	B															
Intersection LOS	B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR				
Traffic Vol, veh/h	0	1	17	2	0	149	25	65	0	5	104	107				
Future Vol, veh/h	0	1	17	2	0	149	25	65	0	5	104	107				
Peak Hour Factor	0.92	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.92	0.87	0.87	0.87				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	1	20	2	0	171	29	75	0	6	120	123				
Number of Lanes	0	0	1	0	0	0	1	1	0	0	0	2				
Approach	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB				
Opposing Approach	WB	WB	WB	WB	EB	EB	EB	EB	SB	SB	SB	SB				
Opposing Lanes	2	2	2	2	1	1	1	1	2	2	2	2				
Conflicting Approach Left	2	2	2	2	2	2	2	2	2	2	2	2				
Conflicting Lanes Left	2	2	2	2	2	2	2	2	2	2	2	2				
Conflicting Approach Right	2	2	2	2	2	2	2	2	2	2	2	2				
Conflicting Lanes Right	2	2	2	2	2	2	2	2	2	2	2	2				
HCM Control Delay	9.4	9.4	11	11	11	11	9.5	9.5	9.5	9.5	9.5	9.5				
HCM LOS	A	A	B	B	B	B	A	A	A	A	A	A				

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	9%	0%	5%	5%	86%	0%	40%	0%
Vol Thru, %	91%	33%	85%	14%	0%	0%	60%	95%
Vol Right, %	0%	67%	10%	0%	100%	0%	0%	5%
Sign Control	Stop							
Traffic Vol by Lane	57	159	20	174	65	104	66	0
LT Vol	5	0	1	149	0	41	0	0
Through Vol	52	52	17	25	0	63	63	0
RT Vol	0	107	2	0	65	0	3	0
Lane Flow Rate	66	183	23	200	75	119	75	0
Geometry Grp	7	7	6	7	7	7	7	7
Degree of Util (X)	0.103	0.26	0.039	0.338	0.103	0.193	0.117	0
Departure Headway (Hd)	5.644	5.124	6.117	6.08	4.945	5.839	5.606	0
Convergence, Y/N	Yes							
Cap	630	694	589	586	716	609	633	0
Service Time	3.428	2.908	4.117	3.871	2.734	3.629	3.396	0
HCM Lane V/C Ratio	0.105	0.264	0.039	0.341	0.105	0.195	0.118	0
HCM Control Delay	9.1	9.7	9.4	12	8.3	10	9.1	0
HCM Lane LOS	A	A	A	B	A	A	A	A
HCM 95th-ile Q	0.3	1	0.1	0.1	1.5	0.3	0.7	0.4

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road

Opening Year PM Peak Hour
 02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	41	125	3
Future Vol, veh/h	0	41	125	3
Peak Hour Factor	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	47	144	3
Number of Lanes	0	0	2	0
Approach	SB	SB		
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	2			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	9.7			
HCM LOS	A			

HCM 2010 AWSC
 1.2: West Road & Rossmoor Center Way

12/1/2016

Intersection	EBU	EBT	EBR	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	8							
Intersection LOS	A							
Movement	EBU	EBT	EBR	WBL	WBT	NBU	NBL	NBR
Traffic Vol, veh/h	0	91	17	0	22	137	0	26
Future Vol, veh/h	0	91	17	0	22	137	0	26
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	0	101	19	0	24	152	0	29
Number of Lanes	0	1	0	0	0	1	0	1
Approach	EB	WB	WB	EB	EB	NB	NB	NB
Opposing Approach	WB							
Opposing Lanes	1					0		
Conflicting Approach Left		NB				EB		
Conflicting Lanes Left	0	1				1		
Conflicting Approach Right	NB					WB		
Conflicting Lanes Right	1					0		1
HCM Control Delay	7.8	8.2				7.8		
HCM LOS	A	A				A		
Lane	NBU	EBU	WBU	NBU				
Vol Left, %	70%	0%	14%					
Vol Thru, %	0%	84%	86%					
Vol Right, %	30%	16%	0%					
Sign Control	Stop	Stop	Stop					
Traffic Vol by Lane	37	108	159					
LT Vol	26	0	22					
Through Vol	0	91	137					
RT Vol	11	17	0					
Lane Flow Rate	41	120	177					
Geometry Grp	1	1	1					
Degree of Util (X)	0.052	0.135	0.202					
Departure Headway (Hd)	4.536	4.046	4.125					
Convergence, Y/N	Yes	Yes	Yes					
Cap	794	877	864					
Service Time	2.536	2.115	2.18					
HCM Lane V/C Ratio	0.052	0.137	0.205					
HCM Control Delay	7.8	7.8	8.2					
HCM Lane LOS	A	A	A					
HCM 95th-ile Q	0.2	0.5	0.8					

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection Delay, s/veh13.2															
Intersection LOS B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	22	73	27	0	185	107	85	0	43	44	180	0	76	34
Future Vol, veh/h	0	22	73	27	0	185	107	85	0	43	44	180	0	76	34
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	76	28	0	193	111	89	0	45	46	188	0	79	35
Number of Lanes	0	0	2	0	0	1	0	0	0	0	1	0	0	0	1

Approach		EB	WB	NB	SB
Opposing Approach	WB	EB	WB	NB	SB
Opposing Lanes	1	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB	WB
Conflicting Lanes Left	1	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB	EB
Conflicting Lanes Right	1	1	1	2	2
HCM Control Delay	9.7	16	16	12	10.7
HCM LOS	A	C	C	B	B

Lane		NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %		16%	38%	0%	49%	54%
Vol Thru, %		16%	62%	57%	28%	24%
Vol Right, %		67%	0%	43%	23%	21%
Sign Control		Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane		267	59	64	377	140
LT Vol		43	22	0	185	76
Through Vol		44	37	37	107	34
RT Vol		180	0	27	85	30
Lane Flow Rate		278	61	66	393	146
Geometry Grp		2	7	7	5	2
Degree of Util (X)		0.408	0.11	0.11	0.59	0.237
Departure Headway (Hd)		5.278	6.478	5.984	5.409	5.85
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes
Cap		679	551	597	668	611
Service Time		3.333	4.238	3.743	3.454	3.915
HCM Lane V/C Ratio		0.409	0.111	0.111	0.588	0.239
HCM Control Delay		12	10	9.5	16	10.7
HCM Lane LOS		B	A	A	C	B
HCM 95th-ile Q		2	0.4	0.4	3.9	0.9

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection Delay, s/veh11.8														
Intersection LOS B														
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT				
Traffic Vol, veh/h	0	86	295	0	43	66	0	233	55	55				
Future Vol, veh/h	0	86	295	0	43	66	0	233	55	55				
Peak Hour Factor	0.92	0.89	0.89	0.92	0.89	0.89	0.92	0.89	0.89	0.89				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	97	331	0	48	74	0	262	62	62				
Number of Lanes	0	1	1	0	1	0	0	0	0	1				

Approach		WB	NB	SB
Opposing Approach	WB <td>NB <td>SB <td>NB</td> </td></td>	NB <td>SB <td>NB</td> </td>	SB <td>NB</td>	NB
Opposing Lanes	0	1	1	1
Conflicting Approach Left	NB	WB	WB	WB
Conflicting Lanes Left	1	0	2	2
Conflicting Approach Right	SB	WB	WB	0
Conflicting Lanes Right	1	2	2	0
HCM Control Delay	11.5	9.2	13.1	13.1
HCM LOS	B	A	A	B

Lane		NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %		0%	100%	0%	81%
Vol Thru, %		39%	0%	0%	19%
Vol Right, %		61%	0%	100%	0%
Sign Control		Stop	Stop	Stop	Stop
Traffic Vol by Lane		109	86	295	288
LT Vol		0	86	0	233
Through Vol		43	0	0	55
RT Vol		66	0	295	0
Lane Flow Rate		122	97	331	324
Geometry Grp		2	7	7	2
Degree of Util (X)		0.175	0.165	0.456	0.473
Departure Headway (Hd)		5.14	6.16	4.949	5.26
Convergence, Y/N		Yes	Yes	Yes	Yes
Cap		702	577	719	676
Service Time		3.14	3.955	2.742	3.35
HCM Lane V/C Ratio		0.174	0.168	0.46	0.479
HCM Control Delay		9.2	10.2	11.9	13.1
HCM Lane LOS		A	B	B	B
HCM 95th-ile Q		0.6	0.6	2.4	2.5

HCM 2010 TWSC

15: Project Driveway & Rossmoor Center Way

12/1/2016

Intersection	1 2					
Int Delay, s/veh	EBT	EBR	WBL	WBT	NBL	NBR
Movement	89	1	20	167	4	20
Traffic Vol, veh/h	89	1	20	167	4	20
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	Free	Free	Free	Free	Stop	Stop
Sign Control	-	None	-	None	-	None
RT Channelized	-	-	-	-	-	-
Storage Length	0	-	0	0	0	-
Veh in Median Storage, #	0	-	0	0	0	-
Grade, %	93	93	93	93	93	93
Peak Hour Factor	2	2	2	2	2	2
Heavy Vehicles, %	96	1	22	180	4	22
Mvmt Flow						
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	97	0	319	96
Stage 1	-	-	-	-	96	-
Stage 2	-	-	-	-	223	-
Critical Hwy	-	-	4.12	-	6.42	6.22
Critical Hwy Stg 1	-	-	-	-	5.42	-
Critical Hwy Stg 2	-	-	-	-	5.42	-
Follow-up Hwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1496	-	674	960
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	814	-
Platoon blocked, %	-	-	-	-	663	960
Mov Cap-1 Maneuver	-	-	1496	-	663	-
Mov Cap-2 Maneuver	-	-	-	-	928	-
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.8	9.2			
HCM LOS		A				
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	833	-	-	1496	-	
HCM Lane V/C Ratio	0.029	-	-	0.014	-	
HCM Control Delay (s)	9.2	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %ile Q(veh)	0.1	-	-	0	-	

HCM 2010 Signalized Intersection Summary

1: Seal Beach Boulevard & I-405 SB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4TB			4							
Traffic Volume (veh/h)	148	26	16	549	37	504	9	1114	275	428	1126	132
Future Volume (veh/h)	148	26	16	549	37	504	9	1114	275	428	1126	132
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Cb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	157	28	17	612	0	0	10	1185	293	455	1198	140
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	118	72	44	684	0	305	21	1320	411	498	2769	862
Arrive On Green	0.07	0.07	0.07	0.19	0.00	0.00	0.01	0.26	0.26	0.56	1.00	1.00
Sat Flow, veh/h	1774	1087	660	3548	0	1593	1774	5085	1593	1774	5085	1593
Grp Volume(v), veh/h	157	0	45	612	0	0	10	1185	293	455	1198	140
Grp Sat Flow(s), veh/h	1774	0	1746	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	7.3	0.0	2.7	18.5	0.0	0.0	0.6	24.7	18.5	25.4	0.0	0.0
Cycle Q Clear(g.c), s	7.3	0.0	2.7	18.5	0.0	0.0	0.6	24.7	18.5	25.4	0.0	0.0
Prop In Lane	1.00	0.38	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	118	0	116	684	0	305	21	1320	411	498	2769	862
V/C Ratio(X)	1.33	0.00	0.39	0.90	0.00	0.00	0.47	0.90	0.71	0.91	0.43	0.16
Avail Cap(c.a), veh/h	118	0	116	748	0	334	81	1350	420	498	2769	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(i)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	51.4	0.0	49.2	43.3	0.0	0.0	54.0	39.3	37.0	22.9	0.0	0.0
Incr Delay (d2), s/veh	196.7	0.0	2.1	12.7	0.0	0.0	15.3	9.9	10.1	19.6	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back(Q(50%)) veh/h	10.0	0.0	1.4	10.3	0.0	0.0	0.4	12.7	9.2	14.8	0.1	0.1
LnGrp Delay(d), s/veh	248.1	0.0	51.3	56.0	0.0	0.0	69.3	49.2	47.1	42.5	0.4	0.4
LnGrp LOS	F	D	E	E	D	E	D	D	D	D	A	A
Approach Vol, veh/h	202			612			1488				1793	
Approach Delay, s/veh	204.2			56.0			48.9				11.1	
Approach LOS	F			E			D				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	36.7	34.3		12.0	5.3	65.7	27.0					
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8	5.8					
Max Green Setting (Gmax), s	30.0	* 29		* 7.3	5.0	54.2	23.2					
Max Q Clear Time (g_c+I), s	27.4	26.7		9.3	2.6	2.0	20.5					
Green Ext Time (p_c), s	0.5	1.8		0.0	0.0	14.0	0.7					
Intersection Summary	41.1											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS												
Notes												

12/1/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	8	8	7	359	5	585	15	1377	381	266	1324	243
Traffic Volume (veh/h)	8	8	7	359	5	585	15	1377	381	266	1324	243
Future Volume (veh/h)	8	8	7	359	5	585	15	1377	381	266	1324	243
Number	7	4	4	14	3	8	18	5	2	12	1	6
Initial Q (Obs.) veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	8	8	7	378	0	619	16	1449	0	280	1394	256
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Cap. veh/h	41	43	36	841	0	750	708	2132	664	242	1696	528
Arrive On Green	0.02	0.02	0.02	0.24	0.00	0.24	0.41	0.84	0.00	0.14	0.33	0.33
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	8	8	7	378	0	619	16	1449	0	280	1394	256
Grp Sat Flow(s), veh/h/m/1774	1863	1583	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g.s.)	0.5	0.5	0.5	10.0	0.0	20.4	0.3	11.8	0.0	15.0	27.7	14.1
Cycle Q Clear(g.s.)	0.5	0.5	0.5	10.0	0.0	20.4	0.3	11.8	0.0	15.0	27.7	14.1
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	41	43	36	841	0	750	708	2132	664	242	1696	528
V/C Ratio(X)	0.20	0.19	0.19	0.45	0.00	0.83	0.02	0.68	0.00	1.16	0.82	0.48
Avail Cap(c), veh/h	81	85	72	1258	0	1123	708	2132	664	242	1696	528
HCM Platoom Ratio	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.66	0.66	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	52.7	52.7	35.8	0.0	39.8	25.8	6.1	0.0	47.5	33.7	28.1
Incr Delay (d2), s/veh	2.3	2.1	2.5	0.4	0.0	3.2	0.0	1.2	0.0	107.0	4.6	3.2
Initial Q Delay(Q3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/In0.3	0.3	0.2	0.4	0.9	0.0	0.9	0.1	5.3	0.0	14.5	13.6	6.7
LnGrp Delay(d), s/veh	55.1	54.8	55.3	36.2	0.0	43.0	25.8	7.3	0.0	154.5	38.3	32.3
LnGrp LOS	E	D	E	D	D	C	A	F	D	C	D	C
Approach Vol, veh/h	23	550	405	987	1465	1930	54.4					
Approach Delay, s/veh	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0
Approach LOS	E	E	E	D	D	A	D					
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	90	519	7.2	28.4	42.5	31.9						
Change Period (Y+Rc), s	4.0	5.8	* 4.7	5.8	* 5.8	5.8						
Max Green Setting (Gmax), s	30.7	* 5.0	* 5.0	* 4.1	39.0							
Max Q Clear Time (g_c+I+I), s	13.8	2.5	2.3	29.7	22.4							
Green Ext Time (p_c), s	0.0	9.0	0.0	2.0	7.0	3.7						

Intersection Summary	35.7
HCM 2010 Ctrl Delay	D
HCM 2010 LOS	D
Notes	

Health Club within the Shops at Rossmoor
 Opening Year (2018) No Project
 Saturday Peak Hour

Level of Service Computation Report
 (Base Volume Alternative)

ICU I (Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Seal Beach Blvd/Lampson Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.794
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 65 Level Of Service: C

Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Permitted
Rights:	Ovl	Include	Ovl	Include	Ovl	Ovl
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	0 0 3 0 1	2 0 3 0 0	0 0 0 0 0	0 0 0 0 0	2 0 0 0 1	2 0 0 0 1

Volume Module:

Base Vol:	0	1578	364	514	1482	0	0	0	0	364	0	572
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1578	364	514	1482	0	0	0	0	364	0	572
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	1697	391	553	1594	0	0	0	0	391	0	615
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1697	391	553	1594	0	0	0	0	391	0	615
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	1697	391	553	1594	0	0	0	0	391	0	615
OvAdjVol:	0	1697	391	553	1594	0	0	0	0	391	0	615

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	3.00	2.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00
Final Sat.:	0	5100	1700	3400	5100	0	0	0	0	3400	0	1700

Capacity Analysis Module:

Vol/Sat:	0.00	0.33	0.23	0.16	0.31	0.00	0.00	0.00	0.00	0.12	0.00	0.36
OvAdjV/S:	0.00	0.33	0.23	0.16	0.31	0.00	0.00	0.00	0.00	0.12	0.00	0.36
Crit Moves:	0	0	0	0	0	0	0	0	0	0	0	0

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.851
 Loss Time (sec): 80 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 80 Level Of Service: D
 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0	1	0	1
Lanes:	1	0	2	1	0	1	0	1

Volume Module:
 Base Vol: 294 1278 109 93 1085 152 120 84 245 175 90 89
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 294 1278 109 93 1085 152 120 84 245 175 90 89
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 310 1348 115 98 1145 160 127 89 258 185 95 94
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 310 1348 115 98 1145 160 127 89 258 185 95 94
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 310 1348 115 98 1145 160 127 89 258 185 95 94

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.76 0.24 1.00 2.63 0.37 1.00 0.26 0.74 1.00 0.50
 Final Sat.: 1700 4699 401 1700 4473 627 1700 434 1266 1700 855 845

Capacity Analysis Module:
 Vol/Sat: 0.18 0.29 0.29 0.06 0.26 0.26 0.07 0.20 0.20 0.11 0.11 0.11
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.668
 Loss Time (sec): 46 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 46 Level Of Service: B
 Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	2	0	2	1	0	1	0	2
Lanes:	2	0	2	1	0	1	0	2

Volume Module:
 Base Vol: 366 1643 174 17 1398 73 111 2 402 176 35 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 366 1643 174 17 1398 73 111 2 402 176 35 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 395 1772 188 18 1508 79 120 2 434 190 38 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 395 1772 188 18 1508 79 120 2 434 190 38 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 395 1772 188 18 1508 79 120 2 434 190 38 5
 OrLAdjVol: 395 1772 188 18 1508 79 120 2 434 190 38 5

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.71 0.29 1.00 2.85 0.15 0.98 0.02 2.00 1.63 0.32 0.05
 Final Sat.: 3400 4612 488 1700 4847 253 1670 30 3400 2770 551 79

Capacity Analysis Module:
 Vol/Sat: 0.12 0.38 0.38 0.01 0.31 0.31 0.07 0.07 0.13 0.07 0.07 0.07
 OrLAdjV/S: 0.12 0.38 0.38 0.01 0.31 0.31 0.07 0.07 0.13 0.07 0.07 0.07
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.647
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 44 Level Of Service: B

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 112 1430 44 22 1523 126 178 8 97 64 7 21
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 112 1430 44 22 1523 126 178 8 97 64 7 21
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 114 1459 45 22 1554 129 182 8 99 65 7 21
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 114 1459 45 22 1554 129 182 8 99 65 7 21
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 114 1459 45 22 1554 129 182 8 99 65 7 21

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.91 0.09 1.00 2.77 0.23 1.00 0.08 0.92 0.90 0.10 1.00
 Final Sat.: 1700 4948 152 1700 4710 390 1700 130 1570 1532 168 1700

Capacity Analysis Module:
 Vol/Sat: 0.07 0.29 0.29 0.01 0.33 0.33 0.11 0.06 0.06 0.04 0.04 0.01
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.681
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 205 1467 15 25 1424 231 190 4 153 19 2 14
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 205 1467 15 25 1424 231 190 4 153 19 2 14
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 210 1506 15 26 1462 237 195 4 157 20 2 14
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 210 1506 15 26 1462 237 195 4 157 20 2 14
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 210 1506 15 26 1462 237 195 4 157 20 2 14

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.97 0.03 1.00 2.58 0.42 1.00 0.03 0.97 1.00 0.13 0.87
 Final Sat.: 1700 5048 52 1700 4388 712 1700 43 1657 1700 213 1487

Capacity Analysis Module:
 Vol/Sat: 0.12 0.30 0.30 0.02 0.33 0.33 0.11 0.09 0.09 0.01 0.01 0.01
 Crit Moves: ****

12/1/2016

8: Yellowtail Drive & Saint Cloud Drive

12/1/2016

Intersection																
Int Delay, s/veh												1				
Intersection LOS												A				
Movement	EBT	EBR	WBL	WBT	NBL	NBR										
Traffic Vol, veh/h	461	1	43	424	4	44										
Future Vol, veh/h	461	1	43	424	4	44										
Conflicting Peds, #/hr	0	0	0	0	0	0										
Sign Control	Free	Free	Free	Free	Stop	Stop										
RT Channelized	-	None	-	None	-	None										
Storage Length	-	-	-	-	0	-										
Veh in Median Storage, #	0	-	-	0	0	-										
Grade, %	0	-	-	0	0	-										
Peak Hour Factor	94	94	94	94	94	94										
Heavy Vehicles, %	2	2	2	2	2	2										
Mvmt Flow	490	1	46	451	4	47										
Major/Minor																
Major1												Minor1				
Conflicting Flow All	0	0	491	0	808	246										
Stage 1	-	-	-	-	491	-										
Stage 2	-	-	-	-	317	-										
Critical Hwy	-	-	4.14	-	7.54	6.94										
Critical Hwy Stg 1	-	-	-	-	6.54	-										
Critical Hwy Stg 2	-	-	-	-	6.54	-										
Follow-up Hwy	-	-	2.22	-	3.52	3.32										
Pot Cap-1 Maneuver	-	-	1069	-	272	764										
Stage 1	-	-	-	-	528	-										
Stage 2	-	-	-	-	669	-										
Platoon blocked, %	-	-	-	-	-	-										
Mov Cap-1 Maneuver	-	-	1069	-	260	764										
Mov Cap-2 Maneuver	-	-	-	-	260	-										
Stage 1	-	-	-	-	528	-										
Stage 2	-	-	-	-	631	-										
Approach																
EB												WB	NB			
HCM Control Delay, s												11	11			
HCM LOS												B	B			
Minor Lane/Major Mvmt																
NBLn1												EBT	EBR	WBL	WBT	
Capacity (veh/h)	651												-	-	1069	-
HCM Lane V/C Ratio	0.078												-	-	0.043	-
HCM Control Delay (s)	11												-	-	8.5	0.2
HCM Lane LOS	B												-	-	A	A
HCM 95th %tile Q(veh)	0.3												-	-	0.1	-

12/1/2016

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection																	
Intersection Delay, s/veh												8.8					
Intersection LOS												A					
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR					
Traffic Vol, veh/h	0	35	4	38	0	3	5	5	0	38	179	7					
Future Vol, veh/h	0	35	4	38	0	3	5	5	0	38	179	7					
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					
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2					
Mvmt Flow	0	38	4	41	0	3	5	5	0	41	195	8					
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2					
Approach																	
EB												WB	NB				
Opposing Approach	WB												EB	SB			
Oposing Lanes	1												1	2			
Conflicting Approach Left	SB												NB	EB			
Conflicting Lanes Left	2												2	1			
Conflicting Approach Right	NB												SB	WB			
Conflicting Lanes Right	2												2	1			
HCM Control Delay	8.6												8.2	8.9			
HCM LOS	A												A	A			
Lane																	
NBLn1												NBLn2	EBLn1	WBLn1	SBLn1	SBLn2	
Vol Left, %	30%												0%	45%	23%	6%	0%
Vol Thru, %	70%												93%	5%	38%	94%	85%
Vol Right, %	0%												7%	49%	38%	0%	15%
Sign Control	Stop												Stop	Stop	Stop	Stop	
Traffic Vol by Lane	128												97	77	13	126	140
LT Vol	38												0	35	3	7	0
Through Vol	90												90	4	5	119	119
RT Vol	0												7	38	5	0	21
Lane Flow Rate	139												105	84	14	136	152
Geometry Grp	7												7	2	2	7	7
Degree of Utl (X)	0.199												0.145	0.115	0.02	0.19	0.206
Departure Headway (Ht)	5.182												4.981	4.931	5.061	5.025	4.891
Convergence, Y/N	Yes												Yes	Yes	Yes	Yes	Yes
Cap	693												720	726	705	713	734
Service Time	2.915												2.714	2.968	3.107	2.756	2.622
HCM Lane V/C Ratio	0.201												0.146	0.116	0.02	0.191	0.207
HCM Control Delay	9.2												8.6	8.6	8.2	8.9	8.9
HCM Lane LOS	A												A	A	A	A	A
HCM 95th %tile Q	0.7												0.5	0.4	0.1	0.7	0.8

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection						
Intersection Delay, s/veh 9.7						
Intersection LOS A						
Movement	SBU	SBL	SBT	SBR	SBL	SBR
Traffic Vol, veh/h	0	7	237	21		
Future Vol, veh/h	0	7	237	21		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Heavy Vehicles, %	2	2	2	2		
Mvmt Flow	0	8	258	23		
Number of Lanes	0	0	2	0		
Approach	SB	SB	SB	SB	SB	SB
Opposing Approach	NB	NB	NB	NB	NB	NB
Opposing Lanes	2	2	2	2	2	2
Conflicting Approach Left	WB	WB	WB	WB	WB	WB
Conflicting Lanes Left	1	1	1	1	1	1
Conflicting Approach Right	EB	EB	EB	EB	EB	EB
Conflicting Lanes Right	1	1	1	1	1	1
HCM Control Delay	8.9	8.9	8.9	8.9	8.9	8.9
HCM LOS	A	A	A	A	A	A
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	42%	0%	28%	16%	36%	0%
Vol Thru, %	58%	69%	28%	46%	64%	71%
Vol Right, %	0%	31%	43%	38%	0%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	113	95	148	113	127	115
LT Vol	47	0	42	18	45	0
Through Vol	66	66	42	52	82	82
RT Vol	0	29	64	43	0	33
Lane Flow Rate	125	105	164	126	141	127
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.204	0.159	0.234	0.184	0.227	0.192
Departure Headway (Hd)	5.886	5.457	5.238	5.287	5.809	5.425
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	613	659	689	681	621	664
Service Time	3.599	3.17	3.238	3.308	3.52	3.136
HCM Lane V/C Ratio	0.204	0.159	0.238	0.185	0.227	0.191
HCM Control Delay	10.1	9.2	9.8	9.5	10.2	9.4
HCM Lane LOS	B	A	A	A	B	A
HCM 95th-ile Q	0.8	0.6	0.9	0.7	0.9	0.7

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmore Center Way

12/1/2016

Intersection															
Intersection Delay, s/veh 9.7															
Intersection LOS A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	42	42	64	0	18	52	43	0	47	131	29	0	45	163
Future Vol, veh/h	0	42	42	64	0	18	52	43	0	47	131	29	0	45	163
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	47	47	71	0	20	58	48	0	52	146	32	0	50	181
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0	0	0	2
Approach	EB	EB	WB	WB	EB	NB	NB	SB							
Opposing Approach	WB	WB	EB	EB	NB	NB	NB	SB							
Opposing Lanes	1	1	2	2	1	1	1	2	2	2	2	2	2	2	2
Conflicting Approach Left	SB	SB	NB	NB	EB	EB	WB								
Conflicting Lanes Left	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1
Conflicting Approach Right	NB	NB	SB	SB	WB	WB	EB								
Conflicting Lanes Right	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1
HCM Control Delay	9.8	9.8	9.5	9.5	9.7	9.7	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
HCM LOS	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn1	SBLn2	SBLn1	SBLn2	SBLn1	SBLn2	SBLn1
Vol Left, %	42%	0%	28%	16%	36%	0%									
Vol Thru, %	58%	69%	28%	46%	64%	71%									
Vol Right, %	0%	31%	43%	38%	0%	29%									
Sign Control	Stop														
Traffic Vol by Lane	113	95	148	113	127	115									
LT Vol	47	0	42	18	45	0									
Through Vol	66	66	42	52	82	82									
RT Vol	0	29	64	43	0	33									
Lane Flow Rate	125	105	164	126	141	127									
Geometry Grp	7	7	2	2	7	7									
Degree of Util (X)	0.204	0.159	0.234	0.184	0.227	0.192									
Departure Headway (Hd)	5.886	5.457	5.238	5.287	5.809	5.425									
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes									
Cap	613	659	689	681	621	664									
Service Time	3.599	3.17	3.238	3.308	3.52	3.136									
HCM Lane V/C Ratio	0.204	0.159	0.238	0.185	0.227	0.191									
HCM Control Delay	10.1	9.2	9.8	9.5	10.2	9.4									
HCM Lane LOS	B	A	A	A	B	A									
HCM 95th-ile Q	0.8	0.6	0.9	0.7	0.9	0.7									

HCM 2010 AWSC
 11: Montecito Road & Bradbury Road
 Opening Year Saturday Peak Hour
 02/22/2017

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations	0	1	15	4	0	116	20	70	0	3	72	95
Traffic Vol, veh/h	0	1	15	4	0	116	20	70	0	3	72	95
Future Vol, veh/h	0	1	15	4	0	116	20	70	0	3	72	95
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	15	4	0	120	21	72	0	3	74	98
Number of Lanes	0	1	0	1	0	1	1	1	0	0	2	0

Approach	EB	WB	WB	NB	NB
Opposing Approach	WB	EB	WB	NB	SB
Opposing Lanes	2	1	1	2	2
Conflicting Approach Left	SB	NB	NB	EB	EB
Conflicting Lanes Left	2	2	2	1	1
Conflicting Approach Right	NB	SB	SB	WB	WB
Conflicting Lanes Right	2	2	2	2	2
HCM Control Delay	8.7	8.7	9.3	8.6	8.6
HCM LOS	A	A	A	A	A

Lane	NBLn1	NBLn2	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	8%	0%	5%	5%	0%	85%	0%	44%	0%
Vol Thru, %	92%	27%	75%	15%	0%	56%	96%	0%	0%
Vol Right, %	0%	73%	20%	0%	100%	0%	4%	0%	4%
Sign Control	Stop								
Traffic Vol by Lane	39	131	20	136	70	82	48	0	0
LT Vol	3	0	1	116	0	36	0	0	0
Through Vol	36	36	15	20	0	46	46	0	0
RT Vol	0	95	4	0	70	0	2	0	0
Lane Flow Rate	40	135	21	140	72	84	49	0	0
Geometry Grp	7	7	6	7	7	7	7	7	7
Degree of Utl (X)	0.06	0.18	0.031	0.223	0.092	0.129	0.072	0.092	0.072
Departure Headway (Hd)	5.335	4.785	5.462	5.737	4.606	5.544	5.292	5.462	5.292
Convergence, Y/N	Yes								
Cap	671	748	652	775	645	675	645	675	645
Service Time	3.074	2.525	3.521	3.481	2.35	3.288	3.036	3.036	3.036
HCM Lane V/C Ratio	0.06	0.18	0.032	0.224	0.093	0.13	0.073	0.093	0.073
HCM Control Delay	8.4	8.6	8.7	10.1	7.8	9.1	8.4	8.4	8.4
HCM Lane LOS	A	A	A	B	A	A	A	A	A
HCM 95th-tile Q	0.2	0.7	0.1	0.8	0.3	0.4	0.2	0.4	0.2

HCM 2010 AWSC
 11: Montecito Road & Bradbury Road
 Opening Year Saturday Peak Hour
 02/22/2017

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations	0	36	91	2
Traffic Vol, veh/h	0	36	91	2
Future Vol, veh/h	0	36	91	2
Peak Hour Factor	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	94	2
Number of Lanes	0	0	2	0

Approach	SB	SB	SB	A
Opposing Approach	NB	NB	NB	A
Opposing Lanes	2	2	2	2
Conflicting Approach Left	WB	WB	WB	A
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	EB	EB	EB	A
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.8	8.8	8.8
HCM LOS	A	A	A	A

HCM 2010 AWSC

12: West Road & Rossmoor Center Way

12/1/2016

Intersection												
Intersection Delay, s/veh 7.8												
Intersection LOS A												
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR			
Traffic Vol, veh/h	0	83	16	0	10	119	0	26	17			
Future Vol, veh/h	0	83	16	0	10	119	0	26	17			
Peak Hour Factor	0.92	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	91	18	0	11	131	0	29	19			
Number of Lanes	0	1	0	0	0	1	0	1	0			

Approach												
	EB	WB	WB	EB	NB	NB						
Opposing Approach	WB	EB	EB	WB	NB	NB						
Opposing Lanes	1	1	1	1	0	0						
Conflicting Approach Left	0	NB	NB	EB	WB	WB						
Conflicting Lanes Left	0	1	1	1	1	1						
Conflicting Approach Right	NB	0	0	WB	NB	NB						
Conflicting Lanes Right	1	0	0	1	1	1						
HCM Control Delay	7.7	8	8	7.6	7.6	7.6						
HCM LOS	A	A	A	A	A	A						

Lane												
	NBLn1	EBLn1	WBLn1	NBLn1								
Vol Left, %	60%	0%	8%	0%								
Vol Thru, %	0%	84%	92%	0%								
Vol Right, %	40%	16%	0%	0%								
Sign Control	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	43	99	129	26								
LT Vol	26	0	10	0								
Through Vol	0	83	119	0								
RT Vol	17	16	0	0								
Lane Flow Rate	47	109	142	1								
Geometry Grp	1	1	1	1								
Degree of Util (X)	0.057	0.122	0.162	0.057								
Departure Headway (Hd)	4.359	4.027	4.115	4.359								
Convergence, Y/N	Yes	Yes	Yes	Yes								
Cap	826	882	866	826								
Service Time	2.359	2.088	2.167	2.359								
HCM Lane V/C Ratio	0.057	0.124	0.164	0.057								
HCM Control Delay	7.6	7.7	8	7.6								
HCM Lane LOS	A	A	A	A								
HCM 95th-tile Q	0.2	0.4	0.6	0.2								

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection														
Intersection Delay, s/veh 18.5														
Intersection LOS C														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	21	101	36	0	216	94	107	0	43	65	217	0	97
Future Vol, veh/h	0	21	101	36	0	216	94	107	0	43	65	217	0	97
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	107	38	0	230	100	114	0	46	69	231	0	103
Number of Lanes	0	0	2	0	0	0	1	0	0	0	1	0	0	1

Approach														
	EB	EB	WB	WB	EB	NB	NB	SB	SB	SB	SB	SB		
Opposing Approach	WB	WB	EB	EB	NB	NB	SB	SB	SB	SB	SB	SB		
Opposing Lanes	1	1	2	2	1	1	1	1	1	1	1	1		
Conflicting Approach Left	SB	SB	NB	NB	EB	WB								
Conflicting Lanes Left	1	1	1	1	2	2	2	2	2	2	2	2		
Conflicting Approach Right	NB	NB	SB	SB	WB									
Conflicting Lanes Right	1	1	1	1	1	1	1	1	1	1	1	1		
HCM Control Delay	11.1	11.1	24.9	24.9	16.6	16.6	13.4	13.4	13.4	13.4	13.4	13.4		
HCM LOS	B	B	C	C	C	C	B	B	B	B	B	B		

Lane													
	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1								
Vol Left, %	13%	29%	0%	52%	53%								
Vol Thru, %	20%	71%	58%	23%	34%								
Vol Right, %	67%	0%	42%	26%	13%								
Sign Control	Stop	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	325	72	87	417	162								
LT Vol	43	21	0	216	97								
Through Vol	65	51	51	94	61								
RT Vol	217	0	36	107	24								
Lane Flow Rate	346	76	92	444	194								
Geometry Grp	2	7	7	5	2								
Degree of Util (X)	0.569	0.153	0.174	0.747	0.358								
Departure Headway (Hd)	5.929	7.248	6.799	6.058	6.652								
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes								
Cap	609	494	526	594	540								
Service Time	3.98	5.009	4.559	4.103	4.711								
HCM Lane V/C Ratio	0.568	0.154	0.175	0.747	0.359								
HCM Control Delay	16.6	11.3	11	24.9	13.4								
HCM Lane LOS	C	B	B	C	B								
HCM 95th-tile Q	3.6	0.5	0.6	6.6	1.6								

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection										
Intersection Delay, s/veh 16.3										
Intersection LOS C										
Movement	WBU	WBL	WBR	NBU	NBL	NBR	SBU	SBL	SBT	SBT
Traffic Vol, veh/h	0	133	398	0	70	102	0	342	53	53
Future Vol, veh/h	0	133	398	0	70	102	0	342	53	53
Peak Hour Factor	0.92	0.97	0.97	0.92	0.97	0.97	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	137	410	0	72	105	0	353	55	55
Number of Lanes	0	1	1	0	1	0	0	0	0	1
Approach	WB		WB		NB		SB		SB	
Opposing Approach	0		0		1		1		1	
Opposing Lanes	0		0		1		1		1	
Conflicting Approach Left	NB		WB		WB		WB		2	
Conflicting Lanes Left	1		0		0		0		2	
Conflicting Approach Right	SB		WB		WB		WB		0	
Conflicting Lanes Right	1		2		2		2		0	
HCM Control Delay	15.7		11		11		19.3		C	
HCM LOS	C		B		B		C		C	
Lane	NBLn1 WBLn1 WBLn2		SBLn1		SBLn1		SBLn1		SBLn1	
Vol Left, %	0%		100%		0%		87%		0%	
Vol Thru, %	41%		0%		0%		13%		0%	
Vol Right, %	59%		0%		100%		0%		0%	
Sign Control	Stop		Stop		Stop		Stop		Stop	
Traffic Vol by Lane	172		133		398		395		342	
LT Vol	0		133		0		342		0	
Through Vol	70		0		0		53		0	
RT Vol	102		0		398		0		0	
Lane Flow Rate	177		137		410		407		342	
Geometry Grp	2		7		7		2		2	
Degree of Util (X)	0.28		0.256		0.626		0.656		0.656	
Departure Headway (Hd)	5.683		6.709		5.492		5.798		5.798	
Convergence, Y/N	Yes		Yes		Yes		Yes		Yes	
Cap	629		535		656		623		623	
Service Time	3.738		4.453		3.236		3.841		3.841	
HCM Lane V/C Ratio	0.281		0.256		0.626		0.653		0.653	
HCM Control Delay	11		11.8		17		19.3		19.3	
HCM Lane LOS	B		B		C		C		C	
HCM 95th-ile Q	1.1		1		4.4		4.8		4.8	

HCM 2010 TWSC

15: Project Driveway & Rossmore Center Way

12/1/2016

Intersection										
Int Delay, s/veh 2.4										
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Traffic Vol, veh/h	100	0	44	124	5	39				
Future Vol, veh/h	100	0	44	124	5	39				
Conflicting Peds, #/hr	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Stop	Stop				
RT Channelized	-	None	-	None	-	None				
Storage Length	-	-	-	-	0	-				
Veh in Median Storage, #	0	-	-	0	0	-				
Grade, %	0	-	-	0	0	-				
Peak Hour Factor	92	92	92	92	92	92				
Heavy Vehicles, %	2	2	2	2	2	2				
Mvmt Flow	109	0	48	135	5	42				
Major/Minor	Major1		Major2		Minor1					
Conflicting Flow All	0	0	109	0	339	109				
Stage 1	-	-	-	-	230	-				
Stage 2	-	-	-	-	6.42	-				
Critical Hdwy	-	-	4.12	-	6.42	6.22				
Critical Hdwy Stg 1	-	-	-	-	5.42	-				
Critical Hdwy Stg 2	-	-	-	-	5.42	-				
Follow-up Hdwy	-	-	2.218	-	3.518	3.318				
Pot Cap-1 Maneuver	-	-	1481	-	657	945				
Stage 1	-	-	-	-	916	-				
Stage 2	-	-	-	-	808	-				
Platoon blocked, %	-	-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	1481	-	634	945				
Mov Cap-2 Maneuver	-	-	-	-	634	-				
Stage 1	-	-	-	-	916	-				
Stage 2	-	-	-	-	780	-				
Approach	EB		WB		NB					
HCM Control Delay, s	0		2		9.2					
HCM LOS	A		A		A					
Minor Lane/Major Mvmt	NBLn1		EBT		WBL					
Capacity (veh/h)	895		-		1481					
HCM Lane V/C Ratio	0.053		-		0.032					
HCM Control Delay (s)	9.2		-		7.5					
HCM Lane LOS	A		-		A					
HCM 95th-ile Q(veh)	0.2		-		0.1					

HCM 2010 Signalized Intersection Summary
1: Seal Beach Boulevard & I-405 SB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	88	28	16	703	44	542	14	1069	168	444	1469	73
Traffic Volume (veh/h)	88	28	16	703	44	542	14	1069	168	444	1469	73
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	97	31	18	807	0	0	15	1175	185	488	1614	80
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	89	55	32	867	0	387	30	1234	384	763	3392	1056
Arrive On Green	0.05	0.05	0.05	0.24	0.00	0.00	0.02	0.24	0.24	0.28	0.45	0.45
Sat Flow, veh/h	1774	1107	643	3548	0	1583	1774	5065	1583	1774	5065	1583
Grp Volume(v), veh/h	97	0	49	807	0	0	15	1175	185	488	1614	80
Grp Sat Flow(s), veh/h/ln	1774	0	1749	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g, s), s	5.5	0.0	3.0	24.5	0.0	0.0	0.9	25.0	11.0	26.5	24.5	3.2
Cycle Q Clear(g, c), s	5.5	0.0	3.0	24.5	0.0	0.0	0.9	25.0	11.0	26.5	24.5	3.2
Prop In Lane	1.00	0.00	0.37	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	89	0	87	867	0	387	30	1234	384	763	3392	1056
V/C Ratio(X)	1.09	0.00	0.56	0.93	0.00	0.00	0.51	0.95	0.48	0.65	0.48	0.08
Avail Cap(c, a), veh/h	89	0	87	867	0	396	81	1234	384	763	3392	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.73	0.73	0.73
Uniform Delay (d), s/veh	52.3	0.0	51.1	40.7	0.0	0.0	53.6	41.0	35.7	32.1	16.9	11.0
Incr Delay (d2), s/veh	123.2	0.0	7.8	15.9	0.0	0.0	12.7	16.4	4.3	1.4	0.4	0.1
Initial Q Delay(d3), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	5.7	0.0	1.6	13.9	0.0	0.0	0.6	13.6	5.3	13.3	11.7	1.4
LnGrp Delay(d), s/veh	175.6	0.0	58.9	56.6	0.0	0.0	66.3	57.4	40.0	33.6	17.3	11.1
LnGrp LOS	F	E	E	E	E	E	E	D	C	B	B	B
Approach Vol, veh/h	146			807			1375			2182		
Approach Delay, s/veh	136.4			56.6			55.2			20.7		
Approach LOS	F			E			E			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+Rc), s	52.5	32.5	10.2	5.8	79.2			32.7				
Change Period (Y+Rc), s	3.0	* 5.8	* 4.7	4.0	5.8			5.8				
Max Green Setting (Gmax), s	30.0	* 27	* 7.5	5.0	51.7			27.5				
Max Q Clear Time (g_c+I), s	28.5	27.0	7.5	2.9	26.5			28.5				
Green Ext Time (p_c), s	0.3	0.0	0.0	0.0	15.0			0.4				
Intersection Summary	41.4											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

HCM 2010 Signalized Intersection Summary
2: Seal Beach Boulevard & I-405 NB Ramps

12/1/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	10	11	5	371	54	569	111	1227	351	341	1599	470
Traffic Volume (veh/h)	10	11	5	371	54	569	111	1227	351	341	1599	470
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	11	12	6	412	0	672	123	1363	0	379	1777	522
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	47	50	42	903	0	806	513	1839	573	306	1876	584
Arrive On Green	0.03	0.03	0.03	0.25	0.00	0.25	0.30	0.72	0.00	0.17	0.37	0.37
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5065	1583	1774	5065	1583
Grp Volume(v), veh/h	11	12	6	412	0	672	123	1363	0	379	1777	522
Grp Sat Flow(s), veh/h/ln	1863	1863	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g, s), s	0.7	0.7	0.4	10.8	0.0	22.1	3.0	17.6	0.0	19.0	37.3	34.1
Cycle Q Clear(g, c), s	0.7	0.7	0.4	10.8	0.0	22.1	3.0	17.6	0.0	19.0	37.3	34.1
Prop In Lane	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	47	50	42	903	0	806	513	1839	573	306	1876	584
V/C Ratio(X)	0.23	0.24	0.14	0.46	0.00	0.83	0.24	0.74	0.00	1.24	0.95	0.89
Avail Cap(c, a), veh/h	81	85	72	1258	0	1123	513	1839	573	306	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.57	0.57	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	52.3	34.6	0.0	38.8	33.9	12.1	0.0	45.5	33.7	32.7	
Incr Delay (d2), s/veh	2.5	2.5	1.5	0.4	0.0	4.0	0.1	1.6	0.0	13.15	11.6	18.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.4	0.2	5.3	0.0	10.1	1.4	8.1	0.0	20.5	19.5	18.0	
LnGrp Delay(d), s/veh	54.9	54.9	53.8	35.0	0.0	42.8	34.0	13.7	0.0	177.0	45.3	51.3
LnGrp LOS	D	D	D	C	D	C	B	C	B	F	D	D
Approach Vol, veh/h	29			1084			1486			2678		
Approach Delay, s/veh	54.7			39.8			15.4			65.1		
Approach LOS	D			D			B			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+Rc), s	53.0	45.6	7.6	22.2	46.4			33.8				
Change Period (Y+Rc), s	4.0	5.8	* 4.7	5.8	* 5.8			5.8				
Max Green Setting (Gmax), s	30.0	* 27	* 7.5	5.0	51.7			27.5				
Max Q Clear Time (g_c+I), s	28.5	27.0	7.5	2.9	26.5			28.5				
Green Ext Time (p_c), s	0.3	0.0	0.0	0.0	15.0			0.4				
Intersection Summary	45.8											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.653
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 45 Level Of Service: B

Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Split Phase Split Phase
 Rights: Ovl Include Include Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 1 0 1 0 2 1 0 0 1 0 0 2 1 0 1 0 0

Volume Module:
 Base Vol: 382 1698 47 4 1401 53 107 3 574 66 13 2
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 382 1698 47 4 1401 53 107 3 574 66 13 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
 PHF Volume: 435 1932 53 5 1594 60 122 3 653 75 15 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 435 1932 53 5 1594 60 122 3 653 75 15 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 435 1932 53 5 1594 60 122 3 653 75 15 2
 OvlAdjVol: 218

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.92 0.08 1.00 2.89 0.11 0.97 0.03 2.00 1.63 0.32 0.05
 Final Sat.: 3400 4963 137 1700 4914 186 1654 46 3400 2770 546 84

Capacity Analysis Module:
 Vol/Sat: 0.13 0.39 0.39 0.00 0.32 0.32 0.07 0.07 0.19 0.03 0.03 0.03
 OvlAdjV/S: *****
 Crit Moves: *****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.826
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 73 Level Of Service: D

Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Permitted
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 2 0 0 0 1

Volume Module:
 Base Vol: 0 1501 308 339 1719 0 0 0 0 709 0 620
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1501 308 339 1719 0 0 0 0 709 0 620
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
 PHF Volume: 0 1653 339 373 1893 0 0 0 0 781 0 683
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1653 339 373 1893 0 0 0 0 781 0 683
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1653 339 373 1893 0 0 0 0 781 0 683
 OvlAdjVol: 496

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.32 0.20 0.11 0.37 0.00 0.00 0.00 0.00 0.23 0.00 0.40
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.509
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 34 Level Of Service: A

Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Protected	Protected	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0
	1	0	2	1	0

Volume Module:

Base Vol:	56	1666	31	21	1435	32	21	4	14	24	2	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	56	1666	31	21	1435	32	21	4	14	24	2	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	62	1843	34	23	1587	35	23	4	15	27	2	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1843	34	23	1587	35	23	4	15	27	2	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	1843	34	23	1587	35	23	4	15	27	2	23

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 2.95 0.05 1.00 2.93 0.07 1.00 0.22 0.78 1.00 0.09 0.91
 Final Sat.: 1700 5007 93 1700 4989 111 1700 378 1322 1700 148 1552

Capacity Analysis Module:
 Vol/Sat: 0.04 0.37 0.37 0.01 0.32 0.32 0.01 0.01 0.01 0.02 0.01 0.01
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.566
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 37 Level Of Service: A

Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Protected	Protected	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0
	1	0	2	1	0

Volume Module:

Base Vol:	77	1627	15	19	1447	82	89	7	90	17	10	39
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	77	1627	15	19	1447	82	89	7	90	17	10	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	84	1778	16	21	1581	90	97	8	98	19	11	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	1778	16	21	1581	90	97	8	98	19	11	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	1778	16	21	1581	90	97	8	98	19	11	43

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 2.97 0.03 1.00 2.84 0.16 1.00 0.07 0.93 1.00 0.20 0.80
 Final Sat.: 1700 5053 47 1700 4626 274 1700 123 1577 1700 347 1353

Capacity Analysis Module:
 Vol/Sat: 0.05 0.35 0.35 0.01 0.33 0.33 0.06 0.06 0.06 0.01 0.03 0.03
 Crit Moves: *****

Intersection	EBT	EBR	WBL	WBT	NBL	NBR
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	612	4	28	408	8	71
Future Vol, veh/h	612	4	28	408	8	71
Conflicting Peds. #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	775	5	35	516	10	90
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	780	0	1106	390
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	329	-
Critical Hdwy	-	-	4.14	-	7.54	6.94
Critical Hdwy Stg 1	-	-	-	-	6.54	-
Critical Hdwy Stg 2	-	-	-	-	6.54	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	833	-	165	609
Stage 1	-	-	-	-	356	-
Stage 2	-	-	-	-	658	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	833	-	158	609
Mov Cap-2 Maneuver	-	-	-	-	356	-
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	WB	NB		
HCM Control Delay, s	0	0.8	0.8	14.7		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	472	-	-	833	-	
HCM Lane V/C Ratio	0.212	-	-	0.043	-	
HCM Control Delay (s)	14.7	-	-	9.5	0.2	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %ile Q(veh)	0.8	-	-	0.1	-	

Opening Year WP AM Mon Feb 20, 2017 15:25:53 Page 6-1
 Health Club within the Shops at Rossmore
 Opening Year (2018) Plus Project
 AM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.761
 Loss Time (sec): 10 Average Delay (ssec/veh): xxxxxx
 Optimal Cycle: 59 Level of Service: C

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1

 Volume Module:
 Base Vol: 147 1559 26 29 1416 172 282 18 98 71 22 29
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 147 1559 26 29 1416 172 282 18 98 71 22 29
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
 PHF Volume: 157 1667 28 31 1514 184 302 19 105 76 24 31
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 157 1667 28 31 1514 184 302 19 105 76 24 31
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 157 1667 28 31 1514 184 302 19 105 76 24 31

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.95 0.05 1.00 2.68 0.52 1.00 0.16 0.84 0.76 0.24 1.00
 Final Sat: 1700 5016 84 1700 4548 552 1700 264 1436 1298 402 1700

 Capacity Analysis Module:
 Vol/Sat: 0.09 0.33 0.33 0.02 0.33 0.33 0.18 0.07 0.07 0.04 0.06 0.02
 Crit Moves: ****

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection													
Intersection Delay, s/veh												11.6	
Intersection LOS												B	
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	NBR
Traffic Vol, veh/h	0	55	7	127	0	2	4	1	0	109	170	2	2
Future Vol, veh/h	0	55	7	127	0	2	4	1	0	109	170	2	2
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	70	9	161	0	3	5	1	0	138	215	3	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0

Approach													
Approach	EB	WB	WB	NB									
Opposing Approach	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
Opposing Lanes	1	1	1	1	1	1	1	1	1	1	1	1	1
Conflicting Approach Left	SB	NB	NB	EB									
Conflicting Lanes Left	2	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Approach Right	NB	SB	SB	WB									
Conflicting Lanes Right	2	2	2	2	2	2	2	2	2	2	2	2	2
HCM Control Delay	11.5	9.4	9.4	12	12	12	12	12	12	12	12	12	12
HCM LOS	B	A	A	B	B	B	B	B	B	B	B	B	B

Lane													
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2	EBLn2	WBLn2	NBLn2	NBLn1	NBLn2	NBLn1	NBLn2
Vol Left, %	56%	0%	29%	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vol Thru, %	44%	98%	4%	57%	100%	78%	78%	78%	78%	78%	78%	78%	78%
Vol Right, %	0%	2%	67%	14%	0%	22%	22%	22%	22%	22%	22%	22%	22%
Sign Control	Stop												
Traffic Vol by Lane	194	87	189	7	193	124	124	124	124	124	124	124	124
LT Vol	109	0	55	2	0	0	0	0	0	0	0	0	0
Through Vol	85	85	7	4	193	97	97	97	97	97	97	97	97
RT Vol	0	2	127	1	0	27	27	27	27	27	27	27	27
Lane Flow Rate	246	110	239	9	245	157	157	157	157	157	157	157	157
Geometry Grp	7	7	2	2	7	7	7	7	7	7	7	7	7
Degree of Util (X)	0.412	0.176	0.36	0.015	0.389	0.242	0.242	0.242	0.242	0.242	0.242	0.242	0.242
Departure Headway (Hd)	6.045	5.744	5.42	6.269	5.725	5.571	5.571	5.571	5.571	5.571	5.571	5.571	5.571
Convergence, Y/N	Yes												
Cap	597	626	665	570	629	645	645	645	645	645	645	645	645
Service Time	3.772	3.471	3.451	4.317	3.452	3.297	3.297	3.297	3.297	3.297	3.297	3.297	3.297
HCM Lane V/C Ratio	0.412	0.176	0.359	0.016	0.39	0.243	0.243	0.243	0.243	0.243	0.243	0.243	0.243
HCM Control Delay	13	9.7	11.5	9.4	12.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
HCM Lane LOS	B	A	B	A	B	B	B	B	B	B	B	B	B
HCM 95th-tile Q	2	0.6	1.6	0	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection													
Intersection Delay, s/veh												11.6	
Intersection LOS												B	
Movement	SBU	SBL	SBT	SBR									
Traffic Vol, veh/h	0	0	290	27	27	27	27	27	27	27	27	27	27
Future Vol, veh/h	0	0	290	27	27	27	27	27	27	27	27	27	27
Peak Hour Factor	0.92	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	367	34	34	34	34	34	34	34	34	34	34
Number of Lanes	0	0	2	2	2	2	2	2	2	2	2	2	2

Approach													
Approach	SB												
Opposing Approach	NB												
Opposing Lanes	2	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Approach Left	WB												
Conflicting Lanes Left	1	1	1	1	1	1	1	1	1	1	1	1	1
Conflicting Approach Right	EB												
Conflicting Lanes Right	1	1	1	1	1	1	1	1	1	1	1	1	1
HCM Control Delay	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
HCM LOS	B	B	B	B	B	B	B	B	B	B	B	B	B

Lane													
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Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Intersection Delay, s/veh	12.9															
Intersection LOS	B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	98	63	89	0	14	43	32	0	39	183	22	0	25	205	66
Future Vol, veh/h	0	98	63	89	0	14	43	32	0	39	183	22	0	25	205	66
Peak Hour Factor	0.92	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	118	76	107	0	17	52	39	0	47	220	27	0	30	247	80
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0	0	0	0	2
Approach	EB	WB	WB	EB	WB	WB	EB	WB	NB	NB	SB	SB	SB	SB	SB	SB
Opposing Approach	WB	EB	WB	EB	WB	WB	EB	WB	SB	SB	NB	NB	NB	NB	NB	NB
Opposing Lanes	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
Conflicting Approach Left	SB	NB	NB	EB	WB	WB	EB	WB	EB	WB						
Conflicting Lanes Left	2	2	2	1	2	2	2	2	1	1	1	1	1	1	1	1
Conflicting Approach Right	NB	SB	SB	WB	WB	WB	EB	WB	EB	WB						
Conflicting Lanes Right	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
HCM Control Delay	13.9	10.5	10.5	11.3	11.3	11.3	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
HCM LOS	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	30%	0%	39%	16%	20%	0%	0%	0%
Vol Thru, %	70%	81%	25%	48%	80%	61%	53%	0%
Vol Right, %	0%	19%	36%	36%	0%	39%	47%	97%
Sign Control	Stop							
Traffic Vol by Lane	131	114	250	89	128	169	142	69
LT Vol	39	0	98	14	25	0	75	0
Through Vol	92	92	63	43	103	103	67	67
RT Vol	0	22	89	32	0	66	0	0
Lane Flow Rate	157	137	301	107	154	203	180	87
Geometry Grp	7	7	2	2	7	7	7	7
Degree of Utl (X)	0.282	0.234	0.478	0.181	0.27	0.335	0.337	0.157
Departure Headway (Hd)	6.458	6.168	5.712	6.088	6.327	5.948	6.746	6.466
Convergence, Y/N	Yes							
Cap	555	580	630	585	565	603	532	554
Service Time	4.223	3.933	3.77	4.165	4.089	3.71	4.509	4.219
HCM Lane V/C Ratio	0.283	0.236	0.478	0.183	0.273	0.337	0.338	0.157
HCM Control Delay	11.8	10.8	13.9	10.5	11.4	11.7	12.9	10.4
HCM Lane LOS	B	B	B	B	B	B	B	B
HCM 95th-ile Q	1.2	0.9	2.6	0.7	1.1	1.5	1.5	0.6

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Intersection Delay, s/veh	12.9															
Intersection LOS	B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	5	24	2	0	136	18	147	0	0	141	221	0	0	141	
Future Vol, veh/h	0	5	24	2	0	136	18	147	0	0	141	221	0	0	141	
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	6	30	3	0	172	23	186	0	0	178	280	0	0	178	
Number of Lanes	0	0	1	0	0	0	1	1	0	0	0	2	0	0	2	
Approach	EB	WB	WB	EB	WB	WB	EB	WB	NB	NB	SB	SB	SB	SB	SB	
Opposing Approach	WB	EB	WB	EB	WB	WB	EB	WB	SB	SB	NB	NB	NB	NB	NB	
Opposing Lanes	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	
Conflicting Approach Left	SB	NB	NB	EB	WB	WB	EB	WB	EB	WB	WB	WB	WB	WB	WB	
Conflicting Lanes Left	2	2	2	1	2	2	2	2	1	1	1	1	1	1	1	
Conflicting Approach Right	NB	SB	SB	WB	WB	WB	EB	WB	EB	WB	WB	WB	WB	WB	WB	
Conflicting Lanes Right	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
HCM Control Delay	11	12.6	12.6	13.7	12.6	12.6	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	
HCM LOS	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	16%	16%	88%	0%	53%	0%
Vol Thru, %	100%	18%	77%	12%	0%	0%	47%	97%
Vol Right, %	0%	82%	6%	0%	100%	0%	0%	3%
Sign Control	Stop							
Traffic Vol by Lane	94	268	31	154	147	142	142	69
LT Vol	0	0	5	136	0	75	0	0
Through Vol	94	47	24	18	0	67	67	67
RT Vol	0	221	2	0	147	0	0	0
Lane Flow Rate	119	339	39	195	186	180	87	87
Geometry Grp	7	7	6	7	7	7	7	7
Degree of Utl (X)	0.207	0.535	0.079	0.379	0.302	0.337	0.337	0.157
Departure Headway (Hd)	6.26	5.674	7.235	7.001	5.843	6.746	6.466	6.466
Convergence, Y/N	Yes							
Cap	572	634	492	513	612	532	554	554
Service Time	4.016	3.429	5.323	4.76	3.602	4.509	4.219	4.219
HCM Lane V/C Ratio	0.208	0.535	0.079	0.38	0.304	0.338	0.338	0.157
HCM Control Delay	10.7	14.8	11	14	11.1	12.9	10.4	10.4
HCM Lane LOS	B	B	B	B	B	B	B	B
HCM 95th-ile Q	0.8	3.2	0.3	1.8	1.3	1.5	1.5	0.6

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road

Opening Year + Project AM Peak Hour
 02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	75	134	2
Future Vol, veh/h	0	75	134	2
Peak Hour Factor	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	95	170	3
Number of Lanes	0	0	2	0
Approach	SB	SB		
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	2			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	12.1			
HCM LOS	B			

HCM 2010 AWSC
 1.2: West Road & Rossmoor Center Way

12/1/2016

Intersection	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	7.7								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Traffic Vol, veh/h	0	100	10	0	6	87	0	7	12
Future Vol, veh/h	0	100	10	0	6	87	0	7	12
Peak Hour Factor	0.92	0.85	0.85	0.92	0.85	0.85	0.92	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	118	12	0	7	102	0	8	14
Number of Lanes	0	1	0	0	0	1	0	1	0
Approach	EB	WB	WB	EB			NB		
Opposing Approach	WB			EB					
Opposing Lanes	1			1			0		
Conflicting Approach Left				NB			EB		
Conflicting Lanes Left	0			1			1		
Conflicting Approach Right	NB						WB		
Conflicting Lanes Right	1			0			1		
HCM Control Delay	7.7			7.7			7.2		
HCM LOS	A			A			A		
Lane	NBU	NBL	EBU	WBU	WBL	WBT	NBU	NBL	NBR
Vol Left, %	37%	0%	6%						
Vol Thru, %	0%	91%	94%						
Vol Right, %	63%	9%	0%						
Sign Control	Stop	Stop	Stop						
Traffic Vol by Lane	19	110	93						
LT Vol	7	0	6						
Through Vol	0	100	87						
RT Vol	12	10	0						
Lane Flow Rate	22	129	109						
Geometry Grp	1	1	1						
Degree of Util (X)	0.026	0.144	0.124						
Departure Headway (Hd)	4.139	4	4.083						
Convergence, Y/N	Yes	Yes	Yes						
Cap	870	894	875						
Service Time	2.139	2.035	2.12						
HCM Lane V/C Ratio	0.025	0.144	0.125						
HCM Control Delay	7.2	7.7	7.7						
HCM Lane LOS	A	A	A						
HCM 95th-ile Q	0.1	0.5	0.4						

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection Delay, s/veh 8.9																
Intersection LOS A																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	35	122	14	0	74	82	52	0	13	16	31	0	60	16	15
Future Vol, veh/h	0	35	122	14	0	74	82	52	0	13	16	31	0	60	16	15
Peak Hour Factor	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	131	15	0	80	88	56	0	14	17	33	0	65	17	16
Number of Lanes	0	0	2	0	0	0	1	0	0	0	1	0	0	0	0	1

Approach		EB	WB	NB	SB
Opposing Approach	WB	EB	EB	SB	NB
Opposing Lanes	1	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB	WB
Conflicting Lanes Left	1	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB	EB
Conflicting Lanes Right	1	1	1	2	2
HCM Control Delay	8.7	9.4	8.2	8.8	8.8
HCM LOS	A	A	A	A	A

Lane		NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %		22%	36%	0%	36%	66%
Vol Thru, %		27%	64%	81%	39%	18%
Vol Right, %		52%	0%	19%	25%	16%
Sign Control		Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane		60	96	75	208	91
LT Vol		13	35	0	74	60
Through Vol		16	61	61	82	16
RT Vol		31	0	14	52	15
Lane Flow Rate		65	103	81	224	98
Geometry Grp		2	7	7	5	2
Degree of Utl (X)		0.085	0.152	0.112	0.284	0.136
Departure Headway (Hd)		4.757	5.307	4.992	4.577	5.004
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes
Cap		750	675	717	783	714
Service Time		2.803	3.045	2.73	2.613	3.047
HCM Lane V/C Ratio		0.087	0.153	0.113	0.286	0.137
HCM Control Delay		8.2	9	8.4	9.4	8.8
HCM Lane LOS		A	A	A	A	A
HCM 95th-tile Q		0.3	0.5	0.4	1.2	0.5

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection Delay, s/veh 7.8															
Intersection LOS A															
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT					
Traffic Vol, veh/h	0	71	37	0	16	32	0	28	15	15					
Future Vol, veh/h	0	71	37	0	16	32	0	28	15	15					
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87	0.87					
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2					
Mvmt Flow	0	82	43	0	18	37	0	32	17	17					
Number of Lanes	0	1	1	0	1	0	0	0	0	1					

Approach		WB	NB	SB
Opposing Approach	WB <td>NB <td>SB <td>NB</td> </td></td>	NB <td>SB <td>NB</td> </td>	SB <td>NB</td>	NB
Opposing Lanes	0	1	1	1
Conflicting Approach Left	NB	WB	WB	WB
Conflicting Lanes Left	1	0	2	2
Conflicting Approach Right	SB	WB	WB	WB
Conflicting Lanes Right	1	2	2	0
HCM Control Delay	8.1	7.1	7.1	7.7
HCM LOS	A	A	A	A

Lane		NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %		0%	100%	0%	65%
Vol Thru, %		33%	0%	0%	35%
Vol Right, %		67%	0%	100%	0%
Sign Control		Stop	Stop	Stop	Stop
Traffic Vol by Lane		48	71	37	43
LT Vol		0	71	0	28
Through Vol		16	0	0	15
RT Vol		32	0	37	0
Lane Flow Rate		55	82	43	49
Geometry Grp		2	7	7	2
Degree of Utl (X)		0.06	0.118	0.047	0.061
Departure Headway (Hd)		3.897	5.216	4.014	4.428
Convergence, Y/N		Yes	Yes	Yes	Yes
Cap		924	685	885	814
Service Time		1.899	2.97	1.768	2.43
HCM Lane V/C Ratio		0.06	0.12	0.049	0.06
HCM Control Delay		7.1	8.7	7	7.7
HCM Lane LOS		A	A	A	A
HCM 95th-tile Q		0.2	0.4	0.1	0.2

Intersection	Major1		Major2		Minor1	
Int Delay, s/veh	EBT	EBR	WBL	WBT	NBL	NBR
Movement	111	0	32	96	0	34
Traffic Vol, veh/h	111	0	32	96	0	34
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	Free	Free	Free	Free	Stop	Stop
Sign Control	-	None	-	None	-	None
RT Channelized	-	-	-	-	-	-
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	-	-	0	-
Grade, %	89	89	89	89	89	89
Peak Hour Factor	2	2	2	2	2	2
Heavy Vehicles, %	125	0	36	108	0	38
Mvmt Flow						
Major/Minor	Major1	Major2	Major2	Major2	Minor1	Minor1
Conflicting Flow All	0	0	125	0	305	125
Stage 1	-	-	-	-	125	-
Stage 2	-	-	-	-	180	-
Critical Hwy	-	-	4.12	-	6.42	6.22
Critical Hwy Stg 1	-	-	-	-	5.42	-
Critical Hwy Stg 2	-	-	-	-	5.42	-
Follow-up Hwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1462	-	687	926
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	851	-
Platoon blocked, %	-	-	-	-	669	926
Mov Cap-1 Maneuver	-	-	1462	-	669	-
Mov Cap-2 Maneuver	-	-	-	-	669	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	829	-
Approach	EB	WB	WB	WB	NB	NB
HCM Control/Delay, s	0		1.9		9.1	9.1
HCM LOS			A		A	A
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	926	-	-	1462	-	
HCM Lane V/C Ratio	0.041	-	-	0.025	-	
HCM Control/Delay (s)	9.1	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %ile Q(veh)	0.1	-	-	0.1	-	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4TB			4			4TB				
Traffic Volume (veh/h)	188	30	20	324	35	537	11	1471	365	537	1085	128
Future Volume (veh/h)	188	30	20	324	35	537	11	1471	365	537	1085	128
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Cb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	173	31	21	360	0	0	11	1516	376	554	1119	132
Adj No. of Lanes	0	2	0	2	0	0	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	127	74	50	419	0	187	23	1596	497	597	324	1035
Arrive On Green	0.07	0.07	0.07	0.12	0.00	0.00	0.01	0.31	0.31	0.31	0.67	1.00
Sat Flow, veh/h	1774	1037	702	3548	0	1593	1774	5085	1593	1774	5085	1593
Grp Volume(v), veh/h	173	0	52	360	0	0	11	1516	376	554	1119	132
Grp Sat Flow(s), veh/h	1774	0	1739	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	7.9	0.0	3.1	11.0	0.0	0.0	0.7	32.1	23.5	30.0	0.0	0.0
Cycle Q Clear(g.c), s	7.9	0.0	3.1	11.0	0.0	0.0	0.7	32.1	23.5	30.0	0.0	0.0
Prop In Lane	1.00	0.00	0.40	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	127	0	125	419	0	187	23	1596	497	597	324	1035
V/C Ratio(X)	1.36	0.00	0.42	0.86	0.00	0.00	0.48	0.95	0.76	0.93	0.34	0.13
Avail Cap(c,a), veh/h	127	0	125	426	0	190	81	1600	498	597	3324	1035
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(i)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	51.1	0.0	48.8	47.6	0.0	0.0	53.9	36.9	34.0	16.9	0.0	0.0
Incr Delay (d2), s/veh	203.5	0.0	2.2	15.9	0.0	0.0	14.6	13.4	10.3	19.0	0.2	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back(Q)(50%) veh/h	11.1	0.0	1.6	6.3	0.0	0.0	0.4	17.0	11.7	17.3	0.1	0.1
LnGrp Delay(d), s/veh	254.5	0.0	51.0	63.5	0.0	0.0	68.5	50.3	44.2	35.9	0.2	0.2
LnGrp LOS	F	D	D	E	E	E	D	D	D	D	A	A
Approach Vol, veh/h	225			360			1903				1805	
Approach Delay, s/veh	207.5			63.5			49.2				11.2	
Approach LOS	F			E			D				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	42.8	40.3		12.6	5.4	77.7		18.8				
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8		5.8				
Max Green Setting (Gmax), s	34.0	* 35		* 7.9	5.0	63.6		13.2				
Max Q Clear Time (g_c+I1), s	32.0	34.1		9.9	2.7	2.0		13.0				
Green Ext Time (p_c), s	0.5	0.5		0.0	0.0	13.9		0.0				
Intersection Summary	42.7											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

12/1/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	80	73	88	197	15	694	41	1578	561	329	1477	377
Traffic Volume (veh/h)	80	73	88	197	15	694	41	1578	561	329	1477	377
Future Volume (veh/h)	7	0	4	14	3	8	18	5	2	12	1	6
Number	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Obs.) veh	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbt)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Adj Flow Rate, veh/h	82	75	91	203	0	725	42	1627	0	339	1523	389
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	81	85	72	942	0	840	472	1873	583	242	1785	566
Arrive On Green	0.05	0.05	0.05	0.27	0.00	0.27	0.27	0.74	0.00	0.14	0.35	0.35
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	82	75	91	203	0	725	42	1627	0	339	1523	389
Grp Sat Flow(s), veh/h/m	1774	1863	1583	1774	0	1583	1721	1695	1583	1774	1695	1583
Q Serve(g.s), s	5.0	4.4	5.0	4.9	0.0	24.0	1.0	25.8	0.0	15.0	30.5	23.3
Cycle Q Clear(g.s)	5.0	4.4	5.0	4.9	0.0	24.0	1.0	25.8	0.0	15.0	30.5	23.3
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	81	85	72	942	0	840	472	1873	583	242	1785	566
V/C Ratio(X)	1.02	0.89	1.26	0.22	0.00	0.86	0.09	0.87	0.00	1.40	0.85	0.70
Avail Cap(c), veh/h	81	85	72	1258	0	1123	472	1873	583	242	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.52	0.52	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	52.5	31.5	0.0	38.5	34.8	12.6	0.0	47.5	33.1	30.7	30.7
Incr Delay (d2), s/veh	104.9	61.6	192.8	0.1	0.0	5.5	0.0	3.1	0.0	203.6	5.4	7.2
Initial Q Delay(Q3), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/lt	3.7	6.0	2.4	0.0	11.1	0.5	12.0	0.0	21.0	15.1	11.3	11.3
LnGrp Delay(d), s/veh	157.6	113.8	245.3	31.6	0.0	44.0	34.8	15.7	0.0	251.1	38.5	37.9
LnGrp LOS	F	F	F	C	D	C	B	F	D	F	D	D
Approach Vol, veh/h	248	1765	928	1669	0	1669	16.2	70.4	0	2251	70.4	0
Approach Delay, s/veh	F	F	D	B	B	B	B	E				
Approach LOS	F	F	D	B	B	B	B	E				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	46.3	9.7	20.9	44.4	35.0							
Change Period (Y+Rc), s	4.0	5.8	5.8	5.8	5.8							
Max Green Setting (Gmax), s	30.7	5.0	5.0	30.7	30.0							
Max Q Clear Time (g_c+I), s	27.8	7.0	3.0	32.5	26.0							
Green Ext Time (p_c), s	0.0	2.4	0.0	1.6	6.1							

Intersection Summary
 HCM 2010 Ctrl Delay 52.5
 HCM 2010 LOS D
 Notes

Health Club within the Shops at Rossmore
 Opening Year (2018) Plus Project
 PM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.814
 Loss Time (sec): 70 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 70 Level Of Service: D
 Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - I - R L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Protected Protected Permitted
 Rights: Ovl Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 2 0 0 1
 Volume Module: 0 1771 549 647 1649 0 0 0 0 545 0 490
 Base Vol: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1771 549 647 1649 0 0 0 0 545 0 490
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 0 1813 562 662 1688 0 0 0 0 558 0 502
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1813 562 662 1688 0 0 0 0 558 0 502
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1813 562 662 1688 0 0 0 0 558 0 502
 OvlAdjVol: 0 1813 562 662 1688 0 0 0 0 558 0 502
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 3.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.36 0.33 0.19 0.33 0.00 0.00 0.00 0.00 0.16 0.00 0.30
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: C

Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0	1	0	1
Lanes:	1	0	2	1	0	1	0	1

Volume Module:
 Base Vol: 207 1503 85 79 1431 95 101 28 187 140 47 60
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 207 1503 85 79 1431 95 101 28 187 140 47 60
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHE Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 219 1589 90 84 1513 100 107 30 198 148 50 63
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 219 1589 90 84 1513 100 107 30 198 148 50 63
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 219 1589 90 84 1513 100 107 30 198 148 50 63

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.84 0.16 1.00 2.81 0.19 1.00 0.13 0.87 1.00 0.44 0.56
 Final Sat.: 1700 4827 273 1700 4783 317 1700 221 1479 1700 747 953

Capacity Analysis Module:
 Vol/Sat: 0.13 0.33 0.33 0.05 0.32 0.32 0.06 0.13 0.13 0.09 0.07 0.07
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 56 Level Of Service: C

Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	2	0	2	1	0	1	0	2
Lanes:	2	0	2	1	0	1	0	2

Volume Module:
 Base Vol: 414 1724 133 5 1715 70 95 0 392 195 31 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 414 1724 133 5 1715 70 95 0 392 195 31 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHE Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 445 1854 143 5 1844 75 102 0 422 210 33 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 445 1854 143 5 1844 75 102 0 422 210 33 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 445 1854 143 5 1844 75 102 0 422 210 33 5
 OrLAdjVol: 0

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.79 0.21 1.00 2.88 0.12 1.00 0.00 2.00 1.69 0.27 0.04
 Final Sat.: 3400 4735 365 1700 4900 200 1700 0 3400 2870 456 74

Capacity Analysis Module:
 Vol/Sat: 0.13 0.39 0.39 0.00 0.38 0.38 0.06 0.00 0.12 0.07 0.07 0.07
 OrLAdjV/S: 0.00
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.705
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 51 Level Of Service: C

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 2 1 0	1 0 2 1 0	1 0 2 1 0

Volume Module:
 Base Vol: 131 1584 58 24 1758 177 173 9 89 48 3 20
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 131 1584 58 24 1758 177 173 9 89 48 3 20
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 135 1628 60 25 1807 182 178 9 91 49 3 21
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 135 1628 60 25 1807 182 178 9 91 49 3 21
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 135 1628 60 25 1807 182 178 9 91 49 3 21

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.89 0.11 1.00 2.73 0.27 1.00 0.09 0.91 0.94 0.06 1.00
 Final Sat.: 1700 4920 180 1700 4633 467 1700 156 1544 1600 100 1700

Capacity Analysis Module:
 Vol/Sat: 0.08 0.33 0.33 0.01 0.39 0.39 0.10 0.06 0.06 0.03 0.03 0.01
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.741
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 56 Level Of Service: C

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 2 1 0	1 0 2 1 0	1 0 2 1 0

Volume Module:
 Base Vol: 194 1591 24 36 1603 224 210 1 156 15 1 16
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 194 1591 24 36 1603 224 210 1 156 15 1 16
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 205 1684 25 38 1696 237 222 1 165 16 1 17
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 205 1684 25 38 1696 237 222 1 165 16 1 17
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 205 1684 25 38 1696 237 222 1 165 16 1 17

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 2.96 0.04 1.00 2.63 0.37 1.00 0.01 0.99 1.00 0.06 0.94
 Lanes: 1700 5024 76 1700 4475 625 1700 11 1689 1700 100 1600

Capacity Analysis Module:
 Vol/Sat: 0.12 0.34 0.34 0.02 0.38 0.38 0.13 0.10 0.10 0.01 0.01 0.01
 Crit Moves: ****

HCM 2010 TWSC

8: Yellowtail Drive & Saint Cloud Drive

12/1/2016

Intersection	1 2											
Int Delay, s/veh	A											
Movement	EBT	EBR	WBL	WBT	NBL	NBR						NBR
Traffic Vol, veh/h	450	7	54	462	3	49						49
Future Vol, veh/h	450	7	54	462	3	49						49
Conflicting Peds, #/hr	0	0	0	0	0	0						0
Sign Control	Free	Free	Free	Free	Stop	Stop						Stop
RT Channelized	-	None	-	None	-	None						None
Storage Length	-	-	-	-	0	0						-
Veh in Median Storage, #	0	-	-	0	0	0						-
Grade, %	0	-	-	0	0	0						-
Peak Hour Factor	90	90	90	90	90	90						90
Heavy Vehicles, %	2	2	2	2	2	2						2
Mvmt Flow	500	8	60	513	3	54						54
Major/Minor	Major1 Major2											Minor1
Conflicting Flow All	0	0	508	0	881	254						254
Stage 1	-	-	-	-	504	-						-
Stage 2	-	-	-	-	377	-						-
Critical Hwy	-	-	4.14	-	6.84	6.94						6.94
Critical Hwy Stg 1	-	-	-	-	5.84	-						-
Critical Hwy Stg 2	-	-	-	-	5.84	-						-
Follow-up Hwy	-	-	2.22	-	3.52	3.32						3.32
Pot Cap-1 Maneuver	-	-	1053	-	286	745						745
Stage 1	-	-	-	-	572	-						-
Stage 2	-	-	-	-	663	-						-
Platoon blocked, %	-	-	-	-	263	745						745
Mov Cap-1 Maneuver	-	-	1053	-	263	-						-
Mov Cap-2 Maneuver	-	-	-	-	572	-						-
Stage 1	-	-	-	-	610	-						-
Stage 2	-	-	-	-	-	-						-
Approach	EB WB											NB
HCM Control Delay, s	0											10.8
HCM LOS	B											B
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT							NBR
Capacity (veh/h)	674	-	-	1063	-							-
HCM Lane V/C Ratio	0.086	-	-	0.057	-							-
HCM Control Delay (s)	10.8	-	-	8.6	0.3							0.3
HCM Lane LOS	B	-	-	A	A							A
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-							-

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection	9.6											
Intersection Delay, s/veh	9.6											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBR	NBU	NBL	NBT	NBR	
Traffic Vol, veh/h	0	30	5	47	0	3	6	10	0	68	219	
Future Vol, veh/h	0	30	5	47	0	3	6	10	0	68	219	
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	36	6	56	0	4	7	12	0	81	261	
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	
Approach	EB WB											NB
Opposing Approach	WB											EB
Oposing Lanes	1											2
Conflicting Approach Left	SB											EB
Conflicting Lanes Left	2											1
Conflicting Approach Right	NB											WB
Conflicting Lanes Right	2											1
HCM Control Delay	9.1											8.6
HCM LOS	A											A
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2						
Vol Left, %	38%	0%	37%	16%	6%	0%						
Vol Thru, %	62%	96%	6%	32%	94%	73%						
Vol Right, %	0%	4%	57%	53%	0%	27%						
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop						
Traffic Vol by Lane	178	114	82	19	126	163						
LT Vol	68	0	30	3	7	0						
Through Vol	110	110	5	6	119	119						
RT Vol	0	4	47	10	0	44						
Lane Flow Rate	211	135	98	23	150	194						
Geometry Grp	7	7	2	2	7	7						
Degree of Utl (X)	0.314	0.193	0.141	0.033	0.217	0.269						
Departure Headway (Ht)	5.357	5.139	5.2	5.323	5.208	4.99						
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes						
Cap	668	696	685	667	687	718						
Service Time	3.11	2.892	3.261	3.4	2.959	2.741						
HCM Lane V/C Ratio	0.316	0.194	0.143	0.034	0.218	0.27						
HCM Control Delay	10.6	9.1	9.1	8.6	9.4	9.6						
HCM Lane LOS	B	A	A	A	A	A						
HCM 95th %tile Q	1.3	0.7	0.5	0.1	0.8	1.1						

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection						
Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR	SBL	SBR
Traffic Vol, veh/h	0	7	238	44		
Future Vol, veh/h	0	7	238	44		
Peak Hour Factor	0.92	0.84	0.84	0.84		
Heavy Vehicles, %	2	2	2	2		
Mvmt Flow	0	8	283	52		
Number of Lanes	0	0	2	0		

Approach		SB	SB
Opposing Approach	WB	NB	NB
Opposing Lanes	1	2	2
Conflicting Approach Left	WB	WB	WB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	WB	WB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.3	9.5	10.6
HCM LOS	B	A	B

Lane		NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %		31%	0%	31%	25%	33%	0%
Vol Thru, %		69%	70%	27%	27%	67%	70%
Vol Right, %		0%	30%	41%	48%	0%	30%
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane		97	96	135	153	138	132
LT Vol		30	0	42	38	46	0
Through Vol		67	67	37	41	92	92
RT Vol		0	29	56	74	0	40
Lane Flow Rate		115	114	161	182	164	157
Geometry Grp		7	7	2	2	7	7
Degree of Util (X)		0.195	0.181	0.245	0.273	0.272	0.244
Departure Headway (Hd)		6.101	5.728	5.487	5.397	5.992	5.606
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes
Cap		588	626	654	665	599	640
Service Time		3.839	3.466	3.529	3.437	3.727	3.342
HCM Lane V/C Ratio		0.196	0.182	0.246	0.274	0.274	0.245
HCM Control Delay		10.3	9.7	10.3	10.5	11	10.2
HCM Lane LOS		B	A	B	B	B	B
HCM 95th-ile Q		0.7	0.7	1	1.1	1.1	1

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmore Center Way

12/1/2016

Intersection															
Intersection Delay, s/veh10.4															
Intersection LOS															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	42	37	56	0	38	41	74	0	30	133	29	0	46	183
Future Vol, veh/h	0	42	37	56	0	38	41	74	0	30	133	29	0	46	183
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	50	44	67	0	45	49	88	0	36	158	35	0	55	218
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0	0	0	2

Approach		EB	WB	NB	NB	SB	SB
Opposing Approach	WB <td>EB <td>WB <td>NB <td>NB <td>SB <td>NB</td> </td></td></td></td></td>	EB <td>WB <td>NB <td>NB <td>SB <td>NB</td> </td></td></td></td>	WB <td>NB <td>NB <td>SB <td>NB</td> </td></td></td>	NB <td>NB <td>SB <td>NB</td> </td></td>	NB <td>SB <td>NB</td> </td>	SB <td>NB</td>	NB
Opposing Lanes	1	1	2	2	2	2	2
Conflicting Approach Left	SB <td>NB <td>NB <td>EB <td>WB <td>WB <td>WB</td> </td></td></td></td></td>	NB <td>NB <td>EB <td>WB <td>WB <td>WB</td> </td></td></td></td>	NB <td>EB <td>WB <td>WB <td>WB</td> </td></td></td>	EB <td>WB <td>WB <td>WB</td> </td></td>	WB <td>WB <td>WB</td> </td>	WB <td>WB</td>	WB
Conflicting Lanes Left	2	2	2	1	1	1	1
Conflicting Approach Right	NB <td>SB <td>SB <td>WB <td>WB <td>EB <td>EB</td> </td></td></td></td></td>	SB <td>SB <td>WB <td>WB <td>EB <td>EB</td> </td></td></td></td>	SB <td>WB <td>WB <td>EB <td>EB</td> </td></td></td>	WB <td>WB <td>EB <td>EB</td> </td></td>	WB <td>EB <td>EB</td> </td>	EB <td>EB</td>	EB
Conflicting Lanes Right	2	2	2	1	1	1	1
HCM Control Delay	10.3	10.5	10.5	10	10	10.6	10.6
HCM LOS	B	B	B	A	A	B	B

Lane		NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %		31%	0%	31%	25%	33%	0%
Vol Thru, %		69%	70%	27%	27%	67%	70%
Vol Right, %		0%	30%	41%	48%	0%	30%
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane		97	96	135	153	138	132
LT Vol		30	0	42	38	46	0
Through Vol		67	67	37	41	92	92
RT Vol		0	29	56	74	0	40
Lane Flow Rate		115	114	161	182	164	157
Geometry Grp		7	7	2	2	7	7
Degree of Util (X)		0.195	0.181	0.245	0.273	0.272	0.244
Departure Headway (Hd)		6.101	5.728	5.487	5.397	5.992	5.606
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes
Cap		588	626	654	665	599	640
Service Time		3.839	3.466	3.529	3.437	3.727	3.342
HCM Lane V/C Ratio		0.196	0.182	0.246	0.274	0.274	0.245
HCM Control Delay		10.3	9.7	10.3	10.5	11	10.2
HCM Lane LOS		B	A	B	B	B	B
HCM 95th-ile Q		0.7	0.7	1	1.1	1.1	1

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Intersection Delay, s/veh	10.2											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations	0	1	17	2	0	149	25	65	0	5	106	107
Traffic Vol, veh/h	0	1	17	2	0	149	25	65	0	5	106	107
Future Vol, veh/h	0	1	17	2	0	149	25	65	0	5	106	107
Peak Hour Factor	0.92	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	20	2	0	171	29	75	0	6	122	123
Number of Lanes	0	0	1	0	0	1	1	1	0	0	2	0
Approach	EB	EB	WB	WB	WB	WB	WB	WB	NB	NB	SB	SB
Opposing Approach	WB	WB	EB	EB	WB	WB	WB	WB	SB	SB	EB	EB
Opposing Lanes	2	2	1	1	2	2	2	2	2	2	2	2
Conflicting Approach Left	SB	SB	NB	NB	WB	WB	WB	WB	EB	EB	WB	WB
Conflicting Lanes Left	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Approach Right	NB	NB	SB	SB	WB	WB	WB	WB	WB	WB	EB	EB
Conflicting Lanes Right	2	2	2	2	2	2	2	2	2	2	2	2
HCM Control Delay	9.4	9.4	11	11	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
HCM LOS	A	A	B	B	A	A	A	A	B	B	A	A

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh	10.2			
Intersection LOS	B			
Movement	SBU	SBL	SBT	SBR
Lane Configurations	0	41	127	3
Traffic Vol, veh/h	0	41	127	3
Future Vol, veh/h	0	41	127	3
Peak Hour Factor	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	47	146	3
Number of Lanes	0	0	2	0
Approach	SB	SB	SB	SB
Opposing Approach	NB	NB	NB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	WB	WB	WB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	EB	EB	EB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	9.8	9.8	9.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	9%	0%	5%	86%	0%	39%	0%	0%
Vol Thru, %	91%	33%	85%	14%	0%	61%	95%	95%
Vol Right, %	0%	67%	10%	0%	100%	0%	5%	5%
Sign Control	Stop							
Traffic Vol by Lane	58	160	20	174	65	105	67	67
LT Vol	5	0	1	149	0	41	0	0
Through Vol	53	53	17	25	0	64	64	64
RT Vol	0	107	2	0	65	0	3	3
Lane Flow Rate	67	184	23	200	75	120	76	76
Geometry Grp	7	7	6	7	7	7	7	7
Degree of Utl (X)	0.105	0.262	0.039	0.338	0.103	0.195	0.119	0.119
Departure Headway (Hd)	5.648	5.132	6.13	6.091	4.956	5.841	5.611	5.611
Convergence, Y/N	Yes							
Cap	629	683	588	586	714	609	633	633
Service Time	3.431	2.914	4.13	3.883	2.747	3.63	3.4	3.4
HCM Lane V/C Ratio	0.107	0.266	0.039	0.341	0.105	0.197	0.12	0.12
HCM Control Delay	9.1	9.8	9.4	12	8.3	10.1	9.2	9.2
HCM Lane LOS	A	A	A	B	A	B	A	A
HCM 95th-tile Q	0.4	1	0.1	1.5	0.3	0.7	0.4	0.4

HCM 2010 AWSC

12: West Road & Rossmoor Center Way

12/1/2016

Intersection Delay, s/veh 8.1												
Intersection LOS A												
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR			
Traffic Vol, veh/h	0	91	24	0	22	137	0	32	11			
Future Vol, veh/h	0	91	24	0	22	137	0	32	11			
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	101	27	0	24	152	0	36	12			
Number of Lanes	0	1	0	0	0	1	0	1	0			

Intersection Delay, s/veh 16.1												
Intersection LOS C												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR	SBL	SBT
Traffic Vol, veh/h	0	22	122	27	0	185	171	85	0	43	44	180
Future Vol, veh/h	0	22	122	27	0	185	171	85	0	43	44	180
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.92	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	127	28	0	193	178	89	0	45	46	188
Number of Lanes	0	0	2	0	0	0	1	0	0	1	0	0

Intersection Delay, s/veh 16.1												
Intersection LOS C												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR	SBL	SBT
Traffic Vol, veh/h	0	22	122	27	0	185	171	85	0	43	44	180
Future Vol, veh/h	0	22	122	27	0	185	171	85	0	43	44	180
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.92	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	127	28	0	193	178	89	0	45	46	188
Number of Lanes	0	0	2	0	0	0	1	0	0	1	0	0

Approach	EB	WB	EB	NB	SB
Opposing Approach	WB	EB			
Opposing Lanes	1	1		0	
Conflicting Approach Left	0	NB	EB		
Conflicting Lanes Left	1	1		1	
Conflicting Approach Right	NB		WB		
Conflicting Lanes Right	1	0	1		
HCM Control Delay	7.8	8.3	7.9	7.9	A
HCM LOS	A	A	A	A	

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection Delay, s/veh 16.1												
Intersection LOS C												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR	SBL	SBT
Traffic Vol, veh/h	0	22	122	27	0	185	171	85	0	43	44	180
Future Vol, veh/h	0	22	122	27	0	185	171	85	0	43	44	180
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.92	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	127	28	0	193	178	89	0	45	46	188
Number of Lanes	0	0	2	0	0	0	1	0	0	1	0	0

Intersection Delay, s/veh 16.1												
Intersection LOS C												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR	SBL	SBT
Traffic Vol, veh/h	0	22	122	27	0	185	171	85	0	43	44	180
Future Vol, veh/h	0	22	122	27	0	185	171	85	0	43	44	180
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.92	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	127	28	0	193	178	89	0	45	46	188
Number of Lanes	0	0	2	0	0	0	1	0	0	1	0	0

Approach	EB	WB	EB	NB	SB
Opposing Approach	WB	EB			
Opposing Lanes	1	2		1	
Conflicting Approach Left	SB	NB	EB		
Conflicting Lanes Left	1	1		2	
Conflicting Approach Right	NB		WB		
Conflicting Lanes Right	1	1	1		
HCM Control Delay	10.5	21.5	13.2	13.2	B
HCM LOS	B	C	B	B	

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	16%	27%	0%	42%	54%
Vol Thru, %	16%	73%	69%	39%	24%
Vol Right, %	67%	0%	31%	19%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	267	83	88	441	140
LT Vol	43	22	0	185	76
Through Vol	44	61	61	171	34
RT Vol	180	0	27	85	30
Lane Flow Rate	278	86	92	459	146
Geometry Grp	2	7	7	5	2
Degree of Utl (X)	0.438	0.159	0.16	0.713	0.258
Departure Headway (Hd)	5.663	6.628	6.273	5.589	6.379
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	629	537	567	643	566
Service Time	3.753	4.426	4.072	3.663	4.379
HCM Lane V/C Ratio	0.442	0.16	0.162	0.714	0.258
HCM Control Delay	13.2	10.7	10.3	21.5	11.6
HCM Lane LOS	B	B	B	C	B
HCM 95th-tile Q	2.2	0.6	0.6	5.9	1

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection										
Intersection Delay, s/veh 11.8										
Intersection LOS B										
Movement	WBU	WBL	WBR	NBU	NBL	NBR	SBU	SBL	SBT	SBT
Traffic Vol, veh/h	0	86	295	0	43	66	0	233	55	55
Future Vol, veh/h	0	86	295	0	43	66	0	233	55	55
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	97	331	0	48	74	0	262	62	62
Number of Lanes	0	1	1	0	1	0	0	0	0	1
Approach	WB		NB		SB		SB		SB	
Opposing Approach	0		SB		NB		NB		NB	
Opposing Lanes	0		1		1		1		1	
Conflicting Approach Left	NB		WB		WB		WB		WB	
Conflicting Lanes Left	1		0		0		0		0	
Conflicting Approach Right	SB		WB		WB		WB		WB	
Conflicting Lanes Right	1		2		2		2		2	
HCM Control Delay	11.5		9.2		13.1		13.1		13.1	
HCM LOS	B		A		B		B		B	
Lane	NBLn1 WBLn1 WBLn2		SBLn1		SBLn1		SBLn1		SBLn1	
Vol Left, %	0%		100%		0%		81%		81%	
Vol Thru, %	39%		0%		19%		0%		19%	
Vol Right, %	61%		0%		100%		0%		0%	
Sign Control	Stop		Stop		Stop		Stop		Stop	
Traffic Vol by Lane	109		86		295		288		288	
LT Vol	0		86		0		233		233	
Through Vol	43		0		0		55		55	
RT Vol	66		0		295		0		0	
Lane Flow Rate	122		97		331		324		324	
Geometry Grp	2		7		7		2		2	
Degree of Util (X)	0.175		0.165		0.456		0.473		0.473	
Departure Headway (Hd)	5.14		6.16		4.949		5.26		5.26	
Convergence, Y/N	Yes		Yes		Yes		Yes		Yes	
Cap	702		577		719		676		676	
Service Time	3.14		3.955		2.742		3.35		3.35	
HCM Lane V/C Ratio	0.174		0.168		0.46		0.479		0.479	
HCM Control Delay	9.2		10.2		11.9		13.1		13.1	
HCM Lane LOS	A		B		B		B		B	
HCM 95th-tile Q	0.6		0.6		2.4		2.5		2.5	

HCM 2010 TWSC

15: Project Driveway & Rossmore Center Way

12/1/2016

Intersection										
Int Delay, s/veh 3.2										
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Traffic Vol, veh/h	89	1	84	167	4	69				
Future Vol, veh/h	89	1	84	167	4	69				
Conflicting Peds, #/hr	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Stop	Stop				
RT Channelized	-	None	-	None	-	None				
Storage Length	-	-	-	-	0	-				
Veh in Median Storage, #	0	-	-	0	0	-				
Grade, %	0	-	-	0	0	-				
Peak Hour Factor	93	93	93	93	93	93				
Heavy Vehicles, %	2	2	2	2	2	2				
Mvmt Flow	96	1	90	180	4	74				
Major/Minor	Major1		Major2		Minor1					
Conflicting Flow All	0	0	97	0	456	96				
Stage 1	-	-	-	-	96	-				
Stage 2	-	-	-	-	360	-				
Critical Hdwy	-	-	4.12	-	6.42	6.22				
Critical Hdwy Stg 1	-	-	-	-	5.42	-				
Critical Hdwy Stg 2	-	-	-	-	5.42	-				
Follow-up Hdwy	-	-	2.218	-	3.518	3.318				
Plat Cap-1 Maneuver	-	-	1496	-	562	960				
Stage 1	-	-	-	-	928	-				
Stage 2	-	-	-	-	706	-				
Platoon blocked, %	-	-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	1496	-	524	960				
Mov Cap-2 Maneuver	-	-	-	-	524	-				
Stage 1	-	-	-	-	928	-				
Stage 2	-	-	-	-	659	-				
Approach	EB		WB		NB					
HCM Control Delay, s	0		2.5		9.3					
HCM LOS	A		A		A					
Minor Lane/Major Mvmt	NBLn1		EBT		WBL					
Capacity (veh/h)	918		-		1496					
HCM Lane V/C Ratio	0.086		-		0.06					
HCM Control Delay (s)	9.3		-		7.6					
HCM Lane LOS	A		-		A					
HCM 95th-tile Q(veh)	0.3		-		0.2					

12/1/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	9	8	7	359	5	592	15	1386	381	272	1338	245
Traffic Volume (veh/h)	9	8	7	359	5	592	15	1386	381	272	1338	245
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	9	8	7	378	0	626	16	1459	0	286	1408	258
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	42	44	37	848	0	757	691	2117	659	242	1706	531
Arrive On Green	0.02	0.02	0.02	0.24	0.00	0.24	0.40	0.83	0.00	0.14	0.34	0.34
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	9	8	7	378	0	626	16	1459	0	286	1408	258
Grp Sat Flow(s), veh/h/ln	1863	1863	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g.s), s	0.5	0.5	0.5	10.0	0.0	20.6	0.3	12.4	0.0	15.0	28.0	14.2
Cycle Q Clear(g.c), s	0.5	0.5	0.5	10.0	0.0	20.6	0.3	12.4	0.0	15.0	28.0	14.2
Prop In Lane	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	42	44	37	848	0	757	691	2117	659	242	1706	531
V/C Ratio(X)	0.21	0.18	0.19	0.45	0.00	0.83	0.02	0.69	0.00	1.18	0.83	0.49
Avail Cap(c.a), veh/h	81	85	72	1258	0	1123	691	2117	659	242	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.65	0.65	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	52.7	52.7	35.6	0.0	39.7	26.4	6.4	0.0	47.5	33.6	29.0
Incr Delay (d2), s/veh	2.5	2.0	2.4	0.4	0.0	3.3	0.0	1.2	0.0	11.6	4.7	3.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3	0.3	0.2	4.9	0.0	9.4	0.1	5.6	0.0	15.1	13.8	6.7
LnGrp Delay(d), s/veh	55.2	54.6	55.0	36.0	0.0	43.0	26.4	7.6	0.0	163.6	38.3	32.2
LnGrp LOS	E	D	E	D	D	D	C	A	F	D	D	C
Approach Vol, veh/h	24	1004	1475	1952								
Approach Delay, s/veh	55.0	40.4	7.8	55.8								
Approach LOS	D	D	D	E								
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	99.0	51.6	7.3	27.9	42.7	32.1						
Change Period (Y+Rc), s	4.0	5.8	* 4.7	5.8	* 5.8	5.8						
Max Green Setting (Gmax), s	30.7	30.7	* 5.0	5.0	* 4.1	39.0						
Max Q Clear Time (g_c+I), s	14.4	2.5	2.3	30.0	22.6							
Green Ext Time (p_c), s	0.0	8.8	0.0	2.0	6.9	3.7						
Intersection Summary	36.5											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

12/1/2016
 HCM 2010 Signalized Intersection Summary
 1: Seal Beach Boulevard & I-405 SB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	148	26	16	549	37	509	9	1118	275	437	1131	132
Traffic Volume (veh/h)	148	26	16	549	37	509	9	1118	275	437	1131	132
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	157	28	17	612	0	0	10	1189	293	465	1203	140
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	118	72	44	684	0	305	21	1321	411	497	2769	862
Arrive On Green	0.07	0.07	0.07	0.19	0.00	0.00	0.01	0.26	0.26	0.56	1.00	1.00
Sat Flow, veh/h	1774	1087	1087	3548	0	1583	1774	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	157	0	45	612	0	0	10	1189	293	465	1203	140
Grp Sat Flow(s), veh/h/ln	1774	0	1746	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	7.3	0.0	2.7	18.5	0.0	0.0	0.6	24.8	18.5	26.6	0.0	0.0
Cycle Q Clear(g.c), s	7.3	0.0	2.7	18.5	0.0	0.0	0.6	24.8	18.5	26.6	0.0	0.0
Prop In Lane	1.00	0.00	0.38	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	118	0	116	684	0	305	21	1321	411	497	2769	862
V/C Ratio(X)	1.33	0.00	0.39	0.90	0.00	0.47	0.90	0.71	0.94	0.43	0.16	0.16
Avail Cap(c.a), veh/h	118	0	116	748	0	334	81	1350	420	497	2769	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.88	0.88	0.88	0.88
Uniform Delay (d), s/veh	51.4	0.0	49.2	43.3	0.0	0.0	54.0	39.3	37.0	23.2	0.0	0.0
Incr Delay (d2), s/veh	196.7	0.0	2.1	12.7	0.0	0.0	15.3	10.0	10.1	23.0	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	10.0	0.0	1.4	10.3	0.0	0.0	0.4	12.9	9.2	15.8	0.1	0.1
LnGrp Delay(d), s/veh	248.1	0.0	51.3	56.0	0.0	0.0	69.3	49.4	47.0	46.3	0.4	0.4
LnGrp LOS	F	D	E	D	D	D	D	D	D	D	A	A
Approach Vol, veh/h	202	1492	1808	12.2								
Approach Delay, s/veh	204.2	56.0	49.0	12.2								
Approach LOS	F	E	D	B								
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	36.6	34.4	12.0	5.3	65.7	27.0						
Change Period (Y+Rc), s	5.8	* 5.8	* 4.7	4.0	5.8	5.8						
Max Green Setting (Gmax), s	30.0	* 29	* 7.3	5.0	54.2	23.2						
Max Q Clear Time (g_c+I), s	28.6	26.8	9.3	2.6	2.0	20.5						
Green Ext Time (p_c), s	0.3	1.7	0.0	0.0	0.0	14.2						
Intersection Summary	41.5											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.673
 Loss Time (sec): 17 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 47 Level Of Service: B

Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Split Phase Split Phase
 Rights: Include Include Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 1 0 1 0 2 1 0 0 1 0 0 2 1 0 1 0 0

Volume Module:
 Base Vol: 368 1664 174 17 1423 73 111 2 405 176 35 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 368 1664 174 17 1423 73 111 2 405 176 35 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 397 1795 188 18 1535 79 120 2 437 190 38 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 397 1795 188 18 1535 79 120 2 437 190 38 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 397 1795 188 18 1535 79 120 2 437 190 38 5
 OvlAdjVol: 40

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.72 2.88 1.00 2.85 0.15 0.98 0.02 2.00 1.63 0.32 0.05
 Final Sat.: 3400 4617 483 1700 4851 249 1670 30 3400 2770 551 79

Capacity Analysis Module:
 Vol/Sat: 0.12 0.39 0.39 0.01 0.32 0.07 0.07 0.13 0.07 0.07 0.07
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.802
 Loss Time (sec): 17 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 67 Level Of Service: D

Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Permitted
 Rights: Include Include Ovl Permitted
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 2 0 0 0 1

Volume Module:
 Base Vol: 0 1595 364 521 1503 0 0 0 0 364 0 578
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1595 364 521 1503 0 0 0 0 364 0 578
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 0 1715 391 560 1616 0 0 0 0 391 0 622
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1715 391 560 1616 0 0 0 0 391 0 622
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1715 391 560 1616 0 0 0 0 391 0 622
 OvlAdjVol: 341

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.34 0.23 0.16 0.32 0.00 0.00 0.00 0.00 0.12 0.00 0.37
 OvlAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.856
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 82 Level Of Service: D

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Permitted Permitted
 Rights: Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0

 Volume Module:
 Base Vol: 294 1299 109 93 1110 152 120 84 245 175 90 89
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 294 1299 109 93 1110 152 120 84 245 175 90 89
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 310 1370 115 98 1171 160 127 89 258 185 95 94
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 310 1370 115 98 1171 160 127 89 258 185 95 94
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 310 1370 115 98 1171 160 127 89 258 185 95 94

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.77 0.23 1.00 2.64 0.36 1.00 0.26 0.74 1.00 0.50 0.50
 Final Sat.: 1700 4705 395 1700 4486 614 1700 434 1266 1700 855 845

 Capacity Analysis Module:
 Vol/Sat: 0.18 0.29 0.29 0.06 0.26 0.26 0.07 0.20 0.20 0.11 0.11 0.11
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.713
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 52 Level Of Service: C

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Permitted Permitted
 Rights: Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0

 Volume Module:
 Base Vol: 226 1467 15 25 1424 251 215 4 178 19 2 14
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 226 1467 15 25 1424 251 215 4 178 19 2 14
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 232 1506 15 26 1462 258 221 4 183 20 2 14
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 232 1506 15 26 1462 258 221 4 183 20 2 14
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 232 1506 15 26 1462 258 221 4 183 20 2 14

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.97 0.03 1.00 2.55 0.45 1.00 0.02 0.98 1.00 0.13 0.87
 Final Sat.: 1700 5048 52 1700 4336 764 1700 37 1663 1700 213 1487

 Capacity Analysis Module:
 Vol/Sat: 0.14 0.30 0.30 0.02 0.34 0.34 0.13 0.11 0.11 0.01 0.01 0.01
 Crit Moves: ****

Intersection		EBT		EBR		WBL		WBT		NBL		NBR		
IntDelay, s/veh		1		1		1		1		1		1		
Movement														
Traffic Vol, veh/h	464	1	43	426	4	44	4	44	4	44	4	44	44	
Future Vol, veh/h	464	1	43	426	4	44	4	44	4	44	4	44	44	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	-	None	-	None	-	None	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	0	-	0	0	0	-	0	-	
Grade, %	0	-	-	0	0	0	-	0	0	0	-	0	-	
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	494	1	46	453	4	47	4	47	4	47	4	47	47	
Major/Minor														
Major1	Major2												Minor1	
Conflicting Flow All	0	0	495	0	812	494	0	812	494	0	812	494	247	
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy	-	-	4.14	-	6.84	-	-	6.84	-	-	-	-	6.94	
Critical Hdwy Stg 1	-	-	-	-	5.84	-	-	5.84	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	5.84	-	-	5.84	-	-	-	-	-	
Follow-up Hdwy	-	-	2.22	-	3.52	-	-	3.52	-	-	-	-	3.32	
Pot Cap-1 Maneuver	-	-	1065	-	317	-	-	317	-	-	-	-	763	
Stage 1	-	-	-	-	579	-	-	579	-	-	-	-	-	
Stage 2	-	-	-	-	710	-	-	710	-	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mov Cap-1 Maneuver	-	-	1065	-	299	-	-	299	-	-	-	-	763	
Mov Cap-2 Maneuver	-	-	-	-	299	-	-	299	-	-	-	-	-	
Stage 1	-	-	-	-	579	-	-	579	-	-	-	-	-	
Stage 2	-	-	-	-	669	-	-	669	-	-	-	-	-	
Approach														
EB	WB												NB	
HCM Control Delay, s	0	1												10.8
HCM LOS	B													
Minor Lane/Major Mvmt														
NBLn1	EBT	EBR	WBL	WBT										
Capacity (veh/h)	668	-	-	1065										
HCM Lane V/C Ratio	0.076	-	-	0.043										
HCM Control Delay (s)	10.8	-	-	8.5	0.2									
HCM Lane LOS	B	-	-	A	A									
HCM 95th %ile Q(veh)	0.2	-	-	0.1	-									

Opening Year WP Saturday Mon Feb 20, 2017 15:26:28 Page 6-1
 Health Club within the Shops at Rossmore
 Opening Year (2018) Plus Project
 Saturday Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.651
 Loss Time (sec): 45 Average Delay (ssec/veh): xxxxxx
 Optimal Cycle: 45 Level of Service: B

Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R

Control:	Protected	Protected	Include	Permitted	Permitted	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include	Include	Include	Include
Mfn. Green:	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	1

Volume Module:
 Base Vol: 112 1455 44 22 1543 126 178 8 97 64 7 21
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 112 1455 44 22 1543 126 178 8 97 64 7 21
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 114 1485 45 22 1574 129 182 8 99 65 7 21
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 114 1485 45 22 1574 129 182 8 99 65 7 21
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 114 1485 45 22 1574 129 182 8 99 65 7 21

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat: 1700 1700 150 1700 4715 385 1700 130 1570 1532 168 1700

Capacity Analysis Module:
 Vol/Sat: 0.07 0.30 0.30 0.01 0.33 0.33 0.11 0.06 0.06 0.04 0.04 0.01
 Crit Moves: ****

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection	8.8													
Intersection Delay, s/veh	A													
Intersection LOS	A													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR		
Traffic Vol, veh/h	0	35	5	38	0	4	6	5	0	38	181	7		
Future Vol, veh/h	0	35	5	38	0	4	6	5	0	38	181	7		
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		
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2		
Mvmt Flow	0	38	5	41	0	4	7	5	0	41	197	8		
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2		
Approach	EB		WB		WB		NB		NB		SB			
Opposing Approach	WB		EB		EB		SB		SB		EB			
Opposing Lanes	1		1		1		2		2		2			
Conflicting Approach Left	SB		NB		EB		EB		EB		1			
Conflicting Lanes Left	2		2		2		2		2		1			
Conflicting Approach Right	NB		SB		WB		WB		WB		1			
Conflicting Lanes Right	2		2		2		2		2		1			
HCM Control Delay	8.6		8.6		8.3		8.9		8.9		8.9			
HCM LOS	A		A		A		A		A		A			

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	30%	0%	45%	27%	6%	0%
Vol Thru, %	70%	93%	6%	40%	94%	85%
Vol Right, %	0%	7%	49%	33%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	98	78	15	127	141
LT Vol	38	0	35	4	7	0
Through Vol	91	91	5	6	120	120
RT Vol	0	7	38	5	0	21
Lane Flow Rate	140	106	85	16	138	153
Geometry Grp	7	7	2	2	7	7
Degree of Utlr (X)	0.202	0.147	0.117	0.023	0.192	0.208
Departure Headway (Hd)	5.194	4.985	4.949	5.113	5.038	4.905
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	691	717	723	698	712	732
Service Time	2.928	2.729	2.987	3.161	2.77	2.637
HCM Lane V/C Ratio	0.203	0.148	0.118	0.023	0.194	0.209
HCM Control Delay	9.2	8.6	8.6	8.3	9	8.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.8	0.5	0.4	0.1	0.7	0.8

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/1/2016

Intersection	8.8					
Intersection Delay, s/veh	A					
Intersection LOS	A					
Movement	SBU	SBL	SBT	SBR		
Traffic Vol, veh/h	0	7	239	21		
Future Vol, veh/h	0	7	239	21		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Heavy Vehicles, %	2	2	2	2		
Mvmt Flow	0	8	260	23		
Number of Lanes	0	0	2	0		
Approach	SB		SB			
Opposing Approach	NB		NB			
Opposing Lanes	2		2			
Conflicting Approach Left	WB		WB			
Conflicting Lanes Left	1		1			
Conflicting Approach Right	EB		EB			
Conflicting Lanes Right	1		1			
HCM Control Delay	8.9		8.9			
HCM LOS	A		A			

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	30%	0%	45%	27%	6%	0%
Vol Thru, %	70%	93%	6%	40%	94%	85%
Vol Right, %	0%	7%	49%	33%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	98	78	15	127	141
LT Vol	38	0	35	4	7	0
Through Vol	91	91	5	6	120	120
RT Vol	0	7	38	5	0	21
Lane Flow Rate	140	106	85	16	138	153
Geometry Grp	7	7	2	2	7	7
Degree of Utlr (X)	0.202	0.147	0.117	0.023	0.192	0.208
Departure Headway (Hd)	5.194	4.985	4.949	5.113	5.038	4.905
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	691	717	723	698	712	732
Service Time	2.928	2.729	2.987	3.161	2.77	2.637
HCM Lane V/C Ratio	0.203	0.148	0.118	0.023	0.194	0.209
HCM Control Delay	9.2	8.6	8.6	8.3	9	8.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.8	0.5	0.4	0.1	0.7	0.8

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Intersection Delay, s/veh	9															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	42	43	64	0	20	54	45	0	47	131	31	0	46	163	33
Future Vol, veh/h	0	42	43	64	0	20	54	45	0	47	131	31	0	46	163	33
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	47	48	71	0	22	60	50	0	52	146	34	0	51	181	37
Number of Lanes	0	0	1	0	0	1	0	0	0	0	2	0	0	0	2	0
Approach	EB	WB	WB	EB	WB	WB	EB	WB	NB	NB	SB	SB	SB	SB	SB	SB
Opposing Approach	WB	EB	WB	EB	WB	WB	EB	WB	SB	SB	NB	NB	SB	SB	SB	SB
Opposing Lanes	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
Conflicting Approach Left	SB	NB	NB	EB	WB	WB	EB	WB	EB	WB						
Conflicting Lanes Left	2	2	2	1	2	2	2	2	1	1	1	1	1	1	1	1
Conflicting Approach Right	NB	SB	SB	WB	WB	WB	EB	WB	EB	WB						
Conflicting Lanes Right	2	2	2	1	2	2	2	2	1	1	1	1	1	1	1	1
HCM Control Delay	9.9	9.9	9.9	9.6	9.6	9.8	9.8	9.8	9.8	9.8	9.9	9.9	9.9	9.9	9.9	9.9
HCM LOS	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Intersection Delay, s/veh	9															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	42	43	64	0	20	54	45	0	47	131	31	0	46	163	33
Future Vol, veh/h	0	42	43	64	0	20	54	45	0	47	131	31	0	46	163	33
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	47	48	71	0	22	60	50	0	52	146	34	0	51	181	37
Number of Lanes	0	0	1	0	0	1	0	0	0	0	2	0	0	0	2	0
Approach	EB	WB	WB	EB	WB	WB	EB	WB	NB	NB	SB	SB	SB	SB	SB	SB
Opposing Approach	WB	EB	WB	EB	WB	WB	EB	WB	SB	SB	NB	NB	SB	SB	SB	SB
Opposing Lanes	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
Conflicting Approach Left	SB	NB	NB	EB	WB	WB	EB	WB	EB	WB						
Conflicting Lanes Left	2	2	2	1	2	2	2	2	1	1	1	1	1	1	1	1
Conflicting Approach Right	NB	SB	SB	WB	WB	WB	EB	WB	EB	WB						
Conflicting Lanes Right	2	2	2	1	2	2	2	2	1	1	1	1	1	1	1	1
HCM Control Delay	9.9	9.9	9.9	9.6	9.6	9.8	9.8	9.8	9.8	9.8	9.9	9.9	9.9	9.9	9.9	9.9
HCM LOS	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	42%	0%	28%	17%	36%	0%	0%	0%
Vol Thru, %	58%	68%	29%	45%	64%	71%	71%	71%
Vol Right, %	0%	32%	43%	38%	0%	29%	0%	29%
Sign Control	Stop							
Traffic Vol by Lane	113	97	149	119	128	115	0	0
LT Vol	47	0	42	20	46	0	0	0
Through Vol	66	66	43	54	82	82	0	0
RT Vol	0	31	64	45	0	33	0	0
Lane Flow Rate	125	107	166	132	142	127	0	0
Geometry Grp	7	7	2	2	7	7	7	7
Degree of Utl (X)	0.205	0.163	0.236	0.195	0.23	0.193	0.23	0.193
Departure Headway (Hd)	5.914	5.475	5.267	5.306	5.841	5.454	5.454	5.454
Convergence, Y/N	Yes							
Cap	609	657	685	678	618	660	660	660
Service Time	3.63	3.19	3.267	3.327	3.554	3.167	3.167	3.167
HCM Lane V/C Ratio	0.205	0.163	0.242	0.195	0.23	0.192	0.23	0.192
HCM Control Delay	10.2	9.3	9.9	9.6	10.3	9.5	9.5	9.5
HCM Lane LOS	B	A	A	A	B	A	A	A
HCM 95th-ile Q	0.8	0.6	0.9	0.7	0.9	0.7	0.7	0.7

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	7%	0%	5%	0%	85%	0%	44%	0%
Vol Thru, %	93%	28%	75%	15%	0%	0%	56%	96%
Vol Right, %	0%	72%	20%	0%	100%	0%	0%	4%
Sign Control	Stop							
Traffic Vol by Lane	40	132	20	136	70	82	48	48
LT Vol	3	0	1	116	0	36	0	0
Through Vol	37	37	15	20	0	46	46	46
RT Vol	0	95	4	0	70	0	2	2
Lane Flow Rate	41	136	21	140	72	85	49	49
Geometry Grp	7	7	6	7	7	7	7	7
Degree of Utl (X)	0.061	0.181	0.031	0.224	0.092	0.13	0.073	0.073
Departure Headway (Hd)	5.336	4.791	5.47	5.744	4.612	5.547	5.297	5.297
Convergence, Y/N	Yes							
Cap	670	747	651	624	774	645	675	675
Service Time	3.077	2.532	3.529	3.488	2.356	3.29	3.04	3.04
HCM Lane V/C Ratio	0.061	0.182	0.032	0.224	0.093	0.132	0.073	0.073
HCM Control Delay	8.4	8.6	8.7	10.2	7.8	9.1	8.5	8.5
HCM Lane LOS	A	A	A	B	A	A	A	A
HCM 95th-ile Q	0.2	0.7	0.1	0.9	0.3	0.4	0.4	0.4

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road

Opening Year + P Saturday Peak Hour
 02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh				
Intersection LOS				
Movement				
Lane Configurations				
Traffic Vol, veh/h	0	36	92	2
Future Vol, veh/h	0	36	92	2
Peak Hour Factor	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	95	2
Number of Lanes	0	0	2	0
Approach	SB			
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	2			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	8.9			
HCM LOS	A			

HCM 2010 AWSC
 1.2: West Road & Rossmoor Center Way

12/1/2016

Intersection	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	7.8								
Intersection LOS	A								
Movement									
Traffic Vol, veh/h	0	83	21	0	10	119	0	32	17
Future Vol, veh/h	0	83	21	0	10	119	0	32	17
Peak Hour Factor	0.92	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	91	23	0	11	131	0	35	19
Number of Lanes	0	1	0	0	0	1	0	1	0
Approach	EB			WB			NB		
Opposing Approach	WB			EB			EB		
Opposing Lanes	1			1			0		
Conflicting Approach Left				NB			EB		
Conflicting Lanes Left	0			1			1		
Conflicting Approach Right	NB						WB		
Conflicting Lanes Right	1			0			1		
HCM Control Delay	7.7			8			7.7		
HCM LOS	A			A			A		
Lane	NBU1	EBU1	WBU1	NBU1					
Vol Left, %	65%	0%	8%						
Vol Thru, %	0%	80%	92%						
Vol Right, %	35%	20%	0%						
Sign Control	Stop	Stop	Stop						
Traffic Vol by Lane	49	104	129						
LT Vol	32	0	10						
Through Vol	0	83	119						
RT Vol	17	21	0						
Lane Flow Rate	54	114	142						
Geometry Grp	1	1	1						
Degree of Util (X)	0.066	0.127	0.163						
Departure Headway (Hd)	4.409	4.015	4.131						
Convergence, Y/N	Yes	Yes	Yes						
Cap	817	883	862						
Service Time	2.409	2.083	2.189						
HCM Lane V/C Ratio	0.066	0.129	0.165						
HCM Control Delay	7.7	7.7	8						
HCM Lane LOS	A	A	A						
HCM 95th-ile Q	0.2	0.4	0.6						

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/1/2016

Intersection																
Intersection Delay, s/veh23.7																
Intersection LOS C																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR	
Traffic Vol, veh/h	0	21	151	36	0	216	135	107	0	43	65	217	0	97	61	24
Future Vol, veh/h	0	21	151	36	0	216	135	107	0	43	65	217	0	97	61	24
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	161	38	0	230	144	114	0	46	69	231	0	103	65	26
Number of Lanes	0	0	2	0	0	1	0	0	0	0	0	1	0	0	0	1
Approach	EB	WB	WB	EB	NB	NB	WB	WB	NB	NB	WB	WB	SB	SB	SB	SB
Opposing Approach	WB	EB	EB	WB	SB	SB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Opposing Lanes	1	2	2	2	1	1	1	1	2	2	2	2	1	1	1	1
Conflicting Approach Left	SB	NB	NB	EB	EB	WB										
Conflicting Lanes Left	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Approach Right	NB	SB	SB	WB												
Conflicting Lanes Right	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HCM Control Delay	12.2	12.2	12.2	12.2	18.9	18.9	18.9	18.9	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
HCM LOS	B	B	B	B	C	C	C	C	B	B	B	B	B	B	B	B
Lane	NBLn1	EBLn1	EBLn1	EBLn2	WBLn1	WBLn1	WBLn1	WBLn1	WBLn1	NBLn1						
Vol Left, %	13%	22%	0%	47%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%
Vol Thru, %	20%	78%	68%	29%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%
Vol Right, %	67%	0%	32%	23%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Sign Control	Stop															
Traffic Vol by Lane	325	97	112	458	162	162	162	162	162	162	162	162	162	162	162	162
LT Vol	43	21	0	216	97	97	97	97	97	97	97	97	97	97	97	97
Through Vol	65	76	76	135	61	61	61	61	61	61	61	61	61	61	61	61
RT Vol	217	0	36	107	24	24	24	24	24	24	24	24	24	24	24	24
Lane Flow Rate	346	103	119	487	194	194	194	194	194	194	194	194	194	194	194	194
Geometry Grp	2	7	7	5	2	2	2	2	2	2	2	2	2	2	2	2
Degree of Utl (X)	0.609	0.213	0.235	0.854	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383
Departure Headway (Hd)	6.338	7.468	7.124	6.309	7.124	7.124	7.124	7.124	7.124	7.124	7.124	7.124	7.124	7.124	7.124	7.124
Convergence, Y/N	Yes															
Cap	567	478	501	570	501	501	501	501	501	501	501	501	501	501	501	501
Service Time	4.415	5.257	4.913	4.378	5.216	5.216	5.216	5.216	5.216	5.216	5.216	5.216	5.216	5.216	5.216	5.216
HCM Lane V/C Ratio	0.61	0.215	0.238	0.854	0.387	0.387	0.387	0.387	0.387	0.387	0.387	0.387	0.387	0.387	0.387	0.387
HCM Control Delay	18.9	12.3	12.1	35.9	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
HCM Lane LOS	C	B	B	E	B	B	B	B	B	B	B	B	B	B	B	B
HCM 95th-ile Q	4.1	0.8	0.9	9.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/1/2016

Intersection														
Intersection Delay, s/veh16.3														
Intersection LOS C														
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT				
Traffic Vol, veh/h	0	133	398	0	70	102	0	342	53	53				
Future Vol, veh/h	0	133	398	0	70	102	0	342	53	53				
Peak Hour Factor	0.92	0.97	0.97	0.92	0.97	0.97	0.92	0.97	0.97	0.97				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	137	410	0	72	105	0	353	55	55				
Number of Lanes	0	1	1	0	1	0	0	0	0	1				
Approach	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB				
Opposing Approach	WB	WB	NB	NB	SB	SB	SB	SB	SB	SB				
Opposing Lanes	0	0	1	1	1	1	1	1	1	1				
Conflicting Approach Left	NB	NB	WB											
Conflicting Lanes Left	1	1	0	0	2	2	2	2	2	2				
Conflicting Approach Right	SB	SB	WB											
Conflicting Lanes Right	1	1	2	2	2	2	2	2	2	2				
HCM Control Delay	15.7	15.7	11	11	19.3	19.3	19.3	19.3	19.3	19.3				
HCM LOS	C	C	B	B	C	C	C	C	C	C				
Lane	NBLn1	WBLn1	WBLn2	SBLn1										
Vol Left, %	0%	100%	0%	87%	87%	87%	87%	87%	87%	87%				
Vol Thru, %	41%	0%	0%	13%	13%	13%	13%	13%	13%	13%				
Vol Right, %	59%	0%	100%	0%	0%	0%	0%	0%	0%	0%				
Sign Control	Stop													
Traffic Vol by Lane	172	133	398	395	395	395	395	395	395	395				
LT Vol	0	133	0	342	342	342	342	342	342	342				
Through Vol	70	0	0	53	53	53	53	53	53	53				
RT Vol	102	0	398	0	0	0	0	0	0	0				
Lane Flow Rate	177	137	410	407	407	407	407	407	407	407				
Geometry Grp	2	7	7	2	2	2	2	2	2	2				
Degree of Utl (X)	0.28	0.256	0.626	0.656	0.656	0.656	0.656	0.656	0.656	0.656				
Departure Headway (Hd)	5.683	6.709	5.492	5.798	5.798	5.798	5.798	5.798	5.798	5.798				
Convergence, Y/N	Yes													
Cap	629	535	666	623	623	623	623	623	623	623				
Service Time	3.738	4.453	3.236	3.841	3.841	3.841	3.841	3.841	3.841	3.841				
HCM Lane V/C Ratio	0.281	0.256	0.625	0.653	0.653	0.653	0.653	0.653	0.653	0.653				
HCM Control Delay	11	11.8	17	19.3	19.3	19.3	19.3	19.3	19.3	19.3				
HCM Lane LOS	B	B	C	C	C	C	C	C	C	C				
HCM 95th-ile Q	1.1	1	4.4	4.8	4.8	4.8	4.8	4.8	4.8	4.8				

Intersection	3.8					
Int Delay, s/veh	EBT	EBR	WBL	WBT	NBL	NBR
Movement	100	0	85	124	5	89
Traffic Vol, veh/h	100	0	85	124	5	89
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	Free	Free	Free	Free	Stop	Stop
Sign Control	-	None	-	None	-	None
RT Channelized	-	-	-	-	-	-
Storage Length	0	-	-	0	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	92	92	92	92	92	92
Peak Hour Factor	2	2	2	2	2	2
Heavy Vehicles, %	109	0	92	135	5	97
Mvmt Flow						
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	109	0	429	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	320	-
Critical Hwy	-	-	4.12	-	6.42	6.22
Critical Hwy Stg 1	-	-	-	-	5.42	-
Critical Hwy Stg 2	-	-	-	-	5.42	-
Follow-up Hwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1481	-	583	945
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	736	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1481	-	544	945
Mov Cap-2 Maneuver	-	-	-	-	544	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	687	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	3.1	9.5			
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	909	-	-	1481	-	
HCM Lane V/C Ratio	0.112	-	-	0.062	-	
HCM Control Delay (s)	9.5	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %ile Q(veh)	0.4	-	-	0.2	-	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	31	18	762	48	584	15	1156	182	477	1591	79
Future Volume (veh/h)	95	31	18	762	48	584	15	1156	182	477	1591	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	95	31	18	796	0	0	15	1156	182	477	1591	79
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	89	55	32	859	0	383	30	1232	384	674	3161	984
Arrive On Green	0.05	0.05	0.05	0.24	0.00	0.00	0.02	0.24	0.24	0.25	0.42	0.42
Sat Flow, veh/h	1774	1107	643	3548	0	1583	1774	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	95	0	49	796	0	0	15	1156	182	477	1591	79
Grp Sat Flow(s), veh/h	1774	0	1749	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	5.5	0.0	3.0	24.1	0.0	0.0	0.9	24.5	10.8	26.9	25.4	3.3
Cycle Q Clear(g.c), s	5.5	0.0	3.0	24.1	0.0	0.0	0.9	24.5	10.8	26.9	25.4	3.3
Prop In Lane	1.00	0.00	0.37	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	89	0	87	859	0	383	30	1232	384	674	3161	984
V/C Ratio(X)	1.07	0.00	0.56	0.93	0.00	0.00	0.51	0.94	0.47	0.71	0.50	0.08
Avail Cap(c.a), veh/h	89	0	87	887	0	396	81	1234	384	674	3161	984
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	52.3	0.0	51.1	40.7	0.0	0.0	53.6	40.9	35.7	35.5	19.6	13.1
Incr Delay (d2), s/veh	116.2	0.0	7.8	15.2	0.0	0.0	12.7	14.5	4.2	2.6	0.4	0.1
Initial Q Delay(d3), s/veh	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back(Q(50%)) veh/h	5.5	0.0	1.6	13.6	0.0	0.0	6.6	13.1	5.2	13.7	12.0	1.5
LnGrp Delay(d), s/veh	169.1	0.0	58.9	55.9	0.0	0.0	66.3	55.4	39.8	38.0	20.0	13.2
LnGrp LOS	F	E	E	E	E	E	E	D	D	D	B	B
Approach Vol, veh/h	144	1363										
Approach Delay, s/veh	131.6	55.9										
Approach LOS	F	E										
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	47.6	32.5	10.2	5.8	74.2	32.4						
Change Period (Y+Rc), s	5.8	* 5.8	* 4.7	4.0	5.8	5.8						
Max Green Setting (Gmax), s	30.0	* 27	* 5.5	5.0	51.7	27.5						
Max Q Clear Time (g_c+H), s	28.9	26.5	7.5	2.9	27.4	26.1						
Green Ext Time (p_c), s	0.2	0.1	0.0	0.0	14.4	0.5						
Intersection Summary	42.1											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

12/5/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1
Traffic Volume (veh/h)	10	12	5	402	58	612	120	1324	381	366	1726	508
Future Volume (veh/h)	10	12	5	402	58	612	120	1324	381	366	1726	508
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Obs.) veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	10	12	5	402	0	651	120	1324	0	366	1726	508
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour 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
Cap. veh/h	45	48	40	879	0	784	547	1879	585	306	1866	581
Arrive On Green	0.03	0.03	0.03	0.25	0.00	0.25	0.32	0.74	0.00	0.17	0.37	0.37
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	10	12	5	402	0	651	120	1324	0	366	1726	508
Grp Sat Flow(s), veh/h/m	1774	1863	1583	1774	0	1583	1721	1695	1583	1774	1695	1583
Q Serve(g.s.)	0.6	0.7	0.3	10.6	0.0	21.4	2.8	15.6	0.0	19.0	35.8	32.9
Cycle Q Clear(g.s.)	0.6	0.7	0.3	10.6	0.0	21.4	2.8	15.6	0.0	19.0	35.8	32.9
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	45	48	40	879	0	784	547	1879	585	306	1866	581
V/C Ratio(X)	0.22	0.25	0.12	0.46	0.00	0.83	0.22	0.70	0.00	1.19	0.93	0.87
Avail Cap(c), veh/h	81	85	72	1258	0	1123	547	1879	585	306	1866	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.59	0.59	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	52.6	52.6	35.1	0.0	39.2	32.5	11.1	0.0	45.5	33.4	32.5
Incr Delay (d2), s/veh	2.4	2.7	1.4	0.4	0.0	3.7	0.1	1.3	0.0	11.50	9.3	16.7
Initial Q Delay(Q3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.4	0.2	0.2	5.2	0.0	9.8	1.3	7.1	0.0	19.1	18.2	17.1
LnGrp Delay(d), s/veh	54.9	55.3	53.7	35.5	0.0	42.9	32.6	12.4	0.0	160.5	42.7	48.1
LnGrp LOS	D	E	D	D	D	C	B	F	D	D	D	D
Approach Vol, veh/h	27	54.9	1063	1444	400	1444	1444	2600	1444	60.5	2600	60.5
Approach Delay, s/veh	D	D	D	D	D	B	B	E	E	E	E	E
Approach LOS	D	D	D	D	D	B	B	E	E	E	E	E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+R), s	46.5	46.5	7.5	23.3	46.2							
Change Period (Y+R), s	4.0	5.8	* 4.7	5.8	* 5.8							
Max Green Setting (Gmax), s	26.7	26.7	* 5.0	41	39.0							
Max Q Clear Time (g_c+d), s	17.6	17.6	2.7	4.8	37.8							
Green Ext Time (p_c), s	0.0	5.6	0.0	0.0	2.6							

Intersection Summary
 HCM 2010 Ctrl Delay 43.2
 HCM 2010 LOS D
 Notes

Future Buildout NP AM Mon Feb 20, 2017 15:28:35 Page 2-1
 Health Club within The Shops at Rossmoor
 Future (2035) Buildout No Project
 AM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.809
 Loss Time (sec): 69 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 69 Level Of Service: D
 Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - I - R L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Protected Protected Permitted
 Rights: Ovl Ovl Ovl Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 2 0 0 1
 Volume Module: 0 1614 334 361 1849 0 0 0 0 0 769 0 668
 Base Vol: 0 1614 334 361 1849 0 0 0 0 0 769 0 668
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1614 334 361 1849 0 0 0 0 0 769 0 668
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1614 334 361 1849 0 0 0 0 0 769 0 668
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1614 334 361 1849 0 0 0 0 0 769 0 668
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1614 334 361 1849 0 0 0 0 0 769 0 668
 OvlAdjVol: 0 1614 334 361 1849 0 0 0 0 0 769 0 487
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 0 3400 0 1700
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.32 0.20 0.11 0.36 0.00 0.00 0.00 0.00 0.23 0.00 0.39
 OvlAdjV/S: *****
 Crit Moves: *****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.498
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 33 Level Of Service: A

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1

Volume Module:
 Base Vol: 59 1794 34 23 1539 33 21 4 15 26 2 23
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 59 1794 34 23 1539 33 21 4 15 26 2 23
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 59 1794 34 23 1539 33 21 4 15 26 2 23
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 59 1794 34 23 1539 33 21 4 15 26 2 23
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 59 1794 34 23 1539 33 21 4 15 26 2 23

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.92 0.06 1.00 2.94 0.06 1.00 0.21 0.79 1.00 0.08 0.92
 Final Sat.: 1700 5005 95 1700 4993 107 1700 358 1342 1700 136 1564

Capacity Analysis Module:
 Vol/Sat: 0.03 0.36 0.36 0.01 0.31 0.31 0.01 0.01 0.01 0.02 0.01 0.01
 Crit Moves: *****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.623
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 42 Level Of Service: B

 Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Split Phase	Split Phase
Rights:	Include	Include	OVI	Include
Min. Green:	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0
Lanes:	2	0	2	1

Volume Module:
 Base Vol: 413 1826 51 4 1501 57 116 3 621 71 14 2
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 413 1826 51 4 1501 57 116 3 621 71 14 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 413 1826 51 4 1501 57 116 3 621 71 14 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 413 1826 51 4 1501 57 116 3 621 71 14 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 413 1826 51 4 1501 57 116 3 621 71 14 2
 OriAdjVol: *****

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.92 0.08 1.00 2.89 0.11 0.97 0.03 2.00 1.63 0.32 0.05
 Final Sat.: 3400 4961 139 1700 4913 187 1657 43 3400 2775 547 78

Capacity Analysis Module:
 Vol/Sat: 0.12 0.37 0.37 0.00 0.31 0.31 0.07 0.07 0.18 0.03 0.03 0.03
 OriAdjV/S: *****
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.766
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: C

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Include	Permitted
Rights:	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 160 1676 28 30 1516 185 305 20 106 77 24 31
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 160 1676 28 30 1516 185 305 20 106 77 24 31
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 160 1676 28 30 1516 185 305 20 106 77 24 31
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 160 1676 28 30 1516 185 305 20 106 77 24 31
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 160 1676 28 30 1516 185 305 20 106 77 24 31

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 2.95 0.05 1.00 2.67 0.33 1.00 0.16 0.84 0.76 0.24 1.00
 Final Sat.: 1700 5016 84 1700 4545 955 1700 270 1430 1296 404 1700

Capacity Analysis Module:
 Vol/Sat: 0.09 0.33 0.33 0.02 0.33 0.33 0.18 0.07 0.07 0.05 0.06 0.02
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.544
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 36 Level Of Service: A

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Include	Permitted
Rights:	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 71 1761 16 21 1562 77 84 8 85 19 11 43
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 71 1761 16 21 1562 77 84 8 85 19 11 43
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 71 1761 16 21 1562 77 84 8 85 19 11 43
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 71 1761 16 21 1562 77 84 8 85 19 11 43
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 71 1761 16 21 1562 77 84 8 85 19 11 43

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 2.97 0.03 1.00 2.86 0.14 1.00 0.09 0.91 1.00 0.20 0.80
 Final Sat.: 1700 5054 46 1700 4860 240 1700 146 1554 1700 346 1354

Capacity Analysis Module:
 Vol/Sat: 0.04 0.35 0.35 0.01 0.32 0.32 0.05 0.05 0.05 0.01 0.03 0.03
 Crit Moves: *****

HCM 2010 TWSC

8: Yellowtail Drive & Saint Cloud Drive

12/5/2016

Intersection	1 2											
Int Delay, s/veh	10.4											
Intersection LOS	B											
Movement	EBT	EBR	WBL	WBT	NBL	NBR						
Traffic Vol, veh/h	662	4	31	441	9	77						
Future Vol, veh/h	662	4	31	441	9	77						
Conflicting Peds, #/hr	0	0	0	0	0	0						
Sign Control	Free	Free	Free	Free	Stop	Stop						
RT Channelized	-	None	-	None	-	None						
Storage Length	-	-	-	-	0	-						
Veh in Median Storage, #	0	-	-	0	0	-						
Grade, %	0	-	-	0	0	-						
Peak Hour Factor	100	100	100	100	100	100						
Heavy Vehicles, %	2	2	2	2	2	2						
Mvmt Flow	662	4	31	441	9	77						
Major/Minor	Major1						Major2					
Conflicting Flow All	0	0	666	0	947	333						
Stage 1	-	-	-	-	664	-						
Stage 2	-	-	-	-	283	-						
Critical Hwy	-	-	4.14	-	6.84	6.94						
Critical Hwy Stg 1	-	-	-	-	5.84	-						
Critical Hwy Stg 2	-	-	-	-	5.84	-						
Follow-up Hwy	-	-	2.22	-	3.52	3.32						
Pot Cap-1 Maneuver	-	-	919	-	259	663						
Stage 1	-	-	-	-	474	-						
Stage 2	-	-	-	-	740	-						
Platoon blocked, %	-	-	-	-	-	-						
Mov Cap-1 Maneuver	-	-	919	-	247	663						
Mov Cap-2 Maneuver	-	-	-	-	247	-						
Stage 1	-	-	-	-	474	-						
Stage 2	-	-	-	-	707	-						
Approach	EB	WB	NB									
HCM Control Delay, s	0	0.8	12.5									
HCM LOS	B											
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT							
Capacity (veh/h)	564	-	-	919	-							
HCM Lane V/C Ratio	0.152	-	-	0.034	-							
HCM Control Delay (s)	12.5	-	-	9.1	0.2							
HCM Lane LOS	B	-	-	A	A							
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-							

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection	10.4											
Intersection Delay, s/veh	10.4											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	59	7	138	0	2	3	1	0	118	183	2
Future Vol, veh/h	0	59	7	138	0	2	3	1	0	118	183	2
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	59	7	138	0	2	3	1	0	118	183	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2
Approach	EB	WB	NB	NB	NB	NB						
Opposing Approach	WB	WB	EB	EB	SB	SB	SB	SB	SB	SB	SB	SB
Opposing Lanes	1	1	1	1	1	1	1	1	2	2	2	2
Conflicting Approach Left	SB	SB	NB	NB	EB	EB	EB	EB	EB	EB	EB	EB
Conflicting Lanes Left	2	2	2	2	2	2	2	2	1	1	1	1
Conflicting Approach Right	NB	NB	SB	SB	WB	WB	WB	WB	WB	WB	WB	WB
Conflicting Lanes Right	2	2	2	2	2	2	2	2	2	2	2	2
HCM Control Delay	10.2	10.2	8.9	8.9	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
HCM LOS	B	B	A	A	B	B	B	B	B	B	B	B
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2				
Vol Left, %	56%	0%	29%	33%	0%	0%	0%	0%				
Vol Thru, %	44%	98%	3%	50%	100%	78%	78%	78%				
Vol Right, %	0%	2%	68%	17%	0%	22%	22%	22%				
Sign Control	Stop											
Traffic Vol by Lane	210	94	204	6	209	134	134	134				
LT Vol	118	0	59	2	0	0	0	0				
Through Vol	92	92	7	3	209	104	104	104				
RT Vol	0	2	138	1	0	30	30	30				
Lane Flow Rate	210	94	204	6	209	134	134	134				
Geometry Grp	7	7	2	2	7	7	7	7				
Degree of Utl (X)	0.332	0.14	0.288	0.01	0.313	0.195	0.195	0.195				
Departure Headway (Hr)	5.706	5.407	5.074	5.86	5.395	5.237	5.237	5.237				
Convergence, Y/N	Yes											
Cap	624	656	702	614	659	678	678	678				
Service Time	3.499	3.199	3.148	3.86	3.185	3.027	3.027	3.027				
HCM Lane V/C Ratio	0.337	0.143	0.291	0.01	0.317	0.198	0.198	0.198				
HCM Control Delay	11.4	9.1	10.2	8.9	10.7	9.3	9.3	9.3				
HCM Lane LOS	B	A	B	A	B	A	A	A				
HCM 95th-tile Q	1.5	0.5	1.2	0	1.3	0.7	0.7	0.7				

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection	Intersection Delay, s/veh					
Intersection LOS	SBU	SBL	SBT	SBR		
Movement	0	0	313	30		
Traffic Vol, veh/h	0	0	313	30		
Future Vol, veh/h	0	0	313	30		
Peak Hour Factor	1.00	1.00	1.00	1.00		
Heavy Vehicles, %	2	2	2	2		
Mvmt Flow	0	0	313	30		
Number of Lanes	0	0	2	0		

Approach	SB	SB
Opposing Approach	NB	NB
Opposing Lanes	2	2
Conflicting Approach Left	WB	WB
Conflicting Lanes Left	1	1
Conflicting Approach Right	EB	EB
Conflicting Lanes Right	1	1
HCM Control Delay	10.2	10.2
HCM LOS	B	B

Lane

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmoor Center Way

12/5/2016

Intersection	Intersection Delay, s/veh											
Intersection LOS	EB		WB		EB		WB		NB		SB	
Movement	0	106	67	96	0	14	46	34	0	43	198	23
Traffic Vol, veh/h	0	106	67	96	0	14	46	34	0	43	198	23
Future Vol, veh/h	0	106	67	96	0	14	46	34	0	43	198	23
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	106	67	96	0	14	46	34	0	43	198	23
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0

Approach	EB	WB	WB	EB	NB	SB
Opposing Approach	WB	WB	EB	EB	SB	NB
Opposing Lanes	1	1	1	1	2	2
Conflicting Approach Left	SB	NB	NB	EB	WB	WB
Conflicting Lanes Left	2	2	2	1	1	1
Conflicting Approach Right	NB	SB	SB	WB	WB	EB
Conflicting Lanes Right	2	2	2	1	1	1
HCM Control Delay	12.3	9.9	9.9	10.5	10.5	10.7
HCM LOS	B	A	A	B	B	B

Lane

	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	30%	0%	39%	15%	19%	0%
Vol Thru, %	70%	81%	25%	49%	81%	61%
Vol Right, %	0%	19%	36%	36%	0%	39%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	142	122	269	94	137	182
LT Vol	43	0	106	14	26	0
Through Vol	99	99	67	46	111	111
RT Vol	0	23	96	34	0	71
Lane Flow Rate	142	122	269	94	137	182
Geometry Grp	7	7	2	2	7	7
Degree of Utl (X)	0.244	0.2	0.409	0.151	0.231	0.288
Departure Headway (Hd)	6.192	5.904	5.478	5.774	6.07	5.697
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	579	608	666	619	592	630
Service Time	3.936	3.648	3.519	3.826	3.811	3.438
HCM Lane V/C Ratio	0.245	0.201	0.41	0.152	0.231	0.289
HCM Control Delay	10.9	10.1	12.3	9.9	10.6	10.7
HCM Lane LOS	B	B	B	A	B	B
HCM 95th-tile Q	1	0.7	2	0.5	0.9	1.2

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road
 Future Year AM Peak Hour
 02/22/2017

Intersection													
Intersection Delay, s/veh	11.3												
Intersection LOS	B												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	
Lane Configurations	0	5	26	2	0	148	20	160	0	0	152	240	
Traffic Vol, veh/h	0	5	26	2	0	148	20	160	0	0	152	240	
Future Vol, veh/h	0	5	26	2	0	148	20	160	0	0	152	240	
Peak Hour 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	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	5	26	2	0	148	20	160	0	0	152	240	
Number of Lanes	0	0	1	0	0	0	1	1	0	0	2	0	

Approach	EB	EB	WB	WB	WB	WB	WB	NB	NB
Opposing Approach	WB	WB	EB	EB	WB	WB	WB	SB	SB
Opposing Lanes	2	2	1	1	2	2	2	2	2
Conflicting Approach Left	SB	SB	NB	NB	WB	WB	WB	EB	EB
Conflicting Lanes Left	2	2	2	2	2	2	2	1	1
Conflicting Approach Right	NB	NB	SB	SB	WB	WB	WB	WB	WB
Conflicting Lanes Right	2	2	2	2	2	2	2	2	2
HCM Control Delay	10.3	10.3	11.2	11.2	11.2	11.2	11.6	11.6	11.6
HCM LOS	B	B	B	B	B	B	B	B	B

Lane	NBLn1	NBLn2	NBLn1	NBLn2	WBLn1	WBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	15%	88%	0%	53%	0%	0%	0%	0%
Vol Thru, %	100%	17%	79%	12%	0%	47%	97%	0%	0%	0%
Vol Right, %	0%	83%	6%	0%	100%	0%	3%	0%	0%	0%
Sign Control	Stop									
Traffic Vol by Lane	101	291	33	168	160	153	74	0	0	0
LT Vol	0	0	5	148	0	81	0	0	0	0
Through Vol	101	51	26	20	0	72	72	0	0	0
RT Vol	0	240	2	0	160	0	2	0	0	0
Lane Flow Rate	101	291	33	168	160	153	74	0	0	0
Geometry Grp	7	7	6	7	7	7	7	7	7	7
Degree of Utl (X)	0.168	0.433	0.062	0.311	0.245	0.272	0.126	0.272	0.126	0.126
Departure Headway (Hd)	5.951	5.365	6.757	6.669	5.516	6.394	6.106	6.394	6.106	6.106
Convergence, Y/N	Yes									
Cap	603	671	529	539	651	562	587	562	587	587
Service Time	3.687	3.101	4.812	4.407	3.254	4.133	3.845	4.133	3.845	3.845
HCM Lane V/C Ratio	0.167	0.434	0.062	0.312	0.246	0.272	0.126	0.272	0.126	0.126
HCM Control Delay	9.9	12.2	10.3	12.4	10	11.5	9.7	11.5	9.7	9.7
HCM Lane LOS	A	B	B	B	A	B	A	B	A	A
HCM 95th-tile Q	0.6	2.2	0.2	1.3	1	1.1	0.4	1.1	0.4	0.4

HCM 2010 AWSC
 1.1: Montecito Road & Bradbury Road
 Future Year AM Peak Hour
 02/22/2017

Intersection													
Intersection Delay, s/veh	11.3												
Intersection LOS	B												
Movement	SBU	SBL	SBT	SBR									
Lane Configurations	0	81	144	2									
Traffic Vol, veh/h	0	81	144	2									
Future Vol, veh/h	0	81	144	2									
Peak Hour Factor	1.00	1.00	1.00	1.00									
Heavy Vehicles, %	2	2	2	2									
Mvmt Flow	0	81	144	2									
Number of Lanes	0	0	2	0									

Approach	SB	SB	SB	SB
Opposing Approach	NB	NB	NB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	WB	WB	WB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	EB	EB	EB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.9	10.9	10.9	10.9
HCM LOS	B	B	B	B

HCM 2010 AWSC

12: West Road & Rossmoor Center Way

12/5/2016

Intersection												
Intersection Delay, s/veh 7.6												
Intersection LOS A												
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR			
Traffic Vol, veh/h	0	108	8	0	7	94	0	4	13			
Future Vol, veh/h	0	108	8	0	7	94	0	4	13			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	108	8	0	7	94	0	4	13			
Number of Lanes	0	1	0	0	0	1	0	1	0			
Approach	EB	WB	WB	EB	NB	NB						
Opposing Approach	WB	EB										
Opposing Lanes	1	1										
Conflicting Approach Left	0	NB	EB									
Conflicting Lanes Left	1	1										
Conflicting Approach Right	NB	WB										
Conflicting Lanes Right	1	1										
HCM Control Delay	7.6	7.6	7.1									
HCM LOS	A	A	A									
Lane	NBLn1	EBLn1	WBLn1	NBLn1								
Vol Left, %	24%	0%	7%									
Vol Thru, %	0%	93%	93%									
Vol Right, %	76%	7%	0%									
Sign Control	Stop	Stop	Stop									
Traffic Vol by Lane	17	116	101									
LT Vol	4	0	7									
Through Vol	0	108	94									
RT Vol	13	8	0									
Lane Flow Rate	17	116	101									
Geometry Grp	1	1	1									
Degree of Util (X)	0.018	0.129	0.114									
Departure Headway (Hd)	3.832	3.998	4.064									
Convergence, Y/N	Yes	Yes	Yes									
Cap	904	897	882									
Service Time	1.985	2.024	2.092									
HCM Lane V/C Ratio	0.019	0.129	0.115									
HCM Control Delay	7.1	7.6	7.6									
HCM Lane LOS	A	A	A									
HCM 95th-tile Q	0.1	0.4	0.4									

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/5/2016

Intersection														
Intersection Delay, s/veh 8.7														
Intersection LOS A														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	38	107	15	0	80	64	56	0	14	18	34	0	65
Future Vol, veh/h	0	38	107	15	0	80	64	56	0	14	18	34	0	65
Peak Hour 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	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	107	15	0	80	64	56	0	14	18	34	0	65
Number of Lanes	0	0	2	0	0	0	1	0	0	1	0	0	0	1
Approach	EB	EB	WB	WB	EB	NB	NB	SB	SB					
Opposing Approach	WB	WB	EB	EB										
Opposing Lanes	1	1	2	1										
Conflicting Approach Left	SB	NB	NB	EB										
Conflicting Lanes Left	1	1	2	1										
Conflicting Approach Right	NB	SB	WB	WB										
Conflicting Lanes Right	1	1	1	1										
HCM Control Delay	8.6	8.6	9.1	8.1										
HCM LOS	A	A	A	A										
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1									
Vol Left, %	21%	42%	0%	40%	66%									
Vol Thru, %	27%	58%	78%	32%	18%									
Vol Right, %	52%	0%	22%	28%	16%									
Sign Control	Stop	Stop	Stop	Stop	Stop									
Traffic Vol by Lane	66	92	69	200	99									
LT Vol	14	38	0	80	65									
Through Vol	18	54	54	64	18									
RT Vol	34	0	15	56	16									
Lane Flow Rate	66	92	68	200	99									
Geometry Grp	2	7	7	5	2									
Degree of Util (X)	0.085	0.135	0.094	0.252	0.135									
Departure Headway (Hd)	4.646	5.311	4.948	4.541	4.898									
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes									
Cap	770	674	723	790	732									
Service Time	2.685	3.046	2.682	2.573	2.933									
HCM Lane V/C Ratio	0.086	0.136	0.094	0.253	0.135									
HCM Control Delay	8.1	8.9	8.2	9.1	8.7									
HCM Lane LOS	A	A	A	A	A									
HCM 95th-tile Q	0.3	0.5	0.3	1	0.5									

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/5/2016

Intersection										
Intersection Delay, s/veh 7.7										
Intersection LOS A										
Movement	WBU	WBL	WBR	NBU	NBL	NBR	SBU	SBL	SBT	SBT
Traffic Vol, veh/h	0	74	41	0	18	33	0	31	16	16
Future Vol, veh/h	0	74	41	0	18	33	0	31	16	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	74	41	0	18	33	0	31	16	16
Number of Lanes	0	1	1	0	1	0	0	0	0	1
Approach	WB		NB		SB		SB			
Opposing Approach	0		SB		NB		NB			
Opposing Lanes	0		1		1		1			
Conflicting Approach Left	NB		WB		WB		2			
Conflicting Lanes Left	1		0		2		2			
Conflicting Approach Right	SB		WB		WB		0			
Conflicting Lanes Right	1		2		0		0			
HCM Control Delay	8		7.1		7.7		A			
HCM LOS	A		A		A		A			
Lane	NBLn1 WBLn1 WBLn2		SBLn1		SBLn1		SBLn1			
Vol Left, %	0%		100%		0%		66%			
Vol Thru, %	35%		0%		0%		34%			
Vol Right, %	65%		0%		100%		0%			
Sign Control	Stop		Stop		Stop		Stop			
Traffic Vol by Lane	51	74	41	47	47	47	47	47	47	47
LT Vol	0		74		0		31			
Through Vol	18		0		0		16			
RT Vol	33		0		41		0			
Lane Flow Rate	51	74	41	47	47	47	47	47	47	47
Geometry Grp	2		7		7		2			
Degree of Util (X)	0.055		0.107		0.046		0.067			
Departure Headway (Hd)	3.884		5.204		4.003		4.402			
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	928	687	890	818	818	818	818	818	818	818
Service Time	1.884		2.953		1.75		2.404			
HCM Lane V/C Ratio	0.055		0.108		0.046		0.067			
HCM Control Delay	7.1		8.6		6.9		7.7			
HCM Lane LOS	A		A		A		A			
HCM 95th-tile Q	0.2		0.4		0.1		0.2			

HCM 2010 TWSC

15: Project Driveway & Rossmore Center Way

12/5/2016

Intersection										
Intersection Delay, s/veh 0.8										
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Traffic Vol, veh/h	120	0	10	104	0	12				
Future Vol, veh/h	120	0	10	104	0	12				
Conflicting Peds, #/hr	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Stop	Stop				
RT Channelized	-	None	-	None	-	None				
Storage Length	-	-	-	-	0	-				
Veh in Median Storage, #	0	-	-	0	0	-				
Grade, %	0	-	-	0	0	-				
Peak Hour Factor	100	100	100	100	100	100				
Heavy Vehicles, %	2	2	2	2	2	2				
Mvmt Flow	120	0	10	104	0	12				
Major/Minor	Major1		Major2		Minor1					
Conflicting Flow All	0	0	120	0	244	120				
Stage 1	-	-	-	-	120	-				
Stage 2	-	-	-	-	124	-				
Critical Hdwy	-	-	4.12	-	6.42	6.22				
Critical Hdwy Stg 1	-	-	-	-	5.42	-				
Critical Hdwy Stg 2	-	-	-	-	5.42	-				
Follow-up Hdwy	-	-	2.218	-	3.518	3.318				
Pot Cap-1 Maneuver	-	-	1468	-	744	931				
Stage 1	-	-	-	-	905	-				
Stage 2	-	-	-	-	902	-				
Platoon blocked, %	-	-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	1468	-	739	931				
Mov Cap-2 Maneuver	-	-	-	-	739	-				
Stage 1	-	-	-	-	905	-				
Stage 2	-	-	-	-	896	-				
Approach	EB		WB		NB					
HCM Control Delay, s	0		0.7		8.9					
HCM LOS	A		A		A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT					
Capacity (veh/h)	931	-	-	1468	-					
HCM Lane V/C Ratio	0.013	-	-	0.007	-					
HCM Control Delay (s)	8.9	-	-	7.5	0					
HCM Lane LOS	A	-	-	A	A					
HCM 95th-tile Q(veh)	0	-	-	0	-					

12/5/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (veh/h)	84	79	95	214	16	739	45	1695	608	350	1587	406
Future Volume (veh/h)	84	79	95	214	16	739	45	1695	608	350	1587	406
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	84	79	95	214	0	750	45	1695	0	350	1587	406
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour 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
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	93	98	83	955	0	853	111	1741	542	296	2424	755
Arrive On Green	0.05	0.05	0.05	0.27	0.00	0.27	0.06	0.68	0.00	0.17	0.48	0.48
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	84	79	95	214	0	750	45	1695	0	350	1587	406
Grp Sat Flow(s), veh/h/ln	1863	1863	1774	0	1583	1721	1695	1583	1774	1695	1583	1583
Q Serve(g.s), s	5.7	5.0	6.3	5.6	0.0	27.2	1.5	37.8	0.0	20.0	28.5	21.7
Cycle Q Clear(g.c), s	5.7	5.0	6.3	5.6	0.0	27.2	1.5	37.8	0.0	20.0	28.5	21.7
Prop In Lane	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	83	98	83	955	0	853	111	1741	542	296	2424	755
V/C Ratio(X)	0.90	0.81	1.14	0.22	0.00	0.88	0.40	0.97	0.00	1.18	0.65	0.94
Avail Cap(c.a), veh/h	93	98	83	1189	0	1061	172	1741	542	296	2424	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.48	0.48	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	56.3	56.8	34.1	0.0	42.0	55.0	18.4	0.0	50.0	23.9	22.1
Incr Delay (d2), s/veh	62.3	37.7	142.5	0.1	0.0	7.3	1.1	9.9	0.0	111.7	1.4	2.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.4	3.6	6.1	2.8	0.0	12.7	0.7	18.5	0.0	18.9	13.5	10.0
LnGrp Delay(d), s/veh	119.9	93.9	199.3	34.2	0.0	49.3	56.1	28.3	0.0	161.7	25.3	24.8
LnGrp LOS	F	F	F	C	D	E	C	C	F	C	C	C
Approach Vol, veh/h	258			964			1740			2343		
Approach Delay, s/veh	140.8			46.0			29.1			45.6		
Approach LOS	F			D			C			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	44.0	46.9	11.0	7.9	63.0	38.1						
Change Period (Y+Rc), s	4.0	5.8	* 4.7	4.0	5.8	5.8						
Max Green Setting (Gmax), s	33.0	* 39	6.3	6.0	47.2	40.2						
Max Q Clear Time (g_c+I), s	35.6	39.0	8.8	2.8	2.0	14.6						
Green Ext Time (p_c), s	0.6	0.0	0.0	0.0	0.0	15.7						
Intersection Summary	44.9											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

12/5/2016
 HCM 2010 Signalized Intersection Summary
 1: Seal Beach Boulevard & I-405 SB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (veh/h)	182	33	22	351	38	574	12	1587	395	573	1170	139
Future Volume (veh/h)	182	33	22	351	38	574	12	1587	395	573	1170	139
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	182	33	22	378	0	0	12	1587	395	573	1170	139
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour 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
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	130	77	51	426	0	190	24	1632	508	615	3401	1059
Arrive On Green	0.07	0.07	0.07	0.12	0.00	0.00	0.01	0.32	0.32	0.69	1.00	1.00
Sat Flow, veh/h	1774	1044	696	3548	0	1583	1774	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	182	0	55	378	0	0	12	1587	395	573	1170	139
Grp Sat Flow(s), veh/h/ln	1774	0	1740	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	8.8	0.0	3.6	12.6	0.0	0.0	0.8	37.0	27.1	33.6	0.0	0.0
Cycle Q Clear(g.c), s	8.8	0.0	3.6	12.6	0.0	0.0	0.8	37.0	27.1	33.6	0.0	0.0
Prop In Lane	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	130	0	128	426	0	190	24	1632	508	615	3401	1059
V/C Ratio(X)	1.40	0.00	0.43	0.89	0.00	0.00	0.49	0.97	0.78	0.93	0.34	0.13
Avail Cap(c.a), veh/h	130	0	128	426	0	190	24	1632	508	615	3401	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	55.6	0.0	53.2	52.0	0.0	0.0	58.8	40.2	36.9	17.2	0.0	0.0
Incr Delay (d2), s/veh	219.3	0.0	2.3	19.8	0.0	0.0	14.6	16.7	11.1	18.7	0.2	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	12.2	0.0	1.8	7.4	0.0	0.0	0.5	19.9	13.4	19.1	0.1	0.1
LnGrp Delay(d), s/veh	274.9	0.0	55.5	71.8	0.0	0.0	73.3	56.9	48.0	35.9	0.2	0.2
LnGrp LOS	F	E	E	E	E	E	E	D	D	D	A	A
Approach Vol, veh/h	237			378			1994			1882		
Approach Delay, s/veh	224.0			71.8			55.2			11.1		
Approach LOS	F			E			E			B		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	47.4	44.3	13.5	5.6	86.1	20.2						
Change Period (Y+Rc), s	5.8	* 5.8	* 4.7	4.0	5.8	5.8						
Max Green Setting (Gmax), s	38.0	* 39	8.8	5.0	71.5	14.4						
Max Q Clear Time (g_c+I), s	35.6	39.0	10.8	2.8	2.0	14.6						
Green Ext Time (p_c), s	0.6	0.0	0.0	0.0	0.0	15.2						
Intersection Summary	47.0											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.848
 Loss Time (sec): 79 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 79 Level Of Service: D
 Street Name: Seal Beach Blvd Lampson Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Permitted
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 2 0 0 0 1

Volume Module:
 Base Vol: 0 1888 596 694 1763 0 0 0 0 591 0 519
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1888 596 694 1763 0 0 0 591 0 519
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1888 596 694 1763 0 0 0 591 0 519
 Reduct Vol: 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1888 596 694 1763 0 0 0 591 0 519
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1888 596 694 1763 0 0 0 591 0 519
 OvlAdjVol: 0 172

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.37 0.35 0.20 0.35 0.00 0.00 0.00
 OvlAdjV/S: 0.17 0.00 0.31 0.10
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.738
 Loss Time (sec): 55 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 55 Level Of Service: C
 Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected
 Rights: Include Include Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 1 0 1 0 2 1 0 0 1 0 0 2 1 0 1 0 0

Volume Module:
 Base Vol: 445 1829 145 5 1831 75 102 0 422 211 34 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 445 1829 145 5 1831 75 102 0 422 211 34 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 445 1829 145 5 1831 75 102 0 422 211 34 5
 Reduct Vol: 0 0 0 0 0 0 0 0
 Reduced Vol: 445 1829 145 5 1831 75 102 0 422 211 34 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 445 1829 145 5 1831 75 102 0 422 211 34 5
 OvlAdjVol: 0

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.78 0.22 1.00 2.88 0.12 1.00 0.00
 Final Sat.: 3400 4725 375 1700 4899 201 1700 0 3400 2870 462 68

Capacity Analysis Module:
 Vol/Sat: 0.13 0.39 0.39 0.00 0.37 0.06 0.00 0.12
 OvlAdjV/S: 0.07 0.07 0.07 0.00
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.776
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 62 Level Of Service: C

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0
 Volume Module:
 Base Vol: 222 1590 92 85 1522 102 108 31 203 152 51 65
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 222 1590 92 85 1522 102 108 31 203 152 51 65
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 222 1590 92 85 1522 102 108 31 203 152 51 65
 Reduct Vol: 0 0 0 0
 Reduced Vol: 222 1590 92 85 1522 102 108 31 203 152 51 65
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 222 1590 92 85 1522 102 108 31 203 152 51 65
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.84 0.16 1.00 2.81 0.19 1.00 0.13 0.87 1.00 0.44 0.56
 Final Sat.: 1700 4821 279 1700 4780 320 1700 225 1475 1700 747 953
 Capacity Analysis Module:
 Vol/Sat: 0.13 0.33 0.33 0.05 0.32 0.32 0.06 0.14 0.14 0.09 0.07 0.07
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.713
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 52 Level Of Service: C

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0
 Volume Module:
 Base Vol: 174 1720 26 39 1735 208 201 1 142 16 1 18
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 174 1720 26 39 1735 208 201 1 142 16 1 18
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 174 1720 26 39 1735 208 201 1 142 16 1 18
 Reduct Vol: 0 0 0 0
 Reduced Vol: 174 1720 26 39 1735 208 201 1 142 16 1 18
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 174 1720 26 39 1735 208 201 1 142 16 1 18
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 2.96 0.04 1.00 2.68 0.32 1.00 0.01 0.99 1.00 0.05 0.95
 Final Sat.: 1700 5024 76 1700 4554 546 1700 12 1688 1700 89 1611
 Capacity Analysis Module:
 Vol/Sat: 0.10 0.34 0.34 0.02 0.38 0.38 0.12 0.08 0.08 0.01 0.01 0.01
 Crit Moves: *****

Intersection	12	
Int Delay, s/veh	12	
Movement	EBT EBR	WBL WBT
Traffic Vol, veh/h	485 8	58 496
Future Vol, veh/h	485 8	58 496
Conflicting Peds, #/hr	0 0	0 0
Sign Control	Free Free	Free Free
RT Channelized	- None	- None
Storage Length	- -	- -
Veh in Median Storage, #	0 -	0 0
Grade, %	0 -	- 0
Peak Hour Factor	100 100	100 100
Heavy Vehicles, %	2 2	2 2
Mvmt Flow	485 8	58 496
Major/Minor	Major1	Major2
Conflicting Flow All	0 0	493 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- -	4.14 -
Critical Hdwy Stg 1	- -	6.84 -
Critical Hdwy Stg 2	- -	5.84 -
Follow-up Hdwy	- -	2.22 -
Pot Cap-1 Maneuver	- -	1067 -
Stage 1	- -	582 -
Stage 2	- -	673 -
Platoon blocked, %	- -	- -
Mov Cap-1 Maneuver	- -	1067 -
Mov Cap-2 Maneuver	- -	276 -
Stage 1	- -	582 -
Stage 2	- -	623 -
Approach	EB	WB
HCM Control Delay, s	0	12
HCM LOS		B
Minor Lane/Major Mvmt	NBLn1	EBR WBL WBT
Capacity (veh/h)	690	- - 1067 -
HCM Lane V/C Ratio	0.083	- - 0.054 -
HCM Control Delay (s)	10.7	- - 8.6 0.3
HCM Lane LOS	B	- - A A
HCM 95th %ile Q(veh)	0.3	- - 0.2 -

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.730
 Loss Time (sec): 54 Average Delay (ssec/veh): xxxxxx
 Optimal Cycle: 54 Level of Service: C
 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1
 Volume Module:
 Base Vol: 142 1686 62 26 1868 191 186 10 96 53 3 21
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 142 1686 62 26 1868 191 186 10 96 53 3 21
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 142 1686 62 26 1868 191 186 10 96 53 3 21
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 142 1686 62 26 1868 191 186 10 96 53 3 21
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 142 1686 62 26 1868 191 186 10 96 53 3 21
 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj/turn: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.69 0.11 1.00 2.72 0.28 1.00 0.09 0.91 0.95 0.05 1.00
 Final Sat.: 1700 4919 181 1700 4627 473 1700 160 1540 1609 91 1700
 Capacity Analysis Module:
 Vol/Sat: 0.08 0.34 0.02 0.40 0.40 0.11 0.06 0.06 0.03 0.03 0.01
 Crit Moves: ****

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection													
Intersection Delay, s/veh 9.3													
Intersection LOS A													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	NBR
Traffic Vol, veh/h	0	33	4	51	0	2	5	11	0	73	234	3	3
Future Vol, veh/h	0	33	4	51	0	2	5	11	0	73	234	3	3
Peak Hour 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	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	33	4	51	0	2	5	11	0	73	234	3	3
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0

Approach													
Approach	EB	WB	WB	WB	NB								
Opposing Approach	WB	EB	WB										
Opposing Lanes	1	1	1	1	1	1	1	1	1	1	1	1	1
Conflicting Approach Left	SB	NB	NB	NB	EB								
Conflicting Lanes Left	2	2	2	2	1	1	1	1	1	1	1	1	1
Conflicting Approach Right	NB	SB	SB	SB	WB								
Conflicting Lanes Right	2	2	2	2	1	1	1	1	1	1	1	1	1
HCM Control Delay	8.8	8.8	8.3	8.3	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
HCM LOS	A	A	A	A	A	A	A	A	A	A	A	A	A

Lane													
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2							
Vol Left, %	38%	0%	38%	11%	6%	0%	0%	0%	0%	0%	0%	0%	0%
Vol Thru, %	62%	97%	5%	28%	94%	73%	73%	73%	73%	73%	73%	73%	73%
Vol Right, %	0%	3%	58%	61%	0%	27%	27%	27%	27%	27%	27%	27%	27%
Sign Control	Stop												
Traffic Vol by Lane	190	120	88	18	136	176	176	176	176	176	176	176	176
LT Vol	73	0	33	2	8	0	0	0	0	0	0	0	0
Through Vol	117	117	4	5	128	128	128	128	128	128	128	128	128
RT Vol	0	3	51	11	0	48	48	48	48	48	48	48	48
Lane Flow Rate	190	120	88	18	136	176	176	176	176	176	176	176	176
Geometry Grp	7	7	2	2	7	7	7	7	7	7	7	7	7
Degree of Utl (X)	0.278	0.169	0.124	0.026	0.193	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Departure Headway (Hd)	5.275	5.064	5.054	5.101	5.121	4.899	4.899	4.899	4.899	4.899	4.899	4.899	4.899
Convergence, Y/N	Yes												
Cap	680	707	707	699	699	730	730	730	730	730	730	730	730
Service Time	3.018	2.807	3.103	3.162	2.863	2.642	2.642	2.642	2.642	2.642	2.642	2.642	2.642
HCM Lane V/C Ratio	0.279	0.17	0.124	0.026	0.195	0.241	0.241	0.241	0.241	0.241	0.241	0.241	0.241
HCM Control Delay	10.1	8.8	8.8	8.3	9.1	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
HCM Lane LOS	B	A	A	A	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	1.1	0.6	0.4	0.1	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection													
Intersection Delay, s/veh													
Intersection LOS													
Movement	SBU	SBL	SBT	SBR	SBU	SBL	SBT	SBR	SBU	SBL	SBT	SBR	SBR
Traffic Vol, veh/h	0	8	256	48	0	8	256	48	0	8	256	48	48
Future Vol, veh/h	0	8	256	48	0	8	256	48	0	8	256	48	48
Peak Hour 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	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	256	48	0	8	256	48	0	8	256	48	48
Number of Lanes	0	0	2	0	0	0	2	0	0	0	2	0	0

Approach													
Approach	SB												
Opposing Approach	NB												
Opposing Lanes	2	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Approach Left	WB												
Conflicting Lanes Left	1	1	1	1	1	1	1	1	1	1	1	1	1
Conflicting Approach Right	EB												
Conflicting Lanes Right	1	1	1	1	1	1	1	1	1	1	1	1	1
HCM Control Delay	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
HCM LOS	A	A	A	A	A	A	A	A	A	A	A	A	A

Lane													
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HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmoor Center Way

12/5/2016

Intersection	Intersection Delay, s/veh 9.8															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	46	38	60	0	39	43	78	0	33	144	28	0	48	198	44
Future Vol, veh/h	0	46	38	60	0	39	43	78	0	33	144	28	0	48	198	44
Peak Hour 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	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	46	38	60	0	39	43	78	0	33	144	28	0	48	198	44
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	2
Approach	EB			WB			NB			SB						
Opposing Approach	WB			EB			SB			NB						
Opposing Lanes	1			1			2			2						
Conflicting Approach Left	SB			NB			EB			WB						
Conflicting Lanes Left	2			2			1			1						
Conflicting Approach Right	NB			SB			WB			EB						
Conflicting Lanes Right	2			2			1			1						
HCM Control Delay	9.7			9.7			9.6			10						
HCM LOS	A			A			A			A						

HCM 2010 AWSC

11: Montecito Road & Bradbury Road

02/22/2017

Intersection	Intersection Delay, s/veh 9.9															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR				
Traffic Vol, veh/h	0	1	19	2	0	162	27	70	0	5	113	116				
Future Vol, veh/h	0	1	19	2	0	162	27	70	0	5	113	116				
Peak Hour 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				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	1	19	2	0	162	27	70	0	5	113	116				
Number of Lanes	0	0	1	0	0	0	1	1	0	0	0	2				
Approach	EB			WB			NB									
Opposing Approach	WB			EB			SB									
Opposing Lanes	2			1			2									
Conflicting Approach Left	SB			NB			EB									
Conflicting Lanes Left	2			2			1									
Conflicting Approach Right	NB			SB			WB									
Conflicting Lanes Right	2			2			2									
HCM Control Delay	9.2			10.7			9.3									
HCM LOS	A			B			A									

HCM 2010 AWSC

11: Montecito Road & Bradbury Road

02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	45	136	3
Future Vol, veh/h	0	45	136	3
Peak Hour Factor	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	45	136	3
Number of Lanes	0	0	2	0
Approach	SB			
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	2			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	9.5			
HCM LOS	A			

HCM 2010 AWSC

12: West Road & Rossmore Center Way

12/5/2016

Intersection	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	8								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Traffic Vol, veh/h	0	99	19	0	24	149	0	28	12
Future Vol, veh/h	0	99	19	0	24	149	0	28	12
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	99	19	0	24	149	0	28	12
Number of Lanes	0	1	0	0	0	1	0	1	0
Approach	EB	WB		WB		EB	NB		
Opposing Approach	WB			EB					
Opposing Lanes	1			1			0		
Conflicting Approach Left				NB			EB		
Conflicting Lanes Left	0			1			1		
Conflicting Approach Right	NB						WB		
Conflicting Lanes Right	1			0			1		
HCM Control Delay	7.7			8.2			7.8		
HCM LOS	A			A			A		
Lane	NBU	EBU	NB	WBU	WB	NB			
Vol Left, %	70%	0%	14%						
Vol Thru, %	0%	84%	86%						
Vol Right, %	30%	16%	0%						
Sign Control	Stop	Stop	Stop						
Traffic Vol by Lane	40	118	173						
LT Vol	28	0	24						
Through Vol	0	99	149						
RT Vol	12	19	0						
Lane Flow Rate	40	118	173						
Geometry Grp	1	1	1						
Degree of Utl (X)	0.05	0.132	0.198						
Departure Headway (Hd)	4.521	4.039	4.122						
Convergence, Y/N	Yes	Yes	Yes						
Cap	797	879	865						
Service Time	2.521	2.105	2.173						
HCM Lane V/C Ratio	0.05	0.134	0.2						
HCM Control Delay	7.8	7.7	8.2						
HCM Lane LOS	A	A	A						
HCM 95th-ile Q	0.2	0.5	0.7						

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/5/2016

Intersection Delay, s/veh 13.9															
Intersection LOS B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	24	79	30	0	200	116	92	0	47	48	195	0	82	37
Future Vol, veh/h	0	24	79	30	0	200	116	92	0	47	48	195	0	82	37
Peak Hour 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	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	24	79	30	0	200	116	92	0	47	48	195	0	82	37
Number of Lanes	0	0	2	0	0	1	0	0	0	0	1	0	0	0	1
Approach	EB	WB	WB	EB	NB	NB	WB	WB	NB	NB	WB	WB	SB	SB	SB
Opposing Approach	WB	EB	EB	WB	SB	SB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Opposing Lanes	1	2	2	2	1	1	1	1	2	2	2	2	1	1	1
Conflicting Approach Left	SB	NB	NB	EB	EB	WB									
Conflicting Lanes Left	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Approach Right	NB	SB	SB	WB	EB	EB	EB								
Conflicting Lanes Right	1	1	1	1	1	1	1	1	1	1	1	1	2	2	
HCM Control Delay	9.9	17.2	17.2	17.2	12.5	12.5	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
HCM LOS	A	C	C	C	B	B	B	B	B	B	B	B	B	B	B
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	WBLn2	WBLn3	NBLn1	NBLn2	NBLn3	WBLn4	WBLn5	WBLn6	WBLn7
Vol Left, %	16%	38%	0%	49%	54%				0%	100%	0%	81%			
Vol Thru, %	17%	62%	57%	28%	24%				40%	0%	0%	19%			
Vol Right, %	67%	0%	43%	23%	22%				60%	0%	100%	0%			
Sign Control	Stop	Stop	Stop	Stop	Stop				Stop	Stop	Stop	Stop			
Traffic Vol by Lane	290	64	70	408	152				117	91	320	312			
LT Vol	47	24	0	200	82				0	91	0	253			
Through Vol	48	40	40	116	37				47	0	0	59			
RT Vol	195	0	30	92	33				70	0	320	0			
Lane Flow Rate	290	64	70	408	152				117	91	320	312			
Geometry Grp	2	7	7	5	2				2	7	7	2			
Degree of Util (X)	0.433	0.116	0.118	0.622	0.252				0.162	0.155	0.436	0.452			
Departure Headway (Hd)	5.375	6.59	6.09	5.491	5.963				4.974	6.113	4.902	5.211			
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes			
Cap	667	541	585	657	599				711	582	726	686			
Service Time	3.439	4.362	3.861	3.545	4.037				3.073	3.894	2.683	3.291			
HCM Lane V/C Ratio	0.435	0.118	0.12	0.621	0.254				0.165	0.156	0.441	0.455			
HCM Control Delay	12.5	10.2	9.7	17.2	11.1				9.1	10	11.5	12.6			
HCM Lane LOS	B	B	A	C	B				A	A	B	B			
HCM 95th-tile Q	2.2	0.4	0.4	4.3	1				0.6	0.5	2.2	2.4			

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/5/2016

Intersection Delay, s/veh 11.4														
Intersection LOS B														
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT				
Traffic Vol, veh/h	0	91	320	0	47	70	0	253	59					
Future Vol, veh/h	0	91	320	0	47	70	0	253	59					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	91	320	0	47	70	0	253	59					
Number of Lanes	0	1	1	0	1	0	0	0	0	1				
Approach	WB	WB	NB	NB	SB	SB	WB	WB	SB	SB				
Opposing Approach	WB	WB	SB	SB	WB	WB	WB	WB	NB	NB				
Opposing Lanes	0	0	1	1	1	1	1	1	1	1				
Conflicting Approach Left	NB	NB	WB											
Conflicting Lanes Left	1	1	0	0	0	0	0	0	0	0				
Conflicting Approach Right	SB	SB	WB											
Conflicting Lanes Right	1	1	2	2	2	2	2	2	2	2				
HCM Control Delay	11.2	11.2	9.1	9.1	12.6	12.6	12.6	12.6	12.6	12.6				
HCM LOS	B	B	A	A	B	B	B	B	B	B				
Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2	WBLn3	WBLn4	WBLn5	WBLn6	WBLn7				
Vol Left, %	0%	100%	0%	81%					40%	0%				
Vol Thru, %	40%	0%	0%	19%					60%	0%				
Vol Right, %	60%	0%	100%	0%					60%	0%				
Sign Control	Stop	Stop	Stop	Stop					Stop	Stop				
Traffic Vol by Lane	117	91	320	312					117	91				
LT Vol	0	91	0	253					0	91				
Through Vol	47	0	0	59					47	0				
RT Vol	70	0	320	0					70	0				
Lane Flow Rate	117	91	320	312					117	91				
Geometry Grp	2	7	7	2					2	7				
Degree of Util (X)	0.162	0.155	0.436	0.452					0.162	0.155				
Departure Headway (Hd)	4.974	6.113	4.902	5.211					4.974	6.113				
Convergence, Y/N	Yes	Yes	Yes	Yes					Yes	Yes				
Cap	711	582	726	686					711	582				
Service Time	3.073	3.894	2.683	3.291					3.073	3.894				
HCM Lane V/C Ratio	0.165	0.156	0.441	0.455					0.165	0.156				
HCM Control Delay	9.1	10	11.5	12.6					9.1	10				
HCM Lane LOS	A	A	B	B					A	A				
HCM 95th-tile Q	0.6	0.5	2.2	2.4					0.6	0.5				

Intersection	1 2					
Int Delay, s/veh	EBT	EBR	WBL	WBT	NBL	NBR
Movement	96	1	22	181	4	22
Traffic Vol, veh/h	96	1	22	181	4	22
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	Free	Free	Free	Free	Stop	Stop
Sign Control	-	None	-	None	-	None
RT Channelized	-	-	-	-	-	-
Storage Length	0	-	0	0	0	-
Veh in Median Storage, #	0	-	0	0	0	-
Grade, %	100	100	100	100	100	100
Peak Hour Factor	2	2	2	2	2	2
Heavy Vehicles, %	96	1	22	181	4	22
Mvmt Flow						
Major/Minor	Major1	Major2	Major1	Major2	Minor1	Minor1
Conflicting Flow All	0	0	97	0	322	97
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	225	-
Critical Hwy	-	-	4.12	-	6.42	6.22
Critical Hwy Stg 1	-	-	-	-	5.42	-
Critical Hwy Stg 2	-	-	-	-	5.42	-
Follow-up Hwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1496	-	672	959
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1496	-	661	959
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	799	-
Approach	EB	WB	WB	WB	NB	NB
HCM Control Delay, s	0	0.8	0.8	0.8	9.1	9.1
HCM LOS					A	A
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	897	-	-	1496	-	-
HCM Lane V/C Ratio	0.029	-	-	0.015	-	-
HCM Control Delay (s)	9.1	-	-	7.4	0	-
HCM Lane LOS	A	-	-	A	A	-
HCM 95th %ile Q(veh)	0.1	-	-	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	161	28	18	596	41	545	10	1207	298	463	1220	143
Traffic Volume (veh/h)	161	28	18	596	41	545	10	1207	298	463	1220	143
Future Volume (veh/h)	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	161	28	18	625	0	0	10	1207	298	463	1220	143
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	118	70	45	694	0	310	21	1328	414	489	2753	857
Arrive On Green	0.07	0.07	0.07	0.20	0.00	0.00	0.01	0.26	0.26	0.37	0.72	0.72
Sat Flow, veh/h	1774	1061	682	3548	0	1593	1774	5085	1593	1774	5085	1593
Grp Volume(v), veh/h	161	0	46	625	0	0	10	1207	298	463	1220	143
Grp Sat Flow(s), veh/h	1774	0	1742	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	7.3	0.0	2.8	18.9	0.0	0.0	0.6	25.3	18.8	27.8	10.8	3.2
Cycle Q Clear(g.c), s	7.3	0.0	2.8	18.9	0.0	0.0	0.6	25.3	18.8	27.8	10.8	3.2
Prop In Lane	1.00	0.00	0.39	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	118	0	116	694	0	310	21	1328	414	489	2753	857
V/C Ratio(X)	1.37	0.00	0.40	0.90	0.00	0.00	0.47	0.91	0.72	0.95	0.44	0.17
Avail Cap(c.a), veh/h	118	0	116	748	0	334	81	1350	420	489	2753	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(i)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	51.4	0.0	49.2	43.2	0.0	0.0	54.0	39.4	37.0	34.0	8.6	7.5
Incr Delay (d2), s/veh	210.2	0.0	2.2	13.4	0.0	0.0	15.3	10.7	10.4	25.2	0.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back(Q(50%)) veh/h	10.4	0.0	1.4	10.6	0.0	0.0	0.4	13.2	9.4	17.1	5.0	1.4
LnGrp Delay(d), s/veh	261.5	0.0	51.4	56.5	0.0	0.0	69.3	50.1	47.4	59.2	9.0	7.9
LnGrp LOS	F	D	D	E	E	E	D	D	D	E	A	A
Approach Vol, veh/h	207			625			1515			1826		
Approach Delay, s/veh	214.8			56.5			49.7			21.7		
Approach LOS	F			E			D			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	36.1	34.5		12.0	5.3	65.4	27.3					
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8	5.8					
Max Green Setting (Gmax), s	30.0	* 29		* 7.3	5.0	54.2	23.2					
Max Q Clear Time (g_c+H), s	29.8	27.3		9.3	2.6	12.8	20.9					
Green Ext Time (p_c), s	0.0	1.4		0.0	0.0	13.8	0.6					
Intersection Summary	46.6											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS												
Notes												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	9	9	8	389	5	633	16	1492	413	287	1434	264
Traffic Volume (veh/h)	9	9	8	389	5	633	16	1492	413	287	1434	264
Future Volume (veh/h)	9	9	8	389	5	633	16	1492	413	287	1434	264
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob.) veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	9	9	8	389	0	636	16	1492	0	287	1434	264
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour 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
Cap. veh/h	44	46	39	861	0	768	663	2093	662	242	1724	537
Arrive On Green	0.02	0.02	0.02	0.24	0.00	0.24	0.39	0.82	0.00	0.14	0.34	0.34
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	9	9	8	389	0	636	16	1492	0	287	1434	264
Grp SatFlow(s),veh/h/m	1774	1863	1583	1774	0	1583	1721	1695	1583	1774	1695	1583
Q Serve(g.s), s	0.5	0.5	0.5	10.3	0.0	20.9	0.3	13.8	0.0	15.0	28.6	14.5
Cycle Q Clear(g.c), s	0.5	0.5	0.5	10.3	0.0	20.9	0.3	13.8	0.0	15.0	28.6	14.5
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	44	46	39	861	0	768	663	2093	662	242	1724	537
V/C Ratio(X)	0.20	0.19	0.20	0.45	0.00	0.83	0.02	0.71	0.00	1.19	0.83	0.49
Avail Cap(c), veh/h	81	85	72	1258	0	1123	663	2093	662	242	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.63	0.63	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	52.5	52.6	35.4	0.0	39.5	27.4	6.9	0.0	47.5	33.5	28.8
Incr Delay (d2), s/veh	2.2	2.0	2.5	0.4	0.0	3.5	0.0	1.3	0.0	117.6	4.9	3.2
Initial Q Delay(Q3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/In	0.3	0.3	0.3	5.1	0.0	9.5	0.2	6.3	0.0	15.2	14.1	6.9
LnGrp Delay(d), s/veh	54.8	54.6	55.0	35.8	0.0	42.9	27.4	8.3	0.0	165.1	38.3	32.0
LnGrp LOS	D	D	E	D	D	D	C	A	F	D	C	C
Approach Vol, veh/h	26	54.8	40.2	1025	40.2	1508	8.5	55.8	1985	55.8	1985	55.8
Approach Delay, s/veh	D	D	D	D	D	A	A	E	E	E	E	E
Approach LOS	D	D	D	D	D	A	A	E	E	E	E	E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+R), s	90	51.1	7.4	27.0	43.1							
Change Period (Y+R), s	4.0	5.8	*4.7	5.8	*5.8							
Max Green Setting (Gmax), s	30.7	*5.0	*41									
Max Q Clear Time (g_c+I+g), s	15.8	2.5	2.3	30.6	22.9							
Green Ext Time (p_c), s	0.0	8.5	0.0	2.1	6.7							

Intersection Summary
 HCM 2010 Ctrl Delay 36.6
 HCM 2010 LOS D
 Notes

Health Club within the Shops at Rossmoor
 Future (2035) Buildout No Project
 Saturday Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.799
 Loss Time (sec): 16 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 66 Level Of Service: C

Street Name: Seal Beach Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - I - R L - I - R L - I - R L - I - R

Control: Protected Protected Protected Protected Permitted
 Rights: Ovl Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 2 0 0 1

Volume Module:
 Base Vol: 0 1707 394 557 1605 0 0 0 0 394 0 619
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1707 394 557 1605 0 0 0 0 394 0 619
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1707 394 557 1605 0 0 0 0 394 0 619
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1707 394 557 1605 0 0 0 0 394 0 619
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1707 394 557 1605 0 0 0 0 394 0 619
 OvlAdjVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.33 0.23 0.16 0.31 0.00 0.00 0.00 0.00 0.12 0.00 0.36
 OvlAdjV/S: *****
 Crit Moves: *****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.870
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 87 Level Of Service: D
 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0	1	0	1
Lanes:	1	0	2	1	0	1	0	1

Volume Module:
 Base Vol: 316 1382 118 101 1175 164 128 91 266 189 97 96
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 316 1382 118 101 1175 164 128 91 266 189 97 96
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 316 1382 118 101 1175 164 128 91 266 189 97 96
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 316 1382 118 101 1175 164 128 91 266 189 97 96
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 316 1382 118 101 1175 164 128 91 266 189 97 96

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.76 0.24 1.00 2.63 0.37 1.00 0.25 0.75 1.00 0.50 0.50
 Final Sat.: 1700 4699 401 1700 4475 625 1700 433 1267 1700 854 846

Capacity Analysis Module:
 Vol/Sat: 0.19 0.29 0.26 0.06 0.26 0.26 0.08 0.21 0.21 0.11 0.11 0.11
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.669
 Loss Time (sec): 46 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 46 Level Of Service: B
 Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	2	0	2	1	0	1	0	2
Lanes:	2	0	2	1	0	1	0	2

Volume Module:
 Base Vol: 396 1775 188 19 1513 79 120 2 436 191 38 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 396 1775 188 19 1513 79 120 2 436 191 38 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 396 1775 188 19 1513 79 120 2 436 191 38 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 396 1775 188 19 1513 79 120 2 436 191 38 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 396 1775 188 19 1513 79 120 2 436 191 38 5
 OrLAdjVol: 396 1775 188 19 1513 79 120 2 436 191 38 5

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.71 0.29 1.00 2.85 0.15 0.98 0.02 2.00 1.64 0.32 0.04
 Final Sat.: 3400 4612 488 1700 4847 253 1672 28 3400 2775 552 73

Capacity Analysis Module:
 Vol/Sat: 0.12 0.38 0.38 0.01 0.31 0.31 0.07 0.07 0.13 0.07 0.07 0.07
 OrLAdjV/S: 0.12 0.38 0.38 0.01 0.31 0.31 0.07 0.07 0.13 0.07 0.07 0.07
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.680
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 122 1545 48 24 1647 136 192 9 105 69 8 22
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 122 1545 48 24 1647 136 192 9 105 69 8 22
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 122 1545 48 24 1647 136 192 9 105 69 8 22
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 122 1545 48 24 1647 136 192 9 105 69 8 22
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 122 1545 48 24 1647 136 192 9 105 69 8 22

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.91 0.09 1.00 2.77 0.23 1.00 0.08 0.92 0.10 1.00 1.00
 Final Sat.: 1700 4946 154 1700 4711 389 1700 134 1566 1523 177 1700

Capacity Analysis Module:
 Vol/Sat: 0.07 0.31 0.31 0.01 0.35 0.35 0.11 0.07 0.07 0.04 0.05 0.01
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.713
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 52 Level Of Service: C

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 222 1585 16 27 1540 251 206 4 165 21 2 15
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 222 1585 16 27 1540 251 206 4 165 21 2 15
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 222 1585 16 27 1540 251 206 4 165 21 2 15
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 222 1585 16 27 1540 251 206 4 165 21 2 15
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 222 1585 16 27 1540 251 206 4 165 21 2 15

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.97 0.03 1.00 2.58 0.42 1.00 0.02 0.98 1.00 0.12 0.88
 Final Sat.: 1700 5049 51 1700 4385 715 1700 40 1660 1700 200 1500

Capacity Analysis Module:
 Vol/Sat: 0.13 0.31 0.31 0.02 0.35 0.35 0.12 0.10 0.10 0.01 0.01 0.01
 Crit Moves: *****

12/5/2016

8: Yellowtail Drive & Saint Cloud Drive

12/5/2016

Intersection												
Int Delay, s/veh												1
Intersection LOS												A
Movement	EBT	EBR	WBL	WBT	NBL	NBR						
Traffic Vol, veh/h	499	1	47	460	4	48						
Future Vol, veh/h	499	1	47	460	4	48						
Conflicting Peds, #/hr	0	0	0	0	0	0						
Sign Control	Free	Free	Free	Free	Stop	Stop						
RT Channelized	-	None	-	None	-	None						
Storage Length	-	-	-	-	0	-						
Veh in Median Storage, #	0	-	-	0	0	-						
Grade, %	0	-	-	0	0	-						
Peak Hour Factor	100	100	100	100	100	100						
Heavy Vehicles, %	2	2	2	2	2	2						
Mvmt Flow	499	1	47	460	4	48						
Major/Minor												
Major1	Major2					Minor1						
Conflicting Flow All	0	0	500	0	824	250						
Stage 1	-	-	-	-	500	-						
Stage 2	-	-	-	-	324	-						
Critical Hwy	-	-	4.14	-	6.84	6.94						
Critical Hwy Stg 1	-	-	-	-	5.84	-						
Critical Hwy Stg 2	-	-	-	-	5.84	-						
Follow-up Hwy	-	-	2.22	-	3.52	3.32						
Pot Cap-1 Maneuver	-	-	1060	-	311	750						
Stage 1	-	-	-	-	575	-						
Stage 2	-	-	-	-	705	-						
Platoon blocked, %	-	-	-	-	-	-						
Mov Cap-1 Maneuver	-	-	1060	-	292	750						
Mov Cap-2 Maneuver	-	-	-	-	292	-						
Stage 1	-	-	-	-	575	-						
Stage 2	-	-	-	-	663	-						
Approach												
EB	WB					NB						
0	1					10.8						
HCM/Control Delay, s												
HCM LOS												B
Minor Lane/Major Mvmt												
NBLn1	EBT	EBR	WBL	WBT								
669	-	-	1060	-								
Capacity (veh/h)												
HCM Lane V/C Ratio	0.078	-	0.044	-								
HCM Control Delay (s)	10.8	-	8.6	0.2								
HCM Lane LOS	B	-	A	A								
HCM 95th %tile Q(veh)	0.3	-	0.1	-								

12/5/2016

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection													
Int Delay, s/veh												8.8	
Intersection LOS												A	
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	
Traffic Vol, veh/h	0	38	4	41	0	3	5	5	0	41	194	8	
Future Vol, veh/h	0	38	4	41	0	3	5	5	0	41	194	8	
Peak Hour 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	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	38	4	41	0	3	5	5	0	41	194	8	
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	
Approach													
EB	WB					WB			NB				
Opposing Approach	WB												
Opposing Lanes	1												
Conflicting Approach Left	SB												
Conflicting Lanes Left	2												
Conflicting Approach Right	NB												
Conflicting Lanes Right	2												
HCM Control Delay	8.6												
HCM LOS	A												
Lane													
NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2						
Vol Left, %	30%	0%	46%	23%	6%	0%	0%						
Vol Thru, %	70%	92%	5%	38%	94%	85%	85%						
Vol Right, %	0%	8%	49%	38%	0%	15%	15%						
Sign Control	Stop												
Traffic Vol by Lane	138	105	83	13	137	152	152						
LT Vol	41	0	38	3	8	0	0						
Through Vol	97	97	4	5	129	129	129						
RT Vol	0	8	41	5	0	23	23						
Lane Flow Rate	138	105	83	13	136	152	152						
Geometry Grp	7												
Degree of Utl (X)	0.198	0.145	0.114	0.018	0.19	0.206	0.206						
Departure Headway (Ht)	5.178	4.975	4.931	5.06	5.021	4.885	4.885						
Convergence, Y/N	Yes												
Cap	693	721	726	706	715	735	735						
Service Time	2.908	2.705	2.964	3.104	2.751	2.614	2.614						
HCM Lane V/C Ratio	0.199	0.146	0.114	0.018	0.19	0.207	0.207						
HCM Control Delay	9.2	8.6	8.6	8.2	8.9	8.9	8.9						
HCM Lane LOS	A	A	A	A	A	A	A						
HCM 95th %tile Q	0.7	0.5	0.4	0.1	0.7	0.8	0.8						

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection		SBL		SBT		SBR	
Intersection Delay, s/veh		SBL		SBT		SBR	
Intersection LOS		SBL		SBT		SBR	
Movement		SBU	SBL	SBT	SBR		
Traffic Vol, veh/h		0	8	257	23		
Future Vol, veh/h		0	8	257	23		
Peak Hour Factor		1.00	1.00	1.00	1.00		
Heavy Vehicles, %		2	2	2	2		
Mvmt Flow		0	8	257	23		
Number of Lanes		0	0	2	0		
Approach		SB	SB				
Opposing Approach		NB	NB				
Opposing Lanes		2	2				
Conflicting Approach Left		WB	WB				
Conflicting Lanes Left		1	1				
Conflicting Approach Right		EB	EB				
Conflicting Lanes Right		1	1				
HCM Control Delay		8.9	8.9				
HCM LOS		A	A				
Lane							

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmore Center Way

12/5/2016

Intersection		EBL		EBR		WBL		WBR		NBL		NBR		SBL		SBR	
Intersection Delay, s/veh		EBL		EBR		WBL		WBR		NBL		NBR		SBL		SBR	
Intersection LOS		EBL		EBR		WBL		WBR		NBL		NBR		SBL		SBR	
Movement		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h		0	46	46	69	0	20	56	47	0	51	142	32	0	49	176	36
Future Vol, veh/h		0	46	46	69	0	20	56	47	0	51	142	32	0	49	176	36
Peak Hour 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	1.00	1.00	1.00	1.00
Heavy Vehicles, %		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow		0	46	46	69	0	20	56	47	0	51	142	32	0	49	176	36
Number of Lanes		0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	2
Approach		EB	EB	WB	WB	EB	EB	NB	NB	SB							
Opposing Approach		WB	WB	EB	EB	NB	NB	SB									
Opposing Lanes		1	1	2	2	1	1	2	2	1	1	2	2	1	1	2	2
Conflicting Approach Left		SB	SB	NB	NB	EB	EB	WB	WB								
Conflicting Lanes Left		2	2	2	2	2	2	1	1								
Conflicting Approach Right		NB	NB	SB	SB	WB	WB	EB	EB								
Conflicting Lanes Right		2	2	2	2	2	2	1	1								
HCM Control Delay		9.7	9.7	9.4	9.4	9.6	9.6	9.7	9.7								
HCM LOS		A	A	A	A	A	A	A	A								
Lane		NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2										
Vol Left, %		42%	0%	29%	16%	36%	0%										
Vol Thru, %		58%	69%	29%	46%	64%	71%										
Vol Right, %		0%	31%	43%	38%	0%	29%										
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop										
Traffic Vol by Lane		122	103	161	123	137	124										
LT Vol		51	0	46	20	49	0										
Through Vol		71	71	46	56	88	88										
RT Vol		0	32	69	47	0	36										
Lane Flow Rate		122	103	161	123	137	124										
Geometry Grp		7	7	2	2	7	7										
Degree of Utl (X)		0.195	0.152	0.227	0.176	0.216	0.182										
Departure Headway (Hd)		5.751	5.32	5.086	5.147	5.68	5.294										
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes										
Cap		617	665	699	689	625	670										
Service Time		3.55	3.119	3.175	3.243	3.477	3.09										
HCM Lane V/C Ratio		0.198	0.155	0.23	0.179	0.219	0.185										
HCM Control Delay		10	9.1	9.7	9.4	10.1	9.3										
HCM Lane LOS		A	A	A	A	B	A										
HCM 95th-ile Q		0.7	0.5	0.9	0.6	0.8	0.7										

HCM 2010 AWSC
1.1: Montecito Road & Bradbury Road

02/22/2017

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations	0	1	16	4	0	126	22	76	0	3	78	103
Traffic Vol, veh/h	0	1	16	4	0	126	22	76	0	3	78	103
Future Vol, veh/h	0	1	16	4	0	126	22	76	0	3	78	103
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	16	4	0	126	22	76	0	3	78	103
Number of Lanes	0	0	1	0	0	1	1	1	0	0	2	0

Approach	EB	WB	WB	NB	NB
Opposing Approach	WB	EB	WB	SB	SB
Opposing Lanes	2	1	1	2	2
Conflicting Approach Left	SB	NB	NB	EB	EB
Conflicting Lanes Left	2	2	2	1	1
Conflicting Approach Right	NB	SB	SB	WB	WB
Conflicting Lanes Right	2	2	2	2	2
HCM Control Delay	8.8	8.8	9.5	8.7	8.7
HCM LOS	A	A	A	A	A

Lane	NBLn1	NBLn2	NBLn1	EBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	7%	0%	85%	5%	44%	0%	0%	0%	0%
Vol Thru, %	93%	27%	76%	15%	56%	96%	0%	0%	0%
Vol Right, %	0%	73%	19%	0%	100%	4%	0%	0%	0%
Sign Control	Stop								
Traffic Vol by Lane	42	142	21	148	76	88	51	0	0
LT Vol	3	0	1	126	0	39	0	0	0
Through Vol	39	39	16	22	0	49	49	0	0
RT Vol	0	103	4	0	76	0	2	0	0
Lane Flow Rate	42	142	21	148	76	88	51	0	0
Geometry Grp	7	7	6	7	7	7	7	7	7
Degree of Utl (X)	0.063	0.19	0.032	0.237	0.098	0.137	0.076	0.076	0.076
Departure Headway (Hd)	5.375	4.828	5.522	5.773	4.642	5.591	5.34	5.34	5.34
Convergence, Y/N	Yes								
Cap	665	741	644	620	768	640	669	669	669
Service Time	3.121	2.573	3.59	3.524	2.393	3.339	3.088	3.088	3.088
HCM Lane V/C Ratio	0.063	0.192	0.033	0.239	0.099	0.138	0.076	0.076	0.076
HCM Control Delay	8.5	8.7	8.8	10.3	7.9	9.2	8.5	8.5	8.5
HCM Lane LOS	A	A	A	B	A	A	A	A	A
HCM 95th-ile Q	0.2	0.7	0.1	0.9	0.3	0.5	0.2	0.2	0.2

HCM 2010 AWSC
1.1: Montecito Road & Bradbury Road

02/22/2017

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations	0	39	98	2
Traffic Vol, veh/h	0	39	98	2
Future Vol, veh/h	0	39	98	2
Peak Hour Factor	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	39	98	2
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.9
HCM LOS	A

HCM 2010 AWSC

12: West Road & Rossmoor Center Way

12/5/2016

Intersection												
Intersection Delay, s/veh 7.8												
Intersection LOS A												
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR			
Traffic Vol, veh/h	0	90	18	0	11	129	0	28	19			
Future Vol, veh/h	0	90	18	0	11	129	0	28	19			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	90	18	0	11	129	0	28	19			
Number of Lanes	0	1	0	0	0	1	0	1	0			

Approach												
	EB	WB	WB	EB	NB	NB						
Opposing Approach	WB	EB	1									
Opposing Lanes	1											
Conflicting Approach Left	0	NB	1	EB								
Conflicting Lanes Left	1											
Conflicting Approach Right	NB	1	0	WB								
Conflicting Lanes Right	1											
HCM Control Delay	7.6	8	A	7.6	A							
HCM LOS	A	A	A	A								

Lane												
	NBLn1	EBLn1	WBLn1	NBLn1								
Vol Left, %	60%	0%	8%									
Vol Thru, %	0%	83%	92%									
Vol Right, %	40%	17%	0%									
Sign Control	Stop	Stop	Stop									
Traffic Vol by Lane	47	108	140									
LT Vol	28	0	11									
Through Vol	0	90	129									
RT Vol	19	18	0									
Lane Flow Rate	47	108	140									
Geometry Grp	1	1	1									
Degree of Util (X)	0.057	0.121	0.16									
Departure Headway (Hd)	4.346	4.022	4.114									
Convergence, Y/N	Yes	Yes	Yes									
Cap	829	883	867									
Service Time	2.346	2.083	2.166									
HCM Lane V/C Ratio	0.057	0.122	0.161									
HCM Control Delay	7.6	7.6	8									
HCM Lane LOS	A	A	A									
HCM 95th-tile Q	0.2	0.4	0.6									

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/5/2016

Intersection														
Intersection Delay, s/veh 19.5														
Intersection LOS C														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	23	110	39	0	234	102	116	0	47	70	235	0	105
Future Vol, veh/h	0	23	110	39	0	234	102	116	0	47	70	235	0	105
Peak Hour 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	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	110	39	0	234	102	116	0	47	70	235	0	105
Number of Lanes	0	0	2	0	0	0	1	0	0	0	1	0	0	1

Approach														
	EB	WB	WB	EB	NB	NB	SB	SB	EB	NB	SB	SB		
Opposing Approach	WB	EB	2											
Opposing Lanes	1													
Conflicting Approach Left	SB	NB	1	EB	WB									
Conflicting Lanes Left	1													
Conflicting Approach Right	NB	1	1	WB	EB									
Conflicting Lanes Right	1													
HCM Control Delay	11.3	B	26.8	D	17.3	C								
HCM LOS	B	D	C											

Lane												
	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1							
Vol Left, %	13%	29%	0%	52%	53%							
Vol Thru, %	20%	71%	59%	23%	34%							
Vol Right, %	67%	0%	41%	26%	13%							
Sign Control	Stop	Stop	Stop	Stop	Stop							
Traffic Vol by Lane	352	78	94	452	197							
LT Vol	47	23	0	234	105							
Through Vol	70	55	55	102	66							
RT Vol	235	0	39	116	26							
Lane Flow Rate	352	78	94	452	197							
Geometry Grp	2	7	7	5	2							
Degree of Util (X)	0.587	0.159	0.18	0.769	0.369							
Departure Headway (Hd)	6.005	7.336	6.887	6.124	6.743							
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes							
Cap	598	488	519	592	532							
Service Time	4.06	5.103	4.654	4.173	4.808							
HCM Lane V/C Ratio	0.589	0.16	0.181	0.764	0.37							
HCM Control Delay	17.3	11.5	11.2	26.8	13.7							
HCM Lane LOS	C	B	B	D	B							
HCM 95th-tile Q	3.8	0.6	0.7	7	1.7							

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/5/2016

Intersection												
Intersection Delay, s/veh 17.9												
Intersection LOS C												
Movement	WBU	WBL	WBR	NBU	NBL	NBR	SBU	SBL	SBT			
Traffic Vol, veh/h	0	140	431	0	76	108	0	371	57			
Future Vol, veh/h	0	140	431	0	76	108	0	371	57			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	140	431	0	76	108	0	371	57			
Number of Lanes	0	1	1	0	1	1	0	0	1			
Approach												
	WB	WB	NB	NB	SB	SB						
Opposing Approach	0	0	1	1	0	0						
Conflicting Approach Left	NB	NB	WB	WB								
Conflicting Lanes Left	1	1	0	0								
Conflicting Approach Right	SB	SB	WB	WB								
Conflicting Lanes Right	1	1	2	2								
HCM Control Delay	17.3	17.3	11.3	11.3	21.5	21.5						
HCM LOS	C	C	B	B	C	C						
Lane												
	NBLn1	WBLn1	WBLn2	SBLn1								
Vol Left, %	0%	100%	0%	87%								
Vol Thru, %	41%	0%	0%	13%								
Vol Right, %	59%	0%	100%	0%								
Sign Control	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	184	140	431	428								
LT Vol	0	140	0	371								
Through Vol	76	0	0	57								
RT Vol	108	0	431	0								
Lane Flow Rate	184	140	431	428								
Geometry Grp	2	7	7	2								
Degree of Util (X)	0.297	0.265	0.669	0.699								
Departure Headway (Hd)	5.808	6.805	5.587	5.883								
Convergence, Y/N	Yes	Yes	Yes	Yes								
Cap	616	528	647	612								
Service Time	3.87	4.555	3.336	3.934								
HCM Lane V/C Ratio	0.299	0.265	0.666	0.699								
HCM Control Delay	11.3	12	19	21.5								
HCM Lane LOS	B	B	C	C								
HCM 95th-ile Q	1.2	1.1	5.1	5.6								

HCM 2010 TWSC

15: Project Driveway & Rossmore Center Way

12/5/2016

Intersection												
Int Delay, s/veh 2.4												
Movement	EBT	EBR	WBL	WBT	NBL	NBR						
Traffic Vol, veh/h	108	0	48	135	5	43						
Future Vol, veh/h	108	0	48	135	5	43						
Conflicting Peds, #/hr	0	0	0	0	0	0						
Sign Control	Free	Free	Free	Free	Stop	Stop						
RT Channelized	-	None	-	None	-	None						
Storage Length	-	-	-	-	0	0						
Veh in Median Storage, #	0	0	0	0	0	0						
Grade, %	-	-	-	-	0	0						
Peak Hour Factor	100	100	100	100	100	100						
Heavy Vehicles, %	2	2	2	2	2	2						
Mvmt Flow	108	0	48	135	5	43						
Major/Minor												
	Major1	Major2	Minor1									
Conflicting Flow All	0	0	108	0	339	108						
Stage 1	-	-	-	-	231	-						
Stage 2	-	-	-	-	231	-						
Critical Hdwy	-	-	4.12	-	7.12	6.22						
Critical Hdwy Stg 1	-	-	-	-	6.12	-						
Critical Hdwy Stg 2	-	-	-	-	6.12	-						
Follow-up Hdwy	-	-	2.218	-	3.518	3.318						
Pot Cap-1 Maneuver	-	-	1483	-	615	946						
Stage 1	-	-	-	-	897	-						
Stage 2	-	-	-	-	772	-						
Platoon blocked, %	-	-	-	-	-	-						
Mov Cap-1 Maneuver	-	-	1483	-	599	946						
Mov Cap-2 Maneuver	-	-	-	-	599	-						
Stage 1	-	-	-	-	897	-						
Stage 2	-	-	-	-	745	-						
Approach												
	EB	WB	WB	NB								
HCM Control Delay, s	0	2	2	9.3								
HCM LOS	A	A	A	A								
Minor Lane/Major Mvmt												
	NBLn1	EBT	EBR	WBL	WBT							
Capacity (veh/h)	892	-	-	1483	-							
HCM Lane V/C Ratio	0.054	-	-	0.032	-							
HCM Control Delay (s)	9.3	-	-	7.5	0							
HCM Lane LOS	A	-	-	A	A							
HCM 95th %ile Q(veh)	0.2	-	-	0.1	-							

HCM 2010 Signalized Intersection Summary
 1.: Seal Beach Boulevard & I-405 SB Ramps

12/5/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4TB			4			↑↑↑	↑↑↑	↑	↑↑↑	↑↑↑	↑
Traffic Volume (veh/h)	95	31	18	762	48	587	15	1158	182	481	1593	79
Future Volume (veh/h)	95	31	18	762	48	587	15	1158	182	481	1593	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pBT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	95	31	18	796	0	0	15	1158	182	481	1593	79
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour 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
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	89	55	32	859	0	383	30	1233	384	685	3223	1003
Arrive On Green	0.05	0.05	0.05	0.24	0.00	0.00	0.02	0.24	0.24	0.26	0.42	0.42
Sat Flow, veh/h	1774	1107	643	3548	0	1583	1774	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	95	0	49	796	0	0	15	1158	182	481	1593	79
Grp Sat Flow(s), veh/h	1774	0	1749	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	5.5	0.0	3.0	24.1	0.0	0.0	0.9	24.6	10.8	26.9	25.1	3.3
Cycle Q Clear(g.c), s	5.5	0.0	3.0	24.1	0.0	0.0	0.9	24.6	10.8	26.9	25.1	3.3
Prop In Lane	1.00	0.00	0.37	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	89	0	87	859	0	383	30	1233	384	685	3223	1003
V/C Ratio(X)	1.07	0.00	0.56	0.93	0.00	0.00	0.51	0.94	0.47	0.69	0.49	0.08
Avail Cap(c.a), veh/h	89	0	87	887	0	396	81	1234	384	685	3223	1003
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.74
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	52.3	0.0	51.1	40.7	0.0	0.0	53.6	40.9	35.7	34.6	18.8	12.5
Incr Delay (d2), s/veh	116.2	0.0	7.8	15.2	0.0	0.0	12.7	14.7	4.2	2.2	0.4	0.1
Initial Q Delay(d3), s/veh	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%) veh/In	5.5	0.0	1.6	13.6	0.0	0.0	0.6	13.1	5.2	13.6	11.9	1.5
LnGrp Delay(d), s/veh	169.1	0.0	58.9	55.9	0.0	0.0	66.3	55.6	39.8	36.8	19.2	12.6
LnGrp LOS	F	E	E	E	E	E	E	E	D	D	B	B
Approach Vol, veh/h	144			796			1355				2153	
Approach Delay, s/veh	131.6			55.9			53.6				22.9	
Approach LOS	F			E			D				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+Rc), s	48.9	32.5	10.2	5.8	75.5							
Change Period (Y+Rc), s	5.8	* 5.8	* 4.7	4.0	5.8							
Max Green Setting (Gmax), s	30.0	* 27	* 5.5	5.0	51.7							
Max Q Clear Time (g_c+I), s	28.9	26.6	7.5	2.9	27.1							
Green Ext Time (p_c), s	0.2	0.1	0.0	0.0	14.6							
Intersection Summary	41.7											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

HCM 2010 Signalized Intersection Summary
 2.: Seal Beach Boulevard & I-405 NB Ramps

12/5/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	11	12	5	402	58	616	120	1329	381	1122	1732	509
Traffic Volume (veh/h)	11	12	5	402	58	616	120	1329	381	1122	1732	509
Future Volume (veh/h)	11	12	5	402	58	616	120	1329	381	1122	1732	509
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Ob), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pBT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	11	12	5	402	0	655	120	1329	0	369	1732	509
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour 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
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	46	49	41	883	0	788	540	1870	582	306	1867	581
Arrive On Green	0.03	0.03	0.03	0.25	0.00	0.25	0.31	0.74	0.00	0.17	0.37	0.37
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	11	12	5	402	0	655	120	1329	0	369	1732	509
Grp Sat Flow(s), veh/h	1774	1863	1583	1774	0	1583	1721	1695	1583	1774	1695	1583
Q Serve(g.s), s	0.7	0.7	0.3	10.6	0.0	21.5	2.8	15.9	0.0	19.0	36.0	33.0
Cycle Q Clear(g.c), s	0.7	0.7	0.3	10.6	0.0	21.5	2.8	15.9	0.0	19.0	36.0	33.0
Prop In Lane	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	46	49	41	883	0	788	540	1870	582	306	1867	581
V/C Ratio(X)	0.24	0.25	0.12	0.46	0.00	0.83	0.22	0.71	0.00	1.20	0.93	0.88
Avail Cap(c.a), veh/h	81	85	72	1258	0	1123	540	1870	582	306	1882	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.58	0.58	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	52.3	35.0	39.1	0.0	39.1	32.8	11.3	0.0	45.5	33.4	32.5
Incr Delay (d2), s/veh	2.6	2.6	1.3	0.4	0.0	3.7	0.1	1.4	0.0	18.7	9.5	16.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%) veh/In	0.4	0.2	0.2	5.2	0.0	9.8	1.3	7.4	0.0	19.4	18.5	17.1
LnGrp Delay(d), s/veh	55.1	55.1	53.6	35.4	0.0	42.8	32.9	12.7	0.0	164.2	42.9	49.2
LnGrp LOS	E	E	D	D	D	D	C	B	F	D	D	D
Approach Vol, veh/h	28			1057			1449				2610	
Approach Delay, s/veh	54.8			40.0			14.3				61.3	
Approach LOS	D			D			B				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+Rc), s	46.3	46.3	7.6	23.1	46.2							
Change Period (Y+Rc), s	5.8	* 4.7	* 5.8	5.8	* 5.8							
Max Green Setting (Gmax), s	26.7	* 26.7	* 5.0	5.0	41							
Max Q Clear Time (g_c+I), s	26.7	26.7	2.7	4.8	38.0							
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	2.4							
Intersection Summary	43.7											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS	D											
Notes												

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.813
 Loss Time (sec): 70 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 70 Level Of Service: D

Street Name: Seal Beach Blvd East Bound West Bound
 Approach: North Bound South Bound Lampson Ave
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Permitted
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 2 0 0 0 1

Volume Module:
 Base Vol: 0 1624 334 364 1859 0 0 0 0 0 769 0 671
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1624 334 364 1859 0 0 0 0 769 0 671
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1624 334 364 1859 0 0 0 0 769 0 671
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1624 334 364 1859 0 0 0 0 769 0 671
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1624 334 364 1859 0 0 0 0 769 0 671
 OvlAdjVol: 0 0 0 0 0 0 0 0 0 0 0 0 489

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.32 0.20 0.11 0.36 0.00 0.00 0.00 0.00 0.23 0.00 0.39
 OvlAdjV/S: 0.00 0.32 0.20 0.11 0.36 0.00 0.00 0.00 0.00 0.23 0.00 0.39
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.625
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 42 Level Of Service: B

Street Name: Seal Beach Blvd East Bound West Bound
 Approach: North Bound South Bound St. Cloud Dr
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected
 Rights: Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 1 0 1 0 2 1 0 0 1 0 0 2 1 0 1 0 0

Volume Module:
 Base Vol: 414 1837 51 4 1512 57 116 3 622 71 14 2
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 414 1837 51 4 1512 57 116 3 622 71 14 2
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 414 1837 51 4 1512 57 116 3 622 71 14 2
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 414 1837 51 4 1512 57 116 3 622 71 14 2
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 414 1837 51 4 1512 57 116 3 622 71 14 2
 OvlAdjVol: 0 0 0 0 0 0 0 0 0 0 0 0 208

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.92 0.08 1.00 2.89 0.11 0.97 0.03 2.00 1.63 0.32 0.05
 Final Sat.: 3400 4962 138 1700 4915 185 1657 43 3400 2775 547 78

Capacity Analysis Module:
 Vol/Sat: 0.12 0.37 0.37 0.00 0.31 0.31 0.07 0.07 0.18 0.03 0.03 0.03
 OvlAdjV/S: 0.12 0.37 0.37 0.00 0.31 0.31 0.07 0.07 0.18 0.03 0.03 0.03
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.501
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 33 Level Of Service: A

 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Include	Permitted
Rights:	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 59 1805 34 23 1550 33 21 4 15 26 2 23
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 59 1805 34 23 1550 33 21 4 15 26 2 23
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 59 1805 34 23 1550 33 21 4 15 26 2 23
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 59 1805 34 23 1550 33 21 4 15 26 2 23
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 59 1805 34 23 1550 33 21 4 15 26 2 23

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.94 0.06 1.00 2.94 0.06 1.00 0.21 0.79 1.00 0.08 0.92
 Final Sat.: 1700 5006 94 1700 4994 106 1700 358 1342 1700 136 1564

Capacity Analysis Module:
 Vol/Sat: 0.03 0.36 0.36 0.01 0.31 0.31 0.01 0.01 0.01 0.02 0.01 0.01
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.559
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 37 Level Of Service: A

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Include	Permitted
Rights:	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0
Lanes:	1	0	2	1	0

Volume Module:
 Base Vol: 82 1761 16 21 1562 88 95 8 96 19 11 43
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 82 1761 16 21 1562 88 95 8 96 19 11 43
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 82 1761 16 21 1562 88 95 8 96 19 11 43
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 82 1761 16 21 1562 88 95 8 96 19 11 43
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 82 1761 16 21 1562 88 95 8 96 19 11 43

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.97 0.03 1.00 2.84 0.16 1.00 0.08 0.92 1.00 0.20 0.80
 Final Sat.: 1700 5054 46 1700 4628 272 1700 131 1569 1700 346 1354

Capacity Analysis Module:
 Vol/Sat: 0.05 0.35 0.35 0.01 0.32 0.32 0.06 0.06 0.06 0.01 0.03 0.03
 Crit Moves: ****

Intersection	12											
Int Delay, s/veh												
Movement	EBT	EBR	WBL	WBT	NBL	NBR						
Traffic Vol, veh/h	663	4	31	442	9	77						
Future Vol, veh/h	663	4	31	442	9	77						
Conflicting Peds, #/hr	0	0	0	0	0	0						
Sign Control	Free	Free	Free	Free	Stop	Stop						
RT Channelized	-	None	-	None	-	None						
Storage Length	-	-	-	-	0	0						
Veh in Median Storage, #	0	-	-	0	0	0						
Grade, %	0	-	-	0	0	0						
Peak Hour Factor	100	100	100	100	100	100						
Heavy Vehicles, %	2	2	2	2	2	2						
Mvmt Flow	663	4	31	442	9	77						
Major/Minor	Major1						Major2					
Conflicting Flow All	0						0					
Stage 1	-						-					
Stage 2	-						-					
Critical Hdwy	-						4.14					
Critical Hdwy Stg 1	-						7.54					
Critical Hdwy Stg 2	-						6.54					
Follow-up Hdwy	-						2.22					
Pot Cap-1 Maneuver	-						919					
Stage 1	-						-					
Stage 2	-						-					
Platoon blocked, %	-						-					
Mov Cap-1 Maneuver	-						919					
Mov Cap-2 Maneuver	-						-					
Stage 1	-						-					
Stage 2	-						-					
Approach	EB						WB					
HCM Control Delay, s	0						0.8					
HCM LOS							B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT							
Capacity (veh/h)	539	-	-	919	-							
HCM Lane V/C Ratio	0.16	-	-	0.034	-							
HCM Control Delay (s)	12.9	-	-	9.1	0.2							
HCM Lane LOS	B	-	-	A	A							
HCM 95th %ile Q(veh)	0.6	-	-	0.1	-							

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.769
 Loss Time (sec): 60 Average Delay (s/veh): xxxxxx
 Optimal Cycle: 60 Level of Service: C

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1

 Volume Module:
 Base Vol: 160 1687 28 30 1527 185 305 20 106 77 24 31
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 160 1687 28 30 1527 185 305 20 106 77 24 31
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 160 1687 28 30 1527 185 305 20 106 77 24 31
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 160 1687 28 30 1527 185 305 20 106 77 24 31
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 160 1687 28 30 1527 185 305 20 106 77 24 31

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.95 0.05 1.00 2.68 0.52 1.00 0.16 0.84 0.76 0.24 1.00
 Final Sat: 1700 5017 83 1700 4549 551 1700 270 1430 1296 404 1700

 Capacity Analysis Module:
 Vol/Sat: 0.09 0.34 0.34 0.02 0.34 0.34 0.18 0.07 0.07 0.05 0.06 0.02
 Crit Moves: ****

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection												
Intersection Delay, s/veh											10.4	
Intersection LOS											B	
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBR	WBU	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	59	8	138	0	2	4	1	0	118	184	2
Future Vol, veh/h	0	59	8	138	0	2	4	1	0	118	184	2
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	59	8	138	0	2	4	1	0	118	184	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2
Approach	EB	WB	WB	EB	NB	NB	SB	SB	WB	WB	EB	NB
Opposing Approach	WB	EB	EB	WB	SB	SB	WB	WB	EB	EB	NB	SB
Opposing Lanes	1	1	1	1	2	2	2	2	2	2	2	2
Conflicting Approach Left	SB	NB	NB	EB	EB	EB	WB	WB	WB	WB	EB	NB
Conflicting Lanes Left	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Approach Right	NB	SB	SB	WB	WB	WB	EB	EB	EB	EB	NB	SB
Conflicting Lanes Right	2	2	2	2	2	2	2	2	2	2	2	2
HCM Control Delay	10.2	8.9	8.9	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
HCM LOS	B	A	A	B	B	B	B	B	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	56%	0%	29%	29%	0%	0%
Vol Thru, %	44%	96%	4%	57%	100%	78%
Vol Right, %	0%	2%	67%	14%	0%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	94	205	7	209	135
LT Vol	118	0	59	2	0	0
Through Vol	92	92	8	4	209	105
RT Vol	0	2	138	1	0	30
Lane Flow Rate	210	94	205	7	209	135
Geometry Grp	7	7	2	2	7	7
Degree of Utl (X)	0.333	0.141	0.289	0.011	0.314	0.196
Departure Headway (Hd)	5.716	5.417	5.083	5.872	5.405	5.248
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	624	655	701	613	659	677
Service Time	3.504	3.205	3.156	3.872	3.191	3.033
HCM Lane V/C Ratio	0.337	0.144	0.292	0.011	0.317	0.199
HCM Control Delay	11.4	9.1	10.2	8.9	10.7	9.3
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.5	0.5	1.2	0	1.3	0.7

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection						
Intersection Delay, s/veh						
Intersection LOS						
Movement	SBU	SBL	SBT	SBR	SBU	SBR
Traffic Vol, veh/h	0	0	314	30	0	314
Future Vol, veh/h	0	0	314	30	0	314
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	314	30	0	314
Number of Lanes	0	0	2	0	2	0
Approach	SB	SB	SB	SB	SB	SB
Opposing Approach	NB	NB	NB	NB	NB	NB
Opposing Lanes	2	2	2	2	2	2
Conflicting Approach Left	WB	WB	WB	WB	WB	WB
Conflicting Lanes Left	1	1	1	1	1	1
Conflicting Approach Right	EB	EB	EB	EB	EB	EB
Conflicting Lanes Right	1	1	1	1	1	1
HCM Control Delay	10.2	10.2	10.2	10.2	10.2	10.2
HCM LOS	B	B	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	56%	0%	29%	29%	0%	0%
Vol Thru, %	44%	96%	4%	57%	100%	78%
Vol Right, %	0%	2%	67%	14%	0%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	94	205	7	209	135
LT Vol	118	0	59	2	0	0
Through Vol	92	92	8	4	209	105
RT Vol	0	2	138	1	0	30
Lane Flow Rate	210	94	205	7	209	135
Geometry Grp	7	7	2	2	7	7
Degree of Utl (X)	0.333	0.141	0.289	0.011	0.314	0.196
Departure Headway (Hd)	5.716	5.417	5.083	5.872	5.405	5.248
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	624	655	701	613	659	677
Service Time	3.504	3.205	3.156	3.872	3.191	3.033
HCM Lane V/C Ratio	0.337	0.144	0.292	0.011	0.317	0.199
HCM Control Delay	11.4	9.1	10.2	8.9	10.7	9.3
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.5	0.5	1.2	0	1.3	0.7

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmoor Center Way

12/5/2016

Intersection	Intersection Delay, s/veh 11.1															
Intersection LOS	B															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	106	68	96	0	15	47	35	0	43	198	24	0	27	222	71
Future Vol, veh/h	0	106	68	96	0	15	47	35	0	43	198	24	0	27	222	71
Peak Hour 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	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	106	68	96	0	15	47	35	0	43	198	24	0	27	222	71
Number of Lanes	0	0	1	0	0	0	1	0	0	0	2	0	0	0	0	2
Approach	EB		WB		NB		SB		EB		WB		NB		SB	
Opposing Approach	WB		EB		SB		NB		WB		EB		NB		SB	
Opposing Lanes	1		1		2		2		1		1		2		2	
Conflicting Approach Left	SB		NB		EB		WB		WB		EB		NB		SB	
Conflicting Lanes Left	2		2		1		1		2		2		1		1	
Conflicting Approach Right	NB		SB		WB		EB		WB		EB		NB		SB	
Conflicting Lanes Right	2		2		1		1		2		2		1		1	
HCM Control Delay	12.4		9.9		10.6		10.8		10.6		10.8		10.8		10.8	
HCM LOS	B		A		B		B		B		B		B		B	

HCM 2010 AWSC

11: Montecito Road & Bradbury Road

02/22/2017

Intersection	Intersection Delay, s/veh 11.3											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	5	26	2	0	148	20	160	0	0	153	240
Future Vol, veh/h	0	5	26	2	0	148	20	160	0	0	153	240
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	26	2	0	148	20	160	0	0	153	240
Number of Lanes	0	0	1	0	0	0	0	1	0	0	0	2
Approach	EB		WB		WB		WB		WB		NB	
Opposing Approach	WB		EB		EB		EB		WB		SB	
Opposing Lanes	2		1		1		1		2		2	
Conflicting Approach Left	SB		NB		NB		NB		EB		EB	
Conflicting Lanes Left	2		2		2		2		1		1	
Conflicting Approach Right	NB		SB		SB		SB		WB		WB	
Conflicting Lanes Right	2		2		2		2		2		2	
HCM Control Delay	10.3		11.3		11.3		11.6		11.6		11.6	
HCM LOS	B		B		B		B		B		B	

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	15%	88%	0%	53%	0%	0%
Vol Thru, %	100%	18%	79%	12%	0%	47%	97%	97%
Vol Right, %	0%	82%	6%	0%	100%	0%	3%	3%
Sign Control	Stop							
Traffic Vol by Lane	102	291	33	168	160	154	75	75
LT Vol	0	0	5	148	0	81	0	0
Through Vol	102	51	26	20	0	73	73	73
RT Vol	0	240	2	0	160	0	2	2
Lane Flow Rate	102	291	33	168	160	154	74	74
Geometry Grp	0	7	6	7	7	7	7	7
Degree of Utl (X)	0.169	0.434	0.062	0.311	0.245	0.273	0.126	0.126
Departure Headway (Hd)	5.953	5.368	6.762	6.673	5.52	6.394	6.107	6.107
Convergence, Y/N	Yes							
Cap	603	669	529	539	650	562	587	587
Service Time	3.688	3.103	4.816	4.411	3.258	4.134	3.847	3.847
HCM Lane V/C Ratio	0.169	0.435	0.062	0.312	0.246	0.274	0.126	0.126
HCM Control Delay	9.9	12.2	10.3	12.4	10.1	11.5	9.7	9.7
HCM Lane LOS	A	B	B	B	B	B	A	A
HCM 95th-ile Q	0.6	2.2	0.2	0.2	1.3	1.1	0.4	0.4

HCM 2010 AWSC
1.1: Montecito Road & Bradbury Road

02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	81	145	2
Future Vol, veh/h	0	81	145	2
Peak Hour Factor	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	81	145	2
Number of Lanes	0	0	2	0
Approach	SB	SB		
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	2			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	10.9			
HCM LOS	B			

HCM 2010 AWSC
1.2: West Road & Rossmore Center Way

12/5/2016

Intersection	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	7.6								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Traffic Vol, veh/h	0	108	11	0	7	94	0	7	13
Future Vol, veh/h	0	108	11	0	7	94	0	7	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	108	11	0	7	94	0	7	13
Number of Lanes	0	1	0	0	0	1	0	1	0
Approach	EB	WB	WB	EB	EB	EB	NB	NB	NB
Opposing Approach	WB								
Opposing Lanes	1								
Conflicting Approach Left				NB			EB		
Conflicting Lanes Left	0			1			1		
Conflicting Approach Right	NB						WB		
Conflicting Lanes Right	1			0			1		
HCM Control Delay	7.6			7.6			7.2		
HCM LOS	A			A			A		
Lane	NBU	NB	NB	WBU	WB	WB	NBU	NB	NB
Vol Left, %	35%	0%	7%						
Vol Thru, %	0%	91%	93%						
Vol Right, %	65%	9%	0%						
Sign Control	Stop	Stop	Stop						
Traffic Vol by Lane	20	119	101						
LT Vol	7	0	7						
Through Vol	0	108	94						
RT Vol	13	11	0						
Lane Flow Rate	20	119	101						
Geometry Grp	1	1	1						
Degree of Util (X)	0.022	0.132	0.114						
Departure Headway (Hd)	3.989	3.99	4.072						
Convergence, Y/N	Yes	Yes	Yes						
Cap	862	897	879						
Service Time	2.083	2.018	2.102						
HCM Lane V/C Ratio	0.023	0.133	0.115						
HCM Control Delay	7.2	7.6	7.6						
HCM Lane LOS	A	A	A						
HCM 95th-ile Q	0.1	0.5	0.4						

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/5/2016

Intersection Delay, s/veh 9															
Intersection LOS A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR
Traffic Vol, veh/h	0	38	130	15	0	80	87	56	0	14	18	34	0	65	18
Future Vol, veh/h	0	38	130	15	0	80	87	56	0	14	18	34	0	65	18
Peak Hour 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	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	130	15	0	80	87	56	0	14	18	34	0	65	18
Number of Lanes	0	0	2	0	0	0	1	0	0	0	1	0	0	0	1
Approach	EB	WB	WB		NB	NB		SB	SB		NB	SB		SB	NB
Opposing Approach	WB	EB	EB		WB	WB		SB	SB		NB	NB		NB	WB
Opposing Lanes	1	2	2		1	1		1	1		1	1		1	1
Conflicting Approach Left	SB	NB	NB		EB	WB		WB	WB		WB	WB		WB	2
Conflicting Lanes Left	1	1	1		2	2		2	2		2	2		2	2
Conflicting Approach Right	NB	SB	SB		WB	EB		EB	EB		EB	EB		EB	2
Conflicting Lanes Right	1	1	1		1	1		1	1		1	1		1	2
HCM Control Delay	8.7	9.4	9.4		8.3	8.9		8.9	8.9		8.9	8.9		8.9	A
HCM LOS	A	A	A		A	A		A	A		A	A		A	A
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1	NBLn1		WBLn2	SBLn2	NBLn1		WBLn2	SBLn1	SBLn1	
Vol Left, %	21%	37%	0%	36%	66%										
Vol Thru, %	27%	63%	81%	39%	18%										
Vol Right, %	52%	0%	19%	25%	16%										
Sign Control	Stop	Stop	Stop	Stop	Stop										
Traffic Vol by Lane	66	103	80	223	99										
LT Vol	14	38	0	80	65										
Through Vol	18	65	65	87	18										
RT Vol	34	0	15	56	16										
Lane Flow Rate	66	103	80	223	99										
Geometry Grp	2	7	7	5	2										
Degree of Utl (X)	0.087	0.152	0.111	0.284	0.138										
Departure Headway (Hd)	4.754	5.315	4.997	4.583	5.004										
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes										
Cap	750	674	716	783	715										
Service Time	2.803	3.055	2.738	2.62	3.049										
HCM Lane V/C Ratio	0.088	0.153	0.112	0.285	0.138										
HCM Control Delay	8.3	9	8.4	9.4	8.9										
HCM Lane LOS	A	A	A	A	A										
HCM 95th-tile Q	0.3	0.5	0.4	1.2	0.5										

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/5/2016

Intersection Delay, s/veh 7.7														
Intersection LOS A														
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT				
Traffic Vol, veh/h	0	74	41	0	18	33	0	31	16	16				
Future Vol, veh/h	0	74	41	0	18	33	0	31	16	16				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	74	41	0	18	33	0	31	16	16				
Number of Lanes	0	1	1	0	1	0	0	0	0	1				
Approach	WB	WB		NB	NB		SB	SB		NB				
Opposing Approach	WB	WB		NB	NB		SB	SB		NB				
Opposing Lanes	0	0		1	1		1	1		1				
Conflicting Approach Left	NB	NB		0	0		WB	WB		2				
Conflicting Lanes Left	1	1		0	0		2	2		2				
Conflicting Approach Right	SB	SB		WB	WB		0	0		0				
Conflicting Lanes Right	1	1		2	2		2	2		2				
HCM Control Delay	8	7.1		7.1	7.7		7.7	7.7		A				
HCM LOS	A	A		A	A		A	A		A				
Lane	NBLn1	WBLn1	WBLn2	SBLn1	NBLn1		WBLn2	SBLn1	SBLn1					
Vol Left, %	0%	100%	0%	66%										
Vol Thru, %	35%	0%	0%	34%										
Vol Right, %	65%	0%	100%	0%										
Sign Control	Stop	Stop	Stop	Stop										
Traffic Vol by Lane	51	74	41	47										
LT Vol	0	74	0	31										
Through Vol	18	0	0	16										
RT Vol	33	0	41	0										
Lane Flow Rate	51	74	41	47										
Geometry Grp	2	7	7	2										
Degree of Utl (X)	0.055	0.107	0.046	0.057										
Departure Headway (Hd)	3.884	5.204	4.003	4.402										
Convergence, Y/N	Yes	Yes	Yes	Yes										
Cap	928	687	890	818										
Service Time	1.884	2.953	1.75	2.404										
HCM Lane V/C Ratio	0.055	0.108	0.046	0.057										
HCM Control Delay	7.1	8.6	6.9	7.7										
HCM Lane LOS	A	A	A	A										
HCM 95th-tile Q	0.2	0.4	0.1	0.2										

Intersection	1.9					
Int Delay, s/veh	EBT	EBR	WBL	WBT	NBL	NBR
Movement	120	0	33	104	0	35
Traffic Vol, veh/h	120	0	33	104	0	35
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	Free	Free	Free	Free	Stop	Stop
Sign Control	-	None	-	None	-	None
RT Channelized	-	-	-	-	-	-
Storage Length	0	-	0	0	0	0
Veh in Median Storage, #	0	-	0	0	0	0
Grade, %	100	100	100	100	100	100
Peak Hour Factor	2	2	2	2	2	2
Heavy Vehicles, %	120	0	33	104	0	35
Mvmt Flow						
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	120	0	290	120
Stage 1	-	-	-	-	120	-
Stage 2	-	-	-	-	170	-
Critical Hwy	-	-	4.12	-	6.42	6.22
Critical Hwy Stg 1	-	-	-	-	5.42	-
Critical Hwy Stg 2	-	-	-	-	5.42	-
Follow-up Hwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1468	-	701	931
Stage 1	-	-	-	-	905	-
Stage 2	-	-	-	-	860	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1468	-	684	931
Mov Cap-2 Maneuver	-	-	-	-	684	-
Stage 1	-	-	-	-	905	-
Stage 2	-	-	-	-	839	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	1.8	9			
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	931	-	-	1468	-	
HCM Lane V/C Ratio	0.038	-	-	0.022	-	
HCM Control Delay (s)	9	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %ile Q(veh)	0.1	-	-	0.1	-	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4TB			4			4TB			4TB	
Traffic Volume (veh/h)	182	33	22	351	38	581	12	1594	395	581	1175	139
Future Volume (veh/h)	182	33	22	351	38	581	12	1594	395	581	1175	139
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Cb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/s	1900	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	182	33	22	378	0	12	1594	395	581	1175	139	
Adj No. of Lanes	0	2	0	2	0	1	1	3	1	1	3	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	130	77	51	426	0	190	24	1632	508	626	3431	1068
Arrive On Green	0.07	0.07	0.07	0.12	0.00	0.00	0.01	0.32	0.32	0.71	1.00	1.00
Sat Flow, veh/h	1774	1044	696	3548	0	1593	1774	5085	1593	1774	5085	1593
Grp Volume(v), veh/h	182	0	55	378	0	0	12	1594	395	581	1175	139
Grp Sat Flow(s), veh/h/s	1774	0	1740	1774	0	1583	1774	1695	1583	1774	1695	1583
Q Serve(g.s), s	8.8	0.0	3.6	12.6	0.0	0.0	37.2	27.1	33.6	0.0	0.0	0.0
Cycle Q Clear(g.c), s	8.8	0.0	3.6	12.6	0.0	0.0	37.2	27.1	33.6	0.0	0.0	0.0
Prop In Lane	1.00	0.00	0.40	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	130	0	128	426	0	190	24	1632	508	626	3431	1068
V/C Ratio(X)	1.40	0.00	0.43	0.89	0.00	0.00	0.49	0.98	0.78	0.93	0.34	0.13
Avail Cap(c,a), veh/h	130	0	128	426	0	190	24	1632	508	626	3431	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(i)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.6	0.0	53.2	52.0	0.0	0.0	58.8	40.3	36.9	16.4	0.0	0.0
Incr Delay (d2), s/veh	219.3	0.0	2.3	19.8	0.0	0.0	14.6	17.4	11.1	17.9	0.2	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back(Q(50%)) veh/h	12.2	0.0	1.8	7.4	0.0	0.0	0.5	20.1	13.4	18.9	0.1	0.1
LnGrp Delay(d), s/veh	274.9	0.0	55.5	71.8	0.0	0.0	73.3	57.8	48.0	34.3	0.2	0.2
LnGrp LOS	F	E	E	E	E	E	D	C	A	A	A	A
Approach Vol, veh/h	237			378			2001				1895	
Approach Delay, s/veh	224.0	F		71.8	E		55.9				10.7	
Approach LOS												
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	48.1	44.3		13.5	5.6	86.8	20.2					
Change Period (Y+Rc), s	5.8	* 5.8		* 4.7	4.0	5.8	5.8					
Max Green Setting (Gmax), s	38.0	* 39		* 8.8	5.0	71.5	14.4					
Max Q Clear Time (g_c+I1), s	35.6	39.2		10.8	2.8	2.0	14.6					
Green Ext Time (p_c), s	0.6	0.0		0.0	0.0	15.4	0.0					
Intersection Summary	47.1											
HCM 2010 Ctrl Delay	D											
HCM 2010 LOS												
Notes												

12/5/2016
 HCM 2010 Signalized Intersection Summary
 2: Seal Beach Boulevard & I-405 NB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (veh/h)	86	79	95	214	16	750	45	1709	608	356	1600	408
Future Volume (veh/h)	86	79	95	214	16	750	45	1709	608	356	1600	408
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Obs.) veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/in	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	86	79	95	214	16	750	45	1709	608	356	1600	408
Adj No. of Lanes	1	1	1	2	0	2	2	3	1	1	3	1
Peak Hour 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
Cap. veh/h	93	98	83	967	0	863	111	1725	537	296	2408	750
Arrive On Green	0.05	0.05	0.05	0.27	0.00	0.27	0.06	0.68	0.00	0.17	0.47	0.47
Sat Flow, veh/h	1774	1863	1583	3548	0	3167	3442	5085	1583	1774	5085	1583
Grp Volume(v), veh/h	86	79	95	214	0	761	45	1709	0	356	1600	408
Grp Sat Flow(s), veh/h/m/1774	1863	1863	1863	1863	0	1583	1721	1695	1583	1774	1695	1583
Q Serve(g.s), s	5.8	5.0	6.3	5.6	0.0	27.6	1.5	39.6	0.0	20.0	29.0	21.9
Cycle Q Clear(g.c), s	5.8	5.0	6.3	5.6	0.0	27.6	1.5	39.6	0.0	20.0	29.0	21.9
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	93	98	83	967	0	863	111	1725	537	296	2408	750
V/C Ratio(X)	0.92	0.81	1.14	0.22	0.00	0.88	0.40	0.99	0.00	1.20	0.66	0.54
Avail Cap(c), veh/h	93	98	83	1189	0	1061	172	1725	537	296	2408	750
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(i)	1.00	1.00	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.6	56.3	56.8	33.8	0.0	41.8	55.0	19.1	0.0	50.0	24.3	22.4
Incr Delay (d2), s/veh	68.6	37.7	142.5	0.1	0.0	7.6	1.1	12.9	0.0	119.4	1.5	2.8
Initial Q Delay(Q3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/1/4	3.6	6.1	2.7	0.0	13.0	0.7	19.8	0.0	19.6	13.8	10.1	10.1
LnGrp Delay(d), s/veh	125.2	93.9	199.3	33.9	0.0	49.4	56.1	32.1	0.0	169.4	25.7	25.2
LnGrp LOS	F	F	F	F	D	E	C	C	F	C	C	C
Approach Vol, veh/h	280	142.8	142.8	975	460	1754	32.7	47.3	47.3	2364	47.3	2364
Approach Delay, s/veh	142.8	142.8	142.8	975	460	1754	32.7	47.3	47.3	2364	47.3	2364
Approach LOS	F	F	F	D	D	C	C	C	C	D	D	D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4	5	6							
Phs Duration (G+Y+R), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Change Period (Y+R), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
Max Q Clear Time (g_c-d2), s	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary
 HCM 2010 Ctrl Delay 46.9
 HCM 2010 LOS D
 Notes

Health Club within The Shops at Rossmoor TIA 5:00 pm 3/23/2016 Future Year Plus Project PM Peak Hour
 LSA Associates, Inc. - DL
 Synchro 9 Report
 Page 3

Future Buildout WP PM Mon Feb 20, 2017 15:29:43 Page 2-1
 Health Club within the Shops at Rossmoor
 Future (2035) Buildout Plus Project
 PM Peak Hour

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #3 Seal Beach Blvd/Lampson Ave

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.855
 Loss Time (sec): 82 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 82 Level Of Service: D

 Street Name: Seal Beach Blvd East Bound Lampson Ave
 Approach: North Bound South Bound West Bound
 Movement: L - I - R L - I - R L - I - R L - I - R L - I - R
 Control: Protected Protected Protected Protected Protected Permitted
 Rights: Ovl Include Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 0 0 0 2 0 0 1

 Volume Module:
 Base Vol: 0 1915 596 701 1784 0 0 0 0 0 0 0 591 0 528
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1915 596 701 1784 0 0 0 0 0 0 0 591 0 528
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1915 596 701 1784 0 0 0 0 0 0 0 591 0 528
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1915 596 701 1784 0 0 0 0 0 0 0 591 0 528
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1915 596 701 1784 0 0 0 0 0 0 0 591 0 528
 OvlAdjVol: 0 1915 596 701 1784 0 0 0 0 0 0 0 591 0 528

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 3.00 2.00 3.00 0.00 0.00 0.00 0.00 0.00 2.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 0 0 0 0 3400 0 1700

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.38 0.35 0.21 0.35 0.00 0.00 0.00 0.00 0.00 0.17 0.00 0.31
 OvlAdjV/S: *****
 Crit Moves: *****

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Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.781
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 63 Level Of Service: C
 Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	1	0	2	1	0	1	0	1
Lanes:	1	0	2	1	0	1	0	1

Volume Module:
 Base Vol: 222 1623 92 85 1547 102 108 31 203 152 51 65
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 222 1623 92 85 1547 102 108 31 203 152 51 65
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 222 1623 92 85 1547 102 108 31 203 152 51 65
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 222 1623 92 85 1547 102 108 31 203 152 51 65
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 222 1623 92 85 1547 102 108 31 203 152 51 65

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.84 0.16 1.00 2.81 0.19 1.00 0.13 0.87 1.00 0.44 0.56
 Final Sat.: 1700 4826 274 1700 4785 315 1700 225 1475 1700 747 953

Capacity Analysis Module:
 Vol/Sat: 0.13 0.34 0.34 0.05 0.32 0.32 0.06 0.14 0.14 0.09 0.07 0.07
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.744
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 56 Level Of Service: C
 Street Name: Seal Beach Blvd St. Cloud Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Protected	Include	Protected	Include
Rights:	0	0	0	0	0	0	0	0
Min. Green:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Y+R:	2	0	2	1	0	0	1	0
Lanes:	2	0	2	1	0	0	1	0

Volume Module:
 Base Vol: 449 1862 145 5 1856 75 102 0 425 211 34 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 449 1862 145 5 1856 75 102 0 425 211 34 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 449 1862 145 5 1856 75 102 0 425 211 34 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 449 1862 145 5 1856 75 102 0 425 211 34 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 449 1862 145 5 1856 75 102 0 425 211 34 5
 OriAdjVol: 0 0 0 0 0 0 0 0 0 0 0 0

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.78 0.22 1.00 2.88 0.12 1.00 0.00 2.00 1.69 0.27 0.04
 Final Sat.: 3400 4732 368 1700 4902 198 1700 0 3400 2870 462 68

Capacity Analysis Module:
 Vol/Sat: 0.13 0.39 0.39 0.00 0.38 0.38 0.06 0.00 0.13 0.07 0.07 0.07
 OriAdjV/S: 0.00 0.00
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.736
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 55 Level Of Service: C

 Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1

Volume Module:
 Base Vol: 142 1710 62 26 1900 191 186 10 96 53 3 21
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 142 1710 62 26 1900 191 186 10 96 53 3 21
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 142 1710 62 26 1900 191 186 10 96 53 3 21
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 142 1710 62 26 1900 191 186 10 96 53 3 21
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 142 1710 62 26 1900 191 186 10 96 53 3 21

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.90 0.10 1.00 2.73 0.27 1.00 0.09 0.91 0.95 0.05 1.00
 Final Sat.: 1700 4922 178 1700 4634 466 1700 160 1540 1609 91 1700

Capacity Analysis Module:
 Vol/Sat: 0.08 0.35 0.35 0.02 0.41 0.41 0.11 0.06 0.06 0.03 0.03 0.01
 Crit Moves: *****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Seal Beach Blvd/Rossmoor Center Way

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.753
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 58 Level Of Service: C

 Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Protected	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1

Volume Module:
 Base Vol: 207 1720 26 39 1735 240 225 1 167 16 1 18
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 207 1720 26 39 1735 240 225 1 167 16 1 18
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 207 1720 26 39 1735 240 225 1 167 16 1 18
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 207 1720 26 39 1735 240 225 1 167 16 1 18
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 207 1720 26 39 1735 240 225 1 167 16 1 18

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.96 0.04 1.00 2.64 0.36 1.00 0.01 0.99 1.00 0.05 0.95
 Final Sat.: 1700 5024 76 1700 4480 620 1700 10 1690 1700 89 1611

Capacity Analysis Module:
 Vol/Sat: 0.12 0.34 0.34 0.02 0.39 0.39 0.13 0.10 0.10 0.01 0.01 0.01
 Crit Moves: *****

8: Yellowtail Drive & Saint Cloud Drive

12/5/2016

8: Yellowtail Drive & Saint Cloud Drive

12/5/2016

Intersection										
Int Delay, s/veh										
1.2										
A										
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Traffic Vol, veh/h	488	8	58	500	3	54				
Future Vol, veh/h	488	8	58	500	3	54				
Conflicting Peds, #/hr	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Stop	Stop				
RT Channelized	-	None	-	None	-	None				
Storage Length	-	-	-	-	0	0				
Veh in Median Storage, #	0	-	-	0	0	0				
Grade, %	0	-	-	0	0	0				
Peak Hour Factor	100	100	100	100	100	100				
Heavy Vehicles, %	2	2	2	2	2	2				
Mvmt Flow	488	8	58	500	3	54				
Major/Minor	Major1	Major2	Major1				Minor1			
Conflicting Flow All	0	0	496	0	858	248				
Stage 1	-	-	-	-	492	-				
Stage 2	-	-	-	-	366	-				
Critical Hwy	-	-	4.14	-	6.84	6.94				
Critical Hwy Stg 1	-	-	-	-	5.84	-				
Critical Hwy Stg 2	-	-	-	-	5.84	-				
Follow-up Hwy	-	-	2.22	-	3.52	3.32				
Pot Cap-1 Maneuver	-	-	1064	-	296	762				
Stage 1	-	-	-	-	580	-				
Stage 2	-	-	-	-	672	-				
Platoon blocked, %	-	-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	1064	-	274	762				
Mov Cap-2 Maneuver	-	-	-	-	274	-				
Stage 1	-	-	-	-	580	-				
Stage 2	-	-	-	-	622	-				
Approach	EB	WB	WB				NB			
HCM/Control Delay, s	0	1.2	1.2				10.7			
HCM LOS	B									
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT					
Capacity (veh/h)	689	-	-	1064	-					
HCM Lane V/C Ratio	0.083	-	-	0.065	-					
HCM Control Delay (s)	10.7	-	-	8.6	0.3					
HCM Lane LOS	B	-	-	A	A					
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-					

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection												
Int Delay, s/veh												
9.3												
A												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	33	5	51	0	3	6	11	0	73	237	4
Future Vol, veh/h	0	33	5	51	0	3	6	11	0	73	237	4
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	33	5	51	0	3	6	11	0	73	237	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2
Approach	EB	WB	WB				WB	NB				
Opposing Approach	WB	EB	EB				EB	SB				
Opposing Lanes	1	1	1				1	2				
Conflicting Approach Left	SB	EB	NB				EB	EB				
Conflicting Lanes Left	2	2	2				2	1				
Conflicting Approach Right	NB	SB	SB				WB	WB				
Conflicting Lanes Right	2	2	2				2	1				
HCM Control Delay	8.9	8.4	8.4				9.6	A				
HCM LOS	A	A	A				A	A				
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2						
Vol Left, %	38%	0%	37%	15%	6%	0%						
Vol Thru, %	62%	97%	6%	30%	94%	73%						
Vol Right, %	0%	3%	57%	65%	0%	27%						
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop						
Traffic Vol by Lane	192	123	89	20	137	177						
LT Vol	73	0	33	3	8	0						
Through Vol	119	119	5	6	129	129						
RT Vol	0	4	51	11	0	48						
Lane Flow Rate	192	122	89	20	137	177						
Geometry Grp	7	7	2	2	7	7						
Degree of Utl (X)	0.281	0.173	0.125	0.029	0.195	0.242						
Departure Headway (Ht)	5.287	5.072	5.075	5.162	5.136	4.916						
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes						
Cap	678	706	704	690	697	729						
Service Time	3.028	2.813	3.124	3.223	2.877	2.657						
HCM Lane V/C Ratio	0.283	0.173	0.126	0.029	0.197	0.243						
HCM Control Delay	10.1	8.9	8.9	8.4	9.1	9.2						
HCM Lane LOS	B	A	A	A	A	A						
HCM 95th %tile Q	1.2	0.6	0.4	0.1	0.7	0.9						

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection		SBL		SBT		SBR	
Intersection Delay, s/veh		SBL		SBT		SBR	
Intersection LOS		SBL		SBT		SBR	
Movement		SBU	SBL	SBT	SBR		
Traffic Vol, veh/h		0	8	258	48		
Future Vol, veh/h		0	8	258	48		
Peak Hour Factor		1.00	1.00	1.00	1.00		
Heavy Vehicles, %		2	2	2	2		
Mvmt Flow		0	8	258	48		
Number of Lanes		0	0	2	0		
Approach		SB	SB				
Opposing Approach		NB	NB				
Opposing Lanes		2	2				
Conflicting Approach Left		WB	WB				
Conflicting Lanes Left		1	1				
Conflicting Approach Right		EB	EB				
Conflicting Lanes Right		1	1				
HCM Control Delay		9.2	9.2				
HCM LOS		A	A				
Lane							

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmoor Center Way

12/5/2016

Intersection		EBL		EBR		WBL		WBR		NBL		NBR		SBL		SBR	
Intersection Delay, s/veh		EBL		EBR		WBL		WBR		NBL		NBR		SBL		SBR	
Intersection LOS		EBL		EBR		WBL		WBR		NBL		NBR		SBL		SBR	
Movement		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h		0	46	40	60	0	41	45	80	0	33	144	31	0	50	198	44
Future Vol, veh/h		0	46	40	60	0	41	45	80	0	33	144	31	0	50	198	44
Peak Hour 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	1.00	1.00	1.00	1.00
Heavy Vehicles, %		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow		0	46	40	60	0	41	45	80	0	33	144	31	0	50	198	44
Number of Lanes		0	0	1	0	0	0	1	0	0	0	2	0	0	0	2	0
Approach		EB	EB	WB	WB	EB	EB	NB	NB	SB							
Opposing Approach		WB	WB	EB	EB	1	1	2	2								
Opposing Lanes		1	1	2	2												
Conflicting Approach Left		SB	SB	NB	NB	EB	EB	WB	WB								
Conflicting Lanes Left		2	2	2	2	1	1	1	1								
Conflicting Approach Right		NB	NB	SB	SB	WB	WB	EB	EB								
Conflicting Lanes Right		2	2	2	2	1	1	1	1								
HCM Control Delay		9.8	9.8	9.9	9.9	9.6	9.6	10.1	10.1								
HCM LOS		A	A	A	A	A	A	B	B								
Lane		NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2										
Vol Left, %		31%	0%	32%	25%	34%	0%										
Vol Thru, %		69%	70%	27%	27%	66%	69%										
Vol Right, %		0%	30%	41%	48%	0%	31%										
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop										
Traffic Vol by Lane		105	103	146	166	149	143										
LT Vol		33	0	46	41	50	0										
Through Vol		72	72	40	45	99	99										
RT Vol		0	31	60	80	0	44										
Lane Flow Rate		105	103	146	166	149	143										
Geometry Grp		7	7	2	2	7	7										
Degree of Util (X)		0.173	0.159	0.215	0.241	0.242	0.217										
Departure Headway (Hd)		5.933	5.56	5.31	5.221	5.838	5.451										
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes										
Cap		606	646	676	689	617	659										
Service Time		3.66	3.288	3.34	3.25	3.562	3.174										
HCM Lane V/C Ratio		0.173	0.159	0.216	0.241	0.241	0.217										
HCM Control Delay		9.9	9.3	9.8	9.9	10.4	9.7										
HCM Lane LOS		A	A	A	A	B	A										
HCM 95th-ile Q		0.6	0.6	0.8	0.9	0.9	0.8										

HCM 2010 AWSC
1.1: Montecito Road & Bradbury Road

02/22/2017

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations			↔				↔					↔
Traffic Vol, veh/h	0	1	19	2	0	162	27	70	0	5	115	116
Future Vol, veh/h	0	1	19	2	0	162	27	70	0	5	115	116
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	19	2	0	162	27	70	0	5	115	116
Number of Lanes	0	1	0	0	0	1	1	1	0	0	0	2

Approach	EB	EB	WB	NB
Opposing Approach	WB	EB	WB	SB
Opposing Lanes	2	1	1	2
Conflicting Approach Left	SB	NB	EB	EB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	WB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.3	10.7	9.4	9.4
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	8%	0%	5%	86%	0%	39%	0%	0%
Vol Thru, %	92%	33%	86%	14%	0%	61%	96%	0%
Vol Right, %	0%	67%	9%	0%	100%	0%	4%	0%
Sign Control	Stop							
Traffic Vol by Lane	63	174	22	189	70	114	72	0
LT Vol	5	0	1	162	0	45	0	0
Through Vol	58	58	19	27	0	69	69	0
RT Vol	0	116	2	0	70	0	3	0
Lane Flow Rate	62	174	22	189	70	114	72	0
Geometry Grp	7	7	6	7	7	7	7	7
Degree of Utl (X)	0.097	0.244	0.037	0.316	0.095	0.183	0.111	0.111
Departure Headway (Hd)	5.576	5.063	6.025	6.027	4.891	5.768	5.54	5.54
Convergence, Y/N	Yes							
Cap	638	703	598	592	725	617	642	642
Service Time	3.35	2.837	4.025	3.808	2.672	3.548	3.32	3.32
HCM Lane V/C Ratio	0.097	0.248	0.037	0.319	0.097	0.185	0.112	0.112
HCM Control Delay	9	9.5	9.3	11.6	8.2	9.9	9	9
HCM Lane LOS	A	A	A	B	A	A	A	A
HCM 95th-ile Q	0.3	1	0.1	1.3	0.3	0.7	0.4	0.4

HCM 2010 AWSC
1.1: Montecito Road & Bradbury Road

02/22/2017

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↔	
Traffic Vol, veh/h	0	45	138	3
Future Vol, veh/h	0	45	138	3
Peak Hour Factor	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	45	138	3
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.6
HCM LOS	A

HCM 2010 AWSC

12: West Road & Rossmoor Center Way

12/5/2016

Intersection												
Intersection Delay, s/veh 8												
Intersection LOS A												
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR			
Traffic Vol, veh/h	0	99	26	0	24	149	0	34	12			
Future Vol, veh/h	0	99	26	0	24	149	0	34	12			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	99	26	0	24	149	0	34	12			
Number of Lanes	0	1	0	0	0	1	0	1	0			

Approach												
Opposing Approach												
Opposing Lanes												
Conflicting Approach Left												
Conflicting Lanes Left												
Conflicting Approach Right												
Conflicting Lanes Right												
HCM Control Delay												
HCM LOS												
Approach	EB	WB	EB	NB								
Opposing Approach	WB	EB										
Opposing Lanes	1	1										
Conflicting Approach Left	0	NB	EB									
Conflicting Lanes Left	0	1	1									
Conflicting Approach Right	NB	WB										
Conflicting Lanes Right	1	0	1									
HCM Control Delay	7.8	8.2	7.9	A								
HCM LOS	A	A	A	A								

Lane												
Vol Left, %												
Vol Thru, %												
Vol Right, %												
Sign Control												
Traffic Vol by Lane												
LT Vol												
Through Vol												
RT Vol												
Lane Flow Rate												
Geometry Grp												
Degree of Util (X)												
Departure Headway (Hd)												
Convergence, Y/N												
Cap												
Service Time												
HCM Lane V/C Ratio												
HCM Control Delay												
HCM Lane LOS												
HCM 95th-tile Q												
NBLn1	EBLn1	WBLn1	NBLn1									
Vol Left, %	74%	0%	14%									
Vol Thru, %	0%	79%	86%									
Vol Right, %	26%	21%	0%									
Sign Control	Stop	Stop	Stop									
Traffic Vol by Lane	46	125	173									
LT Vol	34	0	24									
Through Vol	0	99	149									
RT Vol	12	26	0									
Lane Flow Rate	46	125	173									
Geometry Grp	1	1	1									
Degree of Util (X)	0.058	0.14	0.199									
Departure Headway (Hd)	4.569	4.021	4.137									
Convergence, Y/N	Yes	Yes	Yes									
Cap	788	881	860									
Service Time	2.569	2.094	2.196									
HCM Lane V/C Ratio	0.058	0.142	0.201									
HCM Control Delay	7.9	7.8	8.2									
HCM Lane LOS	A	A	A									
HCM 95th-tile Q	0.2	0.5	0.7									

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/5/2016

Intersection														
Intersection Delay, s/veh 17.3														
Intersection LOS C														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	24	128	30	0	200	180	92	0	47	48	195	0	82
Future Vol, veh/h	0	24	128	30	0	200	180	92	0	47	48	195	0	82
Peak Hour 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	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	24	128	30	0	200	180	92	0	47	48	195	0	82
Number of Lanes	0	0	2	0	0	0	1	0	0	1	0	0	0	1

Approach													
Opposing Approach													
Opposing Lanes													
Conflicting Approach Left													
Conflicting Lanes Left													
Conflicting Approach Right													
Conflicting Lanes Right													
HCM Control Delay													
HCM LOS													
Approach	EB	WB	EB	NB									
Opposing Approach	WB	EB											
Opposing Lanes	1	2											
Conflicting Approach Left	SB	NB	EB	WB									
Conflicting Lanes Left	1	1	2	1									
Conflicting Approach Right	NB	SB	WB	EB									
Conflicting Lanes Right	1	1	1	2									
HCM Control Delay	10.7	23.6	13.8	B									
HCM LOS	B	C	B	B									

Lane													
Vol Left, %													
Vol Thru, %													
Vol Right, %													
Sign Control													
Traffic Vol by Lane													
LT Vol													
Through Vol													
RT Vol													
Lane Flow Rate													
Geometry Grp													
Degree of Util (X)													
Departure Headway (Hd)													
Convergence, Y/N													
Cap													
Service Time													
HCM Lane V/C Ratio													
HCM Control Delay													
HCM Lane LOS													
HCM 95th-tile Q													
NBLn1	EBLn1	EBLn2	WBLn1	SBLn1									
Vol Left, %	16%	27%	0%	42%	54%								
Vol Thru, %	17%	73%	68%	36%	24%								
Vol Right, %	67%	0%	32%	19%	22%								
Sign Control	Stop	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	290	88	94	472	152								
LT Vol	47	24	0	200	82								
Through Vol	48	64	64	180	37								
RT Vol	195	0	30	92	33								
Lane Flow Rate	290	88	94	472	152								
Geometry Grp	2	7	7	5	2								
Degree of Util (X)	0.464	0.167	0.169	0.744	0.275								
Departure Headway (Hd)	5.864	6.852	6.485	5.672	6.502								
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes								
Cap	618	525	556	632	555								
Service Time	3.864	4.564	4.196	3.765	4.509								
HCM Lane V/C Ratio	0.469	0.168	0.169	0.747	0.274								
HCM Control Delay	13.8	10.9	10.5	23.6	12								
HCM Lane LOS	B	B	B	C	B								
HCM 95th-tile Q	2.5	0.6	0.6	6.6	1.1								

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/5/2016

Intersection										
Intersection Delay, s/veh 11.4										
Intersection LOS B										
Movement	WBU	WBL	WBR	NBU	NBL	NBR	SBU	SBL	SBT	
Traffic Vol, veh/h	0	91	320	0	47	70	0	253	59	
Future Vol, veh/h	0	91	320	0	47	70	0	253	59	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	91	320	0	47	70	0	253	59	
Number of Lanes	0	1	1	0	1	0	0	0	1	
Approach	WB		NB		SB					
Opposing Approach	0		SB		NB					
Opposing Lanes	0		1		1					
Conflicting Approach Left	NB		WB		WB					
Conflicting Lanes Left	1		0		2					
Conflicting Approach Right	SB		WB		WB					
Conflicting Lanes Right	1		2		0					
HCM Control Delay	11.2		9.1		12.6					
HCM LOS	B		A		B					
Lane	NBLn1 WBLn1 WBLn2		SBLn1							
Vol Left, %	0%		0%		81%					
Vol Thru, %	40%		0%		19%					
Vol Right, %	60%		100%		0%					
Sign Control	Stop		Stop		Stop					
Traffic Vol by Lane	117	91	320	312						
LT Vol	0	91	0	253						
RT Vol	70	0	320	0						
Lane Flow Rate	117	91	320	312						
Geometry Grp	2		7		2					
Degree of Util (X)	0.162		0.155		0.436		0.462			
Departure Headway (Hd)	4.974		6.113		4.902		5.211			
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes				
Cap	711	682	726	686						
Service Time	3.073		3.894		2.683		3.291			
HCM Lane V/C Ratio	0.165		0.156		0.441		0.455			
HCM Control Delay	9.1		10		11.5		12.6			
HCM Lane LOS	A		A		B		B			
HCM 95th-tile Q	0.6		0.5		2.2		2.4			

HCM 2010 TWSC

15: Project Driveway & Rossmore Center Way

12/5/2016

Intersection										
Int Delay, s/veh 3										
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Traffic Vol, veh/h	96	1	86	181	4	71				
Future Vol, veh/h	96	1	86	181	4	71				
Conflicting Peds, #/hr	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Stop	Stop				
RT Channelized	-	None	-	None	-	None				
Storage Length	-	-	-	-	0	0				
Veh in Median Storage, #	0	-	-	0	0	-				
Grade, %	0	-	-	0	0	-				
Peak Hour Factor	100	100	100	100	100	100				
Heavy Vehicles, %	2	2	2	2	2	2				
Mvmt Flow	96	1	86	181	4	71				
Major/Minor	Major1		Major2		Minor1					
Conflicting Flow All	0	0	97	0	450	97				
Stage 1	-	-	-	-	97	-				
Stage 2	-	-	-	-	353	-				
Critical Hdwy	-	-	-	-	6.42	-				
Critical Hdwy Stg 1	-	-	-	-	6.42	-				
Critical Hdwy Stg 2	-	-	-	-	5.42	-				
Follow-up Hdwy	-	-	-	-	3.518	-				
Pot Cap-1 Maneuver	-	-	-	-	567	969				
Stage 1	-	-	-	-	927	-				
Stage 2	-	-	-	-	711	-				
Platoon blocked, %	-	-	-	-	-	-				
Mov Cap-1 Maneuver	-	-	-	-	531	969				
Mov Cap-2 Maneuver	-	-	-	-	531	-				
Stage 1	-	-	-	-	927	-				
Stage 2	-	-	-	-	665	-				
Approach	EB		WB		NB					
HCM Control Delay, s	0		2.4		9.3					
HCM LOS	A		A		A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT					
Capacity (veh/h)	919	-	-	1496	-					
HCM Lane V/C Ratio	0.082	-	-	0.057	-					
HCM Control Delay (s)	9.3	-	-	7.6	0					
HCM Lane LOS	A	-	-	A	A					
HCM 95th-tile Q(veh)	0.3	-	-	0.2	-					

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #3 Seal Beach Blvd/Lampson Ave
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.806
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 68 Level Of Service: D

Street Name: Seal Beach Blvd East Bound West Bound
 Approach: North Bound South Bound Lampson Ave
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Permitted
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 2 0 3 0 0 0 0 0 2 0 0 0 1

Volume Module:
 Base Vol: 0 1724 394 564 1626 0 0 0 0 394 0 625
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1724 394 564 1626 0 0 0 394 0 625
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1724 394 564 1626 0 0 0 394 0 625
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1724 394 564 1626 0 0 0 394 0 625
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1724 394 564 1626 0 0 0 394 0 625
 OvlAdjVol: 0 0 0 0 0 0 0 0 0 0 0 343

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 2.00 3.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 5100 1700 3400 5100 0 0 0 3400 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.34 0.23 0.17 0.32 0.00 0.00 0.00 0.00 0.12 0.00 0.37
 OvlAdjV/S: ****
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #4 Seal Beach Blvd/St. Cloud Dr
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.675
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 47 Level Of Service: B

Street Name: Seal Beach Blvd East Bound West Bound
 Approach: North Bound South Bound St. Cloud Dr
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected
 Rights: Include Include Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 1 0 1 0 2 1 0 0 1 0 0 2 1 0 1 0 0

Volume Module:
 Base Vol: 398 1796 188 19 1538 79 120 2 439 191 38 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 398 1796 188 19 1538 79 120 2 439 191 38 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 398 1796 188 19 1538 79 120 2 439 191 38 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 398 1796 188 19 1538 79 120 2 439 191 38 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 398 1796 188 19 1538 79 120 2 439 191 38 5
 OvlAdjVol: 0 0 0 0 0 0 0 0 0 0 0 41

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.72 2.28 1.00 2.85 0.15 0.98 0.02 2.00 1.64 0.32 0.04
 Final Sat.: 3400 4617 483 1700 4851 249 1672 28 3400 2775 552 73

Capacity Analysis Module:
 Vol/Sat: 0.12 0.39 0.39 0.01 0.32 0.07 0.07 0.13 0.07 0.07 0.07
 OvlAdjV/S: ****
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.875
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 89 Level Of Service: D

Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	1 0 2 1	0 2 1 0	1 0 0 1	1 0 0 1

Volume Module:
 Base Vol: 316 1403 118 101 1200 164 128 91 266 189 97 96
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 316 1403 118 101 1200 164 128 91 266 189 97 96
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 316 1403 118 101 1200 164 128 91 266 189 97 96
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 316 1403 118 101 1200 164 128 91 266 189 97 96
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 316 1403 118 101 1200 164 128 91 266 189 97 96

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1700 4704 396 1700 4487 613 1700 433 1267 1700 854 846

Capacity Analysis Module:
 Vol/Sat: 0.19 0.30 0.30 0.06 0.27 0.27 0.08 0.21 0.21 0.11 0.11 0.11
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #6 Seal Beach Blvd/Rossmoor Center Way
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.744
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 56 Level Of Service: C

Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	1 0 2 1	0 2 1 0	1 0 0 1	1 0 0 1

Volume Module:
 Base Vol: 243 1585 16 27 1540 271 231 4 190 21 2 15
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 243 1585 16 27 1540 271 231 4 190 21 2 15
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 243 1585 16 27 1540 271 231 4 190 21 2 15
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 243 1585 16 27 1540 271 231 4 190 21 2 15
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 243 1585 16 27 1540 271 231 4 190 21 2 15

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1700 5049 51 1700 4337 763 1700 35 1665 1700 200 1500

Capacity Analysis Module:
 Vol/Sat: 0.14 0.31 0.31 0.02 0.36 0.36 0.14 0.11 0.11 0.01 0.01 0.01
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #5 Seal Beach Blvd/Towne Center Dr
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.875
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 89 Level Of Service: D

Street Name: Seal Beach Blvd Towne Center Dr
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	1 0 2 1	0 2 1 0	1 0 0 1	1 0 0 1

Volume Module:
 Base Vol: 316 1403 118 101 1200 164 128 91 266 189 97 96
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 316 1403 118 101 1200 164 128 91 266 189 97 96
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 316 1403 118 101 1200 164 128 91 266 189 97 96
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 316 1403 118 101 1200 164 128 91 266 189 97 96
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 316 1403 118 101 1200 164 128 91 266 189 97 96

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1700 4704 396 1700 4487 613 1700 433 1267 1700 854 846

Capacity Analysis Module:
 Vol/Sat: 0.19 0.30 0.30 0.06 0.27 0.27 0.08 0.21 0.21 0.11 0.11 0.11
 Crit Moves: ****

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)
 Intersection #6 Seal Beach Blvd/Rossmoor Center Way
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.744
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 56 Level Of Service: C

Street Name: Seal Beach Blvd Rossmoor Center Way
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Include	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Y+R:	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0	4.0 4.0 4.0 4.0
Lanes:	1 0 2 1	0 2 1 0	1 0 0 1	1 0 0 1

Volume Module:
 Base Vol: 243 1585 16 27 1540 271 231 4 190 21 2 15
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 243 1585 16 27 1540 271 231 4 190 21 2 15
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 243 1585 16 27 1540 271 231 4 190 21 2 15
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 243 1585 16 27 1540 271 231 4 190 21 2 15
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 243 1585 16 27 1540 271 231 4 190 21 2 15

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1700 5049 51 1700 4337 763 1700 35 1665 1700 200 1500

Capacity Analysis Module:
 Vol/Sat: 0.14 0.31 0.31 0.02 0.36 0.36 0.14 0.11 0.11 0.01 0.01 0.01
 Crit Moves: ****

Traffic 8.0.0715 (c) 2008 Dowling Assoc. Licensed to LSA ASSOC. IRVINE, CA

Intersection									
IntDelay, s/veh									
1									
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Traffic Vol, veh/h	502	1	47	462	4	48			
Future Vol, veh/h	502	1	47	462	4	48			
Conflicting Peds. #/hr	0	0	0	0	0	0			
Sign Control	Free	Free	Free	Free	Stop	Stop			
RT Channelized	-	None	-	None	-	None			
Storage Length	-	-	-	-	0	0			
Veh in Median Storage, #	0	-	-	0	0	0			
Grade, %	0	-	-	0	0	0			
Peak Hour Factor	100	100	100	100	100	100			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	502	1	47	462	4	48			
Major/Minor									
Major1	Major2				Minor1				
Conflicting Flow All	0	0	503	0	828	252			
Stage 1	-	-	-	-	503	-			
Stage 2	-	-	-	-	325	-			
Critical Hdwy	-	-	4.14	-	6.84	6.94			
Critical Hdwy Stg 1	-	-	-	-	5.84	-			
Critical Hdwy Stg 2	-	-	-	-	5.84	-			
Follow-up Hdwy	-	-	2.22	-	3.52	3.32			
Pot Cap-1 Maneuver	-	-	1058	-	309	748			
Stage 1	-	-	-	-	573	-			
Stage 2	-	-	-	-	705	-			
Platoon blocked, %	-	-	-	-	-	-			
Mov Cap-1 Maneuver	-	-	1058	-	290	748			
Mov Cap-2 Maneuver	-	-	-	-	290	-			
Stage 1	-	-	-	-	573	-			
Stage 2	-	-	-	-	663	-			
Approach									
EB	WB		WB		NB				
HCM Control Delay, s	0		1		10.9				
HCM LOS	B		B		B				
Minor Lane/Major Mvmt									
NBLn1	EBT	EBR	WBL	WBT					
Capacity (veh/h)	667	-	-	1058					
HCM Lane V/C Ratio	0.078	-	-	0.044					
HCM Control Delay (s)	10.9	-	-	8.6	0.2				
HCM Lane LOS	B	-	-	A	A				
HCM 95th %ile Q(veh)	0.3	-	-	0.1	-				

Level of Service Computation Report
 ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Seal Beach Blvd-Los Alamitos Blvd/Bradbury Rd
 Critical Vol./Cap. (X): 0.684
 Average Delay (ssec/veh): xxxxxx
 Level of Service: B

Street Name: Seal Beach Blvd-Los Alamitos Blvd East Bound Bradbury Rd West Bound
 Approach: North Bound South Bound
 Movement: L - I - R L - I - R L - I - R L - I - R

Control:	Protected	Protected	Protected	Protected	Permitted	Permitted	Permitted
Rights:	Include						
Mfn. Green:	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0

Volume Module:

Base Vol:	122	1570	48	24	1667	136	192	9	105	69	8	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	122	1570	48	24	1667	136	192	9	105	69	8	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	122	1570	48	24	1667	136	192	9	105	69	8	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	122	1570	48	24	1667	136	192	9	105	69	8	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	122	1570	48	24	1667	136	192	9	105	69	8	22

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adj. Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.91	0.09	1.00	2.77	0.23	1.00	0.08	0.92	0.90	0.10	1.00
Final Sat:	1700	4949	151	1700	4715	385	1700	134	1566	1523	177	1700

Capacity Analysis Module:

Vol/Sat:	0.07	0.32	0.32	0.01	0.35	0.35	0.11	0.07	0.07	0.04	0.05	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection	8.8												
Intersection Delay, s/veh	A												
Intersection LOS	A												
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBR	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	38	5	41	0	4	6	5	0	41	196	8	8
Future Vol, veh/h	0	38	5	41	0	4	6	5	0	41	196	8	8
Peak Hour 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	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	5	41	0	4	6	5	0	41	196	8	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0
Approach	EB		WB		WB		NB		NB		SB		
Opposing Approach	WB		EB		1		2		2		2		
Opposing Lanes	1		1		1		2		2		2		
Conflicting Approach Left	SB		NB		EB		1		1		1		
Conflicting Lanes Left	2		2		2		2		2		2		
Conflicting Approach Right	NB		SB		WB		1		1		1		
Conflicting Lanes Right	2		2		2		2		2		2		
HCM Control Delay	8.6		8.3		8.3		8.9		8.9		A		
HCM LOS	A		A		A		A		A		A		

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	29%	0%	45%	27%	6%	0%
Vol Thru, %	71%	92%	6%	40%	94%	85%
Vol Right, %	0%	8%	49%	33%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	139	106	84	15	138	153
LT Vol	41	0	38	4	8	0
Through Vol	98	98	5	6	130	130
RT Vol	0	8	41	5	0	23
Lane Flow Rate	139	106	84	15	138	152
Geometry Grp	7	7	2	2	7	7
Degree of Utl (X)	0.2	0.147	0.115	0.021	0.192	0.208
Departure Headway (Hd)	5.19	4.988	4.947	5.111	5.035	4.899
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	692	719	724	698	714	734
Service Time	2.919	2.717	2.982	3.156	2.762	2.626
HCM Lane V/C Ratio	0.201	0.147	0.116	0.021	0.193	0.207
HCM Control Delay	9.2	8.6	8.6	8.3	9	8.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.7	0.5	0.4	0.1	0.7	0.8

HCM 2010 AWSC

9: Montecito Road & Copa De Oro Drive/Project Driveway

12/5/2016

Intersection	8.8												
Intersection Delay, s/veh	A												
Intersection LOS	A												
Movement	SBU	SBL	SBT	SBR	SBU	SBL	SBT	SBR	SBU	SBL	SBT	SBR	
Traffic Vol, veh/h	0	8	259	23	0	8	259	23	0	8	259	23	
Future Vol, veh/h	0	8	259	23	0	8	259	23	0	8	259	23	
Peak Hour 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	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	8	259	23	0	8	259	23	0	8	259	23	
Number of Lanes	0	0	0	2	0	0	0	2	0	0	0	2	
Approach	SB				SB				SB				
Opposing Approach	NB				2				2				
Opposing Lanes	2				2				2				
Conflicting Approach Left	WB				1				1				
Conflicting Lanes Left	1				1				1				
Conflicting Approach Right	EB				1				1				
Conflicting Lanes Right	1				1				1				
HCM Control Delay	8.9				8.9				A				
HCM LOS	A				A				A				
Lane													

HCM 2010 AWSC

10: Montecito Road & Mainway Drive/Rossmoor Center Way

12/5/2016

Intersection	Intersection Delay, s/veh 9.7															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	46	47	69	0	22	58	49	0	51	142	34	0	50	176	36
Future Vol, veh/h	0	46	47	69	0	22	58	49	0	51	142	34	0	50	176	36
Peak Hour 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	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	46	47	69	0	22	58	49	0	51	142	34	0	50	176	36
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	2
Approach	EB			WB			NB			SB						
Opposing Approach	WB			EB			NB			SB						
Opposing Lanes	1			1			2			2						
Conflicting Approach Left	SB			NB			EB			WB						
Conflicting Lanes Left	2			2			1			1						
Conflicting Approach Right	NB			SB			WB			EB						
Conflicting Lanes Right	2			2			1			1						
HCM Control Delay	9.8			9.5			9.6			9.8						
HCM LOS	A			A			A			A						

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	42%	0%	28%	17%	36%	0%		
Vol Thru, %	58%	68%	29%	45%	64%	71%		
Vol Right, %	0%	32%	43%	38%	0%	29%		
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop		
Traffic Vol by Lane	122	105	162	129	138	124		
LT Vol	51	0	46	22	50	0		
Through Vol	71	71	47	58	88	88		
RT Vol	0	34	69	49	0	36		
Lane Flow Rate	122	105	162	129	138	124		
Geometry Grp	7	7	2	2	7	7		
Degree of Utl (X)	0.199	0.159	0.23	0.185	0.223	0.187		
Departure Headway (Hd)	5.878	5.438	5.222	5.284	5.808	5.419		
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes		
Cap	614	663	692	684	621	666		
Service Time	3.585	3.144	3.222	3.284	3.513	3.124		
HCM Lane V/C Ratio	0.199	0.158	0.234	0.189	0.222	0.186		
HCM Control Delay	10	9.2	9.8	9.5	10.2	9.4		
HCM Lane LOS	A	A	A	A	B	A		
HCM 95th-ile Q	0.7	0.6	0.9	0.7	0.8	0.7		

HCM 2010 AWSC

11: Montecito Road & Bradbury Road

02/22/2017

Intersection	Intersection Delay, s/veh 9.1															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR				
Traffic Vol, veh/h	0	1	16	4	0	126	22	76	0	3	80	103				
Future Vol, veh/h	0	1	16	4	0	126	22	76	0	3	80	103				
Peak Hour 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				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2				
Mvmt Flow	0	1	16	4	0	126	22	76	0	3	80	103				
Number of Lanes	0	0	1	0	0	0	1	1	0	0	0	2				
Approach	EB			WB			NB									
Opposing Approach	WB			EB			SB									
Opposing Lanes	2			1			2									
Conflicting Approach Left	SB			NB			EB									
Conflicting Lanes Left	2			2			1									
Conflicting Approach Right	NB			SB			WB									
Conflicting Lanes Right	2			2			2									
HCM Control Delay	8.8			9.5			8.7									
HCM LOS	A			A			A									

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	7%	0%	5%	5%	85%	0%	44%	0%
Vol Thru, %	93%	28%	76%	15%	0%	56%	96%	96%
Vol Right, %	0%	72%	19%	0%	100%	0%	4%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop		
Traffic Vol by Lane	43	143	21	148	76	89	52	
LT Vol	3	0	1	126	0	39	0	
Through Vol	40	40	16	22	0	50	50	
RT Vol	0	103	4	0	76	0	2	
Lane Flow Rate	43	143	21	148	76	88	52	
Geometry Grp	7	7	6	7	7	7		
Degree of Utl (X)	0.064	0.192	0.032	0.238	0.098	0.137	0.076	
Departure Headway (Hd)	5.376	4.833	5.532	5.783	4.652	5.593	5.343	
Convergence, Y/N	Yes							
Cap	665	739	644	620	768	639	668	
Service Time	3.122	2.579	3.596	3.529	2.398	3.342	3.093	
HCM Lane V/C Ratio	0.065	0.194	0.033	0.239	0.099	0.138	0.078	
HCM Control Delay	8.5	8.7	8.8	10.3	7.9	9.2	8.5	
HCM Lane LOS	A	A	A	B	A	A	A	
HCM 95th-ile Q	0.2	0.7	0.1	0.9	0.3	0.5	0.2	

HCM 2010 AWSC

11: Montecito Road & Bradbury Road

02/22/2017

Intersection	SBU	SBL	SBT	SBR
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	39	99	2
Future Vol, veh/h	0	39	99	2
Peak Hour Factor	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	39	99	2
Number of Lanes	0	0	2	0
Approach	SB	SB		
Opposing Approach	NB			
Opposing Lanes	2			
Conflicting Approach Left	WB			
Conflicting Lanes Left	2			
Conflicting Approach Right	EB			
Conflicting Lanes Right	1			
HCM Control Delay	8.9			
HCM LOS	A			

HCM 2010 AWSC

12: West Road & Rossmore Center Way

12/5/2016

Intersection	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Intersection Delay, s/veh	7.8								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Traffic Vol, veh/h	0	90	23	0	11	129	0	34	19
Future Vol, veh/h	0	90	23	0	11	129	0	34	19
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	90	23	0	11	129	0	34	19
Number of Lanes	0	1	0	0	0	1	0	1	0
Approach	EB	EB	WB	WB	EB		NB		
Opposing Approach	WB						EB		
Opposing Lanes	1						0		
Conflicting Approach Left							NB		
Conflicting Lanes Left	0						1		
Conflicting Approach Right	NB						WB		
Conflicting Lanes Right	1						0		
HCM Control Delay	7.7						8		
HCM LOS	A						A		
Lane	NBU	EBU	NBU	WBU	NBU				
Vol Left, %	64%	0%	8%						
Vol Thru, %	0%	80%	92%						
Vol Right, %	36%	20%	0%						
Sign Control	Stop	Stop	Stop						
Traffic Vol by Lane	53	113	140						
LT Vol	34	0	11						
Through Vol	0	90	129						
RT Vol	19	23	0						
Lane Flow Rate	53	113	140						
Geometry Grp	1	1	1						
Degree of Util (X)	0.065	0.126	0.161						
Departure Headway (Hd)	4.394	4.01	4.128						
Convergence, Y/N	Yes	Yes	Yes						
Cap	820	885	862						
Service Time	2.394	2.078	2.186						
HCM Lane V/C Ratio	0.065	0.128	0.162						
HCM Control Delay	7.7	7.7	8						
HCM Lane LOS	A	A	A						
HCM 95th-ile Q	0.2	0.4	0.6						

HCM 2010 AWSC

13: Internal Driveway & Rossmoor Center Way

12/5/2016

Intersection																
Intersection Delay, s/veh 25																
Intersection LOS C																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR	
Traffic Vol, veh/h	0	23	160	39	0	234	143	116	0	47	70	235	0	105	66	26
Future Vol, veh/h	0	23	160	39	0	234	143	116	0	47	70	235	0	105	66	26
Peak Hour 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	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	160	39	0	234	143	116	0	47	70	235	0	105	66	26
Number of Lanes	0	0	2	0	0	0	1	0	0	0	0	1	0	0	0	1
Approach																
	EB	WB	EB	WB	EB	WB	EB	WB	NB	NB	SB	SB	NB	NB	SB	SB
Opposing Approach	WB	EB														
Opposing Lanes	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Conflicting Approach Left	SB	NB														
Conflicting Lanes Left	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Conflicting Approach Right	NB	SB														
Conflicting Lanes Right	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HCM Control Delay	12.3	38.6	12.3	38.6	12.3	38.6	12.3	38.6	19.7	19.7	15	15	15	15	15	15
HCM LOS	B	E	B	E	B	E	B	E	C	C	B	B	B	B	B	B
Lane																
	NBLn1	EBLn1	EBLn1	EBLn2	WBLn1	WBLn1	WBLn1	WBLn1	NBLn1	NBLn1	SBLn1	SBLn1	SBLn1	SBLn1	SBLn1	SBLn1
Vol Left, %	13%	22%	0%	47%	53%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vol Thru, %	20%	78%	67%	29%	34%	67%	29%	34%	0%	0%	0%	0%	0%	0%	0%	0%
Vol Right, %	67%	0%	33%	24%	13%	67%	0%	13%	0%	0%	0%	0%	0%	0%	0%	0%
Sign Control	Stop															
Traffic Vol by Lane	352	103	119	493	197	352	103	119	493	197	352	103	119	493	197	352
LT Vol	47	23	0	234	105	47	23	0	234	105	47	23	0	234	105	47
Through Vol	70	80	80	143	66	70	80	80	143	66	70	80	80	143	66	70
RT Vol	235	0	39	116	26	235	0	39	116	26	235	0	39	116	26	235
Lane Flow Rate	352	103	119	493	197	352	103	119	493	197	352	103	119	493	197	352
Geometry Grp	2	7	7	5	2	2	7	7	5	2	2	7	7	5	2	2
Degree of Utl (X)	0.625	0.216	0.238	0.872	0.394	0.625	0.216	0.238	0.872	0.394	0.625	0.216	0.238	0.872	0.394	0.625
Departure Headway (Hd)	6.397	7.551	7.201	6.365	7.196	6.397	7.551	7.201	6.365	7.196	6.397	7.551	7.201	6.365	7.196	6.397
Convergence, Y/N	Yes															
Cap	560	473	495	567	496	560	473	495	567	496	560	473	495	567	496	560
Service Time	4.479	5.347	4.996	4.439	5.293	4.479	5.347	4.996	4.439	5.293	4.479	5.347	4.996	4.439	5.293	4.479
HCM Lane V/C Ratio	0.629	0.218	0.24	0.869	0.397	0.629	0.218	0.24	0.869	0.397	0.629	0.218	0.24	0.869	0.397	0.629
HCM Control Delay	19.7	12.4	12.3	38.6	15	19.7	12.4	12.3	38.6	15	19.7	12.4	12.3	38.6	15	19.7
HCM Lane LOS	C	B	B	E	B	C	B	B	E	B	C	B	B	E	B	C
HCM 95th-ile Q	4.3	0.8	0.9	9.8	1.9	4.3	0.8	0.9	9.8	1.9	4.3	0.8	0.9	9.8	1.9	4.3

HCM 2010 AWSC

14: Restaurant Driveway & Towne Center Drive

12/5/2016

Intersection																
Intersection Delay, s/veh 17.9																
Intersection LOS C																
Movement	WBU	WBL	WBR	NBU	NBL	NBT	NBR	SBU	SBT	SBR						
Traffic Vol, veh/h	0	140	431	0	76	108	0	371	57	0						
Future Vol, veh/h	0	140	431	0	76	108	0	371	57	0						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2						
Mvmt Flow	0	140	431	0	76	108	0	371	57	0						
Number of Lanes	0	1	1	0	1	0	0	0	0	1						
Approach																
	WB	WB	NB	NB	SB	SB	NB	SB	NB	SB						
Opposing Approach	WB	NB														
Opposing Lanes	0	1	0	1	0	1	0	1	0	1						
Conflicting Approach Left	NB	NB	NB	NB	WB	WB	WB	WB	WB	WB						
Conflicting Lanes Left	1	1	1	1	0	0	0	0	0	0						
Conflicting Approach Right	SB	SB	SB	SB	WB	WB	WB	WB	WB	WB						
Conflicting Lanes Right	1	1	1	1	2	2	2	2	2	2						
HCM Control Delay	17.3	17.3	11.3	11.3	21.5	21.5	21.5	21.5	21.5	21.5						
HCM LOS	C	C	B	B	C	C	C	C	C	C						
Lane																
	NBLn1	WBLn1	WBLn2	SBLn1												
Vol Left, %	0%	100%	0%	87%	41%	0%	0%	13%	59%	0%	100%	0%	0%	0%	0%	0%
Vol Thru, %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vol Right, %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sign Control	Stop															
Traffic Vol by Lane	184	140	431	428	184	140	431	428	184	140	431	428	184	140	431	428
LT Vol	0	140	0	371	0	140	0	371	0	140	0	371	0	140	0	371
Through Vol	76	0	0	57	76	0	0	57	76	0	0	57	76	0	0	57
RT Vol	108	0	431	0	108	0	431	0	108	0	431	0	108	0	431	0
Lane Flow Rate	184	140	431	428	184	140	431	428	184	140	431	428	184	140	431	428
Geometry Grp	2	7	7	2	2	7	7	2	2	7	7	2	2	7	7	2
Degree of Utl (X)	0.297	0.265	0.669	0.699	0.297	0.265	0.669	0.699	0.297	0.265	0.669	0.699	0.297	0.265	0.669	0.699
Departure Headway (Hd)	5.805	6.805	5.587	5.883	5.805	6.805	5.587	5.883	5.805	6.805	5.587	5.883	5.805	6.805	5.587	5.883
Convergence, Y/N	Yes															
Cap	616	528	647	612	616	528	647	612	616	528	647	612	616	528	647	612
Service Time	3.87	4.555	3.336	3.934	3.87	4.555	3.336	3.934	3.87	4.555	3.336	3.934	3.87	4.555	3.336	3.934
HCM Lane V/C Ratio	0.299	0.265	0.666	0.699	0.299	0.265	0.666	0.699	0.299	0.265	0.666	0.699	0.299	0.265	0.666	0.699
HCM Control Delay	11.3	12	19	21.5	11.3	12	19	21.5	11.3	12	19	21.5	11.3	12	19	21.5
HCM Lane LOS	B	B	C	C	B	B	C	C	B	B	C	C	B	B	C	C
HCM 95th-ile Q	1.2	1.1	5.1	5.6	1.2	1.1	5.1	5.6	1.2	1.1	5.1	5.6	1.2	1.1	5.1	5.6

Intersection									
Int Delay, s/veh 3.7									
Movement									
	EBT	EBR	WBL	WBT	NBL	NBR			
Traffic Vol, veh/h	108	0	89	135	5	93			
Future Vol, veh/h	108	0	89	135	5	93			
Conflicting Peds, #/hr	0	0	0	0	0	0			
Sign Control	Free	Free	Free	Free	Stop	Stop			
RT Channelized	-	None	-	None	-	None			
Storage Length	-	-	-	-	0	-			
Veh in Median Storage, #	0	-	-	0	0	-			
Grade, %	0	-	-	0	0	-			
Peak Hour Factor	100	100	100	100	100	100			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	108	0	89	135	5	93			
Major/Minor									
	Major1		Major2		Minor1				
Conflicting Flow All	0	0	108	0	421	108			
Stage 1	-	-	-	-	108	-			
Stage 2	-	-	-	-	313	-			
Critical Hwy	-	-	4.12	-	6.42	6.22			
Critical Hwy Stg 1	-	-	-	-	5.42	-			
Critical Hwy Stg 2	-	-	-	-	5.42	-			
Follow-up Hwy	-	-	2.218	-	3.518	3.318			
Pot Cap-1 Maneuver	-	-	1483	-	589	946			
Stage 1	-	-	-	-	916	-			
Stage 2	-	-	-	-	741	-			
Platoon blocked, %	-	-	-	-	-	-			
Mov Cap-1 Maneuver	-	-	1483	-	551	946			
Mov Cap-2 Maneuver	-	-	-	-	551	-			
Stage 1	-	-	-	-	916	-			
Stage 2	-	-	-	-	693	-			
Approach									
	EB	WB	WB	NB	NB				
HCM Control Delay, s	0		3		9.4				
HCM LOS					A				
Minor Lane/Major Mvmt									
	NBLn1	EBT	EBR	WBL	WBT				
Capacity (veh/h)	913	-	-	1483	-				
HCM Lane V/C Ratio	0.107	-	-	0.06	-				
HCM Control Delay (s)	9.4	-	-	7.6	0				
HCM Lane LOS	A	-	-	A	A				
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-				

APPENDIX C

ROADWAY LOS WORKSHEETS

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																											
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MULTILANE HIGHWAYS WORKSHEET(Direction 2)																			
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LOS: B	Design LOS: B																		

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/23/2016
 Analysis Time Period AM Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction
 Analysis Year 2016-Current Occupancy
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.71	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 1110 veh/h
 Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.998
 Two-way flow rate, (note-1) vp 1567 pc/h
 Highest directional split proportion (note-2) 956 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, V_f 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 22.8 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.0
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 1.000
 Two-way flow rate, (note-1) vp 1563 pc/h
 Highest directional split proportion (note-2) 953
 Base percent time-spent-following, BPTSF 74.7 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 74.7 %

Level of Service and Other Performance Measures

Level of service, LOS D
 Volume to capacity ratio, v/c 0.49
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/23/2016
Analysis Time Period AM Peak Hour
Highway Montecito Road
From/To Yellowtail Dr to Copa de Oro D
Jurisdiction
Analysis Year 2016-Current Occupancy
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	ft	Peak-hour factor, PHF	0.73	%
Shoulder width	6.0	ft	% Trucks and buses	2	%
Lane width	12.0	ft	% Recreational vehicles	4	%
Segment length	0.0	mi	% No-passing zones	0	%
Terrain type	Level	mi	Access points/mi	8	/mi
Grade:	Up/down	%			

Two-way hourly volume, V 834 veh/h
Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	1158
Highest directional split proportion (note-2)	706

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h
Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 26.0 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 1145 pc/h
Highest directional split proportion (note-2) 698
Base percent time-spent-following, BPTSF 63.4 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PTSF 63.4 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.36
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
* These items have been entered or edited to override calculated value

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/23/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction
 Analysis Year 2016-Current Occupancy
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.85	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 536 veh/h
 Directional split 57 / 43 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	633
Highest directional split proportion (note-2)	361
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.1 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 632 pc/h
 Highest directional split proportion (note-2) 360
 Base percent time-spent-following, BPTSF 42.6 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 42.6 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.20
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 758 pc/h
 Highest directional split proportion (note-2) 409
 Base percent time-spent-following, BPTSf 48.6 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTF 48.6 %

Level of Service and Other Performance Measures
 Level of service, LOS B
 Volume to capacity ratio, v/c 0.24
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:
 Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/23/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction
 Analysis Year 2016-Current Occupancy
 Description Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.81
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 613 veh/h
 Directional split 54 / 46 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.2
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.996
 Two-way flow rate, (note-1) vp 760 pc/h
 Highest directional split proportion (note-2) 410 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, V 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 29.1 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Rossmoor Center Way
 From/To Montecito Rd to E. Internal
 Jurisdiction 2016-Current Occupancy
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	Peak-hour factor, PHF	0.82
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Length		
	Up/down		

Two-way hourly volume, V 250 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	309 pc/h
Highest directional split proportion (note-2)	167 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 30 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 30.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 27.6 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 305 pc/h
 Highest directional split proportion (note-2) 165
 Base percent time-spent-following, BPTSF 23.5 %
 Adj. for directional distribution and no-passing zones, fd/np 0.4
 Percent time-spent-following, PFSF 23.9 %

Level of Service and Other Performance Measures

Level of service, LOS A
 Volume to capacity ratio, v/c 0.10
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																									
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Input	FFS, H, % FFS, LOS, % FFS, LOS, % FFS, LOS, % FFS, LOS, % FFS, LOS, %	H, S, D H, S, D H, S, D H, S, D H, S, D H, S, D	H, S, D H, S, D H, S, D H, S, D H, S, D H, S, D	H, S, D H, S, D H, S, D H, S, D H, S, D H, S, D	H, S, D H, S, D H, S, D H, S, D H, S, D H, S, D										
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MULTILANE HIGHWAYS WORKSHEET(Direction 2)															
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Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 1087 pc/h
 Highest directional split proportion (note-2) 554
 Base percent time-spent-following, BPTSf 61.5 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTF 61.5 %

Level of Service and Other Performance Measures
 Level of service, LOS C
 Volume to capacity ratio, v/c 0.34
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMTf60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:
 Fax:

Two-Way Two-Lane Highway Segment Analysis
 NP
 LSA Associates, Inc.
 11/28/2016
 PM Peak Hour
 Saint Cloud Drive
 Seal Beach Blvd to Yellowtail
 2016-Current Occupancy
 Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.91
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 987 veh/h
 Directional split 51 / 49 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.2
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.996
 Two-way flow rate, (note-1) vp 1089 pc/h
 Highest directional split proportion (note-2) 555 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, V 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.5 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period PM Peak Hour
Highway Montecito Road
From/To Yellowtail Dr to Copa de Oro D
Jurisdiction
Analysis Year 2016-Current Occupancy
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	Peak-hour factor, PHF	0.87
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Length		
	Up/down		

Two-way hourly volume, V 53 / 47 %
Directional split 53 / 47 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	798
Highest directional split proportion (note-2)	423 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 28.8 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 789 pc/h
Highest directional split proportion (note-2) 418
Base percent time-spent-following, BPTSF 50.0 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PTSF 50.0 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.25
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

- If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 - If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction 2016-Current Occupancy
 Analysis Year 2016-Current Occupancy
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	ft	Peak-hour factor, PHF	0.80
Shoulder width	6.0	ft	% Trucks and buses	2
Lane width	12.0	ft	% Recreational vehicles	4
Segment length	0.0	mi	% No-passing zones	0
Terrain type	Level		Access points/mi	8
Grade:	Length	mi		
	Up/down	%		

Two-way hourly volume, V 495 veh/h
 Directional split 56 / 44 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	621 pc/h
Highest directional split proportion (note-2)	348 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.2 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 620 pc/h
 Highest directional split proportion (note-2) 347
 Base percent time-spent-following, BPTSF 42.0 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 42.0 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.19
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period PM Peak Hour
Highway Montecito Road
From/To Mainway Dr to Bradbury Rd
Jurisdiction
Analysis Year 2016-Current Occupancy
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 498 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	610
Highest directional split proportion (note-2)	329
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 30.3 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 609 pc/h
Highest directional split proportion (note-2) 329
Base percent time-spent-following, BPTSF 41.5 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTSF 41.5 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.19
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Rossmoor Center Way
 From/To Montecito Rd to E. Internal
 Jurisdiction 2016-Current Occupancy
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	Peak-hour factor, PHF	0.83
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Length		
	Up/down		

Two-way hourly volume, V 458 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	560 pc/h
Highest directional split proportion (note-2)	302 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 30 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 25.7 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 553 pc/h
 Highest directional split proportion (note-2) 299
 Base percent time-spent-following, BPTSF 38.5 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 38.5 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.17
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																																							
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<table border="0"> <tr> <td>Flow Inputs</td> <td>Peak-Hour Factor, PHF: 0.91</td> </tr> <tr> <td>Volume, V (veh/h): 1899</td> <td>% Trucks and Buses, P_T: 0</td> </tr> <tr> <td>AADT(veh/h): 0</td> <td>% RVs, P_R: 0</td> </tr> <tr> <td>Peak-Hour Prop of AADT (veh/h):</td> <td>Level:</td> </tr> <tr> <td>Peak-Hour Direction Prop, D:</td> <td>General Terrain: Length (mi): 0.00</td> </tr> <tr> <td>DDHV (veh/h):</td> <td>Grade: Up/Down %: 0.00</td> </tr> <tr> <td>Driver Type Adjustment: 1.00</td> <td>Number of Lanes: 3</td> </tr> </table>		Flow Inputs	Peak-Hour Factor, PHF: 0.91	Volume, V (veh/h): 1899	% Trucks and Buses, P _T : 0	AADT(veh/h): 0	% RVs, P _R : 0	Peak-Hour Prop of AADT (veh/h):	Level:	Peak-Hour Direction Prop, D:	General Terrain: Length (mi): 0.00	DDHV (veh/h):	Grade: Up/Down %: 0.00	Driver Type Adjustment: 1.00	Number of Lanes: 3																								
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MULTILANE HIGHWAYS WORKSHEET(Direction 2)																																							
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MULTILANE HIGHWAYS WORKSHEET(Direction 1)															
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MULTILANE HIGHWAYS WORKSHEET(Direction 2)															
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MULTILANE HIGHWAYS WORKSHEET(Direction 1)																																														
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LOS	B	Design LOS																																			

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 1064 pc/h
 Highest directional split proportion (note-2) 553
 Base percent time-spent-following, BPTSf 60.8 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTF 60.8 %

Level of Service and Other Performance Measures
 Level of service, LOS C
 Volume to capacity ratio, v/c 0.33
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMTf60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis
 NP
 LSA Associates, Inc.
 11/28/2016
 Sat Peak Hour
 Saint Cloud Drive
 Seal Beach Blvd to Yellowtail
 2016-Current Occupancy
 Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.91
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 966 veh/h
 Directional split 52 / 48 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.2
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.996 pc/h
 Two-way flow rate, (note-1) vp 1066 pc/h
 Highest directional split proportion (note-2) 554

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.7 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2016-Current Occupancy
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	Peak-hour factor, PHF	0.93
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Length		
	Up/down		

Two-way hourly volume, V 678 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	739 pc/h
Highest directional split proportion (note-2)	399 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 29.3 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 730 pc/h
 Highest directional split proportion (note-2) 394
 Base percent time-spent-following, BPTSF 47.4 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 47.4 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.23
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period Sat Peak Hour
Highway Montecito Road
From/To Copa de Oro Dr to Mainway Dr
Jurisdiction 2016-Current Occupancy
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.93	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 459 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	499
Highest directional split proportion (note-2)	269
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 31.1 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 493 pc/h
Highest directional split proportion (note-2) 266
Base percent time-spent-following, BPTSF 35.2 %
Adj. for directional distribution and no-passing zones, fd/np 0.1 %
Percent time-spent-following, PTSF 35.3 %

Level of Service and Other Performance Measures

Level of service, LOS A
Volume to capacity ratio, v/c 0.16
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction
 Analysis Year 2016-Current Occupancy
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.86	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 414 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	488
Highest directional split proportion (note-2)	264
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 31.2 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 482 pc/h
 Highest directional split proportion (note-2) 260
 Base percent time-spent-following, BPTSF 34.5 %
 Adj. for directional distribution and no-passing zones, fd/np 0.1 %
 Percent time-spent-following, PTSF 34.7 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.15
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period Sat Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction 2016-Current Occupancy
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 503 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	616
Highest directional split proportion (note-2)	333
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 30 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 25.2 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 615 pc/h
Highest directional split proportion (note-2) 332
Base percent time-spent-following, BPTSF 41.8 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTSF 41.8 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.19
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																																																																											
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MULTILANE HIGHWAYS WORKSHEET(Direction 2)																						
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LOS: B	Design LOS: B																					

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.0
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 1.000
 Two-way flow rate, (note-1) vp 1563 pc/h
 Highest directional split proportion (note-2) 953
 Base percent time-spent-following, BPTSF 74.7 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 74.7 %

Level of Service and Other Performance Measures
 Level of service, LOS D
 Volume to capacity ratio, v/c 0.49
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction 2016-Existing Full Occupancy
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.71
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 1110 veh/h
 Directional split 61 / 39 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.998
 Two-way flow rate, (note-1) vp 1567 pc/h
 Highest directional split proportion (note-2) 956 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 22.8 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2016-Existing Full Occupancy
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.73	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 838 veh/h
 Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	1164
Highest directional split proportion (note-2)	710
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.0 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 1150 pc/h
 Highest directional split proportion (note-2) 702
 Base percent time-spent-following, BPTSF 63.6 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 63.6 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.36
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

- If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 - If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 638 pc/h
 Highest directional split proportion (note-2) 364
 Base percent time-spent-following, BPTSf 42.9 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTF 42.9 %

Level of Service and Other Performance Measures
 Level of service, LOS B
 Volume to capacity ratio, v/c 0.20
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMTf60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:
 Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction 2016-Existing Full Occupancy
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.85
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 541 veh/h
 Directional split 57 / 43 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.2
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.996
 Two-way flow rate, (note-1) vp 639 pc/h
 Highest directional split proportion (note-2) 364 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.0 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction 2016-Existing Full Occupancy
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.81	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 615 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	762
Highest directional split proportion (note-2)	411
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 29.1 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 761 pc/h
 Highest directional split proportion (note-2) 411
 Base percent time-spent-following, BPTSF 48.8 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 48.8 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.24
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period AM Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction 2016-Existing Full Occupancy
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 250 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	309
Highest directional split proportion (note-2)	167
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 30 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 27.6 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 305 pc/h
Highest directional split proportion (note-2) 165
Base percent time-spent-following, BPTSF 23.5 %
Adj. for directional distribution and no-passing zones, fd/np 0.4 %
Percent time-spent-following, PTSF 23.9 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.10
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																			
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MULTILANE HIGHWAYS WORKSHEET(Direction 2)																							
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LOS: B	Design LOS:																						

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period PM Peak Hour
Highway Saint Cloud Drive
From/To Seal Beach Blvd to Yellowtail
Jurisdiction 2016-Existing Full Occupancy
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.91	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 987 veh/h
Directional split 51 / 49 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	1089 pc/h
Highest directional split proportion (note-2)	555 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 26.5 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 1087 pc/h
Highest directional split proportion (note-2) 554
Base percent time-spent-following, BPTSF 61.5 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PFSF 61.5 %

Level of Service and Other Performance Measures

Level of service, LOS C
Volume to capacity ratio, v/c 0.34
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2016-Existing Full Occupancy
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.87	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 689 veh/h
 Directional split 53 / 47 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	803
Highest directional split proportion (note-2)	426
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 28.8 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 794 pc/h
 Highest directional split proportion (note-2) 421
 Base percent time-spent-following, BPTSF 50.2 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0 %
 Percent time-spent-following, PFSF 50.2 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.25
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

- If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 - If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period PM Peak Hour
Highway Montecito Road
From/To Copa de Oro Dr to Mainway Dr
Jurisdiction 2016-Existing Full Occupancy
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.80	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 500 veh/h
Directional split 56 / 44 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	628
Highest directional split proportion (note-2)	352
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 30.1 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 626 pc/h
Highest directional split proportion (note-2) 351
Base percent time-spent-following, BPTSF 42.3 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PFSF 42.3 %

Level of Service and Other Performance Measures

Level of service, LOS B
Volume to capacity ratio, v/c 0.20
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 611 pc/h
 Highest directional split proportion (note-2) 330
 Base percent time-spent-following, BPTSF 41.6 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 41.6 %

Level of Service and Other Performance Measures
 Level of service, LOS B
 Volume to capacity ratio, v/c 0.19
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:
 Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction
 Analysis Year 2016-Existing Full Occupancy
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 500 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	612
Highest directional split proportion (note-2)	330
	pc/h

Free-Flow Speed from Field Measurement:	
Field measured speed, SFM	35
Observed volume, Vf	0
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	-
Adj. for lane and shoulder width, fLS	-
Adj. for access points, fA	-
	mi/h

Free-flow speed, FFS	35.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	30.3	mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period PM Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction 2016-Existing Full Occupancy
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.83	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 458 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	560
Highest directional split proportion (note-2)	302
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 30 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 25.7 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 553 pc/h
Highest directional split proportion (note-2) 299
Base percent time-spent-following, BPTSF 38.5 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTSF 38.5 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.17
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																														
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	Speed, S (mi/h)	45.0	Max Service Flow Rate (pc/h/ln)																																											
	D (pc/mi/ln)	12.8	Design LOS	B																																										
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Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period Sat Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction 2016-Existing Full Occupancy
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.91	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 966 veh/h
 Directional split 52 / 48 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	1066
Highest directional split proportion (note-2)	554
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.7 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 1064 pc/h
 Highest directional split proportion (note-2) 553
 Base percent time-spent-following, BPTSF 60.8 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 60.8 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.33
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 736 pc/h
 Highest directional split proportion (note-2) 397
 Base percent time-spent-following, BPTSF 47.6 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 47.6 %

Level of Service and Other Performance Measures
 Level of service, LOS B
 Volume to capacity ratio, v/c 0.23
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
 * These items have been entered or edited to override calculated value

Phone: Fax:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis
 NP
 LSA Associates, Inc.
 11/28/2016
 Sat Peak Hour
 Montecito Road
 Yellowtail Dr to Copa de Oro D
 2016-Existing Full Occupancy
 Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.93
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 683 veh/h
 Directional split 54 / 46 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.7*
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.986
 Two-way flow rate, (note-1) vp 745 pc/h
 Highest directional split proportion (note-2) 402 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 29.2 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction 2016-Existing Full Occupancy
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.93	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 465 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	507
Highest directional split proportion (note-2)	274
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	35	mi/h
Observed volume, Vf	0	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	-	mi/h
Adj. for lane and shoulder width, fLS	-	mi/h
Adj. for access points, fA	-	mi/h

Free-flow speed, FFS 35.0 mi/h

Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 31.1 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 501 pc/h
 Highest directional split proportion (note-2) 271
 Base percent time-spent-following, BPTSF 35.6 %
 Adj. for directional distribution and no-passing zones, fd/np 0.1
 Percent time-spent-following, PTSF 35.7 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.16
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period Sat Peak Hour
Highway Montecito Road
From/To Mainway Dr to Bradbury Rd
Jurisdiction
Analysis Year 2016-Existing Full Occupancy
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.86	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 416 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	490
Highest directional split proportion (note-2)	265
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 31.2 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 485 pc/h
Highest directional split proportion (note-2) 262
Base percent time-spent-following, BPTSF 34.7 %
Adj. for directional distribution and no-passing zones, fd/np 0.1 %
Percent time-spent-following, PTSF 34.8 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.15
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period Sat Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction 2016-Existing Full Occupancy
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 503 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	616
Highest directional split proportion (note-2)	333
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	30	mi/h
Observed volume, Vf	0	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	-	mi/h
Adj. for lane and shoulder width, fLS	-	mi/h
Adj. for access points, fA	-	mi/h

Free-flow speed, FFS

Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	25.2	mi/h

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.998
Two-way flow rate, (note-1) vp	615
Highest directional split proportion (note-2)	332
Base percent time-spent-following, BPTSF	41.8
Adj. for directional distribution and no-passing zones, fd/np	0.0
Percent time-spent-following, PTSF	41.8
	%

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.19
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																																																																																																																								
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Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.0
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 1.000
 Two-way flow rate, (note-1) vp 1566 pc/h
 Highest directional split proportion (note-2) 955
 Base percent time-spent-following, BPTSF 74.8 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 74.8 %

Level of Service and Other Performance Measures
 Level of service, LOS D
 Volume to capacity ratio, v/c 0.49
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction 2016-Existing Full Occupancy+P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.71
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 1112 veh/h
 Directional split 61 / 39 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.998
 Two-way flow rate, (note-1) vp 1569 pc/h
 Highest directional split proportion (note-2) 957 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 22.8 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2016-Existing Full Occupancy+P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.73	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 840 veh/h
 Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	1167 pc/h
Highest directional split proportion (note-2)	712 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 25.9 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 1153 pc/h
 Highest directional split proportion (note-2) 703
 Base percent time-spent-following, BPTSF 63.7 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 63.7 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.36
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction 2016-Existing Full Occupancy+P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.85	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 543 veh/h
 Directional split 57 / 43 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	641
Highest directional split proportion (note-2)	365
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.0 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 640 pc/h
 Highest directional split proportion (note-2) 365
 Base percent time-spent-following, BPTSF 43.0 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 43.0 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.20
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period AM Peak Hour
Highway Montecito Road
From/To Mainway Dr to Bradbury Rd
Jurisdiction
Analysis Year 2016-Existing Full Occupancy+P
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.81	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 617 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	765 pc/h
Highest directional split proportion (note-2)	413 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 29.1 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 763 pc/h
Highest directional split proportion (note-2) 412
Base percent time-spent-following, BPTSF 48.9 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTSF 48.9 %

Level of Service and Other Performance Measures

Level of service, LOS B
Volume to capacity ratio, v/c 0.24
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Rossmoor Center Way
 From/To Montecito Rd to E. Internal
 Jurisdiction 2016-Existing Full Occupancy+P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 276 veh/h
 Directional split 53 / 47 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	341
Highest directional split proportion (note-2)	181
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 30 mi/h
 Observed volume, V_f 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS	30.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	27.4	mi/h

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.998
Two-way flow rate, (note-1) vp	337
Highest directional split proportion (note-2)	179
Base percent time-spent-following, BPTSF	25.6
Adj. for directional distribution and no-passing zones, fd/np	0.3
Percent time-spent-following, PTSF	25.9
	%

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.11
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
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MULTILANE HIGHWAYS WORKSHEET(Direction 1)			
General Information Analyst: NP Agency or Company: LSA Associates, Inc. Date Performed: 11/28/2016 Analysis Time Period: PM Peak Hour Project Description: Health Club within the Shops at Rossmoor		Site Information Highway/Direction to Travel: Seal Beach Boulevard From/To: Rossmoor Center to Bradbury Rd Jurisdiction: Analysis Year: 2016 Existing Full Occupancy+P	
<input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (vp)			
Flow Inputs Volume, V (veh/h): 1737 AADT(veh/h): Peak-Hour Factor, PHF: 0.96 %Trucks and Buses, P _T : 0 %RVs, P _R : 0 Peak-Hour Prop of AADT (veh/h): Peak-Hour Direction Prop, D: DDHV (veh/h): Driver Type Adjustment: 1.00 Number of Lanes: 3			
Calculate Flow Adjustments f _b : 1.00 E _R : 1.2 E _T : 1.5 f _{HV} : 1.000			
Speed Inputs Lane Width, LW (ft): 12.0 Total Lateral Clearance, LC (ft): 12.0 Access Points, A (A/mi): 0 Median Type, M: FFS (measured): 45.0 Base Free-Flow Speed, BFFS: 45.0			
Design Design (N): Required Number of Lanes, N: Flow Rate, v _p (pc/h/ln): Speed, S (mi/h): D (pc/mi/ln): LOS: B			

MULTILANE HIGHWAYS WORKSHEET(Direction 2)			
General Information Analyst: NP Agency or Company: LSA Associates, Inc. Date Performed: 11/28/2016 Analysis Time Period: PM Peak Hour Project Description: Health Club within the Shops at Rossmoor		Site Information Highway/Direction to Travel: Seal Beach Boulevard From/To: Rossmoor Center to Bradbury Rd Jurisdiction: Analysis Year: 2016 Existing Full Occupancy+P	
<input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (vp)			
Flow Inputs Volume, V (veh/h): 1850 AADT(veh/h): Peak-Hour Factor, PHF: 0.95 %Trucks and Buses, P _T : 0 %RVs, P _R : 0 Peak-Hour Prop of AADT (veh/h): Peak-Hour Direction Prop, D: DDHV (veh/h): Driver Type Adjustment: 1.00 Number of Lanes: 3			
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Phone:
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Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction 2016-Existing Full Occupancy+P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.91	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 994 veh/h
 Directional split 51 / 49 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	1097 pc/h
Highest directional split proportion (note-2)	559 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, V_f 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.5 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 1094 pc/h
 Highest directional split proportion (note-2) 558
 Base percent time-spent-following, BPTSF 61.8 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTF 61.8 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.34
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 802 pc/h
 Highest directional split proportion (note-2) 425
 Base percent time-spent-following, BPTSF 50.6 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 50.6 %

Level of Service and Other Performance Measures

Level of service, LOS B
 Volume to capacity ratio, v/c 0.25
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
 * These items have been entered or edited to override calculated value

Phone:

E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2016-Existing Full Occupancy+P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.87	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 696 veh/h
 Directional split 53 / 47 %

Average Travel Speed

Grade adjustment factor, fg	1.00	
PCE for trucks, ET	1.7*	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor,	0.986	
Two-way flow rate, (note-1) vp	811	pc/h
Highest directional split proportion (note-2)	430	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	35	mi/h
Observed volume, Vf	0	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	-	mi/h
Adj. for lane and shoulder width, fLS	-	mi/h
Adj. for access points, fA	-	mi/h

Free-flow speed, FFS	35.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	28.7	mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction 2016-Existing Full Occupancy+P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.80	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 505 veh/h
 Directional split 56 / 44 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	634
Highest directional split proportion (note-2)	355
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.1 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 633 pc/h
 Highest directional split proportion (note-2) 354
 Base percent time-spent-following, BPTSF 42.7 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 42.7 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.20
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 616 pc/h
 Highest directional split proportion (note-2) 333
 Base percent time-spent-following, BPTSf 41.8 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTF 41.8 %

Level of Service and Other Performance Measures

Level of service, LOS B
 Volume to capacity ratio, v/c 0.19
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction
 Analysis Year 2016-Existing Full Occupancy+P
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 504 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	617 pc/h
Highest directional split proportion (note-2)	333 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	35	mi/h
Observed volume, Vf	0	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	-	mi/h
Adj. for lane and shoulder width, fLS	-	mi/h
Adj. for access points, fA	-	mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.2 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 630 pc/h
 Highest directional split proportion (note-2) 340
 Base percent time-spent-following, BPTSf 42.5 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 42.5 %

Level of Service and Other Performance Measures
 Level of service, LOS B
 Volume to capacity ratio, v/c 0.20
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Rossmoor Center Way
 From/To Montecito Rd to E. Internal
 Jurisdiction 2016-Existing Full Occupancy+P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.83
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 522 veh/h
 Directional split 54 / 46 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.2
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.996
 Two-way flow rate, (note-1) vp 631 pc/h
 Highest directional split proportion (note-2) 341 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 30 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 30.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 25.1 mi/h

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																																																																																																																																																																														
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AADT(veh/h): 0	% RVs, P _R : 0																
Peak-Hour Prop of AADT (veh/h):	Level: 0.00																
Peak-Hour Direction Prop, D:	General Terrain: 0.00																
DDHV (veh/h): 1.00	Grade: 0.00																
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Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period Sat Peak Hour
Highway Saint Cloud Drive
From/To Seal Beach Blvd to Yellowtail
Jurisdiction 2016-Existing Full Occupancy+P
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.91	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 971 veh/h
Directional split 52 / 48 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	1071 pc/h
Highest directional split proportion (note-2)	557 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 26.7 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 1069 pc/h
Highest directional split proportion (note-2) 556
Base percent time-spent-following, BPTSF 60.9 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PTSF 60.9 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.33
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate,(note-1) vp 741 pc/h
 Highest directional split proportion (note-2) 400
 Base percent time-spent-following, BPTSf 47.9 %
 Adj.for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTF 47.9 %

Level of Service and Other Performance Measures

Level of service, LOS B
 Volume to capacity ratio, v/c 0.23
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMTf60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
 * These items have been entered or edited to override calculated value

Phone:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2016-Existing Full Occupancy+P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.93	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 688 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate,(note-1) vp	750
Highest directional split proportion (note-2)	405
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 29.2 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period Sat Peak Hour
Highway Montecito Road
From/To Copa de Oro Dr to Mainway Dr
Jurisdiction 2016-Existing Full Occupancy+P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.93	
Lane width	12.0	ft	% Trucks and buses	2	%
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Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 469 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	511
Highest directional split proportion (note-2)	276
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:	
Field measured speed, SFM	35
Observed volume, Vf	0
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	-
Adj. for lane and shoulder width, fLS	-
Adj. for access points, fA	-
	mi/h
	mi/h
	mi/h
Free-flow speed, FFS	35.0
	mi/h

Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	31.0	mi/h

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.998
Two-way flow rate, (note-1) vp	505
Highest directional split proportion (note-2)	273
Base percent time-spent-following, BPTSF	35.8
Adj. for directional distribution and no-passing zones, fd/np	0.1
Percent time-spent-following, PTSF	35.9
	%

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.16
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period Sat Peak Hour
Highway Montecito Road
From/To Mainway Dr to Bradbury Rd
Jurisdiction
Analysis Year 2016-Existing Full Occupancy+P
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.86	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 419 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	494
Highest directional split proportion (note-2)	267
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 31.2 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 488 pc/h
Highest directional split proportion (note-2) 264
Base percent time-spent-following, BPTSF 34.9 %
Adj. for directional distribution and no-passing zones, fd/np 0.1 %
Percent time-spent-following, PTF 35.0 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.15
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period Sat Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction 2016-Existing Full Occupancy+P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 554 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	678
Highest directional split proportion (note-2)	366
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	30	mi/h
Observed volume, Vf	0	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	-	mi/h
Adj. for lane and shoulder width, fLS	-	mi/h
Adj. for access points, fA	-	mi/h

Free-flow speed, FFS 30.0 mi/h

Adjustment for no-passing zones, fnp 0.0 mi/h

Average travel speed, ATS 24.7 mi/h

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.998
Two-way flow rate, (note-1) vp	677
Highest directional split proportion (note-2)	366
Base percent time-spent-following, BPTSF	44.8
Adj. for directional distribution and no-passing zones, fd/np	0.0
Percent time-spent-following, PTSF	44.8
	%

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.21
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																																																															
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Project Description: Health Club within the Shops at Rossmoor																																																															
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LOS: B	Design LOS: B																											

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period AM Peak Hour
Highway Saint Cloud Drive
From/To Seal Beach Blvd to Yellowtail
Jurisdiction
Analysis Year 2018 - Opening Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.71	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 1125 veh/h
Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.998
Two-way flow rate, (note-1) vp	1588
Highest directional split proportion (note-2)	969
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 22.7 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.0
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 1.000
Two-way flow rate, (note-1) vp 1585 pc/h
Highest directional split proportion (note-2) 967
Base percent time-spent-following, BPTSF 75.2 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTSF 75.2 %

Level of Service and Other Performance Measures

Level of service, LOS D
Volume to capacity ratio, v/c 0.50
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2018 - Opening Year
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.73	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 846 veh/h
 Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	1175 pc/h
Highest directional split proportion (note-2)	717 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 25.9 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 1161 pc/h
 Highest directional split proportion (note-2) 708
 Base percent time-spent-following, BPTSF 64.0 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0 %
 Percent time-spent-following, PTSF 64.0 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.37
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

- If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 - If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period AM Peak Hour
Highway Montecito Road
From/To Copa de Oro Dr to Mainway Dr
Jurisdiction 2018 - Opening Year
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.85	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 546 veh/h
Directional split 57 / 43 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	645
Highest directional split proportion (note-2)	368
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 30.0 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 644 pc/h
Highest directional split proportion (note-2) 367
Base percent time-spent-following, BPTSF 43.2 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTSF 43.2 %

Level of Service and Other Performance Measures

Level of service, LOS B
Volume to capacity ratio, v/c 0.20
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period AM Peak Hour
Highway Montecito Road
From/To Mainway Dr to Bradbury Rd
Jurisdiction
Analysis Year 2018 - Opening Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.81	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 621 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	770
Highest directional split proportion (note-2)	416
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 29.0 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 768 pc/h
Highest directional split proportion (note-2) 415
Base percent time-spent-following, BPTSF 49.1 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PTSF 49.1 %

Level of Service and Other Performance Measures

Level of service, LOS B
Volume to capacity ratio, v/c 0.24
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 309 pc/h
 Highest directional split proportion (note-2) 164
 Base percent time-spent-following, BPTSf 23.8 %
 Adj. for directional distribution and no-passing zones, fd/np 0.3
 Percent time-spent-following, PTF 24.1 %

Level of Service and Other Performance Measures
 Level of service, LOS A
 Volume to capacity ratio, v/c 0.10
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period AM Peak Hour
 Highway Rossmoor Center Way
 From/To Montecito Rd to E. Internal
 Jurisdiction 2018 - Opening Year
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.82
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 253 veh/h
 Directional split 53 / 47 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.7
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.986
 Two-way flow rate, (note-1) vp 313 pc/h
 Highest directional split proportion (note-2) 166 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 30 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 30.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 27.6 mi/h

MULTILANE HIGHWAYS WORKSHEET(Direction 1)				
<table border="0"> <tr> <td> Application Operational (LOS) Design (N) Design (v) Planning (LOS) Planning (N) </td> <td> Input FFS, H, % FFS, LOS, % FFS, LOS, N FFS, LOS, v FFS, LOS, N FFS, LOS, v </td> <td> Output LOS, S, D H, S, D % S, D LOS, S, D H, S, D % S, D </td> </tr> </table>		Application Operational (LOS) Design (N) Design (v) Planning (LOS) Planning (N)	Input FFS, H, % FFS, LOS, % FFS, LOS, N FFS, LOS, v FFS, LOS, N FFS, LOS, v	Output LOS, S, D H, S, D % S, D LOS, S, D H, S, D % S, D
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<input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (v)				
Flow Inputs Volume, V (veh/h): 2310 AADT(veh/h): Peak-Hour Factor, PHF: 0.93 %Trucks and Buses, P _T : 0 %RVs, P _R : 0 Peak-Hour Prop of AADT (veh/h): Peak-Hour Direction Prop, D: DDHV (veh/h): Driver Type Adjustment: 1.00 Up/Down %: Number of Lanes: 3				
Calculate Flow Adjustments f _p : 1.00 E _R : 1.2 E _T : 1.5 f _{HV} : 1.000				
Speed Inputs Lane Width, LW (ft): 12.0 Total Lateral Clearance, LC (ft): 12.0 Access Points, A (A/mi): 0 Median Type, M: FFS (measured): 45.0 Base Free-Flow Speed, BFFS: 45.0				
Calc Speed Adj and FFS f _{adj} (mi/h): f _{LC} (mi/h): f _A (mi/h): f _M (mi/h): FFS (mi/h): 45.0				
Operations Operational (LOS): Flow Rate, v _p (pc/h/ln): 827 Speed, S (mi/h): 45.0 D (pc/mi/ln): 18.4 LOS: C				
Design Design (N): Required Number of Lanes, N: Flow Rate, v _p (pc/h) Max Service Flow Rate (pc/h/ln) Design LOS				

MULTILANE HIGHWAYS WORKSHEET(Direction 2)				
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<input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (v)				
Flow Inputs Volume, V (veh/h): 2168 AADT(veh/h): Peak-Hour Factor, PHF: 0.96 %Trucks and Buses, P _T : 0 %RVs, P _R : 0 Peak-Hour Prop of AADT (veh/h): Peak-Hour Direction Prop, D: DDHV (veh/h): Driver Type Adjustment: 1.00 Up/Down %: Number of Lanes: 3				
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Calc Speed Adj and FFS f _{adj} (mi/h): f _{LC} (mi/h): f _A (mi/h): f _M (mi/h): FFS (mi/h): 45.0				
Operations Operational (LOS): Flow Rate, v _p (pc/h/ln): 752 Speed, S (mi/h): 45.0 D (pc/mi/ln): 16.7 LOS: B				
Design Design (N): Required Number of Lanes, N: Flow Rate, v _p (pc/h) Max Service Flow Rate (pc/h/ln) Design LOS				

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Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction
 Analysis Year 2018 - Opening Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2			
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.91
Lane width	12.0	ft	% Trucks and buses	2
Segment length	0.0	mi	% Recreational vehicles	4
Terrain type	Level		% No-passing zones	0
Grade:	Length	mi	Access points/mi	8
	Up/down	%		

Two-way hourly volume, V 1003 veh/h
 Directional split 51 / 49 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	1107 pc/h
Highest directional split proportion (note-2)	565 pc/h

Free-Flow Speed from Field Measurement:	
Field measured speed, SFM	35 mi/h
Observed volume, Vf	0 veh/h
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	- mi/h
Adj. for lane and shoulder width, fLS	- mi/h
Adj. for access points, fA	- mi/h
Free-flow speed, FFS	35.0 mi/h
Adjustment for no-passing zones, fnp	0.0 mi/h
Average travel speed, ATS	26.4 mi/h

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.998
Two-way flow rate, (note-1) vp	1104 pc/h
Highest directional split proportion (note-2)	563
Base percent time-spent-following, BPTSF	62.1 %
Adj. for directional distribution and no-passing zones, fd/np	0.0 %
Percent time-spent-following, PFSF	62.1 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.35
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period PM Peak Hour
Highway Montecito Road
From/To Yellowtail Dr to Copa de Oro D
Jurisdiction 2018 - Opening Year
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.87	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 696 veh/h
Directional split 53 / 47 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	811
Highest directional split proportion (note-2)	430
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 28.7 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 802 pc/h
Highest directional split proportion (note-2) 425
Base percent time-spent-following, BPTSF 50.6 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PTSF 50.6 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.25
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period PM Peak Hour
Highway Montecito Road
From/To Copa de Oro Dr to Mainway Dr
Jurisdiction 2018 - Opening Year
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.80	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 505 veh/h
Directional split 56 / 44 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	634
Highest directional split proportion (note-2)	355
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 30.1 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 633 pc/h
Highest directional split proportion (note-2) 354
Base percent time-spent-following, BPTSF 42.7 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTSF 42.7 %

Level of Service and Other Performance Measures

Level of service, LOS B
Volume to capacity ratio, v/c 0.20
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction
 Analysis Year 2018 - Opening Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 505 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	618
Highest directional split proportion (note-2)	334
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.2 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 617 pc/h
 Highest directional split proportion (note-2) 333
 Base percent time-spent-following, BPTSF 41.9 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 41.9 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.19
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period PM Peak Hour
 Highway Rossmoor Center Way
 From/To Montecito Rd to E. Internal
 Jurisdiction 2018 - Opening Year
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.83	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 463 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	566
Highest directional split proportion (note-2)	306
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 30 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 25.6 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 559 pc/h
 Highest directional split proportion (note-2) 302
 Base percent time-spent-following, BPTSF 38.8 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 38.9 %

Level of Service and Other Performance Measures

Level of service, LOS A
 Volume to capacity ratio, v/c 0.18
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																																	
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MULTILANE HIGHWAYS WORKSHEET(Direction 2)																															
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Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 1081 pc/h
 Highest directional split proportion (note-2) 562
 Base percent time-spent-following, BPTSF 61.3 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 61.3 %

Level of Service and Other Performance Measures
 Level of service, LOS C
 Volume to capacity ratio, v/c 0.34
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis
 NP
 LSA Associates, Inc.
 11/28/2016
 Sat Peak Hour
 Saint Cloud Drive
 Seal Beach Blvd to Yellowtail
 2018 - Opening Year
 Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.91
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 982 veh/h
 Directional split 52 / 48 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.2
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.996
 Two-way flow rate, (note-1) vp 1083 pc/h
 Highest directional split proportion (note-2) 563 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.6 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 743 pc/h
 Highest directional split proportion (note-2) 401
 Base percent time-spent-following, BPTSF 48.0 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 48.0 %

Level of Service and Other Performance Measures
 Level of service, LOS B
 Volume to capacity ratio, v/c 0.23
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
 * These items have been entered or edited to override calculated value

Phone: Fax:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2018 - Opening Year
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 0.93
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 690 veh/h
 Directional split 54 / 46 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.7*
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.986
 Two-way flow rate, (note-1) vp 752 pc/h
 Highest directional split proportion (note-2) 406 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 29.2 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period Sat Peak Hour
Highway Montecito Road
From/To Copa de Oro Dr to Mainway Dr
Jurisdiction
Analysis Year 2018 - Opening Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.93	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 470 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	512
Highest directional split proportion (note-2)	276
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 31.0 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 506 pc/h
Highest directional split proportion (note-2) 273
Base percent time-spent-following, BPTSF 35.9 %
Adj. for directional distribution and no-passing zones, fd/np 0.1 %
Percent time-spent-following, PTSF 36.0 %

Level of Service and Other Performance Measures

Level of service, LOS A
Volume to capacity ratio, v/c 0.16
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/28/2016
Analysis Time Period Sat Peak Hour
Highway Montecito Road
From/To Mainway Dr to Bradbury Rd
Jurisdiction
Analysis Year 2018 - Opening Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.86	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 420 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	495
Highest directional split proportion (note-2)	267
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 31.2 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 489 pc/h
Highest directional split proportion (note-2) 264
Base percent time-spent-following, BPTSF 34.9 %
Adj. for directional distribution and no-passing zones, fd/np 0.1 %
Percent time-spent-following, PTSF 35.0 %

Level of Service and Other Performance Measures

Level of service, LOS A
Volume to capacity ratio, v/c 0.15
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/28/2016
 Analysis Time Period Sat Peak Hour
 Highway Rossmoor Center Way
 From/To Montecito Rd to E. Internal
 Jurisdiction 2018 - Opening Year
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 508 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	622
Highest directional split proportion (note-2)	336

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 30 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 30.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 25.2 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 621 pc/h
 Highest directional split proportion (note-2) 335
 Base percent time-spent-following, BPTSF 42.1 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 42.1 %

Level of Service and Other Performance Measures

Level of service, LOS B
 Volume to capacity ratio, v/c 0.19
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

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Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period AM Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction
 Analysis Year 2018 - Opening Year + P
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.71	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 1127 veh/h
 Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.998
Two-way flow rate, (note-1) vp	1590
Highest directional split proportion (note-2)	970
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 22.7 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.0
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 1.000
 Two-way flow rate, (note-1) vp 1587 pc/h
 Highest directional split proportion (note-2) 968
 Base percent time-spent-following, BPTSF 75.2 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 75.2 %

Level of Service and Other Performance Measures

Level of service, LOS	D
Volume to capacity ratio, v/c	0.50
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2018 - Opening Year + P
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.73	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 848 veh/h
 Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg	1.00	
PCE for trucks, ET	1.7*	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor,	0.986	pc/h
Two-way flow rate, (note-1) vp	1178	pc/h
Highest directional split proportion (note-2)	719	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 25.9 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 1164 pc/h
 Highest directional split proportion (note-2) 710
 Base percent time-spent-following, BPTSF 64.1 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0 %
 Percent time-spent-following, PTSF 64.1 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.37
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction
 Analysis Year 2018 - Opening Year + P
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	ft	Peak-hour factor, PHF	0.85
Shoulder width	6.0	ft	% Trucks and buses	2
Lane width	12.0	ft	% Recreational vehicles	4
Segment length	0.0	mi	% No-passing zones	0
Terrain type	Level		Access points/mi	8
Grade:	Length	mi		
	Up/down	%		

Two-way hourly volume, V 548 veh/h
 Directional split 57 / 43 %

Average Travel Speed

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.2
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.996
 Two-way flow rate, (note-1) vp 647 pc/h
 Highest directional split proportion (note-2) 369 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.0 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 646 pc/h
 Highest directional split proportion (note-2) 368
 Base percent time-spent-following, BPTSF 43.3 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 43.3 %

Level of Service and Other Performance Measures

Level of service, LOS B
 Volume to capacity ratio, v/c 0.20
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period AM Peak Hour
Highway Montecito Road
From/To Mainway Dr to Bradbury Rd
Jurisdiction
Analysis Year 2018 - Opening Year + P
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.81	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 623 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	772 pc/h
Highest directional split proportion (note-2)	417 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 29.0 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 771 pc/h
Highest directional split proportion (note-2) 416
Base percent time-spent-following, BPTSF 49.2 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PFSF 49.2 %

Level of Service and Other Performance Measures

Level of service, LOS B
Volume to capacity ratio, v/c 0.24
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period AM Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction 2018 - Opening Year + P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 279 veh/h
Directional split 53 / 47 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	345
Highest directional split proportion (note-2)	183
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 30 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 27.3 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 341 pc/h
Highest directional split proportion (note-2) 181
Base percent time-spent-following, BPTSF 25.9 %
Adj. for directional distribution and no-passing zones, fd/np 0.2 %
Percent time-spent-following, PTF 26.1 %

Level of Service and Other Performance Measures

Level of service, LOS A
Volume to capacity ratio, v/c 0.11
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																																	
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LOS: B	Design LOS:																						

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period PM Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction
 Analysis Year 2018 - Opening Year + P
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2			
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.91
Lane width	12.0	ft	% Trucks and buses	2
Segment length	0.0	mi	% Recreational vehicles	4
Terrain type	Level		% No-passing zones	0
Grade:	Length	mi	Access points/mi	8
	Up/down	%		

Two-way hourly volume, V 1010 veh/h
 Directional split 51 / 49 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	1114 pc/h
Highest directional split proportion (note-2)	568 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.4 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 1112 pc/h
 Highest directional split proportion (note-2) 567
 Base percent time-spent-following, BPTSF 62.4 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 62.4 %

Level of Service and Other Performance Measures

Level of service, LOS C
 Volume to capacity ratio, v/c 0.35
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 810 pc/h
 Highest directional split proportion (note-2) 429
 Base percent time-spent-following, BPTSF 50.9 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 50.9 %

Level of Service and Other Performance Measures

Level of service, LOS B
 Volume to capacity ratio, v/c 0.26
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
 * These items have been entered or edited to override calculated value

Phone:

E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2018 - Opening Year + P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class	Class 2	ft	Peak-hour factor, PHF	0.87	%
Shoulder width	6.0	ft	% Trucks and buses	2	%
Lane width	12.0	ft	% Recreational vehicles	4	%
Segment length	0.0	mi	% No-passing zones	0	%
Terrain type	Level	mi	Access points/mi	8	/mi
Grade:	Up/down	%			

Two-way hourly volume, V 703 veh/h
 Directional split 53 / 47 %

Average Travel Speed

Grade adjustment factor, fg	1.00	mi/h
PCE for trucks, ET	1.7*	veh/h
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor,	0.986	pc/h
Two-way flow rate, (note-1) vp	819	pc/h
Highest directional split proportion (note-2)	434	

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	35	mi/h
Observed volume, Vf	0	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	-	mi/h
Adj. for lane and shoulder width, fLS	-	mi/h
Adj. for access points, fA	-	mi/h

Free-flow speed, FFS	35.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	28.6	mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction 2018 - Opening Year + P
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.80	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 510 veh/h
 Directional split 56 / 44 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	640
Highest directional split proportion (note-2)	358
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.0 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 639 pc/h
 Highest directional split proportion (note-2) 358
 Base percent time-spent-following, BPTSF 43.0 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 43.0 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.20
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction
 Analysis Year 2018 - Opening Year + P
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 509 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	623
Highest directional split proportion (note-2)	336
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.2 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 622 pc/h
 Highest directional split proportion (note-2) 336
 Base percent time-spent-following, BPTSF 42.1 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 42.1 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.19
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period PM Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction 2018 - Opening Year + P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.83	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 527 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	637
Highest directional split proportion (note-2)	344
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 30 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 25.1 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 636 pc/h
Highest directional split proportion (note-2) 343
Base percent time-spent-following, BPTSF 42.8 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTSF 42.8 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.20
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
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MULTILANE HIGHWAYS WORKSHEET(Direction 1)																																																																																																																																																									
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Flow Inputs																																																																																																																																																									
Volume, V (veh/h)	1974	Peak-Hour Factor, PHF	0.91																																																																																																																																																						
AAOT(veh/h)		% Trucks and Buses, P _T	0																																																																																																																																																						
Peak-Hour Prop of AADT (veh/h)		% RVs, P _R	0																																																																																																																																																						
Peak-Hour Direction Prop, D		Level	Level																																																																																																																																																						
DDHV (veh/h)		Length (mi)	0.00																																																																																																																																																						
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Lane Width, LW (ft)	12.0	f _{AW} (mi/h)																																																																																																																																																							
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Access Points, A (A/mi)	0	f _A (mi/h)																																																																																																																																																							
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FFS (measured)	45.0	FFS (mi/h)	45.0																																																																																																																																																						
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Operational (LOS)		Design (N)																																																																																																																																																							
Flow Rate, v _p (pc/h/ln)	723	Required Number of Lanes, N																																																																																																																																																							
Speed, S (mi/h)	45.0	Flow Rate, v _p (poh)																																																																																																																																																							
D (pc/mi/ln)	16.1	Max Service Flow Rate (pc/h/ln)																																																																																																																																																							
LOS	B	Design LOS																																																																																																																																																							

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Input	FFS, H, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %																											
Application	Operational (LOS)	Design (N)	Design (N)	Design (N)	Design (N)	Design (N)	Design (N)	Design (N)	Design (N)																											
Current	LOS, S, D	H, S, D	% S, D	% S, D	% S, D	% S, D	% S, D	% S, D	% S, D																											
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<input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (vp)																																				
Flow Inputs																																				
Volume, V (veh/h)	1862	Peak-Hour Factor, PHF	0.95																																	
AAOT(veh/h)		% Trucks and Buses, P _T	0																																	
Peak-Hour Prop of AADT (veh/h)		% RVs, P _R	0																																	
Peak-Hour Direction Prop, D		Level	Level																																	
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Driver Type Adjustment	1.00	Grade	0.00																																	
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Calculate Flow Adjustments																																				
f _p	1.00	E _R	1.2																																	
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Total Lateral Clearance, LC (ft)	12.0	f _{LC} (mi/h)																																		
Access Points, A (A/mi)	0	f _A (mi/h)																																		
Median Type, M		f _M (mi/h)																																		
FFS (measured)	45.0	FFS (mi/h)	45.0																																	
Base Free-Flow Speed, BFFS																																				
Operations																																				
Operational (LOS)		Design (N)																																		
Flow Rate, v _p (pc/h/ln)	653	Required Number of Lanes, N																																		
Speed, S (mi/h)	45.0	Flow Rate, v _p (poh)																																		
D (pc/mi/ln)	14.5	Max Service Flow Rate (pc/h/ln)																																		
LOS	B	Design LOS																																		

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																			
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Application	Operational (LOS)	Design (N)	Design (M)	Planning (LOS)	Planning (M)														
Input	FFS, H, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %														
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Input	FFS, H, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %														
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	LOS	Design LOS																																		

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																			
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Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 1087 pc/h
 Highest directional split proportion (note-2) 565
 Base percent time-spent-following, BPTSF 61.5 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 61.5 %

Level of Service and Other Performance Measures

Level of service, LOS C
 Volume to capacity ratio, v/c 0.34
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:

E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period Sat Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction 2018 - Opening Year + P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.91	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 987 veh/h
 Directional split 52 / 48 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	1089 pc/h
Highest directional split proportion (note-2)	566 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	35	mi/h
Observed volume, Vf	0	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	-	mi/h
Adj. for lane and shoulder width, fLS	-	mi/h
Adj. for access points, fA	-	mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.5 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction 2018 - Opening Year + P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.93	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 695 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00	
PCE for trucks, ET	1.7*	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor,	0.986	pc/h
Two-way flow rate, (note-1) vp	758	pc/h
Highest directional split proportion (note-2)	409	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 29.1 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 749 pc/h
 Highest directional split proportion (note-2) 404
 Base percent time-spent-following, BPTSF 48.2 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 48.2 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.24
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period Sat Peak Hour
Highway Montecito Road
From/To Copa de Oro Dr to Mainway Dr
Jurisdiction
Analysis Year 2018 - Opening Year + P
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.93	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 474 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	517
Highest directional split proportion (note-2)	279
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 31.0 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 511 pc/h
Highest directional split proportion (note-2) 276
Base percent time-spent-following, BPTSF 36.2 %
Adj. for directional distribution and no-passing zones, fd/np 0.1 %
Percent time-spent-following, PTSF 36.3 %

Level of Service and Other Performance Measures

Level of service, LOS A
Volume to capacity ratio, v/c 0.16
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction
 Analysis Year 2018 - Opening Year + P
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.86	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 423 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	499
Highest directional split proportion (note-2)	269
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 31.1 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 493 pc/h
 Highest directional split proportion (note-2) 266
 Base percent time-spent-following, BPTSF 35.2 %
 Adj. for directional distribution and no-passing zones, fd/np 0.1 %
 Percent time-spent-following, PTSF 35.3 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.16
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period Sat Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction 2018 - Opening Year + P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.82	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 559 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	684
Highest directional split proportion (note-2)	369
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 30 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 24.7 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 683 pc/h
Highest directional split proportion (note-2) 369
Base percent time-spent-following, BPTSF 45.1 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PFSF 45.1 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.21
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																			
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Application	Operational (LOS)	Design (N)	Design (M)	Planning (LOS)	Planning (M)														
Input	FFS, LOS, V_p	FFS, LOS, V_p	FFS, LOS, V_p	FFS, LOS, V_p	FFS, LOS, V_p														
Output	LOS, S, D	M, S, D	M, S, D	LOS, S, D	M, S, D														
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Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period AM Peak Hour
Highway Saint Cloud Drive
From/To Seal Beach Blvd to Yellowtail
Jurisdiction Future (2035) Buildout
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data
Highway class Class 2
Shoulder width 6.0 ft Peak-hour factor, PHF 1.00
Lane width 12.0 ft % Trucks and buses 2 %
Segment length 0.0 mi % Recreational vehicles 4 %
Terrain type Level % No-passing zones 0 %
Grade: Length mi Access points/mi 8 /mi
Up/down %

Two-way hourly volume, V 1219 veh/h
Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, 0.998
Two-way flow rate, (note-1) vp 1221 pc/h
Highest directional split proportion (note-2) 745 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 25.5 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.0
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 1.000
Two-way flow rate, (note-1) vp 1219 pc/h
Highest directional split proportion (note-2) 744
Base percent time-spent-following, BPTSF 65.8 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTSF 65.8 %

Level of Service and Other Performance Measures

Level of service, LOS C
Volume to capacity ratio, v/c 0.38
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction Future (2035) Buildout
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	Peak-hour factor, PHF	1.00
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Length		
	Up/down		

Two-way hourly volume, V 917 veh/h
 Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	930 pc/h
Highest directional split proportion (note-2)	567 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 27.8 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 919 pc/h
 Highest directional split proportion (note-2) 561
 Base percent time-spent-following, BPTSF 55.4 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 55.4 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.29
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

- If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 - If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 593 pc/h
 Highest directional split proportion (note-2) 338
 Base percent time-spent-following, BPTSf 40.6 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTF 40.6 %

Level of Service and Other Performance Measures

Level of service, LOS B
 Volume to capacity ratio, v/c 0.19
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMTf60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:
 Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction Future (2035) Buildout
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	Peak-hour factor, PHF	1.00
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Length		
	Up/down		

Two-way hourly volume, V 592 veh/h
 Directional split 57 / 43 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	600 pc/h
Highest directional split proportion (note-2)	342 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.3 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 674 pc/h
 Highest directional split proportion (note-2) 364
 Base percent time-spent-following, BPTSf 44.7 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTF 44.7 %

Level of Service and Other Performance Measures

Level of service, LOS B
 Volume to capacity ratio, v/c 0.21
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction Future (2035) Buildout
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 673 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	676 pc/h
Highest directional split proportion (note-2)	365 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 29.8 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period AM Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction Future (2035) Buildout
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	Peak-hour factor, PHF	1.00
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Length		
	Up/down		

Two-way hourly volume, V 274 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	278 pc/h
Highest directional split proportion (note-2)	150 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 30 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 27.8 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 275 pc/h
Highest directional split proportion (note-2) 149
Base percent time-spent-following, BPTSF 21.5 %
Adj. for directional distribution and no-passing zones, fd/np 0.5
Percent time-spent-following, PTSF 21.9 %

Level of Service and Other Performance Measures

Level of service, LOS A
Volume to capacity ratio, v/c 0.09
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)	
<p>General Information</p> <p>Analyst: NP Agency or Company: LSA Associates, Inc. Date Performed: 11/29/2016 Analysis Time Period: PM Peak Hour</p> <p>Project Description: Health Club within the Shops at Rossmoor</p>	
<p>Site Information</p> <p>Highway/Direction to Travel: Seal Beach Boulevard From/To: I405 NB Ramps to Lampson Ave Jurisdiction: Future (2035) Buildout Analysis Year: Future (2035) Buildout</p>	
<p><input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (vp)</p>	
<p>Flow Inputs</p> <p>Volume, V (veh/h): 2501 AADT(veh/h): 2501 Peak-Hour Factor, PHF: 1.00 %Trucks and Buses, P_T: 0 %RVs, P_R: 0 Peak-Hour Prop of AADT (veh/h): 0 Peak-Hour Direction Prop, D: Level DDHV (veh/h): 0.00 Length (mi): 0.00 Driver Type Adjustment: 1.00 Up/Down %: 0.00 Number of Lanes: 3</p>	
<p>Calculate Flow Adjustments</p> <p>f_p: 1.00 E_R: 1.2 E_T: 1.5 f_{HV}: 1.000</p>	
<p>Speed Inputs</p> <p>Lane Width, LW (ft): 12.0 Total Lateral Clearance, LC (ft): 12.0 Access Points, A (A/mi): 0 Median Type, M: 45.0 FFS (measured): 45.0 Base Free-Flow Speed, BFFS: 45.0</p>	
<p>Design</p> <p>Operational (LOS): Flow Rate, v_p (pc/h/ln): 833 Speed, S (mi/h): 45.0 D (pc/mi/ln): 18.5 LOS: C</p>	
<p>Calc Speed Adj and FFS</p> <p>f_{w} (mi/h): f_{LC} (mi/h): f_A (mi/h): f_M (mi/h): FFS (mi/h): 45.0</p>	
<p>Operations</p> <p>Operational (LOS): Required Number of Lanes, N: 633 Flow Rate, v_p (pc/h/ln): 45.0 Max Service Flow Rate (pc/h/ln): 18.5 Design LOS: C</p>	

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MULTILANE HIGHWAYS WORKSHEET(Direction 2)	
<p>General Information</p> <p>Analyst: NP Agency or Company: LSA Associates, Inc. Date Performed: 11/29/2016 Analysis Time Period: PM Peak Hour</p> <p>Project Description: Health Club within the Shops at Rossmoor</p>	
<p>Site Information</p> <p>Highway/Direction to Travel: Seal Beach Boulevard From/To: I405 NB Ramps to Lampson Ave Jurisdiction: Future (2035) Buildout Analysis Year: Future (2035) Buildout</p>	
<p><input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (vp)</p>	
<p>Flow Inputs</p> <p>Volume, V (veh/h): 2349 AADT(veh/h): 2349 Peak-Hour Factor, PHF: 1.00 %Trucks and Buses, P_T: 0 %RVs, P_R: 0 Peak-Hour Prop of AADT (veh/h): 0 Peak-Hour Direction Prop, D: Level DDHV (veh/h): 0.00 Length (mi): 0.00 Driver Type Adjustment: 1.00 Up/Down %: 0.00 Number of Lanes: 3</p>	
<p>Calculate Flow Adjustments</p> <p>f_p: 1.00 E_R: 1.2 E_T: 1.5 f_{HV}: 1.000</p>	
<p>Speed Inputs</p> <p>Lane Width, LW (ft): 12.0 Total Lateral Clearance, LC (ft): 12.0 Access Points, A (A/mi): 0 Median Type, M: 45.0 FFS (measured): 45.0 Base Free-Flow Speed, BFFS: 45.0</p>	
<p>Design</p> <p>Operational (LOS): Required Number of Lanes, N: 783 Flow Rate, v_p (pc/h/ln): 45.0 Speed, S (mi/h): 17.4 D (pc/mi/ln): 17.4 LOS: B</p>	
<p>Calc Speed Adj and FFS</p> <p>f_{w} (mi/h): f_{LC} (mi/h): f_A (mi/h): f_M (mi/h): FFS (mi/h): 45.0</p>	
<p>Operations</p> <p>Operational (LOS): Required Number of Lanes, N: 783 Flow Rate, v_p (pc/h/ln): 45.0 Max Service Flow Rate (pc/h/ln): 17.4 Design LOS: B</p>	

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MULTILANE HIGHWAYS WORKSHEET(Direction 1)																			
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Application	Operational (LOS)	Design (N)	Design (M)	Planning (LOS)	Planning (M)														
Input	FFS, H, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %														
Output	LOS, S, D	H, S, D	% S, D	LOS, S, D	H, S, D														
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MULTILANE HIGHWAYS WORKSHEET(Direction 2)																			
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Application	Operational (LOS)	Design (N)	Design (M)	Planning (LOS)	Planning (M)														
Input	FFS, H, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %														
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MULTILANE HIGHWAYS WORKSHEET(Direction 1)																															
<table border="0"> <tr> <td style="text-align: right;">Application</td> <td>Operational (LOS)</td> <td style="text-align: left;">Input</td> <td>FFS, H, %</td> <td style="text-align: left;">Output</td> <td>LOS, S, D</td> </tr> <tr> <td style="text-align: right;">Design (N)</td> <td>Design (N)</td> <td style="text-align: left;">FFS, LOS, %</td> <td>FFS, LOS, %</td> <td style="text-align: left;">H, S, D</td> <td>H, S, D</td> </tr> <tr> <td style="text-align: right;">Planning (LOS)</td> <td>Planning (LOS)</td> <td style="text-align: left;">FFS, LOS, %</td> <td>FFS, LOS, %</td> <td style="text-align: left;">H, S, D</td> <td>H, S, D</td> </tr> <tr> <td style="text-align: right;">FFS, LOS, %</td> <td>FFS, LOS, %</td> <td style="text-align: left;">FFS, LOS, %</td> <td>FFS, LOS, %</td> <td style="text-align: left;">H, S, D</td> <td>H, S, D</td> </tr> <tr> <td style="text-align: right;">FFS, LOS, %</td> <td>FFS, LOS, %</td> <td style="text-align: left;">FFS, LOS, %</td> <td>FFS, LOS, %</td> <td style="text-align: left;">H, S, D</td> <td>H, S, D</td> </tr> </table>		Application	Operational (LOS)	Input	FFS, H, %	Output	LOS, S, D	Design (N)	Design (N)	FFS, LOS, %	FFS, LOS, %	H, S, D	H, S, D	Planning (LOS)	Planning (LOS)	FFS, LOS, %	FFS, LOS, %	H, S, D	H, S, D	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	H, S, D	H, S, D	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	H, S, D	H, S, D
Application	Operational (LOS)	Input	FFS, H, %	Output	LOS, S, D																										
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FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	FFS, LOS, %	H, S, D	H, S, D																										
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period PM Peak Hour
Highway Saint Cloud Drive
From/To Seal Beach Blvd to Yellowtail
Jurisdiction Future (2035) Buildout
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	Peak-hour factor, PHF	1.00
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Length		
	Up/down		

Two-way hourly volume, V 1087 veh/h
Directional split 51 / 49 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	1091 pc/h
Highest directional split proportion (note-2)	556 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 26.5 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 1089 pc/h
Highest directional split proportion (note-2) 555
Base percent time-spent-following, BPTSF 61.6 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PTSF 61.6 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.34
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period PM Peak Hour
Highway Montecito Road
From/To Yellowtail Dr to Copa de Oro D
Jurisdiction Future (2035) Buildout
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	Peak-hour factor, PHF	1.00
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Up/down		

Two-way hourly volume, V 754 veh/h
Directional split 53 / 47 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	765 pc/h
Highest directional split proportion (note-2)	405 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 29.1 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 756 pc/h
Highest directional split proportion (note-2) 401
Base percent time-spent-following, BPTSF 48.5 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PTSF 48.5 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.24
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period PM Peak Hour
Highway Montecito Road
From/To Copa de Oro Dr to Mainway Dr
Jurisdiction Future (2035) Buildout
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 547 veh/h
Directional split 56 / 44 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	555
Highest directional split proportion (note-2)	311
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:	
Field measured speed, SFM	35
Observed volume, Vf	0
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	-
Adj. for lane and shoulder width, fLS	-
Adj. for access points, fA	-
	mi/h
	mi/h
	mi/h
Free-flow speed, FFS	35.0
	mi/h

Adjustment for no-passing zones, fnp	0.0
Average travel speed, ATS	30.7
	mi/h

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.998
Two-way flow rate, (note-1) vp	548
Highest directional split proportion (note-2)	307
Base percent time-spent-following, BPTSF	38.2
Adj. for directional distribution and no-passing zones, fd/np	0.1
Percent time-spent-following, PFSF	38.3
	%

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.17
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction Future (2035) Buildout
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	6.0	ft	Peak-hour factor, PHF	1.00
Shoulder width		12.0	ft	% Trucks and buses	2
Lane width		0.0	mi	% Recreational vehicles	4
Segment length	Level			% No-passing zones	0
Terrain type			mi	Access points/mi	8
Grade:	Up/down		%		

Two-way hourly volume, V 547 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	555
Highest directional split proportion (note-2)	300

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.7 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 548 pc/h
 Highest directional split proportion (note-2) 296
 Base percent time-spent-following, BPTSF 38.2 %
 Adj. for directional distribution and no-passing zones, fd/np 0.1 %
 Percent time-spent-following, PTSF 38.3 %

Level of Service and Other Performance Measures

Level of service, LOS A
 Volume to capacity ratio, v/c 0.17
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period PM Peak Hour
 Highway Rossmoor Center Way
 From/To Montecito Rd to E. Internal
 Jurisdiction Future (2035) Buildout
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	Peak-hour factor, PHF	1.00
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Length		
	Up/down		

Two-way hourly volume, V 502 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	509 pc/h
Highest directional split proportion (note-2)	275 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 30 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.1 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 503 pc/h
 Highest directional split proportion (note-2) 272
 Base percent time-spent-following, BPTSF 35.7 %
 Adj. for directional distribution and no-passing zones, fd/np 0.1
 Percent time-spent-following, PTSF 35.8 %

Level of Service and Other Performance Measures

Level of service, LOS A
 Volume to capacity ratio, v/c 0.16
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period Sat Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction Future (2035) Buildout
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 1064 veh/h
 Directional split 52 / 48 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	1068
Highest directional split proportion (note-2)	555
	pc/h

Free-Flow Speed from Field Measurement:	
Field measured speed, SFM	35
Observed volume, Vf	0
Estimated Free-Flow Speed:	
Base free-flow speed, BFFS	-
Adj. for lane and shoulder width, fLS	-
Adj. for access points, fA	-
	mi/h

Free-flow speed, FFS	35.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	26.7	mi/h

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fhv	0.998
Two-way flow rate, (note-1) vp	1066
Highest directional split proportion (note-2)	554
Base percent time-spent-following, BPTSF	60.8
Adj. for directional distribution and no-passing zones, fd/np	0.0
Percent time-spent-following, PTSF	60.8
	%

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.33
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period Sat Peak Hour
Highway Montecito Road
From/To Yellowtail Dr to Copa de Oro D
Jurisdiction Future (2035) Buildout
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2	Peak-hour factor, PHF	1.00
Shoulder width	6.0 ft	% Trucks and buses	2 %
Lane width	12.0 ft	% Recreational vehicles	4 %
Segment length	0.0 mi	% No-passing zones	0 %
Terrain type	Level	Access points/mi	8 /mi
Grade:	Up/down		

Two-way hourly volume, V 747 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7*
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	757 pc/h
Highest directional split proportion (note-2)	409 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 29.1 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fhv 0.998
Two-way flow rate, (note-1) vp 748 pc/h
Highest directional split proportion (note-2) 404
Base percent time-spent-following, BPTSF 48.2 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTSF 48.2 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.24
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

- If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 - If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction Future (2035) Buildout
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	6.0	ft	Peak-hour factor, PHF	1.00
Shoulder width		12.0	ft	% Trucks and buses	2
Lane width		0.0	mi	% Recreational vehicles	4
Segment length	Level			% No-passing zones	0
Terrain type			mi	Access points/mi	8
Grade:	Length		%		
	Up/down				

Two-way hourly volume, V 509 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	516
Highest directional split proportion (note-2)	279
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 31.0 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 510 pc/h
 Highest directional split proportion (note-2) 275
 Base percent time-spent-following, BPTSF 36.1 %
 Adj. for directional distribution and no-passing zones, fd/np 0.1 %
 Percent time-spent-following, PTF 36.2 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.16
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction Future (2035) Buildout
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2	6.0	ft	Peak-hour factor, PHF	1.00
Shoulder width		12.0	ft	% Trucks and buses	2
Lane width		0.0	mi	% Recreational vehicles	4
Segment length			Level	% No-passing zones	0
Terrain type				Access points/mi	8
Grade:					%
	Up/down				

Two-way hourly volume, V 455 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	461
Highest directional split proportion (note-2)	249
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 31.4 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 456 pc/h
 Highest directional split proportion (note-2) 246
 Base percent time-spent-following, BPTSF 33.0 %
 Adj. for directional distribution and no-passing zones, fd/np 0.1
 Percent time-spent-following, PTSF 33.2 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.14
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 552 pc/h
 Highest directional split proportion (note-2) 298
 Base percent time-spent-following, BPTSF 38.4 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 38.5 %

Level of Service and Other Performance Measures
 Level of service, LOS A
 Volume to capacity ratio, v/c 0.17
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period Sat Peak Hour
 Highway Rossmoor Center Way
 From/To Montecito Rd to E. Internal
 Jurisdiction Future (2035) Buildout
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 1.00
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 551 veh/h
 Directional split 54 / 46 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.7
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.986
 Two-way flow rate, (note-1) vp 559 pc/h
 Highest directional split proportion (note-2) 302 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 30 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 30.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 25.7 mi/h

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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period AM Peak Hour
Highway Saint Cloud Drive
From/To Seal Beach Blvd to Yellowtail
Jurisdiction Future (2035) Buildout + P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 1221 veh/h
Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.998
Two-way flow rate, (note-1) vp	1223 pc/h
Highest directional split proportion (note-2)	746 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 25.5 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.0
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 1.000
Two-way flow rate, (note-1) vp 1221 pc/h
Highest directional split proportion (note-2) 745
Base percent time-spent-following, BPTSF 65.8 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PTSF 65.8 %

Level of Service and Other Performance Measures

Level of service, LOS	C
Volume to capacity ratio, v/c	0.38
Peak 15-min vehicle-miles of travel, VMT15	0 veh-mi
Peak-hour vehicle-miles of travel, VMT60	0 veh-mi
Peak 15-min total travel time, TT15	0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period AM Peak Hour
Highway Montecito Road
From/To Yellowtail Dr to Copa de Oro D
Jurisdiction Future (2035) Buildout + P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class Class 2
Shoulder width 6.0 ft Peak-hour factor, PHF 1.00
Lane width 12.0 ft % Trucks and buses 2 %
Segment length 0.0 mi % Recreational vehicles 4 %
Terrain type Level % No-passing zones 0 %
Grade: Length mi Access points/mi 8 /mi
Up/down %

Two-way hourly volume, V 919 veh/h
Directional split 61 / 39 %

Average Travel Speed

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.7*
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, 0.986
Two-way flow rate, (note-1) vp 932 pc/h
Highest directional split proportion (note-2) 569 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 27.8 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 921 pc/h
Highest directional split proportion (note-2) 562
Base percent time-spent-following, BPTSF 55.5 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PTF 55.5 %

Level of Service and Other Performance Measures

Level of service, LOS C
Volume to capacity ratio, v/c 0.29
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
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Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period AM Peak Hour
Highway Montecito Road
From/To Copa de Oro Dr to Mainway Dr
Jurisdiction Future (2035) Buildout + P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 594 veh/h
Directional split 57 / 43 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	596
Highest directional split proportion (note-2)	340
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 30.4 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 595 pc/h
Highest directional split proportion (note-2) 339
Base percent time-spent-following, BPTSF 40.7 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PTSF 40.7 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.19
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

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Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period AM Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction Future (2035) Buildout + P
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 675 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	678
Highest directional split proportion (note-2)	366
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 29.7 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 676 pc/h
 Highest directional split proportion (note-2) 365
 Base percent time-spent-following, BPTSF 44.8 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 44.8 %

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.21
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period AM Peak Hour
 Highway Rossmoor Center Way
 From/To Montecito Rd to E. Internal
 Jurisdiction Future (2035) Buildout + P
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 300 veh/h
 Directional split 53 / 47 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	304
Highest directional split proportion (note-2)	161
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 30 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 27.6 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 301 pc/h
 Highest directional split proportion (note-2) 160
 Base percent time-spent-following, BPTSF 23.2 %
 Adj. for directional distribution and no-passing zones, fd/np 0.3 %
 Percent time-spent-following, PFSF 23.6 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.09
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																																																																																																																																																																																																																																																																																									
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<td>1.5</td> <td>f_{HV}</td> <td>1.000</td> </tr> </table> </td> </tr> <tr> <td colspan="2"> <table border="0"> <tr> <td colspan="4">Speed Inputs</td> </tr> <tr> <td>Lane Width, LW (ft)</td> <td>12.0</td> <td>f_{AW} (mi/h)</td> <td></td> </tr> <tr> <td>Total Lateral Clearance, LC (ft)</td> <td>12.0</td> <td>f_{LC} (mi/h)</td> <td></td> </tr> <tr> <td>Access Points, A (A/mi)</td> <td>0</td> <td>f_A (mi/h)</td> <td></td> </tr> <tr> <td>Median Type, M</td> <td></td> <td>f_M (mi/h)</td> <td></td> </tr> <tr> <td>FFS (measured)</td> <td>45.0</td> <td>FFS (mi/h)</td> <td>45.0</td> </tr> <tr> <td>Base Free-Flow Speed, BFFS</td> <td></td> <td></td> <td></td> </tr> </table> </td> <td colspan="2"> <table border="0"> <tr> <td colspan="4">Calc Speed Adj and FFS</td> </tr> <tr> <td>f_{AW} (mi/h)</td> <td></td> <td>f_{LC} (mi/h)</td> <td></td> </tr> <tr> <td>f_A (mi/h)</td> <td></td> <td>f_M (mi/h)</td> <td></td> </tr> <tr> <td>FFS (measured)</td> <td>45.0</td> <td>FFS (mi/h)</td> <td>45.0</td> </tr> 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Flow Inputs Volume, V (veh/h): 1826 Peak-Hour Factor, PHF: 1.00 AADT(veh/h): %Trucks and Buses, P _T : 0 Peak-Hour Prop of AADT (veh/h): %RVs, P _R : 0 Peak-Hour Direction Prop, D: Level: General Terrain: DDHV (veh/h): Length (mi): Grade: Up/Down %: Driver Type Adjustment: 1.00 Number of Lanes: 3																																																															
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MULTILANE HIGHWAYS WORKSHEET(Direction 1)															
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Application	Current														
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Input	Output														
FFS: H, %	FFS: H, %														
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Project Description: Health Club within the Shops at Rossmoor <input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (v)															
Flow Inputs Volume, V (veh/h): 1949 Peak-Hour Factor, PHF: 1.00 AADT(veh/h): %Trucks and Buses, P _T : 0 Peak-Hour Prop of AADT (veh/h): %RVs, P _R : 0 Peak-Hour Direction Prop, D: Level: DDHV (veh/h): General Terrain: Length (mi): 0.00 Driver Type Adjustment: 1.00 Grade: Up/Down %: 0.00 Number of Lanes: 3															
Calculate Flow Adjustments E _R : 1.00 E _T : 1.5 E _{HV} : 1.000															
Speed Inputs Lane Width, LW (ft): 12.0 f _{hw} (mi/h): Total Lateral Clearance, LC (ft): 12.0 f _{LC} (mi/h): Access Points, A (A/mi): 0 f _A (mi/h): Median Type, M: 45.0 f _M (mi/h): FFS (measured): FFS (mi/h): 45.0 Base Free-Flow Speed, BFFS:															
Operations Operational (LOS): Flow Rate, v _p (pc/h/ln): 649 Speed, S (mi/h): 45.0 D (pc/mi/ln): 14.4 LOS: B															
Design Design (N): Required Number of Lanes, N: Flow Rate, v _p (pc/h): Max Service Flow Rate (pc/h/ln): Design LOS:															

MULTILANE HIGHWAYS WORKSHEET(Direction 2)															
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Application</td> <td style="width: 50%;">Current</td> </tr> <tr> <td>Operational (LOS)</td> <td>LOS: S, D</td> </tr> <tr> <td>Design (N)</td> <td>M, S, D</td> </tr> <tr> <td>Design (v)</td> <td>% S, D</td> </tr> <tr> <td>Planning (LOS)</td> <td>LOS: S, D</td> </tr> <tr> <td>Planning (N)</td> <td>M, S, D</td> </tr> <tr> <td>Planning (v)</td> <td>% S, D</td> </tr> </table>		Application	Current	Operational (LOS)	LOS: S, D	Design (N)	M, S, D	Design (v)	% S, D	Planning (LOS)	LOS: S, D	Planning (N)	M, S, D	Planning (v)	% S, D
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Analyst: NP	Highway/Direction to Travel: Seal Beach Boulevard														
Agency or Company: LSA Associates, Inc.	From/To: Bradbury Rd to Rossmoor Way														
Date Performed: 11/29/2016	Jurisdiction: Future (2035) Buildout + P														
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Project Description: Health Club within the Shops at Rossmoor <input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (v)															
Flow Inputs Volume, V (veh/h): 2197 Peak-Hour Factor, PHF: 1.00 AADT(veh/h): %Trucks and Buses, P _T : 0 Peak-Hour Prop of AADT (veh/h): %RVs, P _R : 0 Peak-Hour Direction Prop, D: Level: DDHV (veh/h): General Terrain: Length (mi): 0.00 Driver Type Adjustment: 1.00 Grade: Up/Down %: 0.00 Number of Lanes: 3															
Calculate Flow Adjustments E _R : 1.00 E _T : 1.5 E _{HV} : 1.000															
Speed Inputs Lane Width, LW (ft): 12.0 f _{hw} (mi/h): Total Lateral Clearance, LC (ft): 12.0 f _{LC} (mi/h): Access Points, A (A/mi): 0 f _A (mi/h): Median Type, M: 45.0 f _M (mi/h): FFS (measured): FFS (mi/h): 45.0 Base Free-Flow Speed, BFFS:															
Operations Operational (LOS): Flow Rate, v _p (pc/h/ln): 732 Speed, S (mi/h): 45.0 D (pc/mi/ln): 16.3 LOS: B															
Design Design (N): Required Number of Lanes, N: Flow Rate, v _p (pc/h): Max Service Flow Rate (pc/h/ln): Design LOS:															

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 1096 pc/h
 Highest directional split proportion (note-2) 559
 Base percent time-spent-following, BPTSF 61.8 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 61.8 %

Level of Service and Other Performance Measures
 Level of service, LOS C
 Volume to capacity ratio, v/c 0.34
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period PM Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction Future (2035) Buildout + P
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 1.00
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 1094 veh/h
 Directional split 51 / 49 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.2
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.996 pc/h
 Two-way flow rate, (note-1) vp 1098
 Highest directional split proportion (note-2) 560 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, V_f 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.5 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period PM Peak Hour
Highway Montecito Road
From/To Yellowtail Dr to Copa de Oro D
Jurisdiction Future (2035) Buildout + P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class Class 2
Shoulder width 6.0 ft Peak-hour factor, PHF 1.00
Lane width 12.0 ft % Trucks and buses 2 %
Segment length 0.0 mi % Recreational vehicles 4 %
Terrain type Level % No-passing zones 0 %
Grade: Length mi Access points/mi 8 /mi
Up/down %

Two-way hourly volume, V 761 veh/h
Directional split 53 / 47 %

Average Travel Speed

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.7*
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, 0.986
Two-way flow rate, (note-1) vp 772 pc/h
Highest directional split proportion (note-2) 409 pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 29.0 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 763 pc/h
Highest directional split proportion (note-2) 404
Base percent time-spent-following, BPTSF 48.9 %
Adj. for directional distribution and no-passing zones, fd/np 0.0
Percent time-spent-following, PFSF 48.9 %

Level of Service and Other Performance Measures

Level of service, LOS B
Volume to capacity ratio, v/c 0.24
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
- * These items have been entered or edited to override calculated value

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period PM Peak Hour
 Highway Montecito Road
 From/To Copa de Oro Dr to Mainway Dr
 Jurisdiction Future (2035) Buildout + P
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 552 veh/h
 Directional split 56 / 44 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	560
Highest directional split proportion (note-2)	314
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 30.7 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fHV 0.998
 Two-way flow rate, (note-1) vp 553 pc/h
 Highest directional split proportion (note-2) 310
 Base percent time-spent-following, BPTSF 38.5 %
 Adj. for directional distribution and no-passing zones, fd/np 0.1 %
 Percent time-spent-following, PTF 38.6 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.17
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period PM Peak Hour
Highway Montecito Road
From/To Mainway Dr to Bradbury Rd
Jurisdiction Future (2035) Buildout + P
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 551 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	559
Highest directional split proportion (note-2)	302
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 30.7 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 552 pc/h
Highest directional split proportion (note-2) 298
Base percent time-spent-following, BPTSF 38.4 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PFSF 38.5 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.17
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period PM Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction Future (2035) Buildout + P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 566 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	574
Highest directional split proportion (note-2)	310
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 30 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 30.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 25.5 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 567 pc/h
Highest directional split proportion (note-2) 306
Base percent time-spent-following, BPTSF 39.2 %
Adj. for directional distribution and no-passing zones, fd/np 0.0 %
Percent time-spent-following, PTSF 39.3 %

Level of Service and Other Performance Measures

Level of service, LOS	A
Volume to capacity ratio, v/c	0.18
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																			
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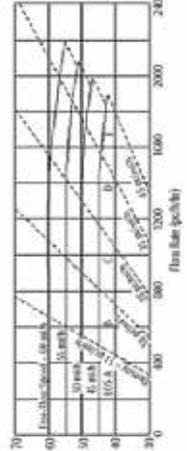
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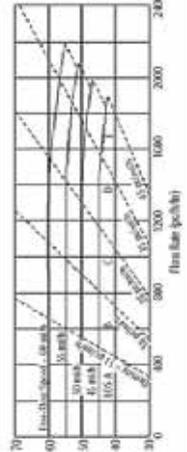
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MULTILANE HIGHWAYS WORKSHEET(Direction 1)



General Information		Site Information	
Analyst	NP	Highway/Direction to Travel	Seal Beach Boulevard Rossmoor Center to Bradbury Rd
Agency or Company	LSA Associates, Inc.	From/To	Future (2035) Buildout +P
Date Performed	11/29/2016	Jurisdiction	
Analysis Time Period	Sat Peak Hour	Analysis Year	
Project Description: Health Club within the Shops at Rossmoor			
<input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (vp)			
Flow Inputs			
Volume, V (veh/h)	1786	Peak-Hour Factor, PHF	1.00
AAADT(veh/h)		%Trucks and Buses, P _T	0
Peak-Hour Prop of AAADT (veh/h)		%RV's, P _R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Length (mi)	0.00
Driver Type Adjustment	1.00	Grade	0.00
		Up/Down %	0.00
		Number of Lanes	3
Calculate Flow Adjustments			
f _b	1.00	E _R	1.2
E _T	1.5	f _{HV}	1.000
Speed Inputs		Calc Speed Adj and FFS	
Lane Width, LW (ft)	12.0	f _{tw} (mi/h)	
Total Lateral Clearance, LC (ft)	12.0	f _{LC} (mi/h)	
Access Points, A (A/mi)	0	f _A (mi/h)	
Median Type, M		f _M (mi/h)	
FFS (measured)	45.0	FFS (mi/h)	45.0
Base Free-Flow Speed, BFFS			
Operations		Design	
		Design (N)	
Operational (LOS)		Required Number of Lanes, N	
Flow Rate, v _p (pc/h/ln)	595	Flow Rate, v _p (poch)	
Speed, S (mi/h)	45.0	Max Service Flow Rate (pc/h/ln)	
D (pc/mi/ln)	13.2	Design LOS	
LOS	B		

MULTILANE HIGHWAYS WORKSHEET(Direction 2)



General Information		Site Information	
Analyst	NP	Highway/Direction to Travel	Seal Beach Boulevard Rossmoor Center to Bradbury Rd
Agency or Company	LSA Associates, Inc.	From/To	Future (2035) Buildout + P
Date Performed	11/29/2016	Jurisdiction	
Analysis Time Period	Sat Peak Hour	Analysis Year	
Project Description: Health Club within the Shops at Rossmoor			
<input checked="" type="checkbox"/> Oper. (LOS) <input type="checkbox"/> Des. (N) <input type="checkbox"/> Plan. (vp)			
Flow Inputs			
Volume, V (veh/h)	1840	Peak-Hour Factor, PHF	1.00
AAADT(veh/h)		%Trucks and Buses, P _T	0
Peak-Hour Prop of AAADT (veh/h)		%RV's, P _R	0
Peak-Hour Direction Prop, D		General Terrain:	Level
DDHV (veh/h)		Length (mi)	0.00
Driver Type Adjustment	1.00	Grade	0.00
		Up/Down %	0.00
		Number of Lanes	3
Calculate Flow Adjustments			
f _b	1.00	E _R	1.2
E _T	1.5	f _{HV}	1.000
Speed Inputs		Calc Speed Adj and FFS	
Lane Width, LW (ft)	12.0	f _{tw} (mi/h)	
Total Lateral Clearance, LC (ft)	12.0	f _{LC} (mi/h)	
Access Points, A (A/mi)	0	f _A (mi/h)	
Median Type, M		f _M (mi/h)	
FFS (measured)	45.0	FFS (mi/h)	45.0
Base Free-Flow Speed, BFFS			
Operations		Design	
		Design (N)	
Operational (LOS)		Required Number of Lanes, N	
Flow Rate, v _p (pc/h/ln)	613	Flow Rate, v _p (poch)	
Speed, S (mi/h)	45.0	Max Service Flow Rate (pc/h/ln)	
D (pc/mi/ln)	13.6	Design LOS	
LOS	B		

MULTILANE HIGHWAYS WORKSHEET(Direction 1)																													
<table border="1"> <tr> <th>Application</th> <th>Input</th> <th>Current</th> </tr> <tr> <td>Operational (LOS)</td> <td>FFS, H, %</td> <td>LOS, S, D</td> </tr> <tr> <td>Design (N)</td> <td>FFS, LOS, %</td> <td>H, S, D</td> </tr> <tr> <td>Planning (LOS)</td> <td>FFS, LOS, %</td> <td>% S, D</td> </tr> <tr> <td>Planning (N)</td> <td>FFS, LOS, %</td> <td>LOS, S, D</td> </tr> <tr> <td>Planning (D)</td> <td>FFS, LOS, %</td> <td>H, S, D</td> </tr> <tr> <td>Planning (P)</td> <td>FFS, LOS, %</td> <td>% S, D</td> </tr> </table>		Application	Input	Current	Operational (LOS)	FFS, H, %	LOS, S, D	Design (N)	FFS, LOS, %	H, S, D	Planning (LOS)	FFS, LOS, %	% S, D	Planning (N)	FFS, LOS, %	LOS, S, D	Planning (D)	FFS, LOS, %	H, S, D	Planning (P)	FFS, LOS, %	% S, D							
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Design (N)	FFS, LOS, %	H, S, D																											
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Flow Inputs Volume, V (veh/h) 1822 AADT(veh/h) 1826 Peak-Hour Factor, PHF 1.00 %Trucks and Buses, P _T 0 %RVs, P _R 0 Peak-Hour Prop of AADT (veh/h) 1.00 Peak-Hour Direction Prop, D DDHV (veh/h) 1.00 Driver Type Adjustment Number of Lanes 3		Peak-Hour Factor, PHF 1.00 %Trucks and Buses, P _T 0 %RVs, P _R 0 General Terrain: Level Length (mi) 0.00 Grade 0.00 Up/Down % 0.00 Number of Lanes 3																											
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MULTILANE HIGHWAYS WORKSHEET(Direction 2)																													
<table border="1"> <tr> <th>Application</th> <th>Input</th> <th>Current</th> </tr> <tr> <td>Operational (LOS)</td> <td>FFS, H, %</td> <td>LOS, S, D</td> </tr> <tr> <td>Design (N)</td> <td>FFS, LOS, %</td> <td>H, S, D</td> </tr> <tr> <td>Planning (LOS)</td> <td>FFS, LOS, %</td> <td>% S, D</td> </tr> <tr> <td>Planning (N)</td> <td>FFS, LOS, %</td> <td>LOS, S, D</td> </tr> <tr> <td>Planning (D)</td> <td>FFS, LOS, %</td> <td>H, S, D</td> </tr> <tr> <td>Planning (P)</td> <td>FFS, LOS, %</td> <td>% S, D</td> </tr> </table>		Application	Input	Current	Operational (LOS)	FFS, H, %	LOS, S, D	Design (N)	FFS, LOS, %	H, S, D	Planning (LOS)	FFS, LOS, %	% S, D	Planning (N)	FFS, LOS, %	LOS, S, D	Planning (D)	FFS, LOS, %	H, S, D	Planning (P)	FFS, LOS, %	% S, D							
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Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 1071 pc/h
 Highest directional split proportion (note-2) 557
 Base percent time-spent-following, BPTSF 61.0 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PTSF 61.0 %

Level of Service and Other Performance Measures
 Level of service, LOS C
 Volume to capacity ratio, v/c 0.34
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:
 Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period Sat Peak Hour
 Highway Saint Cloud Drive
 From/To Seal Beach Blvd to Yellowtail
 Jurisdiction Future (2035) Buildout + P
 Analysis Year
 Description Health Club within the Shops at Rossmoor

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 1.00
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 1069 veh/h
 Directional split 52 / 48 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.2
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.996
 Two-way flow rate, (note-1) vp 1073 pc/h
 Highest directional split proportion (note-2) 558 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 26.7 mi/h

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 754 pc/h
 Highest directional split proportion (note-2) 407
 Base percent time-spent-following, BPTSF 48.5 %
 Adj. for directional distribution and no-passing zones, fd/np 0.0
 Percent time-spent-following, PFSF 48.5 %

Level of Service and Other Performance Measures

Level of service, LOS B
 Volume to capacity ratio, v/c 0.24
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.
 * These items have been entered or edited to override calculated value

Phone:

E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Yellowtail Dr to Copa de Oro D
 Jurisdiction Future (2035) Buildout + P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data

Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 1.00
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 752 veh/h
 Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.7*
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.986
 Two-way flow rate, (note-1) vp 763 pc/h
 Highest directional split proportion (note-2) 412 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed: - mi/h
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 29.1 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period Sat Peak Hour
Highway Montecito Road
From/To Copa de Oro Dr to Mainway Dr
Jurisdiction Future (2035) Buildout + P
Analysis Year Health Club within the Shops at Rossmoor
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 513 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.7
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.986
Two-way flow rate, (note-1) vp	520
Highest directional split proportion (note-2)	281
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:
Field measured speed, SFM 35 mi/h
Observed volume, Vf 0 veh/h
Estimated Free-Flow Speed:
Base free-flow speed, BFFS - mi/h
Adj. for lane and shoulder width, fLS - mi/h
Adj. for access points, fA - mi/h

Free-flow speed, FFS 35.0 mi/h
Adjustment for no-passing zones, fnp 0.0 mi/h
Average travel speed, ATS 31.0 mi/h

Grade adjustment factor, fg 1.00
PCE for trucks, ET 1.1
PCE for RVs, ER 1.0
Heavy-vehicle adjustment factor, fHV 0.998
Two-way flow rate, (note-1) vp 514 pc/h
Highest directional split proportion (note-2) 278
Base percent time-spent-following, BPTSF 36.4 %
Adj. for directional distribution and no-passing zones, fd/np 0.1 %
Percent time-spent-following, PFSF 36.4 %

Level of Service and Other Performance Measures

Level of service, LOS A
Volume to capacity ratio, v/c 0.16
Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
Peak 15-min total travel time, TT15 0.0 veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.1
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, fhv 0.998
 Two-way flow rate, (note-1) vp 459 pc/h
 Highest directional split proportion (note-2) 248
 Base percent time-spent-following, BPTSF 33.2 %
 Adj. for directional distribution and no-passing zones, fd/np 0.1 %
 Percent time-spent-following, PTSF 33.3 %

Level of Service and Other Performance Measures
 Level of service, LOS A
 Volume to capacity ratio, v/c 0.14
 Peak 15-min vehicle-miles of travel, VMT15 0 veh-mi
 Peak-hour vehicle-miles of travel, VMT60 0 veh-mi
 Peak 15-min total travel time, TT15 0.0 veh-h

Notes:
 1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
 2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone:
 E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
 Agency/Co. LSA Associates, Inc.
 Date Performed 11/29/2016
 Analysis Time Period Sat Peak Hour
 Highway Montecito Road
 From/To Mainway Dr to Bradbury Rd
 Jurisdiction Future (2035) Buildout + P
 Analysis Year Health Club within the Shops at Rossmoor
 Description

Input Data
 Highway class Class 2
 Shoulder width 6.0 ft Peak-hour factor, PHF 1.00
 Lane width 12.0 ft % Trucks and buses 2 %
 Segment length 0.0 mi % Recreational vehicles 4 %
 Terrain type Level % No-passing zones 0 %
 Grade: Length mi Access points/mi 8 /mi
 Up/down %

Two-way hourly volume, V 458 veh/h
 Directional split 54 / 46 %

Average Travel Speed
 Grade adjustment factor, fg 1.00
 PCE for trucks, ET 1.7
 PCE for RVs, ER 1.0
 Heavy-vehicle adjustment factor, 0.986
 Two-way flow rate, (note-1) vp 464 pc/h
 Highest directional split proportion (note-2) 251 pc/h

Free-Flow Speed from Field Measurement:
 Field measured speed, SFM 35 mi/h
 Observed volume, Vf 0 veh/h
 Estimated Free-Flow Speed:
 Base free-flow speed, BFFS - mi/h
 Adj. for lane and shoulder width, fLS - mi/h
 Adj. for access points, fA - mi/h
 Free-flow speed, FFS 35.0 mi/h
 Adjustment for no-passing zones, fnp 0.0 mi/h
 Average travel speed, ATS 31.4 mi/h

Phone:
E-Mail:

Fax:

Two-Way Two-Lane Highway Segment Analysis

Analyst NP
Agency/Co. LSA Associates, Inc.
Date Performed 11/29/2016
Analysis Time Period Sat Peak Hour
Highway Rossmoor Center Way
From/To Montecito Rd to E. Internal
Jurisdiction Future (2035) Buildout + P
Analysis Year
Description Health Club within the Shops at Rossmoor

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	1.00	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	0	%
Grade:	Length	mi	Access points/mi	8	/mi
	Up/down	%			

Two-way hourly volume, V 602 veh/h
Directional split 54 / 46 %

Average Travel Speed

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.2
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor,	0.996
Two-way flow rate, (note-1) vp	604
Highest directional split proportion (note-2)	326
	pc/h
	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, SFM	30	mi/h
Observed volume, Vf	0	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	-	mi/h
Adj. for lane and shoulder width, fLS	-	mi/h
Adj. for access points, fA	-	mi/h

Free-flow speed, FFS

Free-flow speed, FFS	30.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	25.3	mi/h

Grade adjustment factor, fg	1.00
PCE for trucks, ET	1.1
PCE for RVs, ER	1.0
Heavy-vehicle adjustment factor, fHV	0.998
Two-way flow rate, (note-1) vp	603
Highest directional split proportion (note-2)	326
Base percent time-spent-following, BPTSF	41.1
Adj. for directional distribution and no-passing zones, fd/np	0.0
Percent time-spent-following, PTSF	41.1
	%

Level of Service and Other Performance Measures

Level of service, LOS	B
Volume to capacity ratio, v/c	0.19
Peak 15-min vehicle-miles of travel, VMT15	0
Peak-hour vehicle-miles of travel, VMT60	0
Peak 15-min total travel time, TT15	0.0
	veh-h
	veh-h

Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

APPENDIX D

ACCIDENT DATA



REPORT 8 - TOTAL COLLISIONS

01/01/2015 thru 12/31/2015

Total Count: 177

Jurisdiction(s): Seal Beach

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd 10TH ST		Distance (ft) 450	Direction N	Secondary Rd OCEAN AV		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 361	Collision Date 20150317	Time 1619	Day TUE															
Primary Collision Factor STRTNG BCKNG		Violation 22106	Collision Type HIT OBJECT		Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20150918																
Weather1 CLEAR	Weather2	Rdwy Surface DRY		Rdwy Cond1 NO UNUSL CND		Rdwy Cond2		Spec Cond 0																	
Hit and Run		Motor Vehicle Involved With OTHER MV			Lighting DAYLIGHT	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int															
Party Info												Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	23	F	W		BACKING	S	A	0000	DODGE	2010	-	-	-	-	-	G								
2	DRVR	30	M	A		STOPPED	S	C	0000	HONDA	2006	-	-	-	-	-	W								
Primary Rd 10TH ST		Distance (ft) 57	Direction S	Secondary Rd PACIFIC COAST		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 002	Type 0	CalTrans	Badge 362	Collision Date 20150827	Time 1702	Day THU															
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type SIDESWIPE		Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160109																
Weather1 CLEAR	Weather2	Rdwy Surface DRY		Rdwy Cond1 NO UNUSL CND		Rdwy Cond2		Spec Cond 0																	
Hit and Run		Motor Vehicle Involved With PKD MV			Lighting DAYLIGHT	Ped Action	Cntrl Dev	FNCTNG	Loc Type	Ramp/Int															
Party Info												Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	53	F	A	HNBD	ENT TRAF	-	A	0800	TOYOT	2014	-	3	N	-	M	G								
2	PRKD	998	-		HNBD	PARKED	W	C	0200	HARLE	2013	-	3	N	-	-	-								
Primary Rd 11TH ST		Distance (ft) 8	Direction N	Secondary Rd OCEAN AV		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 361	Collision Date 20150819	Time 1648	Day WED															
Primary Collision Factor DRVR ALC DRG		Violation 23152A	Collision Type HIT OBJECT		Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160104																
Weather1 CLEAR	Weather2	Rdwy Surface DRY		Rdwy Cond1 NO UNUSL CND		Rdwy Cond2		Spec Cond 0																	
Hit and Run		Motor Vehicle Involved With FIXED OBJ			Lighting DAYLIGHT	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int															
Party Info												Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	47	F	H	HBD-UI	BACKING	N	-	0000	GMC	2000	A	-	-	-	G	-								
2	PRKD	998	-		null		-	-	0000	CHEVR	2005	-	-	-	-	-	-								
Primary Rd 12TH ST		Distance (ft) 325	Direction S	Secondary Rd LANDING		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 362	Collision Date 20150416	Time 0933	Day THU															
Primary Collision Factor STRTNG BCKNG		Violation 22106	Collision Type REAR END		Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20151002																
Weather1 CLEAR	Weather2	Rdwy Surface DRY		Rdwy Cond1 NO UNUSL CND		Rdwy Cond2		Spec Cond 0																	
Hit and Run		Motor Vehicle Involved With PKD MV			Lighting DAYLIGHT	Ped Action	Cntrl Dev	FNCTNG	Loc Type	Ramp/Int															
Party Info												Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	41	M	A	HNBD	BACKING	N	A	0100	FORD	2005	-	3	N	-	M	G								
2	PRKD	998	-		HNBD	PARKED	S	A	0100	VOLKS	1965	-	3	N	-	-	-								

Primary Rd 14TH ST		Distance (ft) 7	Direction S	Secondary Rd SEAL WY	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy									
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 257	Collision Date 20150329	Time 2132	Day SUN									
Primary Collision Factor STRTNG BCKNG		Violation 22106	Collision Type HIT OBJECT	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20150916											
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0														
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DARK - ST	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int											
Party Info										Victim Info									
Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected											
1F DRVR 18 M W HNBD	BACKING	N	D	2200	FORD 2006	-	3	N	-	M	G	PASS		15	F	3	0	M	G
Primary Rd 1ST ST		Distance (ft) 325	Direction N	Secondary Rd MARINA DR	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy									
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 300	Collision Date 20150125	Time 1455	Day SUN									
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type HEAD-ON	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20150812											
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0														
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DAYLIGHT	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int											
Party Info										Victim Info									
Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected											
1F DRVR 37 F O HNBD	PROC ST	N	A	0000	TOYOT 2007	-	-	N	-	-	-								
Primary Rd 1ST ST		Distance (ft) 574	Direction S	Secondary Rd PCH	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy									
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 002	Type 0	CalTrans	Badge 362	Collision Date 20150619	Time 1224	Day FRI									
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20151110											
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0														
Hit and Run		Motor Vehicle Involved With PKD MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int											
Party Info										Victim Info									
Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected											
1F DRVR 29 M W HNBD	RGT TURN	W	F	2600	GMC 2000	-	3	N	-	M	G								
2 PRKD 998 - HNBD	PARKED	-	A	0100	HYUND 2010	-	3	N	-	-	-								
Primary Rd 5TH ST		Distance (ft) 209	Direction S	Secondary Rd PACIFIC COAST	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy									
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 257	Collision Date 20150113	Time 1748	Day TUE									
Primary Collision Factor LANE CHANGE		Violation 21658A	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20150807											
Weather1 RAINING	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0														
Hit and Run		Motor Vehicle Involved With PKD MV		Lighting DARK - ST	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int											
Party Info										Victim Info									
Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected											
1F DRVR 85 F W HBD-NUI	PROC ST	N	A	0700	LEXUS 2012	-	3	N	-	L	G	PASS		86	F	3	0	L	G
2 PRKD 998 -			null																
Primary Rd 6TH ST		Distance (ft) 295	Direction N	Secondary Rd OCEAN AV	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy									
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 423	Collision Date 20151205	Time 0957	Day SAT									
Primary Collision Factor STRTNG BCKNG		Violation 22106	Collision Type AUTO/PED	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20160120											
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0														
Hit and Run		Motor Vehicle Involved With PED		Lighting DAYLIGHT	Ped Action IN RD,	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int											
Party Info										Victim Info									
Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected											
1F DRVR 43 M B HNBD	BACKING	W	A	0000	FORD 1997	-	-	N	-	G	-								
2 PRKD 998 -	STOPPED	S	A	0000	FORD 2002	-	-	N	-	-	-								
3 PED 44 M H HNBD	STOPPED	-	N	0000	-	-	-	N	-	-	-	PED	OTH VIS	44	M	9	3	-	-

Primary Rd 6TH ST Distance (ft) 3 Direction N Secondary Rd OCEAN AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 423 Collision Date 20151205 Time 0855 Day SAT Primary Collision Factor UNKNOWN Violation Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160225 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With PKD MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int													
Party Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1 DRVR 998 - IMP UNK IMP UNK OTHER - M 0000 - - - M - - - 2 PRKD 998 - PARKED S A 0000 FORD 2007 - - N - - -													
Primary Rd ALMOND AV Distance (ft) 0 Direction Secondary Rd ALMOND NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 257 Collision Date 20151221 Time 2052 Day MON Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160225 Weather1 CLOUDY Weather2 Rdwy Surface WET Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int													
Party Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1F DRVR 17 M O HNBD LFT TURN N A 0100 HONDA 2002 - 3 M - M G													
Primary Rd ALMOND AV Distance (ft) 0 Direction Secondary Rd BLUEBELL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 001 Type 0 CalTrans Badge 362 Collision Date 20151023 Time 1551 Day FRI Primary Collision Factor IMPROP TURN Violation 22107 Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160201 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int													
Party Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1F DRVR 22 M W HNBD PROC ST - A 0700 FORD 2003 - 3 N - L G													
Primary Rd ALMOND AV Distance (ft) 33 Direction E Secondary Rd DAHLIA CIR NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 298 Collision Date 20151230 Time 1317 Day WED Primary Collision Factor UNKNOWN Violation Collision Type HEAD-ON Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160121 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int													
Party Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1 DRVR 87 M W HNBD PROC ST E A 0000 CHEVR 2007 - - M - G - DRVR OTH VIS 87 M 1 0 W -													
Primary Rd ALMOND AV Distance (ft) 246 Direction E Secondary Rd JASMIN CIR NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 00N Type 0 CalTrans Badge 191 Collision Date 20150614 Time 1059 Day SUN Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type HEAD-ON Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20151110 Weather1 CLOUDY Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int													
Party Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1F DRVR 60 F H HNBD PROC ST E - 0000 TOYOT 2006 - - N - G -													

Primary Rd ALMOND AV Distance (ft) 60 Direction E Secondary Rd ROSE ST NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 361 Collision Date 20150520 Time 1221 Day WED																										
Primary Collision Factor IMPROP TURN Violation 22107 Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20151021																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With PKD MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCR Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	85	F	W			PROC ST	E	A	0000	MERCU	1997	-	-	-	-	G									
2	PRKD	998	-				PARKED	-	A	0000	CADIL	1989	-	-	-	-	-									
Primary Rd ASTER Distance (ft) 0 Direction Secondary Rd ALMOND NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 00S Type 0 CalTrans Badge 152 Collision Date 20150324 Time 2315 Day TUE																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20150918																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCR Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	21	M		HNBD		PROC ST	S	A	0000	MITSU	2015	-	-	-	-	G									
Primary Rd BALBOA DR Distance (ft) 255 Direction Secondary Rd DRIFTWOOD AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist 7 Beat 007 Type 0 CalTrans Badge 174 Collision Date 20150118 Time 0545 Day SUN																										
Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type HEAD-ON Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20150801																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	27	M			DRUG	PROC ST	N	A	0000	BMW	2004	-	-	-	-	L									
2	PRKD	998	-				PARKED	-	A	0000	HONDA	2011	-	-	-	-	-									
Primary Rd BIRCHWOOD AV Distance (ft) 200 Direction W Secondary Rd DAISY ST NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat ROVER Type 0 CalTrans Badge 178 Collision Date 20150903 Time 2007 Day THU																										
Primary Collision Factor DRVR ALC DRG Violation 212005 Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? N Process Date 20151124																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With BICYCLE Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCR Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	BICY	49	-	H	HBD-UI		PROC ST	E	L	0400	-	2011	-	3	N	-	-	BICY	COMP PN	49	M	1	1	P	W	
2	DRVR	50	M	H	HNBD		PROC ST	E	A	0100	INFIN	2006	-	3	N	-	M	G								
Primary Rd BOLSA AV Distance (ft) 0 Direction Secondary Rd BAYSIDE DR NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 298 Collision Date 20150404 Time 0404 Day SAT																										
Primary Collision Factor IMPROP TURN Violation 22107 Collision Type HEAD-ON Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20151002																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	16	M	H	HNBD		UNS TURN	E	A	0000	NISSA	2014	-	-	A	22350	-	G	PASS		16	F	3	0	G	-

Primary Rd CENTER AV Distance (ft) 0 Direction Secondary Rd 11TH ST NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 362 Collision Date 20150116 Time 1141 Day FRI Primary Collision Factor R-O-W AUTO Violation 21802A Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20150801 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																											
Party Info														Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	60	M	O	HNBD		PROC ST	-	A	0100	FORD	2001	-	3	N	-	M	G									
2	DRVR	62	M	W	HNBD		PROC ST	W	A	0700	TOYOT	1970	-	3	N	-	M	G									
Primary Rd CENTRAL AV Distance (ft) 60 Direction W Secondary Rd 3RD ST NCIC 3020 State Hwy? Y Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist 09011 Beat Y0620 Type 0 CalTrans Badge 361 Collision Date 20150901 Time 0620 Day TUE Primary Collision Factor IMPROP TURN Violation 22107 Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160120 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With PKD MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																											
Party Info														Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	20	M	W			PROC ST	E	A	0000	TOYOT	2014	-	-	-	-	G	-									
2	PRKD	998	-				PARKED	-	D	0000	CHEVR	2010	-	-	-	-	-	-									
3	PRKD	998	-				PARKED	-	A	0000	NISSA	2005	-	-	-	-	-	-									
4	PRKD	998	-				PARKED	-	A	0000	AUDI	2015	-	-	-	-	-	-									
Primary Rd CENTRAL AV Distance (ft) 90 Direction E Secondary Rd 6TH ST NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat ROVER Type 0 CalTrans Badge 178 Collision Date 20150101 Time 1917 Day THU Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20150807 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With PKD MV Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																											
Party Info														Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	31	F	W	HBD-UNK		PROC ST	E	-	0000	PONTI	1999	A	-	N	-	G	-									
2	PRKD	998	-				PARKED	E	-	0000	DODGE	2010	A	-	N	-	-	-									
Primary Rd CENTRAL AV Distance (ft) 0 Direction Secondary Rd 8TH ST NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist 3 Beat SOUTH Type 0 CalTrans Badge 313 Collision Date 20150112 Time 1610 Day MON Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20150817 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																											
Party Info														Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	24	F	W	HNBD		PROC ST	N	-	0000	VOLVO	2000	A	-	N	-	G	-									
2	DRVR	24	F	W	HNBD		PROC ST	W	-	0000	BMW	2013	A	-	N	-	G	-	PASS		998	M	3	3	G	-	
Primary Rd COLLEGE PARK DR Distance (ft) 473 Direction W Secondary Rd HARVARD LN NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist 3 Beat 006 Type 0 CalTrans Badge 363 Collision Date 20150503 Time 1941 Day SUN Primary Collision Factor UNKNOWN Violation 23103B Collision Type OVERTURNED Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20150610 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 HOLES Rdwy Cond2 LOOSE MATRL Spec Cond 0 Hit and Run Motor Vehicle Involved With NON-CLSN Lighting DUSK/DAWN Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																											
Party Info														Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	18	M	W	HNBD		RGT TURN	N	C	0200	FORD	2001	-	3	A	22350	-	G	M	DRVR	COMP PN	18	M	1	0	G	-

Primary Rd		DEL MONTE DR		Distance (ft)	45	Direction	N	Secondary Rd		MCKINNEY WY		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy							
City		Seal Beach		County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	Badge	298	Collision Date	20151230	Time	1441	Day	WED						
Primary Collision Factor		UNKNOWN		Violation		Collision Type	HEAD-ON		Severity	INJURY		#Killed	0	#Injured	1	Tow Away?	Y	Process Date	20160506							
Weather1		CLEAR		Weather2		Rdwy Surface	DRY		Rdwy Cond1	NO UNUSL CND		Rdwy Cond2		Spec Cond	0											
Hit and Run				Motor Vehicle Involved With				PKD MV		Lighting	DAYLIGHT		Ped Action		Cntrl Dev	FNCTNG		Loc Type	Ramp/Int							
Party Info																	Victim Info									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1	DRVR	72	F	W	IMP UNK	IMP UNK	PROC ST	N	A	0000	MAZDA	2016	-	-	N	-	G	-	DRVR	OTH VIS	72	F	1	0	G	-
2	PRKD	998	-	-	-	-	PARKED	N	A	0000	FORD	2016	-	-	N	-	-	-	-	-	-	-	-	-	-	-
3	PRKD	998	-	-	-	-	PARKED	N	A	0000	TOYOT	1997	-	-	N	-	-	-	-	-	-	-	-	-	-	-
Primary Rd		DOLPHIN ST		Distance (ft)	17	Direction	N	Secondary Rd		OCEAN AV		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy							
City		Seal Beach		County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	Badge	178	Collision Date	20150127	Time	1822	Day	TUE						
Primary Collision Factor		UNSAFE SPEED		Violation	22350	Collision Type	SIDESWIPE		Severity	PDO		#Killed	0	#Injured	0	Tow Away?	N	Process Date	20150803							
Weather1		CLEAR		Weather2		Rdwy Surface	DRY		Rdwy Cond1	NO UNUSL CND		Rdwy Cond2		Spec Cond	0											
Hit and Run				Motor Vehicle Involved With				PKD MV		Lighting	DARK - ST		Ped Action		Cntrl Dev	NT PRS/FCTR		Loc Type	Ramp/Int							
Party Info																	Victim Info									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	70	F	W	IMP UNK	IMP UNK	PROC ST	N	D	0000	FORD	2006	-	-	N	-	G	-	-	-	-	-	-	-	-	
2	PRKD	998	-	-	-	-	PARKED	N	A	0000	HONDA	2011	-	-	N	-	-	-	-	-	-	-	-	-	-	
3	PRKD	998	-	-	-	-	PARKED	N	A	0000	MERCE	2002	-	-	N	-	-	-	-	-	-	-	-	-	-	
Primary Rd		ELECTRIC AV		Distance (ft)	13	Direction	W	Secondary Rd		11TH ST		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy							
City		Seal Beach		County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	Badge	178	Collision Date	20150820	Time	2218	Day	THU						
Primary Collision Factor		DRVR ALC DRG		Violation	23152A	Collision Type	HIT OBJECT		Severity	PDO		#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160104							
Weather1		CLEAR		Weather2		Rdwy Surface	DRY		Rdwy Cond1	NO UNUSL CND		Rdwy Cond2		Spec Cond	0											
Hit and Run				Motor Vehicle Involved With				FIXED OBJ		Lighting	DARK - ST		Ped Action		Cntrl Dev	FNCTNG		Loc Type	Ramp/Int							
Party Info																	Victim Info									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	18	M	W		DRUG	PROC ST	N	A	0000	LINCO	2003	-	-	N	-	G	-	-	-	-	-	-	-	-	
Primary Rd		ELECTRIC AV		Distance (ft)	357	Direction	E	Secondary Rd		MAIN ST		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy							
City		Seal Beach		County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	Badge	362	Collision Date	20150904	Time	1511	Day	FRI						
Primary Collision Factor		STRTNG BCKNG		Violation	22106	Collision Type	REAR END		Severity	PDO		#Killed	0	#Injured	0	Tow Away?	N	Process Date	20160120							
Weather1		CLEAR		Weather2		Rdwy Surface	DRY		Rdwy Cond1	NO UNUSL CND		Rdwy Cond2		Spec Cond	0											
Hit and Run				Motor Vehicle Involved With				OTHER MV		Lighting	DAYLIGHT		Ped Action		Cntrl Dev	FNCTNG		Loc Type	Ramp/Int							
Party Info																	Victim Info									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	66	F	W	HNBD		BACKING	-	A	0100	TOYOT	2005	-	3	N	-	M	G	-	-	-	-	-	-	-	
2	PRKD	998	-	-	HNBD		PARKED	-	A	0100	DODGE	2008	-	3	N	-	-	-	-	-	-	-	-	-	-	
Primary Rd		ELECTRIC AV		Distance (ft)	0	Direction		Secondary Rd		MARINE		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy							
City		Seal Beach		County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	Badge	362	Collision Date	20151231	Time	1141	Day	THU						
Primary Collision Factor		DRVR ALC DRG		Violation	23152A	Collision Type	REAR END		Severity	PDO		#Killed	0	#Injured	0	Tow Away?	N	Process Date	20160217							
Weather1		CLEAR		Weather2		Rdwy Surface	DRY		Rdwy Cond1	NO UNUSL CND		Rdwy Cond2		Spec Cond	0											
Hit and Run				Motor Vehicle Involved With				PKD MV		Lighting	DAYLIGHT		Ped Action		Cntrl Dev	FNCTNG		Loc Type	Ramp/Int							
Party Info																	Victim Info									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	67	M	W	HBD-UI		PARKING	-	D	2200	CHEVR	2003	-	3	A	22350	-	M	G	-	-	-	-	-	-	
2	DRVR	60	F	H	HNBD		PARKED	-	A	0100	TOYOT	2002	-	3	N	-	-	M	G	-	-	-	-	-	-	

Primary Rd FIR AV Distance (ft) 58 Direction W Secondary Rd OLEANDER NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 006 Type 0 CalTrans Badge 422 Collision Date 20150205 Time 2049 Day THU Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20150826 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With PKD MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																
Party Info Victim Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected																
1F DRVR 39 M W HNBD LFT TURN W A 0000 BMW 2009 - - A 23123 F G M 2 PRKD 998 - HNBD PARKED - A 0000 FORD 2008 - - N - - -																
Primary Rd FIR AV Distance (ft) 100 Direction E Secondary Rd ROSE ST NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 298 Collision Date 20150719 Time 1709 Day SUN Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20151218 Weather1 RAINING Weather2 Rdwy Surface WET Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER OBJ Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																
Party Info Victim Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected																
1F DRVR 18 M W HNBD LFT TURN E - - 0000 FORD 2002 - - N - - G - 2 PRKD 998 - - - - - - 0000 - - 1987 - - N - - -																
Primary Rd FIRST ST Distance (ft) 51 Direction S Secondary Rd MARINA DR NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat SOUTH Type 0 CalTrans Badge 365 Collision Date 20151205 Time 0021 Day SAT Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160225 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																
Party Info Victim Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected																
1F DRVR 101 M W HBD-UI PROC ST S A 0000 ACURA 2006 - - N - - G - 2 PRKD 998 - - - - - - 0000 - - 1987 - - N - - -																
Primary Rd IRIS ST Distance (ft) 107 Direction N Secondary Rd HAZELNUT AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 206 Type 0 CalTrans Badge 368 Collision Date 20150104 Time 2111 Day SUN Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20150807 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With PKD MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																
Party Info Victim Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected																
1F DRVR 25 F W HBD-UI PROC ST S - - 0000 HONDA 1999 - - A - - G - 2 PRKD 998 - - - - - - 0000 JEEP 2000 - - A - - -																
Primary Rd LAMPSON Distance (ft) 0 Direction Secondary Rd CANDLEBERRY NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 00N Type 0 CalTrans Badge 152 Collision Date 20151209 Time 1629 Day WED Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type HIT OBJECT Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160121 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																
Party Info Victim Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected																
1F DRVR 27 F W HNBD RGT TURN W A 0000 JEEP 1991 - - N - - - - DRVR OTH VIS 27 - - 1 3 - -																

Primary Rd LAMPSON		Distance (ft) 1	Direction W	Secondary Rd HEATHER		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 314	Collision Date 20151208	Time 2151	Day TUE															
Primary Collision Factor DRVR ALC DRG		Violation 23152A	Collision Type HEAD-ON	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160225																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	36	F	H	HBD-UI	LFT TURN	N	A	0000	VOLKS	2014	-	-	-	-	G	-	-	-	-	-	-	-	-	
Primary Rd LAMPSON AV		Distance (ft) 75	Direction E	Secondary Rd BASSWOOD AV		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist 19	Beat 006	Type 0	CalTrans	Badge 174	Collision Date 20150124	Time 1000	Day SAT															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20150801																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	39	F		HNBD	PROC ST	E	A	0000	MAZDA	2005	-	-	N	-	G	-	-	-	-	-	-	-	-	
2	DRVR	42	M	W	HNBD	STOPPED	E	A	0000	HONDA	2000	-	-	N	-	G	-	-	-	-	-	-	-	-	
3	DRVR	46	F	H	HNBD	STOPPED	E	A	0000	VOLKS	2007	-	-	N	-	G	-	-	-	-	-	-	-	-	
Primary Rd LAMPSON AV		Distance (ft) 0	Direction	Secondary Rd HEATHER		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 001	Type 0	CalTrans	Badge 362	Collision Date 20150508	Time 1357	Day FRI															
Primary Collision Factor STOP SGN SIG		Violation 21453A	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 4	Tow Away? Y	Process Date 20150610																	
Weather1 CLOUDY		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	44	M	A	HNBD	PROC ST	-	A	0700	FORD	2014	-	3	M	N	L	G	DRVR	OTH VIS	44	M	1	3	L	G
2	DRVR	45	F	O	HNBD	LFT TURN	-	A	0700	TOYOT	2015	-	3	N	-	L	G	DRVR	COMP PN	45	F	1	0	L	G
3	DRVR	61	F	O	HNBD	STOPPED	W	A	0700	HYUND	2010	-	3	N	-	M	G	DRVR	COMP PN	61	F	1	3	M	G
Primary Rd LAMPSON AV		Distance (ft) 38	Direction E	Secondary Rd HEATHER ST		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist 20	Beat NORTH	Type 0	CalTrans	Badge 313	Collision Date 20150104	Time 1903	Day SUN															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20150304																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	67	F	W	HNBD	PROC ST	W	A	0100	NISSA	1997	-	3	N	-	M	G	DRVR	COMP PN	67	F	1	0	M	G
2	DRVR	19	M	W	HNBD	STOPPED	W	A	0100	TOYOT	2002	-	3	N	-	M	G	PASS		998	M	3	0	M	G
Primary Rd LAMPSON AV		Distance (ft) 0	Direction	Secondary Rd HEATHER ST		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 001	Type 0	CalTrans	Badge 362	Collision Date 20151218	Time 1438	Day FRI															
Primary Collision Factor STOP SGN SIG		Violation 21453A	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160225																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	40	F	O	HNBD	LFT TURN	-	A	0100	VOLKS	2013	-	3	N	-	M	G	-	-	-	-	-	-	-	
2	DRVR	49	F	O	HNBD	PROC ST	-	A	0100	TOYOT	2015	-	3	N	-	M	G	-	-	-	-	-	-	-	

Primary Rd LAMPSON AV Distance (ft) 0 Direction Secondary Rd OLD RANCH NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 006 Type 0 CalTrans Badge 422 Collision Date 20150113 Time 2027 Day TUE																										
Primary Collision Factor STOP SGN SIG Violation 21453A Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20150801																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	17	M	W	HNBD		PROC ST	E	A	0000	TOYOT	2014	-	-	F	-	G									
2	DRVR	27	M	H	HNBD		LFT TURN	N	A	0000	NISSA	2005	-	-	N	-	G									
Primary Rd LAMPSON AV Distance (ft) 0 Direction Secondary Rd TULIP NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 001 Type 0 CalTrans Badge 362 Collision Date 20150321 Time 1052 Day SAT																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20150918																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	17	M	W	HNBD		PROC ST	-	A	0800	DODGE	1994	-	3	N	-	M	G								
2	DRVR	68	F	W	HNBD		STOPPED	-	A	0700	BUICK	2010	-	3	N	-	M	G	PASS		74	M	3	0	M	G
																			PASS		14	M	6	0	M	G
Primary Rd LAMPSON ST Distance (ft) 0 Direction Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 298 Collision Date 20150804 Time 1343 Day TUE																										
Primary Collision Factor IMPROP TURN Violation 22107 Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160104																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 CONS ZONE Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	53	M	W	HNBD		U-TURN	S	A	0000	DODGE	2014	-	-	N	-	G									
2	DRVR	58	M	W	HNBD		LFT TURN	S	A	0000	FORD	2003	-	-	N	-	-									
Primary Rd MAIN ST Distance (ft) 47 Direction S Secondary Rd ELECTRIC NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 002 Type 0 CalTrans Badge 362 Collision Date 20150626 Time 1556 Day FRI																										
Primary Collision Factor STRTNG BCKNG Violation 22106 Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20151110																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	33	M	H	IMP UNK	IMP UNK	BACKING	E	D	2200	DODGE	2007	-	3	N	-	M	G								
2	DRVR	22	F	H	HNBD		PROC ST	N	A	0100	FORD	2008	-	3	N	-	M	G	PASS		5	F	5	0	M	Q
Primary Rd MAIN ST Distance (ft) 220 Direction N Secondary Rd OCEAN AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 002 Type 0 CalTrans Badge 362 Collision Date 20150306 Time 0924 Day FRI																										
Primary Collision Factor UNKNOWN Violation Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20150918																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1	DRVR	40	F	W	HNBD		PROC ST	N	A	0700	JEEP	2012	-	3	N	-	M	G								
2	DRVR	998	M	W	HNBD		STOPPED	N	A	0100	CHEVR	2000	-	3	N	-	M	G								

Primary Rd MAIN ST		Distance (ft) 30	Direction S	Secondary Rd PACIFIC COAST		NCIC 3020	State Hwy? Y	Route 1	Postmile Prefix -	Postmile 33.18	Side of Hwy N														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat TRAFF	Type 0	CalTrans 12	Badge 298	Collision Date 20150416	Time 2153	Day THU															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20161202																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With	Lighting DARK - ST	Ped Action	Cntrl Dev FNCTNG	Loc Type H	Ramp/Int -																		
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	24	F		HNBD	PROC ST	W	A	0000	SATUR	2006	-	F	-	G	-									
2	DRVR	24	F		HNBD	STOPPED	W	A	0000	AUDI	2014	-	N	-	G	-									
Primary Rd MAIN ST		Distance (ft) 25	Direction W	Secondary Rd PCH		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 006	Type 0	CalTrans	Badge 422	Collision Date 20150509	Time 2243	Day SAT															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20151014																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With	FIXED OBJ	Lighting DARK - ST	Ped Action	Cntrl Dev	Loc Type	Ramp/Int																	
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	77	M		HNBD	PROC ST	N	-	0000	TOYOT	1999	-	F	-	G	M									
Primary Rd MARINA AV		Distance (ft) 0	Direction	Secondary Rd 5TH ST		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist SOUTH	Beat 001	Type 0	CalTrans	Badge 304	Collision Date 20150824	Time 1848	Day MON															
Primary Collision Factor NOT STATED		Violation	Collision Type AUTO/PED	Severity INJURY	#Killed 0	#Injured 2	Tow Away? N	Process Date 20151124																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With	PED	Lighting DUSK/DAWN	Ped Action X-WLK AT	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int																
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	50	-		HNBD	PROC ST	W	B	0101	FORD	2006	-	3	A	21950	K	M	G							
2	PED	63	F		HNBD	PROC ST	S	N	6000	-	-	-	3	-	-	-	PED	SEVERE	63	F	0	0	P	-	
3	PED	74	F		HNBD	PROC ST	S	N	6000	-	-	-	3	-	-	-	PED	SEVERE	74	F	0	0	P	-	
Primary Rd MARINA DR		Distance (ft) 500	Direction W	Secondary Rd 1ST ST		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist Q	Beat	Type 0	CalTrans	Badge 257	Collision Date 20150726	Time 1925	Day SUN															
Primary Collision Factor DRVR ALC DRG		Violation 23152A	Collision Type HEAD-ON	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20151218																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With	FIXED OBJ	Lighting DUSK/DAWN	Ped Action	Cntrl Dev	FNCTNG	Loc Type	Ramp/Int																
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	31	F		HBD-UI	PROC ST	W	A	0100	NISSA	2014	-	1	A	22350	-	M	G							
Primary Rd MARINA DR		Distance (ft) 0	Direction	Secondary Rd 5TH ST		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 002	Type 0	CalTrans	Badge 362	Collision Date 20150509	Time 1323	Day SAT															
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20151014																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With	PKD MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev	FNCTNG	Loc Type	Ramp/Int																
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	79	F		HNBD	UNS TURN	-	A	0700	HONDA	2000	-	3	N	-	N	G								
2	PRKD	998	-		HNBD	PARKED	N	A	0100	NISSA	2013	-	3	N	-	-	-								
3	PRKD	998	-		HNBD	PARKED	N	A	0100	TOYOT	2013	-	3	N	-	-	-								

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd MARINA DR		Distance (ft) 0	Direction	Secondary Rd CARVEL AV		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 1	Beat 007	Type 0	CalTrans	Badge 300	Collision Date 20150721	Time 1223	Day TUE																
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160809																		
Weather1 CLEAR		Weather2		Rdwy Surface		Rdwy Cond1 NO UNUSL CND		Rdwy Cond2		Spec Cond 0																
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT		Ped Action		Cntrl Dev NT FNCT		Loc Type		Ramp/Int														
Party Info												Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	23	F	O			U-TURN	S	-	0000	MAZDA	2011	-	-	N	-	G	-								
2	DRVR	36	F	H			PROC ST	W	-	0000	JEEP	2014	-	-	N	-	G	-								
Primary Rd NORTHGATE RD		Distance (ft) 20	Direction W	Secondary Rd NORTHGATE		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 1	Beat 007	Type 0	CalTrans	Badge 362	Collision Date 20150123	Time 1642	Day FRI																
Primary Collision Factor WRONG SIDE		Violation 21650	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20150801																		
Weather1 CLEAR		Weather2		Rdwy Surface DRY		Rdwy Cond1 NO UNUSL CND		Rdwy Cond2		Spec Cond 0																
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT		Ped Action		Cntrl Dev NT PRS/FCTR		Loc Type		Ramp/Int														
Party Info												Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	57	F	W	HNBD		PASSING	E	A	0000	TOYOT	1994	-	-	N	-	G	-								
2	DRVR	68	F	W	HNBD		PROC ST	E	A	0000	TOYOT	2005	-	-	N	-	G	-								
Primary Rd NORTHGATE RD		Distance (ft) 185	Direction W	Secondary Rd SEAL BEACH BL		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 1	Beat 007	Type 0	CalTrans	Badge 361	Collision Date 20150316	Time 1149	Day MON																
Primary Collision Factor R-O-W AUTO		Violation 21804A	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20150918																		
Weather1 CLEAR		Weather2		Rdwy Surface DRY		Rdwy Cond1 NO UNUSL CND		Rdwy Cond2		Spec Cond 0																
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT		Ped Action		Cntrl Dev NT PRS/FCTR		Loc Type		Ramp/Int														
Party Info												Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	83	F	W			ENT TRAF	S	A	0000	TOYOT	2007	-	-	-	-	G	-								
2	DRVR	35	M	A			PROC ST	S	A	0000	KIA	2013	-	-	-	-	G	-								
Primary Rd OCEAN AV		Distance (ft) 0	Direction	Secondary Rd 8TH ST		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 1	Beat 007	Type 0	CalTrans	Badge 174	Collision Date 20150816	Time 1555	Day SUN																
Primary Collision Factor R-O-W AUTO		Violation 21802A	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160104																		
Weather1 CLEAR		Weather2		Rdwy Surface DRY		Rdwy Cond1 NO UNUSL CND		Rdwy Cond2		Spec Cond 0																
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT		Ped Action		Cntrl Dev FNCTNG		Loc Type		Ramp/Int														
Party Info												Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	26	F	H	HNBD		PROC ST	S	A	0000	NISSA	2012	-	-	A	12500	-	G	-							
2	DRVR	49	F	W	HNBD		RGT TURN	E	A	0000	JEEP	2014	-	-	N	-	G	-								
Primary Rd OCEAN AV		Distance (ft) 0	Direction	Secondary Rd MAIN ST		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 1	Beat 001	Type 0	CalTrans	Badge 362	Collision Date 20150606	Time 1153	Day SAT																
Primary Collision Factor UNKNOWN		Violation 22517A	Collision Type SIDESWIPE	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20151110																		
Weather1 CLEAR		Weather2		Rdwy Surface DRY		Rdwy Cond1 NO UNUSL CND		Rdwy Cond2		Spec Cond 0																
Hit and Run		Motor Vehicle Involved With BICYCLE		Lighting DAYLIGHT		Ped Action		Cntrl Dev FNCTNG		Loc Type		Ramp/Int														
Party Info												Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	72	M	W	HNBD		PARKED	-	A	0700	HYUND	2012	-	3	N	-	M	G								
2	BICY	66	M	H	HNBD		RGT TURN	W	L	0400	-	-	3	A	21201	-	-	-	BICY	COMP PN 66	M	1	1	M	G	

Primary Rd OCEAN AV Distance (ft) 0 Direction Secondary Rd MAIN ST NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																											
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 362 Collision Date 20150725 Time 1722 Day SAT																											
Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? N Process Date 20150919																											
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																											
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DUSK/DAWN Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																											
Party Info																											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	22	M	H		DRUG	PROC ST	-	D	2200	JEEP	1998	-	3	A	22350	-	M	G								
2	DRVR	38	F	W	HNBD		STOPPED	-	A	0700	HONDA	2008	-	3	N		-	N	G	DRVR	COMP PN	38	F	1	0	N	G
																			PASS		38	M	3	0	M	G	
																			PASS		9	M	4	0	M	Q	
Primary Rd OCEAN AV Distance (ft) 0 Direction Secondary Rd MAIN ST NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																											
City Seal Beach County Orange Population 4 Rpt Dist 2 Beat 007 Type 0 CalTrans Badge 174 Collision Date 20151209 Time 1626 Day WED																											
Primary Collision Factor UNKNOWN Violation Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160225																											
Weather1 FOG Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																											
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DUSK/DAWN Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																											
Party Info																											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1	DRVR	71	M	A	HNBD		RGT TURN	W	A	0000	LEXUS	2005	-	-	N		-	G	-	PASS		64	F	3	0	G	-
2	DRVR	63	M	W	HNBD		PROC ST	W	A	0000	TOYOT	2010	-	-	N		-	G	-								
Primary Rd PACIFIC COAST Distance (ft) 0 Direction Secondary Rd 10TH ST NCIC 3020 State Hwy? Y Route 1 Postmile Prefix - Postmile 33.141 Side of Hwy S																											
City Seal Beach County Orange Population 4 Rpt Dist 10 Beat Type 0 CalTrans 12 Badge 155 Collision Date 20150619 Time 0731 Day FRI																											
Primary Collision Factor R-O-W AUTO Violation 21802A Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20161202																											
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																											
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type I Ramp/Int 5																											
Party Info																											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	62	F	W	HNBD		ENT TRAF	S	A	0100	FORD	2009	-	3	-	-	-	M	C								
2	DRVR	39	F		HNBD		PROC ST	E	A	0100	NISSA	2015	-	3	N		-	M	C								
Primary Rd PACIFIC COAST Distance (ft) 0 Direction Secondary Rd 12TH ST NCIC 3020 State Hwy? Y Route 1 Postmile Prefix - Postmile 33.01 Side of Hwy N																											
City Seal Beach County Orange Population 4 Rpt Dist Beat 002 Type 0 CalTrans 12 Badge 362 Collision Date 20150530 Time 0723 Day SAT																											
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20161109																											
Weather1 CLOUDY Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																											
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DUSK/DAWN Ped Action Cntrl Dev FNCTNG Loc Type H Ramp/Int -																											
Party Info																											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	18	M	W	HNBD		PROC ST	-	A	0100	HONDA	2000	-	3	N		-	M	G								
2	DRVR	33	M	W	HNBD		PROC ST	-	C	0200	HARLE	2011	-	3	N		-	P	W	DRVR	OTH VIS	33	M	1	1	P	W
Primary Rd PACIFIC COAST Distance (ft) 118 Direction N Secondary Rd 1ST ST NCIC 3020 State Hwy? Y Route 1 Postmile Prefix - Postmile 33.64 Side of Hwy N																											
City Seal Beach County Orange Population 4 Rpt Dist Beat 002 Type 0 CalTrans 12 Badge 362 Collision Date 20150515 Time 1247 Day FRI																											
Primary Collision Factor IMPROP TURN Violation 22107 Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161202																											
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																											
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type H Ramp/Int -																											
Party Info																											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	26	M	W	HNBD		LFT TURN	N	A	0100	LINCO	2002	-	3	N		-	M	G								

Primary Rd	PACIFIC COAST	Distance (ft)	0	Direction		Secondary Rd	24TH ST	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	31.46	Side of Hwy	S
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat 002	Type	0	CalTrans	12	Badge	352	Collision Date	20150514	Time	1649	Day	THU
Primary Collision Factor	DRVR ALC DRG	Violation	23152A	Collision Type	HIT OBJECT	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20161202				
Weather1	RAINING	Weather2		Rdwy Surface	WET	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run	MSDMNR	Motor Vehicle Involved With	FIXED OBJ	Lighting	DAYLIGHT	Ped Action		Cntrl Dev	FUNCTNG	Loc Type	H	Ramp/Int	-						

Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	34	M	W	HBD-UI		PROC ST	-	A	0100	ACURA	2003	-	3	A	22107	-	M	G							

Primary Rd	PACIFIC COAST	Distance (ft)	73	Direction	S	Secondary Rd	5TH ST	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	33.41	Side of Hwy	N
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	12	Badge	257	Collision Date	20150330	Time	2144	Day	MON
Primary Collision Factor	UNSAFE SPEED	Violation	22350	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160922				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DARK - ST	Ped Action		Cntrl Dev	FUNCTNG	Loc Type	H	Ramp/Int	-						

Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	20	M	H	HNBD		PROC ST	W	A	0100	BMW	1999	-	3	N	-	M	G								
2	DRVR	19	F	H	HNBD		STOPPED	W	A	0100	TOYOT	2015	-	3	N	-	M	G	PASS		19	F	3	0	M	G
																			PASS		18	M	4	0	P	G
																			PASS		16	M	5	0	P	G
																			PASS		18	M	6	0	P	G
3	DRVR	76	F	W	HNBD		STOPPED	W	A	0100	TOYOT	2013	-	3	N	-	M	G								

Primary Rd	PACIFIC COAST	Distance (ft)	120	Direction	W	Secondary Rd	ANDERSON ST	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	31.13	Side of Hwy	S
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat 007	Type	0	CalTrans	12	Badge	363	Collision Date	20150101	Time	2316	Day	THU
Primary Collision Factor	DRVR ALC DRG	Violation	23152A	Collision Type	OVERTURNED	Severity	PDO	#Killed	0	#Injured	0	Tow Away?		Process Date	20160922				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	FIXED OBJ	Lighting	DARK - ST	Ped Action		Cntrl Dev	NT PRS/FCTR	Loc Type	H	Ramp/Int	-						

Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	47	M	H	HBD-UI		PROC ST	E	A	0000	DODGE	2001	-	-	-	-	G	M								

Primary Rd	PACIFIC COAST	Distance (ft)	0	Direction		Secondary Rd	ANDERSON ST	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	31.1	Side of Hwy	N
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat 007	Type	0	CalTrans	12	Badge	363	Collision Date	20150227	Time	2252	Day	FRI
Primary Collision Factor	UNSAFE SPEED	Violation	22350	Collision Type	OTHER	Severity	INJURY	#Killed	0	#Injured	1	Tow Away?	Y	Process Date	20161025				
Weather1	CLOUDY	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	NON-CLSN	Lighting	DARK - ST	Ped Action		Cntrl Dev	FUNCTNG	Loc Type	H	Ramp/Int	-						

Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	25	M	A	HNBD		PROC ST	N	-	0000	SUZUK	2006	-	3	M	-	M	W	PASS	OTH VIS	20	F	9	1	-	Y

Primary Rd	PACIFIC COAST	Distance (ft)	335	Direction	W	Secondary Rd	ANDERSON ST	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	31.17	Side of Hwy	N
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat 007	Type	0	CalTrans	12	Badge	363	Collision Date	20150418	Time	2132	Day	SAT
Primary Collision Factor	R-O-W AUTO	Violation	21804A	Collision Type	BROADSIDE	Severity	INJURY	#Killed	0	#Injured	1	Tow Away?		Process Date	20161109				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DARK - ST	Ped Action		Cntrl Dev	NT PRS/FCTR	Loc Type	H	Ramp/Int	-						

Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	33	M	B	HNBD		ENT TRAF	N	C	0000	KAWA	2012	-	-	N	-	W	-	DRVR	OTH VIS	32	M	1	1	W	-

PASS	20	F	6	0	M	C
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Primary Rd PACIFIC COAST Distance (ft) 145 Direction E Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? Y Route 1 Postmile Prefix - Postmile 3.69 Side of Hwy N
 City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans 12 Badge 191 Collision Date 20150422 Time 0811 Day WED
 Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20161109
 Weather1 CLOUDY Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0
 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type H Ramp/Int -

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	45	M	W	HNBD		PROC ST	W	A	0000	TOYOT	1997	-	A	21750	-	L	-	DRVR	OTH VIS	45	M	1	3	L	-
2	DRVR	39	F	O	HNBD		STOPPED	W	D	0000	TOYOT	2004	-	-	-	-	G	-								

Primary Rd PACIFIC COAST Distance (ft) 82 Direction W Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? Y Route 1 Postmile Prefix - Postmile 32.7 Side of Hwy S
 City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans 12 Badge 362 Collision Date 20150510 Time 1323 Day SUN
 Primary Collision Factor DRVR ALC|DRG Violation 23152A Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161202
 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0
 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type H Ramp/Int -

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	36	F	W	HBD-UI		PROC ST	S	A	0100	MAZDA	2014	-	3	A	22350	-	L	G							
2	DRVR	24	M	H	HNBD		STOPPED	-	D	2200	DODGE	2004	-	3	N	-	M	G	PASS		18	F	3	0	M	G
																			PASS		0	M	5	0	P	Q

Primary Rd PCH Distance (ft) 30 Direction E Secondary Rd 5TH ST NCIC 3020 State Hwy? Y Route 1 Postmile Prefix - Postmile 33.41 Side of Hwy S
 City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans 12 Badge 152 Collision Date 20150423 Time 1817 Day THU
 Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20161109
 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0
 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type H Ramp/Int -

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	58	M	W	HNBD		PROC ST	E	-	0000	NISSA	2002	-	3	F	-	M	G								
2	DRVR	61	M	W	HNBD		SLOWING	E	-	0000	TOYOT	2005	-	3	N	-	M	G	PASS	COMP PN	55	F	2	0	M	G

Primary Rd ROAD B Distance (ft) 215 Direction S Secondary Rd WESTMINSTER AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy
 City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans 12 Badge 362 Collision Date 20151106 Time 1137 Day FRI
 Primary Collision Factor WRONG SIDE Violation 21650 Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160210
 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0
 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int -

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	64	M	W	HNBD		RGT TURN	-	A	0100	HYUND	2014	-	3	M	-	M	G								
2	DRVR	26	M	A	HNBD		PROC ST	-	A	0100	HONDA	2012	-	3	N	-	M	G								

Primary Rd RT 1 Distance (ft) 40 Direction E Secondary Rd 16TH ST NCIC 3020 State Hwy? Y Route 1 Postmile Prefix - Postmile 32.81 Side of Hwy S
 City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans 12 Badge 361 Collision Date 20150414 Time 0902 Day TUE
 Primary Collision Factor IMPROP TURN Violation 22107 Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20161202
 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0
 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type H Ramp/Int -

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	80	F	W		PHYS	PROC ST	E	A	0000	TOYOT	2004	-	-	-	-	G	-								
2	PRKD	998	-				PARKED	-	A	0000	FORD	2009	-	-	-	-	-	-								
3	PRKD	998	-				PARKED	-	A	0000	CADIL	2007	-	-	-	-	-	-								

Primary Rd	RT 1	Distance (ft)	620	Direction	N	Secondary Rd	1ST ST	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	32.74	Side of Hwy	N	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	ROVER	Type	0	CalTrans	12	Badge	178	Collision Date	20150218	Time	0736	Day	WED
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END		Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160922			
Weather1	CLEAR		Weather2	Rdwy Surface		DRY		Rdwy Cond1	NO UNUSL CND		Rdwy Cond2	Spec Cond		0						
Hit and Run	Motor Vehicle Involved With				OTHER MV		Lighting	DAYLIGHT		Ped Action	Cntrl Dev		NT PRS/FCTR		Loc Type	H		Ramp/Int		-

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	43	M	W	HNBD		PROC ST	N	A	0000	LEXUS	2006	-	-	M	-	G	-								
2	DRVR	39	M	H	HNBD		STOPPED	N	D	0000	CHEVR	1996	-	-	N	-	G	-								

Primary Rd	RT 1	Distance (ft)	25	Direction	E	Secondary Rd	1ST ST	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	3.36	Side of Hwy	N	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	12	Badge	361	Collision Date	20150316	Time	1431	Day	MON	
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END		Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160922			
Weather1	CLEAR		Weather2	Rdwy Surface		DRY		Rdwy Cond1	NO UNUSL CND		Rdwy Cond2	Spec Cond		0						
Hit and Run	Motor Vehicle Involved With				OTHER MV		Lighting	DAYLIGHT		Ped Action	Cntrl Dev		FNCTNG		Loc Type	H		Ramp/Int		-

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	60	M	W			PROC ST	W	A	0000	TOYOT	2000	-	-	-	-	G	-								
2	DRVR	19	F	O			STOPPED	W	A	0000	HONDA	2008	-	-	-	-	G	-								

Primary Rd	RT 1	Distance (ft)	45	Direction	W	Secondary Rd	MAIN ST	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	33.2	Side of Hwy	S		
City	Seal Beach	County	Orange	Population	4	Rpt Dist	2	Beat	00S	Type	0	CalTrans	12	Badge	313	Collision Date	20150112	Time	1141	Day	MON
Primary Collision Factor	DRVR ALG DRG		Violation	23152E	Collision Type	REAR END		Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20160922				
Weather1	CLEAR		Weather2	Rdwy Surface		DRY		Rdwy Cond1	NO UNUSL CND		Rdwy Cond2	Spec Cond		0							
Hit and Run	Motor Vehicle Involved With				OTHER MV		Lighting	DAYLIGHT		Ped Action	Cntrl Dev		FNCTNG		Loc Type	H		Ramp/Int		-	

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	20	M	W		DRUG	PROC ST	E	F	0000	FORD	2000	-	-	A	22350	-	G	-							
2	DRVR	51	M	W	HNBD		STOPPED	E	A	0000	FORD	1991	-	-	N	-	G	-								

Primary Rd	RT 1	Distance (ft)	345	Direction	E	Secondary Rd	MARINER DR	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	31.37	Side of Hwy	S	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	12	Badge	361	Collision Date	20150223	Time	1048	Day	MON	
Primary Collision Factor	IMPROP TURN		Violation	22107	Collision Type	SIDESWIPE		Severity	INJURY	#Killed	0	#Injured	1	Tow Away?	Y	Process Date	20161025			
Weather1	CLEAR		Weather2	Rdwy Surface		DRY		Rdwy Cond1	NO UNUSL CND		Rdwy Cond2	Spec Cond		0						
Hit and Run	Motor Vehicle Involved With				OTHER MV		Lighting	DAYLIGHT		Ped Action	Cntrl Dev		NT PRS/FCTR		Loc Type	H		Ramp/Int		-

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	90	M	W	HNBD		LFT TURN	S	A	0000	HONDA	-	-	-	-	-	G	-	DRVR	COMP PN	90	M	1	3	G	-
																			PASS		65	M	3	3	G	-
																			PASS		66	F	4	3	G	-
2	DRVR	53	M	H	HNBD		PROC ST	W	A	0000	JEEP	2014	-	-	-	-	G	-								
3	DRVR	66	M	W	HNBD		PROC ST	E	A	0000	TOYOT	1998	-	-	-	-	G	-								
4	DRVR	32	M	W	HNBD		STOPPED	E	A	0000	FORD	1998	-	-	-	-	G	-								

Primary Rd	RT 1	Distance (ft)	471	Direction	W	Secondary Rd	MARINER DR	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	33.36	Side of Hwy	N	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	12	Badge	300	Collision Date	20150629	Time	0834	Day	MON	
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END		Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20161202			
Weather1	CLEAR		Weather2	Rdwy Surface		DRY		Rdwy Cond1	NO UNUSL CND		Rdwy Cond2	Spec Cond		0						
Hit and Run	Motor Vehicle Involved With				NON-CLSN		Lighting	DAYLIGHT		Ped Action	Cntrl Dev		NT PRS/FCTR		Loc Type	H		Ramp/Int		-

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	23	F		HNBD		SLOWING	N	-	0000	VOLKS	2012	-	-	N	-	G	-								

Include State Highways cases

Report Run On: 12/12/2016

2	DRVR	54	M		HNBD	PROC ST	N	-	0000	TOYOT 2013	-	-	N	-	G	-
3	DRVR	22	F		HNBD	PROC ST	N	-	0000	CHEVR 2003	-	-	A	-	G	-

Primary Rd	RT 1	Distance (ft)	2309	Direction	E	Secondary Rd	SEAL BEACH BL	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	32.28	Side of Hwy	S
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	12	Badge	314	Collision Date	20150207	Time	1816	Day	SAT
Primary Collision Factor	NOT DRIVER		Violation			Collision Type	HEAD-ON	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20160922		
Weather1	CLEAR	Weather2			Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2			Spec Cond	0						
Hit and Run	Motor Vehicle Involved With OTHER OBJ					Lighting	DARK - ST	Ped Action			Cntrl Dev	NT PRS/FCTR	Loc Type	H	Ramp/Int				

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1	DRVR	28	M	O	HNBD	PROC ST	E	A	0000	TOYOT	2010	-	-	N	-	G	-	PASS		7	M	6	0	G	-
																		PASS		3	M	4	0	G	-

Primary Rd	RT 1	Distance (ft)	2309	Direction	E	Secondary Rd	SEAL BEACH BL	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	32.28	Side of Hwy	S
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	12	Badge	314	Collision Date	20150207	Time	1817	Day	SAT
Primary Collision Factor	NOT DRIVER		Violation			Collision Type	HEAD-ON	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20160922		
Weather1	CLEAR	Weather2			Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2			Spec Cond	0						
Hit and Run	Motor Vehicle Involved With OTHER OBJ					Lighting	DARK - ST	Ped Action			Cntrl Dev	NT PRS/FCTR	Loc Type	H	Ramp/Int				

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1	DRVR	36	M	H	HNBD	PROC ST	E	A	0000	BMW	2000	-	-	N	-	G	-								

Primary Rd	RT 1	Distance (ft)	243	Direction	E	Secondary Rd	SEAL BEACH BL	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	32.67	Side of Hwy	N
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	12	Badge	313	Collision Date	20150314	Time	1823	Day	SAT
Primary Collision Factor	UNSAFE SPEED		Violation	22350		Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160922		
Weather1	CLEAR	Weather2			Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2			Spec Cond	0						
Hit and Run	Motor Vehicle Involved With OTHER MV					Lighting	DAYLIGHT	Ped Action			Cntrl Dev	FNCTNG	Loc Type	H	Ramp/Int				

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	29	F	W	HNBD	PROC ST	W	A	0000	HYUND	2012	-	-	N	-	G	-								
2	DRVR	17	M	W	HNBD	STOPPED	W	D	0000	TOYOT	2013	-	-	N	-	G	-								

Primary Rd	RT 1	Distance (ft)	0	Direction		Secondary Rd	SEAL BEACH BL	NCIC	3020	State Hwy?	Y	Route	1	Postmile Prefix	-	Postmile	32.73	Side of Hwy	S
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	12	Badge	178	Collision Date	20150623	Time	1732	Day	TUE
Primary Collision Factor	UNSAFE SPEED		Violation	22350		Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20161202		
Weather1	CLEAR	Weather2			Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2			Spec Cond	0						
Hit and Run	Motor Vehicle Involved With OTHER MV					Lighting	DAYLIGHT	Ped Action			Cntrl Dev	FNCTNG	Loc Type	H	Ramp/Int				

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	19	F	W	HNBD	PROC ST	S	-	0000	KIA	2013	-	-	N	-	G	-								
2	DRVR	22	M	O	HNBD	STOPPED	S	-	0000	SCION	2006	-	-	N	-	G	-	PASS		27	F	3	0	G	-
3	DRVR	32	M	W	HNBD	PROC ST	S	-	0000	TOYOT	2013	-	-	N	-	G	-								

Primary Rd	RT 405	Distance (ft)	200	Direction	S	Secondary Rd	SEAL BEACH BL	NCIC	3020	State Hwy?	Y	Route	405	Postmile Prefix	-	Postmile	22.6	Side of Hwy	N
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	12	Badge	19290	Collision Date	20150606	Time	1823	Day	SAT
Primary Collision Factor	UNSAFE SPEED		Violation	22350		Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20161202		
Weather1	CLEAR	Weather2			Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2			Spec Cond	0						
Hit and Run	Motor Vehicle Involved With OTHER MV					Lighting	DAYLIGHT	Ped Action			Cntrl Dev	NT PRS/FCTR	Loc Type	H	Ramp/Int				

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	18	M	W	HNBD	PROC ST	N	D	2200	FORD	2012	-	3	N	-	M	G	PASS		17	M	3	0	M	G
																		PASS		16	F	4	0	M	G
																		PASS		17	F	6	0	M	G

Include State Highways cases

Report Run On: 12/12/2016

2	DRVR	50	M	W	HNBD	STOPPED	N	A	0100	TOYOT 2014	-	3	N	-	M	G	PASS	45	F	3	0	M	G
3	DRVR	60	M	W	HNBD	STOPPED	N	A	0700	TOYOT 1997	-	3	N	-	M	G	PASS	52	F	3	0	M	G

Primary Rd		SAINT ANDREWS		Distance (ft)	0	Direction		Secondary Rd		SEAL BEACH BL		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy							
City		Seal Beach		County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	Badge	298	Collision Date	20150809	Time	1000	Day SUN							
Primary Collision Factor		STOP SGN SIG		Violation	21453A	Collision Type	BROADSIDE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160104									
Weather1		CLOUDY		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0													
Hit and Run				Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev	FNCTNG	Loc Type		Ramp/Int												
Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	43	M	W	HNBD		PROC ST	S	D	0000	FORD	2008	-	N	-	G	-									
2	DRVR	77	M	W	HNBD		LFT TURN	N	A	0000	NISSA	2010	-	N	-	G	-									

Primary Rd		SEAL BEACH		Distance (ft)	150	Direction	N	Secondary Rd		BOLSA		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy							
City		Seal Beach		County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	Badge	152	Collision Date	20150422	Time	1746	Day WED							
Primary Collision Factor		UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	2	Tow Away?	Y	Process Date	20151002									
Weather1		CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0													
Hit and Run				Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev	FNCTNG	Loc Type		Ramp/Int												
Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	47	F	H	HNBD		PROC ST	S	A	0100	BMW	2012	-	3	F	-	L	G	DRVR	COMP PN	47	-	1	0	M	G
2	DRVR	19	F	W	HNBD		STOPPED	S	A	0100	HONDA	2002	-	3	N	-	M	G	PASS	OTH VIS	15	M	2	0	L	G
3	DRVR	51	M	W	HNBD		STOPPED	S	A	0100	NISSA	2005	-	3	N	-	M	G								
4	DRVR	55	M	W	HNBD		STOPPED	S	A	0100	DODGE	2006	-	3	N	-	M	G								

Primary Rd		SEAL BEACH		Distance (ft)	120	Direction	N	Secondary Rd		NORTH GATE		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy							
City		Seal Beach		County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	Badge	152	Collision Date	20151117	Time	0841	Day TUE							
Primary Collision Factor		UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	1	Tow Away?	Y	Process Date	20160618									
Weather1		CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0													
Hit and Run				Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev	FNCTNG	Loc Type		Ramp/Int												
Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	91	F	H	HNBD		SLOWING	S	A	0100	BUICK	1998	-	3	F	-	M	G								
2	DRVR	71	F	H	HNBD		STOPPED	S	A	0100	NISSA	2011	-	3	N	-	M	G	DRVR	COMP PN	71	F	1	0	M	G
3	DRVR	48	F	H	HNBD		STOPPED	S	A	0100	DODGE	2008	-	3	N	-	M	G								
4	DRVR	54	F	H	HNBD		STOPPED	S	-	0000	NISSA	2012	-	3	N	-	M	G								

Primary Rd		SEAL BEACH		Distance (ft)	0	Direction		Secondary Rd		RT 405		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy							
City		Seal Beach		County	Orange	Population	4	Rpt Dist	10	Beat	Type	0	CalTrans	Badge	155	Collision Date	20150717	Time	1257	Day FRI						
Primary Collision Factor		UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20151217									
Weather1		CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0													
Hit and Run				Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev	NT PRS/FCTR	Loc Type		Ramp/Int												
Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	19	F	H	HNBD		PROC ST	N	A	0100	HONDA	2005	-	3	A	22350	F	G	-							
2	DRVR	44	M	H	HNBD		PROC ST	-	-	0000	PORSC	2006	-	3	-	-	G	-								

Primary Rd SEAL BEACH BL	Distance (ft) 15	Direction S	Secondary Rd 1PLYMOUTH	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy	
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 361	Collision Date 20150303	Time 0830	Day TUE
Primary Collision Factor UNSAFE SPEED	Violation 22350	Collision Type HIT OBJECT	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20150921			
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0					
Hit and Run	Motor Vehicle Involved With OTHER MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int				

Party Info											Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	20	M	W	HNBD		SLOWING	N	-	0000	HONDA	2008	A	-	-	-	G	-	-	-	-	-	-	-	-
2	DRVR	69	F	A	HNBD		STOPPED	-	-	0000	BMW	2014	A	-	-	-	G	-	-	-	-	-	-	-	-

Primary Rd SEAL BEACH BL	Distance (ft) 109	Direction S	Secondary Rd ADOLFO LOPEZ	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy	
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat SOUTH	Type 0	CalTrans	Badge 365	Collision Date 20151030	Time 2159	Day FRI
Primary Collision Factor UNSAFE SPEED	Violation 22350	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20151210			
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0					
Hit and Run	Motor Vehicle Involved With OTHER MV	Lighting DARK - ST	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int				

Party Info											Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	44	M	H	HNBD		PROC ST	S	D	0000	NISSA	2012	-	-	F	-	G	-	DRVR	COMP PN	44	M	1	0	G	-
2	DRVR	53	M	H	HNBD		STOPPED	S	I	0000	OTHER	2001	-	-	N	-	G	-	PASS		57	M	9	0	-	-
																			PASS		998	-	9	3	-	-

Primary Rd SEAL BEACH BL	Distance (ft) 0	Direction	Secondary Rd APOLLO	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy	
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 002	Type 0	CalTrans	Badge 362	Collision Date 20150510	Time 1627	Day SUN
Primary Collision Factor LANE CHANGE	Violation 21658A	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20151022			
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0					
Hit and Run	Motor Vehicle Involved With OTHER MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int				

Party Info											Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	50	M	W	HNBD		CHANG LN	S	A	0100	VOLKS	1996	-	3	N	-	M	G	PASS		18	F	3	0	M	G
2	DRVR	28	M	W	HNBD		PROC ST	-	A	0100	HONDA	2013	-	3	N	-	M	G	PASS		18	F	4	0	M	G
																			PASS		18	M	6	0	M	G

Primary Rd SEAL BEACH BL	Distance (ft) 20	Direction N	Secondary Rd BOLSA	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy	
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 00S	Type 0	CalTrans	Badge 152	Collision Date 20150827	Time 0922	Day THU
Primary Collision Factor IMPROP TURN	Violation 22107	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20150917			
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 CONS ZONE	Rdwy Cond2 REDUCED RD	Spec Cond 0					
Hit and Run	Motor Vehicle Involved With BICYCLE	Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int				

Party Info											Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	63	F	H	HNBD		RGT TURN	S	A	0000	NISSA	1997	-	-	F	-	G	-	-	-	-	-	-	-	-	
2	BICY	63	M	W	HNBD		PROC ST	S	L	0000	-	-	-	N	-	-	-	-	BICY	COMP PN	63	M	1	1	W	-

Primary Rd SEAL BEACH BL	Distance (ft) 35	Direction S	Secondary Rd BOLSA AV	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy	
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat ROVER	Type 0	CalTrans	Badge 178	Collision Date 20150203	Time 1926	Day TUE
Primary Collision Factor UNSAFE SPEED	Violation 22350	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 2	Tow Away? Y	Process Date 20150316			
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0					
Hit and Run	Motor Vehicle Involved With OTHER MV	Lighting DARK - ST	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int				

Party Info											Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	70	M	W	HNBD		PROC ST	S	A	0000	PORSC	2006	-	-	N	-	G	-	-	-	-	-	-	-	-	
2	DRVR	68	F	W	HNBD		PROC ST	S	A	0000	TOYOT	2004	-	-	N	-	G	-	DRVR	COMP PN	68	F	1	0	-	G

PASS	COMP PN 76	F	3	0	-	G
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Primary Rd	SEAL BEACH BL	Distance (ft)	0	Direction		Secondary Rd	BRADBURY	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat 001	Type	0	CalTrans		Badge	362	Collision Date	20151226	Time	1231	Day	SAT
Primary Collision Factor	STOP SGN SIG	Violation	21453A	Collision Type	BROADSIDE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160217				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	55	F	H	HNBD		PROC ST	-	A	0700	CHEVR	1997	-	3	N	-	L	M								
2	DRVR	22	F	O	HNBD		LFT TURN	-	D	2200	FORD	2008	-	3	N	-	M	G	PASS		23	M	3	0	M	G

Primary Rd	SEAL BEACH BL	Distance (ft)	75	Direction		Secondary Rd	ELECTRIC AV	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans		Badge	361	Collision Date	20150128	Time	0747	Day	WED
Primary Collision Factor	IMPROP TURN	Violation	22107	Collision Type	BROADSIDE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20150812				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		NT PRS/FCTR		Loc Type		Ramp/Int					

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	66	M	W			LFT TURN	S	A	0000	CHEVR	2015	-	-	-	-	G	-								
2	DRVR	48	M	W			PROC ST	N	A	0000	TOYOT	2013	-	-	-	-	G	-								

Primary Rd	SEAL BEACH BL	Distance (ft)	0	Direction		Secondary Rd	ELECTRIC AV	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans		Badge	246	Collision Date	20150713	Time	1852	Day	MON
Primary Collision Factor	UNKNOWN	Violation	22107	Collision Type	BROADSIDE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20151217				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		NT PRS/FCTR		Loc Type		Ramp/Int					

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1	DRVR	69	F	W	HNBD		PROC ST	S	A	0100	NISSA	1997	-	-	N	-	L	-								
2	DRVR	53	F	W	HNBD		LFT TURN	E	A	0700	LAND	2009	-	-	N	-	L	-								

Primary Rd	SEAL BEACH BL	Distance (ft)	0	Direction		Secondary Rd	LAMPSON AV	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans		Badge	368	Collision Date	20150111	Time	1950	Day	SUN
Primary Collision Factor	STOP SGN SIG	Violation	21453A	Collision Type	BROADSIDE	Severity	INJURY	#Killed	0	#Injured	2	Tow Away?	Y	Process Date	20150316				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DARK - ST	Ped Action		Cntrl Dev		FNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	52	M	A		PHYS	PROC ST	N	A	0000	FORD	2013	-	-	-	-	G	-	DRVR	COMP PN 52	M	1	0	G	-
2	DRVR	31	M	A	HNBD		LFT TURN	E	A	0000	HONDA	1995	-	-	-	-	G	-	PASS	COMP PN 28	F	3	0	G	-
																			PASS	5	F	5	0	Q	-

Primary Rd	SEAL BEACH BL	Distance (ft)	110	Direction	S	Secondary Rd	LAMPSON AV	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans		Badge	178	Collision Date	20151006	Time	1933	Day	TUE
Primary Collision Factor	UNSAFE SPEED	Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	2	Tow Away?	Y	Process Date	20160618				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	81	F	W	HNBD		PROC ST	N	-	0000	FORD	2011	-	-	N	-	L	-	DRVR	OTH VIS	81	F	1	0	G	L
2	DRVR	47	F	W	HNBD		STOPPED	N	-	0000	TOYOT	2004	-	-	N	-	G	-	DRVR	COMP PN 47	F	1	0	G	M	

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd MARLIN NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 00S Type 0 CalTrans Badge 152 Collision Date 20151104 Time 0720 Day WED																										
Primary Collision Factor IMPROP TURN Violation 22107 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160210																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	16	F	W	HNBD		PROC ST	-	A	0000	HONDA	2007	-	-	F	-	G	-								
2	DRVR	17	F	W	HNBD		STOPPED	-	A	0000	FORD	1994	-	-	N	-	G	-								
Primary Rd SEAL BEACH BL Distance (ft) 183 Direction N Secondary Rd NORTH GATE NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 006 Type 0 CalTrans Badge Collision Date 20150204 Time 2124 Day WED																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Process Date 20150826																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	57	F	A	HNBD		PROC ST	S	A	0000	LEXUS	2000	-	-	F	-	G	M								
2	DRVR	63	M	W	HNBD		STOPPED	S	D	0000	FORD	2004	-	-	N	-	G	M								
Primary Rd SEAL BEACH BL Distance (ft) 65 Direction N Secondary Rd NORTH GATE RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 257 Collision Date 20150804 Time 0002 Day TUE																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20151230																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	26	F	W	HNBD		PROC ST	S	A	0100	MERCE	1984	-	3	A	14601	-	M	G							
2	DRVR	24	F	W	HNBD		STOPPED	S	A	0700	JEEP	2014	-	3	N	-	M	G								
3	DRVR	45	F	H	HNBD		STOPPED	S	D	2200	TOYOT	2000	-	3	A	12500	N	M	G							
Primary Rd SEAL BEACH BL Distance (ft) 150 Direction N Secondary Rd NORTHGATE NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 00N Type 0 CalTrans Badge 152 Collision Date 20150117 Time 0625 Day SAT																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160428																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	36	M	H	HNBD		SLOWING	S	A	0100	FORD	2000	-	3	A	22350	F	M	G							
2	DRVR	46	M	O	HNBD		STOPPED	S	A	0100	CHRY	2013	-	3	N	-	M	G	DRVR	COMP PN 46	-	-	1	0	M	G
Primary Rd SEAL BEACH BL Distance (ft) 445 Direction W Secondary Rd NORTHGATE RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 361 Collision Date 20151027 Time 0811 Day TUE																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160203																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	42	F	W	HNBD		STOPPED	S	-	0000	HONDA	2011	A	-	-	-	G	-								
2	DRVR	62	F	O	HNBD		STOPPED	S	-	0000	TOYOT	2003	A	-	-	-	G	-								
3	DRVR	41	F	W	HNBD		STOPPED	-	-	0000	LEXUS	2006	A	-	-	-	G	-								
4	DRVR	42	F	W	HNBD		STOPPED	S	-	0000	FORD	2013	A	-	-	-	G	-								

Primary Rd	SEAL BEACH BL	Distance (ft)	667	Direction	N	Secondary Rd	NORTHGATE RD	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat 001	Type	0	CalTrans	Badge	362	Collision Date	20151129	Time	1354	Day	SUN	
Primary Collision Factor	LANE CHANGE	Violation	21658A	Collision Type	SIDESWIPE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20160209				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev	FUNCTNG	Loc Type		Ramp/Int							

Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	30	F	H	HNBD		CHANG LN	-	A	0700	JEEP	1998	-	3	N	-	M	G	PASS		33	M	3	0	M	G
2	DRVR	58	M	W	HNBD		PROC ST	S	A	0100	MERCE	2010	-	3	N	-	M	G								

Primary Rd	SEAL BEACH BL	Distance (ft)	359	Direction	S	Secondary Rd	OAK RANCH	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat NORTH	Type	0	CalTrans	Badge	313	Collision Date	20151129	Time	2038	Day	SUN	
Primary Collision Factor	IMPROP TURN	Violation	22107	Collision Type	SIDESWIPE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160922				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DARK - ST	Ped Action		Cntrl Dev	FUNCTNG	Loc Type		Ramp/Int							

Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	16	M	W	HNBD		PROC ST	N	A	0000	GMC	2003	-	-	N	-	G	-								
2	DRVR	17	M	W	HNBD		PROC ST	N	A	0000	LEXUS	1999	-	-	N	-	G	-								

Primary Rd	SEAL BEACH BL	Distance (ft)	500	Direction	E	Secondary Rd	OLD RANCH PKWY	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat 106	Type	0	CalTrans	Badge	251	Collision Date	20150113	Time	1408	Day	TUE	
Primary Collision Factor	UNSAFE SPEED	Violation	22350	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20150806				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev	NT PRS/FCTR	Loc Type		Ramp/Int							

Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	69	F	W	HNBD		CHANG LN	S	-	0000	LEXUS	2001	-	D	N	-	G	-								
2	DRVR	41	F	W	HNBD		SLOWING	E	-	0000	MERCE	2011	-	D	N	-	G	-								

Primary Rd	SEAL BEACH BL	Distance (ft)	145	Direction	S	Secondary Rd	OLD RANCH PKY	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat ROVER	Type	0	CalTrans	Badge	178	Collision Date	20150101	Time	2146	Day	THU	
Primary Collision Factor	IMPROP TURN	Violation	22107	Collision Type	BROADSIDE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160531				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DARK - ST	Ped Action		Cntrl Dev	FUNCTNG	Loc Type		Ramp/Int							

Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	22	M	H	HNBD		U-TURN	S	-	0000	TOYOT	2014	A	-	N	-	G	-								
2	DRVR	23	M	W	HNBD		PROC ST	S	-	0000	JEEP	2011	A	-	N	-	G	-								

Primary Rd	SEAL BEACH BL	Distance (ft)	0	Direction		Secondary Rd	OLD RANCH PKY	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	Type	0	CalTrans	Badge	361	Collision Date	20150826	Time	1154	Day	WED	
Primary Collision Factor	STOP SGN SIG	Violation	21453A	Collision Type	BROADSIDE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20160104				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	BICYCLE	Lighting	DAYLIGHT	Ped Action		Cntrl Dev	FUNCTNG	Loc Type		Ramp/Int							

Party Info													Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	BICY	27	M	A			PROC ST	N	L	0000	-	-	-	-	-	-	-	-								
2	DRVR	53	F	W		null		E	-	0000	TOYOT	2009	-	-	-	-	G	-								

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd SEAL BEACH BL Distance (ft) 53 Direction S Secondary Rd OLD RANCH PKY NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 001 Type 0 CalTrans Badge 362 Collision Date 20151113 Time 1504 Day FRI Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160209 Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info															Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	22	F	O	HNBD		PROC ST	-	A	0100	FORD	2008	-	3	N	-	M	G								
2	DRVR	69	F	W	HNBD		STOPPED	E	A	0100	HYUND	2015	-	2	N	-	M	G								
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd PACIFIC COAST NCIC 3020 State Hwy? Y Route 1 Postmile Prefix - Postmile 32.721 Side of Hwy N City Seal Beach County Orange Population 4 Rpt Dist Beat 002 Type 0 CalTrans 12 Badge 362 Collision Date 20150319 Time 0959 Day THU Primary Collision Factor LANE CHANGE Violation 21658A Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160922 Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type I Ramp/Int 5																										
Party Info															Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	77	F	W	HNBD		LFT TURN	-	A	0800	TOYOT	2004	-	3	N	-	M	G								
2	DRVR	32	M	W	HNBD		LFT TURN	-	A	0100	HONDA	1996	-	3	N	-	B	G								
Primary Rd SEAL BEACH BL Distance (ft) 40 Direction N Secondary Rd PACIFIC COAST NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 00S Type 0 CalTrans Badge 361 Collision Date 20150818 Time 1516 Day TUE Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160104 Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info															Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	55	M	W	HNBD		PROC ST	S	D	0000	DODGE	2004	-	-	-	-	G	-								
2	DRVR	54	M	W	HNBD		STOPPED	S	A	0000	BMW	2011	-	-	-	-	G	-								
Primary Rd SEAL BEACH BL Distance (ft) 385 Direction N Secondary Rd PCH NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 00S Type 0 CalTrans Badge 152 Collision Date 20150805 Time 0546 Day WED Primary Collision Factor IMPROP TURN Violation 22107 Collision Type HIT OBJECT Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160726 Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																										
Party Info															Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	57	M	W	IMP UNK	IMP UNK	PROC ST	N	A	0100	CHRY	1998	-	3	F	-	L	G	DRVR	OTH VIS	57	M	1	0	L	G
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd PCH NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 206 Type 0 CalTrans Badge 368 Collision Date 20151004 Time 0028 Day SUN Primary Collision Factor IMPROP TURN Violation 22107 Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160201 Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info															Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	44	M	W	IMP UNK	IMP UNK	PROC ST	S	A	0000	NISSA	2005	-	-	-	-	G	-								
2	DRVR	20	M	H	HNBD		PROC ST	S	A	0000	TOYOT	2010	-	-	-	-	G	-								

Include State Highways cases

Primary Rd	SEAL BEACH BL	Distance (ft)	10	Direction	N	Secondary Rd	PLYMOUTH	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy									
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	NORTH	Type	0	CalTrans	Badge	429	Collision Date	20151220	Time	1107	Day	SUN								
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	2	Tow Away?	Y	Process Date	20160126											
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0	Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int	

Party Info														Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	66	F	W	HNBD		PROC ST	S	A	0000	-	2014	-	-	G	-	G	-									
2	DRVR	51	F	A	HNBD		STOPPED	S	A	0000	BMW	2011	-	-	G	-	G	-	DRVR	COMP PN 51	F	1	3	-	-		
																			PASS	COMP PN 15	F	3	3	G	-		
3	DRVR	74	F	W	HNBD		STOPPED	S	A	0000	DODGE	2015	-	-	G	-	G	-									
4	DRVR	34	M	W	HNBD		STOPPED	S	A	0000	TOYOT	2013	-	-	G	-	G	-									
5	DRVR	58	F	W	HNBD		STOPPED	S	A	0000	BMW	2003	-	-	G	-	G	-									

Primary Rd	SEAL BEACH BL	Distance (ft)	105	Direction	S	Secondary Rd	RD C	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy									
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	241	Type	0	CalTrans	Badge	251	Collision Date	20151023	Time	1849	Day	FRI								
Primary Collision Factor	WRONG SIDE		Violation	21651A	Collision Type	HIT OBJECT	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20160201											
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0	Hit and Run		Motor Vehicle Involved With	FIXED OBJ	Lighting	DUSK/DAWN	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int	

Party Info														Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	67	M		HNBD		PROC ST	N	A	0000	GMC	2003	-	-	N	-	G	-									

Primary Rd	SEAL BEACH BL	Distance (ft)	42	Direction	N	Secondary Rd	ROSSMOOR	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy									
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	NORTH	Type	0	CalTrans	Badge	429	Collision Date	20151228	Time	1151	Day	MON								
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	1	Tow Away?	N	Process Date	20160322											
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0	Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int	

Party Info														Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	21	M	W	HNBD		PROC ST	S	A	0000	FORD	1998	-	-	G	-	G	-	DRVR	COMP PN 75	M	1	3	G	-		
2	DRVR	75	M	W	HNBD		STOPPED	S	A	0000	TOYOT	2006	-	-	G	-	G	-									

Primary Rd	SEAL BEACH BL	Distance (ft)	0	Direction		Secondary Rd	ROSSMOOR	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy									
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat	001	Type	0	CalTrans	Badge	362	Collision Date	20150514	Time	1446	Day	THU								
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20151014											
Weather1	RAINING	Weather2		Rdwy Surface	WET	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0	Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int	

Party Info														Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	84	F	W	HNBD		PROC ST	N	A	0100	KIA	2013	-	3	N	-	M	G									
2	DRVR	66	M	O	HNBD		STOPPED	-	A	0100	AUDI	2014	-	3	N	-	M	G									

Primary Rd	SEAL BEACH BL	Distance (ft)	212	Direction	N	Secondary Rd	ROSSMOOR	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy									
City	Seal Beach	County	Orange	Population	4	Rpt Dist	Beat		Type	0	CalTrans	Badge	362	Collision Date	20151101	Time	0710	Day	SUN								
Primary Collision Factor	IMPROP TURN		Violation	22107	Collision Type	SIDESWIPE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20160209											
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0	Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DUSK/DAWN	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int	

Party Info														Victim Info													
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	34	M	H	IMP UNK	IMP UNK	CHANG LN	N	A	0100	CHEVR	2014	-	3	N	-	M	G									
2	DRVR	43	F	H	HNBD		PROC ST	N	A	0100	VOLVO	2003	-	3	N	-	M	G									

Primary Rd	SEAL BEACH BL	Distance (ft)	35	Direction	S	Secondary Rd	ROSSMOOR	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat		Type	0	CalTrans		Badge	257	Collision Date	20151015	Time	1925 Day THU
Primary Collision Factor	LANE CHANGE	Violation	21658A	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160129				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DARK - ST	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	55	F	A	HNBD		CHANG LN	S	A	0100	LEXUS	2005	-	3	A	22350	N	M	G							
2	DRVR	47	M	A	HNBD		STOPPED	S	I	2000	NABOR	2001	-	3	N		M	C								

Primary Rd	SEAL BEACH BL	Distance (ft)	345	Direction	N	Secondary Rd	RT 1	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	6	Beat	007	Type	0	CalTrans		Badge	174	Collision Date	20150315	Time	1230 Day SUN
Primary Collision Factor	UNSAFE SPEED	Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	2	Tow Away?	Y	Process Date	20160428				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	33	M	W	HNBD		PROC ST	S	A	0000	TOYOT	2012	-	-	F		G	-	PASS	COMP PN 7	M	4	0	Q	-	
2	DRVR	49	F	W	HNBD		STOPPED	S	A	0000	MITSU	2013	-	-	N		G	-	PASS	COMP PN 9	F	6	0	G	-	
3	DRVR	51	M	W	HNBD		STOPPED	S	A	0000	VOLKS	2014	-	-	N		G	-	PASS		50	F	3	0	G	-

Primary Rd	SEAL BEACH BL	Distance (ft)	18	Direction	N	Secondary Rd	SAINT ANDREWS	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	PATRO	Type	0	CalTrans		Badge	314	Collision Date	20150928	Time	1923 Day MON
Primary Collision Factor	STOP SGN SIG	Violation	21453A	Collision Type	BROADSIDE	Severity	INJURY	#Killed	0	#Injured	1	Tow Away?	Y	Process Date	20151124				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DARK - ST	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	36	F	H			PROC ST	S	A	0000	NISSA	2015	-	-	N		G	-	PASS		25	F	6	0	G	-
2	DRVR	67	F	W			LFT TURN	W	A	0000	HONDA	2008	-	-	N		G	-	DRVR	COMP PN 67	F	1	0	G	-	

Primary Rd	SEAL BEACH BL	Distance (ft)	0	Direction		Secondary Rd	SAINT ANDREWS	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	001	Type	0	CalTrans		Badge	362	Collision Date	20151114	Time	1838 Day SAT
Primary Collision Factor	STOP SGN SIG	Violation	21453A	Collision Type	BROADSIDE	Severity	INJURY	#Killed	0	#Injured	2	Tow Away?	Y	Process Date	20160209				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DARK - ST	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	25	F	H	HNBD		PROC ST	S	A	0100	HONDA	2008	-	3	N		L	G	DRVR	COMP PN 25	F	1	0	L	G
2	DRVR	61	F	W	HNBD		LFT TURN	-	A	0100	TOYOT	2013	-	3	N		L	G	DRVR	COMP PN 61	F	1	0	L	G

Primary Rd	SEAL BEACH BL	Distance (ft)	0	Direction		Secondary Rd	SAINT ANDREWS	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	00N	Type	0	CalTrans		Badge	317	Collision Date	20150516	Time	1637 Day SAT
Primary Collision Factor	STOP SGN SIG	Violation	21453A	Collision Type	BROADSIDE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20151022				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	19	F	A	HNBD		PROC ST	S	A	0100	TOYOT	2010	-	3	N		M	G								
2	DRVR	83	F	W		null		W	A	0100	CHEVR	2013	-	-	-		M	G								

Primary Rd SEAL BEACH BL		Distance (ft) 0	Direction	Secondary Rd SAINT ANDREWS	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 11	Beat	Type 0	CalTrans	Badge 368	Collision Date 20151219	Time 2009	Day SAT															
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 3	Tow Away? Y	Process Date 20160121																	
Weather1 CLOUDY	Weather2	Rdwy Surface WET	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																			
Motor Vehicle Involved With OTHER MV		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																		
Party Info										Victim Info															
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	74	F	W	HNBD	PROC ST	N	A	0100	NISSA	2015	-	3	-	-	L	G	DRVR	COMP PN 74	F	1	0	L	G	
2	DRVR	63	M	W	HNBD	STOPPED	N	D	2200	TOYOT	2008	-	3	-	-	M	G	DRVR	COMP PN 63	M	1	0	M	G	
																		PASS	COMP PN 59	F	3	0	M	G	
Primary Rd SEAL BEACH BL		Distance (ft) 65	Direction S	Secondary Rd SAINT CLOUD DR	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 20	Beat	Type 0	CalTrans	Badge 313	Collision Date 20151114	Time 1742	Day SAT															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160209																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																			
Motor Vehicle Involved With OTHER MV		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																		
Party Info										Victim Info															
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	88	F	W	HNBD	PROC ST	N	A	0000	TOYOT	2008	-	-	-	-	G	-								
2	DRVR	61	F	W	HNBD	STOPPED	N	A	0000	FORD	2006	-	-	N	-	G	-	PASS		66	M	3	3	G	-
Primary Rd SEAL BEACH BL		Distance (ft) 104	Direction S	Secondary Rd ST CLOUD ST	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 304	Collision Date 20151208	Time 1450	Day TUE															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160225																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																			
Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																		
Party Info										Victim Info															
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	79	M	W	HNBD	PROC ST	N	A	0000	CHEVR	2014	-	-	F	-	G	-								
2	DRVR	52	F	W	HNBD	STOPPED	N	A	0000	SUBAR	2013	-	-	N	-	G	-								
3	DRVR	53	F		HNBD	STOPPED	N	A	0000	MERCE	2000	-	-	N	-	G	-								
Primary Rd SEAL BEACH BL		Distance (ft) 0	Direction	Secondary Rd TOWN CENTER	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 362	Collision Date 20151217	Time 1643	Day THU															
Primary Collision Factor IMPED TRAFFIC		Violation 22526A	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160225																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																			
Motor Vehicle Involved With OTHER MV		Lighting DUSK/DAWN	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																		
Party Info										Victim Info															
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	34	M	W	HNBD	PROC ST	E	A	0700	ACURA	2013	-	3	N	-	N	G	PASS		36	F	3	0	L	G
2	DRVR	35	M	W	HNBD	PROC ST	-	A	0100	CHEVR	2015	-	3	N	-	M	G								
Primary Rd SEAL BEACH BL		Distance (ft) 0	Direction	Secondary Rd TOWN CENTER DR	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 257	Collision Date 20150804	Time 2015	Day TUE															
Primary Collision Factor OTHER HAZ		Violation 21451A	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160104																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																			
Motor Vehicle Involved With OTHER MV		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																		
Party Info										Victim Info															
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	54	F	B	HNBD	PROC ST	-	A	0100	HONDA	2006	-	3	N	-	L	G								
2	DRVR	70	F	W	HNBD	PROC ST	E	A	0100	TOYOT	2010	-	3	N	-	L	G	PASS		71	M	3	0	L	G

Primary Rd SEAL BEACH BL		Distance (ft) 292	Direction N	Secondary Rd TOWN CENTER DR NCIC 3020		State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 001	Type 0	CalTrans	Badge 362	Collision Date 20150815	Time 1240	Day SAT															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20160104																	
Weather1 CLEAR		Weather2		Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																		
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info							Victim Info																		
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	18	F	W	HNBD	PROC ST	-	A	0100	SATUR	2002	-	3	N	-	L	G	DRVR	OTH VIS	18	F	1	0	L	G
																		PASS		20	M	6	0	M	G
																		PASS		18	M	3	0	P	G
2	DRVR	57	F	W	HNBD	STOPPED	S	A	0800	HONDA	2013	-	3	N	-	M	G	PASS		11	F	3	0	M	G
3	DRVR	19	F	O	HNBD	STOPPED	S	A	0700	LEXUS	2001	-	3	N	-	M	G								
Primary Rd SEAL BEACH BL		Distance (ft) 0	Direction	Secondary Rd TOWN CENTER DR NCIC 3020		State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 304	Collision Date 20151021	Time 1748	Day WED															
Primary Collision Factor NOT STATED		Violation	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20151120																	
Weather1 CLEAR		Weather2		Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																		
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DUSK/DAWN	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info							Victim Info																		
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1	DRVR	25	M	W	HNBD	PROC ST	S	-	0000	HYUND	2014	A	-	N	-	M	G								
2	DRVR	27	F	H	HNBD	LFT TURN	N	-	0000	FORD	2010	A	-	N	-	M	-								
Primary Rd SEAL BEACH BL		Distance (ft) 68	Direction S	Secondary Rd WESTMINSTER AV NCIC 3020		State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat SOUTH	Type 0	CalTrans	Badge 365	Collision Date 20150522	Time 1826	Day FRI															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type HIT OBJECT	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20150626																	
Weather1 CLEAR		Weather2		Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																		
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info							Victim Info																		
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	54	M	W	HNBD	RGT TURN	S	-	0000	HONDA	2001	-	2	N	-	G	-	DRVR	COMP PN	54	M	1	1	G	-
Primary Rd SEAL BEACH BL		Distance (ft) 446	Direction S	Secondary Rd WESTMINSTER AV NCIC 3020		State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat ROVER	Type 0	CalTrans	Badge 178	Collision Date 20150603	Time 1805	Day WED															
Primary Collision Factor LANE CHANGE		Violation 21658A	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20151110																	
Weather1 CLEAR		Weather2		Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																		
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int																
Party Info							Victim Info																		
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	28	F	W	HNBD	PASSING	N	-	0000	TOYOT	2007	-	-	N	-	G	-								
2	DRVR	41	F	W	HNBD	CHANG LN	N	-	0000	INFIN	2014	-	-	N	-	G	-	PASS		3	M	4	0	Q	-
																		PASS		6	M	6	0	Q	-
Primary Rd SEAL BEACH BL		Distance (ft) 190	Direction S	Secondary Rd WESTMINSTER AV NCIC 3020		State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 298	Collision Date 20150712	Time 1547	Day SUN															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type OTHER	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20150825																	
Weather1 CLEAR		Weather2		Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																		
Hit and Run		Motor Vehicle Involved With OTHER OBJ		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info							Victim Info																		
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	51	M	B	HNBD	SLOWING	N	C	0000	YAMAH	2002	-	-	N	-	W	-	DRVR	COMP PN	51	M	1	0	W	-

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd SEAL BEACH BL		Distance (ft) 25	Direction N	Secondary Rd WESTMINSTER AV NCIC 3020		State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy									
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 300	Collision Date 20150810	Time 0017	Day MON									
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type HIT OBJECT	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160809											
Weather1 CLEAR	Weather2	Rdwy Surface	Rdwy Cond1	NO UNUSL CND		Rdwy Cond2	Spec Cond 0												
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int										
Party Info										Victim Info									
Party Type	Age Sex Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make Year	SP Info	OAF1 Viol	OAF2 Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR 18 F H	HBD-UI		PROC ST	N	A	0000	DODGE 2009	- -	A	23136 - G -	PASS		20	M	3	0	G	-
Primary Rd SEAL BEACH BL		Distance (ft) 40	Direction N	Secondary Rd WESTMINSTER AV NCIC 3020		State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy									
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 365	Collision Date 20151114	Time 0343	Day SAT									
Primary Collision Factor UNSAFE SPEED		Violation 23152A	Collision Type HIT OBJECT	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160209											
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1	NO UNUSL CND		Rdwy Cond2	Spec Cond 0												
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int										
Party Info										Victim Info									
Party Type	Age Sex Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make Year	SP Info	OAF1 Viol	OAF2 Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR 24 M W	HBD-UI		LFT TURN	N	A	0000	HONDA 2006	- -	A	22107 - G -	PASS							
Primary Rd SEAL BEACH BL		Distance (ft) 60	Direction N	Secondary Rd WESTMINSTER AV NCIC 3020		State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy									
City Seal Beach	County Orange	Population 4	Rpt Dist 11	Beat	Type 0	CalTrans	Badge 368	Collision Date 20151219	Time 1848	Day SAT									
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type OVERTURNED	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20160121											
Weather1 CLOUDY	Weather2	Rdwy Surface WET	Rdwy Cond1	NO UNUSL CND		Rdwy Cond2	Spec Cond 0												
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int										
Party Info										Victim Info									
Party Type	Age Sex Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make Year	SP Info	OAF1 Viol	OAF2 Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR 19 M H	HNBD		PROC ST	N	D	2200	NISSA 2008	- 3	-	- L G	PASS	COMP PN	19	F	3	0	L	G
Primary Rd SEAL BEACH BL		Distance (ft) 500	Direction N	Secondary Rd WESTMINSTER BL NCIC 3020		State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy									
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 423	Collision Date 20150121	Time 1915	Day WED									
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 2	Tow Away?	Process Date 20150304											
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1	NO UNUSL CND		Rdwy Cond2	Spec Cond 0												
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DARK - ST	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int										
Party Info										Victim Info									
Party Type	Age Sex Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make Year	SP Info	OAF1 Viol	OAF2 Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR 65 M W	HNBD		LFT TURN	W	A	0000	CHRYSL 1997	- -	N	- G -	PASS		50	F	3	0	G	-
2	DRVR 55 M W	HNBD		PROC ST	S	C	0000	HARLE 2010	- -	N	- W -	DRVR	SEVERE	55	M	1	0	W	-
												PASS	SEVERE	49	F	2	1	Y	-
Primary Rd SEAL BEACH BL		Distance (ft) 15	Direction N	Secondary Rd WESTMINSTER BL NCIC 3020		State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy									
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 361	Collision Date 20150121	Time 0655	Day WED									
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20150812											
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1	NO UNUSL CND		Rdwy Cond2	Spec Cond 0												
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DUSK/DAWN	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int										
Party Info										Victim Info									
Party Type	Age Sex Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make Year	SP Info	OAF1 Viol	OAF2 Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR 54 M W	HNBD		PROC ST	S	A	0000	TOYOT 2007	- -	-	- G -								
2	DRVR 34 M W	HNBD		STOPPED	S	A	0000	FORD 2013	- -	-	- G -								

Include State Highways cases

Primary Rd SEAL BEACH BL Distance (ft) 48 Direction S Secondary Rd WESTMINSTER BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat PATRO Type 0 CalTrans Badge 314 Collision Date 20150216 Time 0057 Day MON																									
Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20150820																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	53	F	W	HBD-UI		RGT TURN	N	A	0000	TOYOT	2002	-	-	-	-	G	-							
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction S Secondary Rd WESTMINSTER BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat 007 Type 0 CalTrans Badge 363 Collision Date 20150412 Time 2241 Day SUN																									
Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160719																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	25	M	H	HBD-UI		PROC ST	S	-	0000	TOYOT	2012	A	-	A	22350	-	G	M						
Primary Rd SEAL BEACH BL Distance (ft) 336 Direction S Secondary Rd WESTMINSTER BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 423 Collision Date 20151211 Time 0939 Day FRI																									
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160225																									
Weather1 CLEAR Weather2 Rdwy Surface WET Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	42	M	H	HNBD		RAN OFF RD	S	D	0000	CHEVR	1991	-	-	K	-	G	-	PASS		34	M	3	0	G
Primary Rd SEAL BEACH BL Distance (ft) 97 Direction S Secondary Rd WESTMINSTER BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 362 Collision Date 20151224 Time 1423 Day THU																									
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type HIT OBJECT Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160121																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	56	M	W	HNBD		PROC ST	S	C	0200	HONDA	2015	-	3	N	-	P	W	DRVR	OTH VIS	56	M	1	1	P
Primary Rd SOUTHSORE Distance (ft) 350 Direction N Secondary Rd BOLSA NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 362 Collision Date 20150207 Time 1202 Day SAT																									
Primary Collision Factor UNKNOWN Violation Collision Type OTHER Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20150825																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With PKD MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1	PRKD	998	-	HNBD			PARKING	S	A	0700	TOYOT	2012	-	3	N	-	-	-							
2	PRKD	998	-	HNBD			PARKING	S	A	0100	TOYOT	1999	-	3	N	-	-	-							

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd ST CLOUD		Distance (ft) 150	Direction S	Secondary Rd DRUID LN		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist Beat	Type 0	CalTrans	Badge 361	Collision Date 20150728	Time 0643	Day TUE																
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type HEAD-ON	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20151207																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DAYLIGHT	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int																	
Party Info										Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	88	M	A	HNBD		RAN OFF RD	W	-	0000	NISSA	2002	-	-	-	-	G	-	-	-	-	-	-	-	-
Primary Rd WESTMINSTER AV		Distance (ft) 0	Direction	Secondary Rd APOLLO		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist Beat	Type 0	CalTrans	Badge 362	Collision Date 20150730	Time 1601	Day THU																
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20151207																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int																	
Party Info										Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	38	F	W	HNBD		PROC ST	E	A	0100	CHRY	2004	-	3	N	-	L	G	-	-	-	-	-	-	-
2	DRVR	31	M	H	HNBD		STOPPED	E	A	0100	VOLVO	2001	-	3	N	-	L	G	-	-	-	-	-	-	-
Primary Rd WESTMINSTER AV		Distance (ft) 30	Direction E	Secondary Rd APOLLO		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist WOC	Beat 00N	Type 0	CalTrans	Badge 152	Collision Date 20151118	Time 0710	Day WED															
Primary Collision Factor UNKNOWN		Violation	Collision Type HIT OBJECT	Severity INJURY	#Killed 0	#Injured 2	Tow Away? N	Process Date 20151221																	
Weather1		Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With BICYCLE		Lighting	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int																	
Party Info										Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1	BICY	45	M		HNBD		PROC ST	W	L	0400	-	-	3	M	-	-	-	BICY	OTH VIS	45	-	1	1	P	W
2	BICY	31	M		HNBD		PROC ST	W	L	0400	-	-	3	N	-	-	-	BICY	COMP PN	31	M	1	1	P	W
Primary Rd WESTMINSTER AV		Distance (ft) 1104	Direction W	Secondary Rd BOLSA CHICA		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist Beat	Type 0	CalTrans	Badge 362	Collision Date 20150725	Time 1016	Day SAT																
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20151207																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int																	
Party Info										Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	25	F	H	HNBD		PROC ST	-	A	0100	CHEVR	2013	-	3	N	-	L	G	-	-	-	-	-	-	-
2	DRVR	19	F	W	HNBD		STOPPED	-	A	0100	MERCE	2005	-	3	N	-	M	G	-	-	-	-	-	-	-
Primary Rd WESTMINSTER AV		Distance (ft) 78	Direction W	Secondary Rd BOLSA CHICA		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist Beat	Type 0	CalTrans	Badge 362	Collision Date 20151016	Time 0722	Day FRI																
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160204																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DUSK/DAWN	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int																	
Party Info										Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	62	M	W	HNBD		PROC ST	E	A	0700	KIA	2014	-	3	N	-	M	G	-	-	-	-	-	-	-
2	DRVR	48	M	H	HNBD		STOPPED	-	D	2200	CHEVR	2002	-	3	N	-	M	G	-	-	-	-	-	-	-

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd WESTMINSTER AV Distance (ft) 4484 Direction W Secondary Rd BOLSA CHICA RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat 006 Type 0 CalTrans Badge 363 Collision Date 20150117 Time 0236 Day SAT																									
Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20150801																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	23	F	B	HBD-UI		PROC ST	E	A	0000	HONDA	2004	-	-	A	22350	G G M	PASS		18	M	3	0	G	-
2	DRVR	39	M		HNBD		STOPPED	-	A	0000	TOYOT	2002	-	-	G		G M	PASS		21	M	5	0	G	-
Victim Info																									
Primary Rd WESTMINSTER AV Distance (ft) 180 Direction W Secondary Rd BOLSA CHICA RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat 006 Type 0 CalTrans Badge 363 Collision Date 20150314 Time 1814 Day SAT																									
Primary Collision Factor STRTNG BCKNG Violation 22106 Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20150918																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 CONS ZONE Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	24	M	W	HNBD		BACKING	W	D	0000	DODGE	1998	-	-	N		G								
Victim Info																									
Primary Rd WESTMINSTER AV Distance (ft) 530 Direction E Secondary Rd ISLAND VILLAGE NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat SOUTH Type 0 CalTrans Badge 246 Collision Date 20150716 Time 0248 Day THU																									
Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20151218																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	25	M	W	HBD-UI		PROC ST	E	A	0000	PONTI	2008	-	-	A	22107	- M -	PASS		25	M	3	0	M	-
Victim Info																									
Primary Rd WESTMINSTER AV Distance (ft) 0 Direction Secondary Rd KITTS NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat 001 Type 0 CalTrans Badge 362 Collision Date 20150306 Time 1623 Day FRI																									
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20150918																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	21	M	O	HNBD		PROC ST	W	A	0700	SUBAR	1998	-	3	N		M G								
2	DRVR	48	M	W	HNBD		PARKING	-	C	0200	TRIUM	2001	-	3	N		P W								
Victim Info																									
Primary Rd WESTMINSTER AV Distance (ft) 786 Direction E Secondary Rd KITTS NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat 002 Type 0 CalTrans Badge 362 Collision Date 20151022 Time 0635 Day THU																									
Primary Collision Factor LANE CHANGE Violation 21658A Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160201																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	52	M	W	HNBD		CHANG LN	E	A	0100	CHEVR	1995	-	3	N		M G								
2	DRVR	21	F	H	HNBD		PROC ST	-	A	0100	HONDA	2006	-	3	N		M G								
Victim Info																									

Primary Rd WESTMINSTER AV		Distance (ft) 0	Direction	Secondary Rd KITTS HWY	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat SOUTH	Type 0	CalTrans	Badge 422	Collision Date 20150327	Time 1225	Day FRI															
Primary Collision Factor STOP SGN SIG		Violation 21453A	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 2	Tow Away? Y	Process Date 20160428																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																		
Motor Vehicle Involved With MV ON OTHER RD		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																		
Party Info										Victim Info															
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	70	M	W	HNBD	PROC ST	E	A	0000	CHRY	2003	-	-	F	-	G M	DRVR	COMP PN 69	69	M	1	0	G	-	
2	DRVR	56	F	H	HNBD	LFT TURN	N	A	0000	NISSA	1999	-	-	N	-	G M	DRVR	COMP PN 56	56	F	1	0	G	-	
Primary Rd WESTMINSTER AV		Distance (ft) 575	Direction E	Secondary Rd KITTS RD	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat TRAFFI	Type 0	CalTrans	Badge 246	Collision Date 20150527	Time 1828	Day WED															
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20151021																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																		
Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int																		
Party Info										Victim Info															
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	62	M	W	HNBD	PROC ST	W	A	0000	MITSU	2010	-	-	N	-	M -									
2	DRVR	64	F	A	HNBD	PROC ST	W	A	0000	LEXUS	2005	-	-	N	-	M -									
Primary Rd WESTMINSTER AV		Distance (ft) 315	Direction E	Secondary Rd ROAD B	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 246	Collision Date 20150217	Time 2340	Day TUE															
Primary Collision Factor DRVR ALG DRG		Violation 23152A	Collision Type HIT OBJECT	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20150820																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																		
Motor Vehicle Involved With FIXED OBJ		Lighting DARK - ST	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int																		
Party Info										Victim Info															
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	26	F	W	HBD-UI	PROC ST	E	A	0000	KIA	2012	-	-	A	22107	-	L -								
Primary Rd WESTMINSTER AV		Distance (ft) 740	Direction E	Secondary Rd ROAD C	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 11	Beat 006	Type 0	CalTrans	Badge 174	Collision Date 20150315	Time 1508	Day SUN															
Primary Collision Factor UNKNOWN		Violation	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20150422																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																		
Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																		
Party Info										Victim Info															
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1	DRVR	85	F	W	HNBD	U-TURN	E	A	0000	NISSA	2006	-	-	N	-	G -									
2	DRVR	45	M	W	HNBD	PROC ST	E	C	0000	HARLE	2007	-	-	N	-	W -	DRVR	OTH VIS	45	M	1	1	W	-	
Primary Rd WESTMINSTER AV		Distance (ft) 15	Direction E	Secondary Rd SEAL BEACH	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 00N	Type 0	CalTrans	Badge 152	Collision Date 20150107	Time 1205	Day WED															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20150312																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																		
Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																		
Party Info										Victim Info															
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	32	M		HNBD	SLOWING	W	A	0000	TOYOT	2011	-	-	F	-	G -									
2	DRVR	71	F		HNBD	STOPPED	W	A	0000	NISSA	2001	-	-	N	-	G -	DRVR	COMP PN 71	71	-	1	0	G	-	

Primary Rd	WESTMINSTER AV	Distance (ft)	185	Direction	E	Secondary Rd	SEAL BEACH BL	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat		Type	0	CalTrans		Badge	257	Collision Date	20150218	Time	1811 Day WED
Primary Collision Factor	DRVR ALC DRG	Violation	23152E	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20150820				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DARK - ST	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	27	F	W		DRUG	PROC ST	W	A	0100	TOYOT	2007	- 3	A	22350	-	L G								
2	DRVR	41	F	W	HNBD		STOPPED	W	A	0100	HYUND	2015	- 3	N		-	M G								
3	DRVR	35	M	W	HNBD		STOPPED	W	A	0100	HONDA	2010	- 3	N		-	M G								

Primary Rd	WESTMINSTER AV	Distance (ft)	0	Direction		Secondary Rd	SEAL BEACH BL	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist	WOC	Beat		Type	0	CalTrans		Badge	362	Collision Date	20150219	Time	1645 Day THU
Primary Collision Factor	UNKNOWN	Violation	23100B	Collision Type	SIDESWIPE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20150820				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	46	M	A	HNBD		LFT TURN	-	A	0100	NISSA	2014	- 3	A	21658	-	M G								
2	DRVR	84	F	W	HNBD		RGT TURN	E	A	0700	TOYOT	2002	- 3	N		-	M G	PASS		47	-	9	3	-	-

Primary Rd	WESTMINSTER AV	Distance (ft)	1320	Direction	W	Secondary Rd	SEAL BEACH BL	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	SOUTH	Type	0	CalTrans		Badge	152	Collision Date	20150311	Time	0109 Day WED
Primary Collision Factor	IMPROP TURN	Violation	22107	Collision Type	HEAD-ON	Severity	INJURY	#Killed	0	#Injured	1	Tow Away?	Y	Process Date	20150422				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DARK - ST	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	21	M	H	HNBD		LFT TURN	W	-	0000	HONDA	1996	A -	F		-	L -								
2	DRVR	59	F	W	HNBD		PROC ST	E	-	0000	NISSA	2013	A -	N		-	L -	DRVR	COMP PN	59	-	1	0	G	-

Primary Rd	WESTMINSTER AV	Distance (ft)	900	Direction	W	Secondary Rd	SEAL BEACH BL	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat		Type	0	CalTrans		Badge	298	Collision Date	20150517	Time	1547 Day SUN
Primary Collision Factor	R-O-W AUTO	Violation	21804A	Collision Type	BROADSIDE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20151021				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	31	M	H	HNBD		LFT TURN	N	A	0000	DODGE	2010	- -	N		-	G -	PASS		40	F	3	0	G	-
																		PASS		4	M	6	0	G	-
																		PASS		2	M	4	0	G	-
2	DRVR	81	M	W	HNBD		PROC ST	E	A	0000	HONDA	1990	- -	N		-	G -								

Primary Rd	WESTMINSTER AV	Distance (ft)	70	Direction	E	Secondary Rd	SEAL BEACH BL	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy	
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	NORTT	Type	0	CalTrans		Badge	246	Collision Date	20150518	Time	1751 Day MON
Primary Collision Factor	UNSAFE SPEED	Violation	22350	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20151019				
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0								
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int					

Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	46	M	H	HNBD		PROC ST	W	-	0000	GMC	1984	- D	N		-	X P								
2	DRVR	40	M	W	HNBD		STOPPED	W	-	0000	TOYOT	2007	A -	N		-	M -	PASS		4	F	5	0	Q	-

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd WESTMINSTER AV		Distance (ft) 0	Direction	Secondary Rd SEAL BEACH BL	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 001	Type 0	CalTrans	Badge 362	Collision Date 20150605	Time 1314	Day FRI															
Primary Collision Factor LANE CHANGE		Violation 21658A	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away?	Process Date 20151110																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int																	
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	75	F	O	HNBD	RGT TURN	-	A	0100	HYUND	2014	-	3	N	-	M	G								
2	DRVR	52	F	W	HNBD	LFT TURN	-	D	2200	DODGE	1999	-	3	N	-	M	G								
Primary Rd WESTMINSTER AV		Distance (ft) 395	Direction W	Secondary Rd SEAL BEACH BL	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 246	Collision Date 20150614	Time 1732	Day SUN															
Primary Collision Factor R-O-W AUTO		Violation 21801A	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20151110																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int																	
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	73	F	W	HNBD	LFT TURN	N	A	0100	FORD	2008	-	-	N	-	L	G								
2	DRVR	23	M	H	HNBD	PROC ST	W	A	0100	BMW	2007	-	-	N	-	L	-	PASS		21	F	3	0	G	-
Primary Rd WESTMINSTER AV		Distance (ft) 630	Direction W	Secondary Rd SEAL BEACH BL	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 300	Collision Date 20150615	Time 1135	Day MON															
Primary Collision Factor R-O-W AUTO		Violation 21804A	Collision Type SIDESWIPE	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20160620																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With MV ON OTHER RD		Lighting DAYLIGHT	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int																	
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	73	M		HNBD	RGT TURN	W	-	0000	HONDA	2014	A	-	-	-	G	-	DRVR	OTH VIS	73	M	1	0	G	-
2	DRVR	22	F		HNBD	PROC ST	W	-	0000	FORD	2010	A	-	-	-	G	-								
Primary Rd WESTMINSTER AV		Distance (ft) 406	Direction W	Secondary Rd SEAL BEACH BL	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 361	Collision Date 20150707	Time 1311	Day TUE															
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away?	Process Date 20151217																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int																	
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	72	F	W	HNBD	LFT TURN	N	-	0000	TOYOT	2011	-	-	-	-	G	-								
2	DRVR	70	M	W	HNBD	PROC ST	W	-	0000	FORD	2001	-	-	-	-	G	-								
Primary Rd WESTMINSTER AV		Distance (ft) 492	Direction E	Secondary Rd SEAL BEACH BL	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 11	Beat NORTH	Type 0	CalTrans	Badge 313	Collision Date 20150801	Time 1724	Day SAT															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20150917																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int																	
Party Info											Victim Info														
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	24	M	W	HNBD	PROC ST	E	C	0000	HARLE	2015	-	-	N	-	W	-	DRVR	COMP PN	24	M	1	0	G	-
2	DRVR	44	M	B	HNBD	STOPPED	E	A	0000	MERCE	2010	-	-	N	-	G	-								

Primary Rd WESTMINSTER AV Distance (ft) 12 Direction E Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 365 Collision Date 20150813 Time 1819 Day THU																										
Primary Collision Factor STRTNG BCKNG Violation 22106 Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? N Process Date 20160726																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	63	M	W	HNBD		PROC ST	W	E	0000	FORD	1997	-	-	E	-	G	-								
2	DRVR	54	F	B	HNBD		STOPPED	W	E	0000	GMC	1995	-	-	N	-	G	-	DRVR	COMP PN 54	F	1	0	G	-	
Primary Rd WESTMINSTER AV Distance (ft) 108 Direction E Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 002 Type 0 CalTrans Badge 362 Collision Date 20151003 Time 1639 Day SAT																										
Primary Collision Factor LANE CHANGE Violation 21658A Collision Type OVERTURNED Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20151125																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	998	-		IMP UNK	IMP UNK	CHANG LN	W	D	2200	OTHER	-	3	L	-	-	-	-								
2	DRVR	72	M	W	HNBD		PROC ST	-	C	0200	HARLE	2008	-	3	L	-	P	W	DRVR	OTH VIS	72	M	1	1	P	W
Primary Rd WESTMINSTER AV Distance (ft) 94 Direction E Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 106 Type 0 CalTrans Badge 251 Collision Date 20151007 Time 1048 Day WED																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160201																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	21	F	W	HNBD		PROC ST	W	A	0000	FORD	2004	-	-	F	-	G	-								
2	DRVR	38	M	W	HNBD		STOPPED	W	D	0000	DODGE	2013	-	-	-	-	G	-								
Primary Rd WESTMINSTER AV Distance (ft) 200 Direction E Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 00N Type 0 CalTrans Badge 152 Collision Date 20151028 Time 1642 Day WED																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160201																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	25	F		HNBD		SLOWING	W	-	0000	MAZDA	2002	-	-	F	-	L	G								
2	DRVR	61	F		HNBD		STOPPED	W	-	0000	HONDA	2008	-	-	N	-	M	G								
3	DRVR	29	F		HNBD		STOPPED	W	-	0000	FORD	2014	-	-	N	-	M	G								
Primary Rd WESTMINSTER AV Distance (ft) 940 Direction W Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist 11 Beat ROVER Type 0 CalTrans Badge 368 Collision Date 20151107 Time 2124 Day SAT																										
Primary Collision Factor R-O-W AUTO Violation 21801A Collision Type BROADSIDE Severity INJURY #Killed 0 #Injured 2 Tow Away? Y Process Date 20151215																										
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	62	F	W	HNBD		LFT TURN	S	A	0100	MAZDA	2002	-	-	N	-	L	G	DRVR	COMP PN 62	F	1	0	L	G	
2	DRVR	20	F	W	HNBD		PROC ST	E	A	0100	HONDA	2013	-	-	N	-	L	G	DRVR	COMP PN 20	F	1	0	L	G	

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd WESTMINSTER BL Distance (ft) 25 Direction W Secondary Rd APOLLO NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 361 Collision Date 20150310 Time 0917 Day TUE Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20150918 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	65	M	W	HNBD		PROC ST	E	D	0000	CHEVR	1998	-	-	-	-	-	G							
2	DRVR	44	F	W	HNBD		STOPPED	E	A	0000	LEXUS	2012	-	-	-	-	-	G							
Primary Rd WESTMINSTER BL Distance (ft) 1800 Direction W Secondary Rd BOLSA CHICA NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 361 Collision Date 20151110 Time 1736 Day TUE Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160209 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	43	M	O			PROC ST	E	A	0000	LEXUS	2014	-	-	-	-	G								
2	DRVR	52	M	W			SLOWING	E	A	0000	KIA	2012	-	-	-	-	G								
Primary Rd WESTMINSTER BL Distance (ft) 235 Direction E Secondary Rd ROAD B NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 362 Collision Date 20151101 Time 0823 Day SUN Primary Collision Factor IMPROP TURN Violation 22107 Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160210 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	88	M	W	HNBD		UNS TURN	-	A	0100	CHEVR	2007	-	3	N	-	M	G							
Primary Rd WESTMINSTER BL Distance (ft) 370 Direction W Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 361 Collision Date 20150217 Time 1130 Day TUE Primary Collision Factor IMPROP TURN Violation 22107 Collision Type SIDESWIPE Severity INJURY #Killed 0 #Injured 1 Tow Away? N Process Date 20150317 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	69	M	W	HNBD		RGT TURN	W	A	0000	TOYOT	1993	-	-	-	-	G								
2	DRVR	22	F	H	HNBD		PROC ST	W	A	0000	HONDA	1988	-	-	-	-	G	DRVR	COMP PN 22	F	1	3	G	-	



REPORT 8 - TOTAL COLLISIONS

01/01/2016 thru 12/01/2016

Total Count: 110

Jurisdiction(s): Seal Beach

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd 1 POWER SPUR		Distance (ft) 0	Direction	Secondary Rd ST CLOUD	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 001	Type 0	CalTrans	Badge 362	Collision Date 20160916	Time 1544	Day FRI															
Primary Collision Factor R-O-W PED		Violation 21950A	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20161007																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With PED	Lighting DAYLIGHT	Ped Action X-WLK AT	Cntrl Dev FNCTNG	Loc Type	Ramp/Int																		
Party Info																									
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	49	F	W	HNBD	RGT TURN	E	A	0700	INFIN	2013	A	-	N	-	M	G								
2	PED	89	M	W	HNBD	PROC ST	N	N	6000	-	-	-	N	-	P	-		PED	COMP PN 89	M	1	0	P	-	
Primary Rd 10TH ST		Distance (ft) 335	Direction S	Secondary Rd RT 1	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 241	Type 0	CalTrans	Badge 251	Collision Date 20160926	Time 1958	Day MON															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20161108																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With PKD MV	Lighting DARK - ST	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int																		
Party Info																									
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	64	M	W	HNBD	RGT TURN	N	A	0000	HYUND	2016	-	-	-	-	G	-								
2	PRKD	998	-	-	HNBD	PARKED	N	A	0000	MERCE	2013	-	-	-	-	-	-								
Primary Rd 17TH ST		Distance (ft) 254	Direction N	Secondary Rd ELECTRIC AV	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 241	Type 0	CalTrans	Badge 251	Collision Date 20161117	Time 1836	Day THU															
Primary Collision Factor STRTNG BCKNG		Violation 22106	Collision Type HIT OBJECT	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20161207																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With PKD MV	Lighting DARK - ST	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int																		
Party Info																									
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	64	M	W	HNBD	BACKING	S	A	0000	HONDA	2007	-	-	A	22350	-	G	-							
2	PRKD	998	-	-	-	-	-	A	0000	FORD	2002	-	-	-	-	-	-								
3	PRKD	998	-	-	-	-	-	A	0000	HONDA	2010	-	-	-	-	-	-								
Primary Rd 1ST ST		Distance (ft) 14	Direction S	Secondary Rd OCEAN AV	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat SOUTH	Type 0	CalTrans	Badge 365	Collision Date 20160212	Time 0313	Day FRI															
Primary Collision Factor DRVR ALC DRG		Violation 23152A	Collision Type HIT OBJECT	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160315																	
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With FIXED OBJ	Lighting DARK - ST	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int																		
Party Info																									
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	30	F	H	HBD-UI	U-TURN	S	A	0000	CHEVR	2006	-	-	A	22107	-	G	-							

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd 7TH ST Distance (ft) 150 Direction S Secondary Rd ELECTRIC NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat PATRO Type 0 CalTrans Badge 314 Collision Date 20160626 Time 1729 Day SUN																									
Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160830																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved WithNON-CLSN Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	57	M	W	HBD-UNK		PROC ST	S	A	0000	FIAT	2012	-	-	-	-	G								
2	PRKD	998	-					S	-	0000	VOLKS	2011	-	-	N	-	-								
3	PRKD	998	-			null		S	-	0000	CHEVR	2014	-	-	-	-	-								
Primary Rd ALLEY Distance (ft) 0 Direction N Secondary Rd MAIN ST 308 NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist 3020 Beat SOUTH Type 0 CalTrans Badge 429 Collision Date 20160110 Time 1227 Day SUN																									
Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160324																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run MSDMNR Motor Vehicle Involved WithFIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	57	F	W	HBD-UI		RGT TURN	E	D	2200	CHEVR	2006	-	-	A	22107	-	M	G						
Primary Rd ALLEY Distance (ft) 7 Direction S Secondary Rd RT 1 NCIC 3020 State Hwy? Y Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat 940 Type 0 CalTrans Badge 251 Collision Date 20160807 Time 1705 Day SUN																									
Primary Collision Factor NOT STATED Violation Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20161129																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved WithFIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	48	M	W	HNBD		LFT TURN	N	A	0000	CHEVR	2015	-	-	-	-	G								
Primary Rd ANDERSON Distance (ft) 161 Direction S Secondary Rd RT 1 NCIC 3020 State Hwy? Y Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat 241 Type 0 CalTrans Badge 251 Collision Date 20161025 Time 2147 Day TUE																									
Primary Collision Factor STOP SGN SIG Violation 22450A Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161208																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved WithFIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	19	M	W	HBD-UI		PROC ST	W	A	0000	MITSU	2002	-	-	A	22350	-	G							
Primary Rd BALBOA DR Distance (ft) 0 Direction Secondary Rd COASTLINE DR NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat SOUTH Type 0 CalTrans Badge 368 Collision Date 20160306 Time 0422 Day SUN																									
Primary Collision Factor IMPROP TURN Violation 22107 Collision Type HEAD-ON Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160413																									
Weather1 RAINING Weather2 Rdwy Surface WET Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved WithFIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	34	M	W	HNBD		PROC ST	S	A	0100	HONDA	2011	-	3	E	-	M	G							

Primary Rd BAYSIDE DR		Distance (ft) 132	Direction S	Secondary Rd CORAL PL		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat SOUTH	Type 0	CalTrans	Badge 431	Collision Date 20160429	Time 0003	Day FRI																
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type HIT OBJECT	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160601																		
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With PKD MV		Lighting DARK - ST	Ped Action	Cntrl Dev FUNCTNG	Loc Type	Ramp/Int																		
Party Info												Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1	DRVR	29	F	W		FATG	PROC ST	N	-	0000	TOYOT	2001	A	-	F	-	G	-								
2	PRKD	998	-				PARKED	-	-	0000	TOYOT	2013	-	-	-	-	-	-								
Primary Rd BOLSA		Distance (ft) 30	Direction W	Secondary Rd SILVER SHOALS		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat PATRO	Type 0	CalTrans	Badge 314	Collision Date 20160626	Time 2256	Day SUN																
Primary Collision Factor DRVR ALC DRG		Violation 23152A	Collision Type OVERTURNED	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20160817																		
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With NON-CLSN		Lighting DARK - ST	Ped Action	Cntrl Dev FUNCTNG	Loc Type	Ramp/Int																		
Party Info												Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	28	M	W	HBD-UNK		PROC ST	N	-	0000	HARLE	1990	-	2	A	-	W	-	DRVR	SEVERE	28	M	1	1	W	-
Primary Rd BOLSA AV		Distance (ft) 17	Direction W	Secondary Rd ISLAND VIEW DR		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat SOUTH	Type 0	CalTrans	Badge 246	Collision Date 20160422	Time 1404	Day FRI																
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160531																		
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev FUNCTNG	Loc Type	Ramp/Int																		
Party Info												Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	19	F	W	HNBD		PROC ST	E	A	0100	KIA	2014	-	3	N	-	M	G								
2	DRVR	69	F	W	HNBD		STOPPED	E	A	0100	HONDA	2007	-	3	N	-	M	G								
Primary Rd CANDLEBERRY AV		Distance (ft) 752	Direction E	Secondary Rd FUCHSIA ST		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 3	Beat NORTH	Type 0	CalTrans	Badge 313	Collision Date 20160716	Time 0400	Day SAT																
Primary Collision Factor DRVR ALC DRG		Violation 23152A	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20160816																		
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With PKD MV		Lighting DARK - ST	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int																		
Party Info												Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	25	M	A	HBD-UI		PROC ST	E	A	0000	HONDA	2013	-	-	N	-	G	-	DRVR	COMP PN	25	M	1	0	G	-
2	PRKD	998	-			null		-	-	0000	CHEVR	2010	-	-	-	-	-	-								
Primary Rd CENTRAL AV		Distance (ft) 0	Direction	Secondary Rd 7TH ST		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 002	Type 0	CalTrans	Badge 362	Collision Date 20160115	Time 2025	Day FRI																
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160325																		
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																				
Hit and Run		Motor Vehicle Involved With PKD MV		Lighting DARK - ST	Ped Action	Cntrl Dev FUNCTNG	Loc Type	Ramp/Int																		
Party Info												Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	57	M	W	HNBD		RGT TURN	W	A	0700	CHEVR	2015	-	3	N	-	M	G								
2	PRKD	998	-		HNBD		PARKED	-	D	2200	TOYOT	2002	-	3	N	-	-	-								

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd		CENTRAL AV		Distance (ft)	33	Direction	E	Secondary Rd	7TH ST		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy								
City		Seal Beach		County	Orange	Population	4	Rpt Dist	Beat	SOUTH	Type	0	CalTrans	Badge	246	Collision Date	20160905	Time	1524 Day	MON						
Primary Collision Factor		IMPROP TURN		Violation	22107	Collision Type	SIDESWIPE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20161011									
Weather1		CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0													
Hit and Run		MSDMNR		Motor Vehicle Involved With				PKD MV		Lighting	DAYLIGHT	Ped Action		Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int									
Party Info																Victim Info										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	21	M	H	HBD-UNK		UNS TURN	W	A	0100	HONDA	2010	-	1	N	-	M	G								
2	PRKD	998	-				PARKED	W	D	2200	TOYOT	2002	-	-	-	-	-									
Primary Rd		COASTLINE DR		Distance (ft)	122	Direction	W	Secondary Rd	MARVISTA AV		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy								
City		Seal Beach		County	Orange	Population	4	Rpt Dist	7	Beat	007	Type	0	CalTrans	Badge	174	Collision Date	20160612	Time	2310 Day	SUN					
Primary Collision Factor		DRVR ALC DRG		Violation	23152A	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160721									
Weather1		CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0													
Hit and Run				Motor Vehicle Involved With				PKD MV		Lighting	DARK - ST	Ped Action		Cntrl Dev	FNCTNG	Loc Type	Ramp/Int									
Party Info																Victim Info										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	25	M	W	HBD-UI		LFT TURN	S	A	0100	FORD	2013	-	-	A	22350	-	G								
2	PRKD	998	-				PARKED	-	A	0100	LEXUS	2004	-	-	N	-	-									
3	PRKD	998	-				PARKED	-	A	0100	INFIN	2013	-	-	N	-	-									
Primary Rd		ELDORADO		Distance (ft)	265	Direction	N	Secondary Rd	CANOE BROOK		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy								
City		Seal Beach		County	Orange	Population	4	Rpt Dist		Beat	001	Type	0	CalTrans	Badge	362	Collision Date	20160114	Time	1556 Day	THU					
Primary Collision Factor		UNSAFE SPEED		Violation	22350	Collision Type	OVERTURNED	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20160317									
Weather1		CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0													
Hit and Run				Motor Vehicle Involved With				FIXED OBJ		Lighting	DUSK/DAWN	Ped Action		Cntrl Dev	FNCTNG	Loc Type	Ramp/Int									
Party Info																Victim Info										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	72	F	W	HNBD	FATG	PROC ST	S	A	0100	HONDA	2003	-	3	A	N	L	G								
Primary Rd		ELECTRIC AV		Distance (ft)	78	Direction	E	Secondary Rd	12TH ST		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy								
City		Seal Beach		County	Orange	Population	4	Rpt Dist	4	Beat	007	Type	0	CalTrans	Badge	174	Collision Date	20160610	Time	2114 Day	FRI					
Primary Collision Factor		DRVR ALC DRG		Violation	23152A	Collision Type	HIT OBJECT	Severity	INJURY	#Killed	0	#Injured	1	Tow Away?	Y	Process Date	20160817									
Weather1		CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0													
Hit and Run				Motor Vehicle Involved With				FIXED OBJ		Lighting	DARK - ST	Ped Action		Cntrl Dev	FNCTNG	Loc Type	Ramp/Int									
Party Info																Victim Info										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	18	M	H			DRUG RAN OFF RD	E	A	0000	HONDA	1994	-	-	A	22107	-	B								
Primary Rd		ELECTRIC AV		Distance (ft)	158	Direction	W	Secondary Rd	MAIN ST		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy								
City		Seal Beach		County	Orange	Population	4	Rpt Dist		Beat	SOUTH	Type	0	CalTrans	Badge	304	Collision Date	20160721	Time	1206 Day	THU					
Primary Collision Factor		STRTNG BCKNG		Violation	22106	Collision Type	OTHER	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20161010									
Weather1		CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0													
Hit and Run				Motor Vehicle Involved With				OTHER MV		Lighting	DAYLIGHT	Ped Action		Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int									
Party Info																Victim Info										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	52	F	W	HNBD		BACKING	E	A	0000	VOLVO	2006	-	-	F	-	M									
2	DRVR	46	M	W	HNBD		RGT TURN	S	A	0000	TOYOT	2016	-	-	N	-	M									

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd GOLDEN RAIN		Distance (ft) 0	Direction	Secondary Rd CANOE BROOK	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 001	Type 0	CalTrans	Badge 362	Collision Date 20160229	Time 0114	Day MON															
Primary Collision Factor OTHER IMPROP DRV		Violation	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160413																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																		
Motor Vehicle Involved With PKD MV		Lighting DARK - NO	Ped Action	Cntrl Dev FUNCTNG	Loc Type	Ramp/Int																			
Party Info											Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	56	M	W	HBD-UI		PROC ST	S	A	0100	TOYOT	2008	- 3	N	-	M	G								
2	PRKD	998	-		HNBD		PARKED	S	A	0100	NISSA	2009	- 3	N	-	-	-								
Primary Rd HEATHER ST		Distance (ft) 0	Direction	Secondary Rd HEATHER ST 3960	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 246	Collision Date 20160422	Time 0847	Day FRI															
Primary Collision Factor STRNG BCKNG		Violation 22106	Collision Type HIT OBJECT	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160531																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																		
Motor Vehicle Involved With FIXED OBJ		Lighting DAYLIGHT	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int																			
Party Info											Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	46	M	H	HNBD		BACKING	E	I	1100	ISUZU	2005	- 3	N	-	M	G								
Primary Rd LAMPSON		Distance (ft) 108	Direction E	Secondary Rd BASSWOOD	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 3020	Type 0	CalTrans	Badge 361	Collision Date 20160708	Time 1336	Day FRI															
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type SIDESWIPE	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20160816																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																		
Motor Vehicle Involved With BICYCLE		Lighting DAYLIGHT	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int																			
Party Info											Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	49	M	H	HNBD		RGT TURN	E	D	0000	CHEVR	1992	- - -	-	-	G	-								
2	BICY	59	F	W	HNBD		RAN OFF RD	E	L	0000	-	-	- - -	-	-	-	-	BICY	OTH VIS	59	-	9	3	-	-
Primary Rd LAMPSON		Distance (ft) 1164	Direction E	Secondary Rd OLD RANCH PLZ	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 3020	Beat NORTH	Type 0	CalTrans	Badge 429	Collision Date 20160112	Time 0722	Day TUE															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160323																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																		
Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int																			
Party Info											Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	25	M	W	HNBD		PROC ST	W	A	0100	MAZDA	2012	A - F	-	-	M	G								
2	DRVR	29	M	H	HNBD		PROC ST	W	F	2600	OTHER	2002	A - N	-	-	M	G								
Primary Rd LAMPSON AV		Distance (ft) 74	Direction W	Secondary Rd BASSWOOD ST	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 432	Collision Date 20161017	Time 0715	Day MON															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type SIDESWIPE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20161208																	
Weather1 RAINING		Weather2	Rdwy Surface WET	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																		
Motor Vehicle Involved With FIXED OBJ		Lighting DUSK/DAWN	Ped Action	Cntrl Dev FUNCTNG	Loc Type	Ramp/Int																			
Party Info											Victim Info														
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	16	M	A	HNBD		LFT TURN	W	A	0700	CHEVR	2004	- 3	N	-	M	G								

Primary Rd LAMPSON AV		Distance (ft) 0	Direction	Secondary Rd CANDLEBERRY	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 001	Type 0	CalTrans	Badge 362	Collision Date 20160115	Time 1110	Day FRI															
Primary Collision Factor STOP SGN SIG		Violation 21453A	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160323																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info																									
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	21	M	H	HNBD	PROC ST	-	I	1100	ISUZU	2014	-	1	A	23123	-	M	G	PASS	29	M	2	0	M	G
2	DRVR	78	F	W	HNBD	LFT TURN	-	A	0100	LEXUS	2005	-	3	N	-	M	G	PASS	28	M	3	0	M	G	
Primary Rd LAMPSON AV		Distance (ft) 238	Direction W	Secondary Rd CANDLEBERRY AV	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 141	Type 0	CalTrans	Badge 251	Collision Date 20160520	Time 1456	Day FRI															
Primary Collision Factor UNKNOWN		Violation	Collision Type HIT OBJECT	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20160719																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info																									
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1	DRVR	60	F	A	IMP UNK	IMP UNK	PROC ST	E	A	0000	TOYOT	2009	-	-	-	G	-	DRVR	SEVERE	60	F	1	0	L	-
Primary Rd LAMPSON AV		Distance (ft) 1174	Direction W	Secondary Rd HEATHER	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 141	Type 0	CalTrans	Badge 251	Collision Date 20160527	Time 0657	Day FRI															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type HIT OBJECT	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160719																	
Weather1 CLOUDY		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info																									
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	22	F	H	HNBD	PROC ST	W	A	0000	VOLKS	2002	-	-	-	-	L	-								
Primary Rd LAMPSON AV		Distance (ft) 0	Direction	Secondary Rd HEATHER AV	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist 20	Beat 006	Type 0	CalTrans	Badge 174	Collision Date 20160123	Time 1617	Day SAT															
Primary Collision Factor R-O-W AUTO		Violation 21801A	Collision Type SIDESWIPE	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20160322																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info																									
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	43	M	W	HNBD	U-TURN	W	A	0000	JEEP	2013	-	-	N	-	G	-								
2	DRVR	69	F	W	HNBD	PROC ST	E	A	0000	SUBAR	2015	-	-	N	-	G	-	DRVR	COMP PN	69	F	1	0	G	-
Primary Rd LAMPSON AV		Distance (ft) 38	Direction E	Secondary Rd SEAL BEACH BL	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy															
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat ROVER	Type 0	CalTrans	Badge 178	Collision Date 20160809	Time 1807	Day TUE															
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20161010																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With BICYCLE		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info																									
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	53	M	W	HNBD	RGT TURN	E	-	0000	-	-	-	N	-	W	-	DRVR	OTH VIS	53	M	1	1	W	-	
2	DRVR	30	M	O	HNBD	RGT TURN	E	-	0000	AUDI	2013	-	-	N	-	G	-								

Primary Rd MAIN ST		Distance (ft) 0	Direction	Secondary Rd CENTRAL AV		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 362	Collision Date	20160307	Time 1219	Day MON														
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type SIDESWIPE	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20160412																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With BICYCLE		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info												Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	68	F	W	HNBD	PARKING	-	A	0700	CHEVR	2012	-	3	N	-	M	G								
2	BICY	69	M	O	HNBD	PROC ST	-	L	0400	-	-	-	3	A	21755	N	-	BICY	OTH VIS	69	-	1	1	P	V
Primary Rd MAIN ST		Distance (ft) 0	Direction	Secondary Rd MAIN ST 215		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat SOUTH	Type 0	CalTrans	Badge 246	Collision Date	20160720	Time 1132	Day WED														
Primary Collision Factor STRTNG BKNG		Violation 22106	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20160909																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int																
Party Info												Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	47	M	W	HNBD	BACKING	E	A	0700	TOYOT	1997	-	3	N	-	M	G								
2	DRVR	55	M	W	HNBD	STOPPED	S	I	0900	FREIG	2005	-	3	N	-	M	G								
Primary Rd N BOUND SEAL		Distance (ft) 273	Direction S	Secondary Rd PACIFIC COAST		NCIC 3020	State Hwy? Y	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 300	Collision Date	20161003	Time 0240	Day MON														
Primary Collision Factor DRVR ALC DRG		Violation 23152A	Collision Type HEAD-ON	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20161208																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With FIXED OBJ		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info												Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	29	F		HBD-UI	PROC ST	N	A	0000	HYUND	2014	-	-	A	22350	-	G	-							
Primary Rd NORTH GATE RD		Distance (ft) 0	Direction	Secondary Rd NORTH GATE RD		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 246	Collision Date	20160714	Time 1637	Day THU														
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160816																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int																
Party Info												Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	75	M	W	HNBD	PROC ST	W	A	0000	FORD	2012	-	-	N	-	G	-								
2	DRVR	62	M	W	HNBD	LFT TURN	W	A	0000	CHEVR	2006	-	-	N	-	G	-								
Primary Rd OCEAN ALLEY		Distance (ft) 122	Direction N	Secondary Rd OCEAN AV		NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat ROVER	Type 0	CalTrans	Badge 178	Collision Date	20161019	Time 2329	Day WED														
Primary Collision Factor DRVR ALC DRG		Violation 23152A	Collision Type OTHER	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20161208																	
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																			
Hit and Run		Motor Vehicle Involved With PKD MV		Lighting DARK - ST	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int																
Party Info												Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	37	F	H	HBD-UI	BACKING	E	A	0000	CHRY	2001	-	-	N	-	G	-								
2	PRKD	998	-			PARKED	E	A	0000	INFIN	2005	-	-	N	-	-	-								

Primary Rd PACIFIC COAST Distance (ft) 0 Direction Secondary Rd 1ST ST NCIC 3020 State Hwy? Y Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 002 Type 0 CalTrans Badge 362 Collision Date 20160202 Time 0727 Day TUE Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160317 Weather1 CLEAR Weather2 Rdw Surface Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With Lighting DUSK/DAWN Ped Action Cntrl Dev Loc Type Ramp/Int														
Party Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1F DRVR 22 F O HNBD PROC ST N A 0100 TOYOT 2008 - 3 N - L A 2 DRVR 67 F W HNBD STOPPED S A 0700 ACURA 2004 - 3 N - M G														
Primary Rd PACIFIC COAST Distance (ft) 0 Direction Secondary Rd MARINA DR NCIC 3020 State Hwy? Y Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat SOUTH Type 0 CalTrans Badge 422 Collision Date 20161008 Time 0532 Day SAT Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type HEAD-ON Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161208 Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0 Hit and Run MSDMNR Motor Vehicle Involved With FIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int														
Party Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1F DRVR 20 M H HNBD OPPOS LN W A 0000 HONDA 1995 - - A - G -														
Primary Rd ROSSMOOR Distance (ft) 60 Direction W Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat SOUTH Type 0 CalTrans Badge 298 Collision Date 20161021 Time 1446 Day FRI Primary Collision Factor IMPROP TURN Violation 22107 Collision Type HEAD-ON Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20161207 Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int														
Party Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1F DRVR 89 F W HNBD RGT TURN W A 0000 TOYOT 2001 - - N - H - 2 DRVR 54 F B HNBD PROC ST E A 0000 CADIL 2012 - - N - G -														
Primary Rd RT 1 Distance (ft) 172 Direction S Secondary Rd 10TH ST NCIC 3020 State Hwy? Y Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat SOUTH Type 0 CalTrans Badge 246 Collision Date 20161129 Time 0720 Day TUE Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20161207 Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int														
Party Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1F DRVR 39 M W HNBD PROC ST S A 0100 NISSA 2015 - 3 N - L G 2 DRVR 29 M W HNBD STOPPED S A 0700 JEEP 1996 - 3 N - M G 3 DRVR 31 F W HNBD STOPPED S A 0100 TOYOT 2012 - 3 N - M G														
Primary Rd RT 1 Distance (ft) 0 Direction Secondary Rd 13TH ST NCIC 3020 State Hwy? Y Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 007 Type 0 CalTrans Badge 174 Collision Date 20161021 Time 1839 Day FRI Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20161208 Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DUSK/DAWN Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int														
Party Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1F DRVR 17 F W HNBD SLOWING N A 0000 NISSA 2010 - - N - G - 2 DRVR 44 F W HNBD STOPPED N A 0000 DODGE 2013 - - N - G -														

Primary Rd RT 1		Distance (ft) 0	Direction	Secondary Rd 8TH ST	NCIC 3020	State Hwy? Y	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 00S	Type 0	CalTrans	Badge 317	Collision Date 20160608	Time 1320	Day WED														
Primary Collision Factor R-O-W AUTO		Violation 21801A	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 3	Tow Away? Y	Process Date 20160816																
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																		
Hit and Run		Motor Vehicle Involved With OTHER MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info																								
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	31	F	W	HNBD	LFT TURN	S	-	0000	FORD	2008	A	-	A	-	-	DRVR	COMP PN 31	31	F	1	0	G	-
2	DRVR	20	F	W	HNBD	PROC ST	E	-	0000	NISSA	2002	A	-	A	22350	-	DRVR	COMP PN 20	20	F	1	3	-	-
Primary Rd RT 1		Distance (ft) 24	Direction E	Secondary Rd 8TH ST	NCIC 3020	State Hwy? Y	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat	Type 0	CalTrans	Badge 298	Collision Date 20161118	Time 1313	Day FRI														
Primary Collision Factor UNKNOWN		Violation	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20161207																
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																		
Hit and Run		Motor Vehicle Involved With OTHER MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info																								
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1	DRVR	23	F		HNBD	LFT TURN	S	A	0000	HONDA	2010	-	-	N	-	G	PASS		1	M	6	3	G	-
2	DRVR	68	F		HNBD	PROC ST	E	A	0000	JAGUA	2006	-	-	N	-	G	PASS		4	F	4	3	G	-
Primary Rd RT 1		Distance (ft) 291	Direction N	Secondary Rd ANDERSON ST	NCIC 3020	State Hwy? Y	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat ROVER	Type 0	CalTrans	Badge 178	Collision Date 20161018	Time 2203	Day TUE														
Primary Collision Factor R-O-W AUTO		Violation 21801B	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20161207																
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																		
Hit and Run		Motor Vehicle Involved With OTHER MV	Lighting DARK - ST	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int																
Party Info																								
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	998	F	W	HNBD	PROC ST	E	A	0000	FORD	1998	-	-	N	-	G								
2	DRVR	40	M	H	HBD-NUI	MERGING	E	A	0000	FORD	1995	-	-	N	-	G	DRVR	COMP PN 40	40	M	1	0	G	-
Primary Rd RT 1		Distance (ft) 631	Direction S	Secondary Rd MARINER DR	NCIC 3020	State Hwy? Y	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist 12	Beat 007	Type 0	CalTrans	Badge 174	Collision Date 20160925	Time 2249	Day SUN														
Primary Collision Factor R-O-W AUTO		Violation 21804A	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 4	Tow Away? Y	Process Date 20161208																
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																		
Hit and Run		Motor Vehicle Involved With OTHER MV	Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																
Party Info																								
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	27	F	W	HNBD	LFT TURN	W	A	0000	VOLKS	2013	-	-	N	-	G	DRVR	OTH VIS	27	F	1	0	L	-
																	PASS		29	M	3	0	G	-
																	PASS	COMP PN 29	29	M	4	0	G	-
																	PASS	OTH VIS	28	F	6	0	G	-
2	DRVR	23	F	W	HNBD	PROC ST	N	A	0000	FORD	2010	-	-	N	-	G	DRVR	OTH VIS	23	F	1	0	L	-

Primary Rd RT 1		Distance (ft) 827	Direction N	Secondary Rd PHILLIPS ST	NCIC 3020	State Hwy? Y	Route	Postmile Prefix	Postmile	Side of Hwy											
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 00S	Type 0	CalTrans	Badge 191	Collision Date 20160723	Time 0906	Day SAT											
Primary Collision Factor NOT DRIVER		Violation	Collision Type HIT OBJECT	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20161007													
Weather1 CLOUDY	Weather2	Rdwy Surface DRY	Rdwy Cond1 OBSTR ON RD	Rdwy Cond2	Spec Cond 0																
Hit and Run		Motor Vehicle Involved With	Lighting DAYLIGHT	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int													
Party Info							Victim Info														
Party Type	Age Sex Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1	BICY 47 F		HNBD	PROC ST	N	-	0000	-	-	E	-	-	-	BICY	COMP PN 47	F	9	3			
Primary Rd SEAL BEACH BL		Distance (ft) 710	Direction N	Secondary Rd BOLSA AV	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy											
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat SOUTH	Type 0	CalTrans	Badge 246	Collision Date 20160329	Time 0613	Day TUE											
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type HIT OBJECT	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20160412													
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																
Hit and Run		Motor Vehicle Involved With FIXED OBJ	Lighting DARK - ST	Ped Action	Cntrl Dev	FNCTNG	Loc Type	Ramp/Int													
Party Info							Victim Info														
Party Type	Age Sex Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR 33 F W		HNBD	PROC ST	S	A	0700	JEEP 2005	-	3	N	-	M G	DRVR	COMP PN 33	F	1	0	M	G	
Primary Rd SEAL BEACH BL		Distance (ft) 566	Direction S	Secondary Rd BRADBURY	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy											
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 429	Collision Date 20160228	Time 1849	Day SUN											
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20160412													
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																
Hit and Run		Motor Vehicle Involved With OTHER MV	Lighting DARK - ST	Ped Action	Cntrl Dev	FNCTNG	Loc Type	Ramp/Int													
Party Info							Victim Info														
Party Type	Age Sex Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR 76 M W		HNBD	LFT TURN	N	A	0000	MERCE 1983	-	-	N	-	G -								
2	DRVR 32 F W		HNBD	PROC ST	S	A	0000	BMW 2013	-	-	N	-	G -	DRVR	COMP PN 32	F	1	3	G		
3	DRVR 52 F W		HNBD	STOPPED	E	A	0000	CHEVR 2002	-	-	N	-	G -								
Primary Rd SEAL BEACH BL		Distance (ft) 1320	Direction S	Secondary Rd BRADBURY	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy											
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 00N	Type 0	CalTrans	Badge 152	Collision Date 20160928	Time 1443	Day WED											
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20161007													
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																
Hit and Run		Motor Vehicle Involved With OTHER MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int													
Party Info							Victim Info														
Party Type	Age Sex Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR 44 M W		HNBD	SLOWING	S	A	0100	FORD 2012	-	3	A	22350	F M G								
2	DRVR 16 F		HNBD	STOPPED	S	A	0100	HONDA 2008	-	3	N	-	L G								
3	DRVR 78 M		HNBD	STOPPED	S	A	0800	CHRY 2001	-	3	N	-	M G								
Primary Rd SEAL BEACH BL		Distance (ft) 120	Direction S	Secondary Rd BRADBURY RD	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy											
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat 106	Type 0	CalTrans	Badge 251	Collision Date 20160622	Time 1123	Day WED											
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160722													
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0																
Hit and Run		Motor Vehicle Involved With OTHER MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev	FNCTNG	Loc Type	Ramp/Int													
Party Info							Victim Info														
Party Type	Age Sex Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR 42 F W		HNBD	PROC ST	S	-	0000	FORD 1998	-	-	-	-	G -								
2	DRVR 36 F H		HNBD	RGT TURN	S	-	0000	FORD 2008	-	-	-	-	G -								
3	DRVR 27 M H		HNBD	STOPPED	-	-	0000	BMW 2002	-	-	-	-	G -								

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd SEAL BEACH BL Distance (ft) 65 Direction S Secondary Rd BRADBURY RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 00N Type 0 CalTrans Badge 191 Collision Date 20160729 Time 1737 Day FRI Primary Collision Factor IMPROP TURN Violation 22107 Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161010 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																										
Party Info															Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	22	F	W			LFT TURN	N	A	0000	DODGE	2013	-	-	-	-	G	-								
2	DRVR	76	M	W			PROC ST	N	A	0000	LEXUS	2011	-	-	-	-	G	-								
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd GOLDEN RAIN NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 362 Collision Date 20160120 Time 1352 Day WED Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160317 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info															Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	17	M	W	HNBD		PROC ST	-	A	0700	TOYOT	2009	-	3	N	-	M	G								
2	DRVR	998	F	W	HNBD		STOPPED	-	A	0700	JEEP	2014	-	3	N	-	M	G								
Primary Rd SEAL BEACH BL Distance (ft) 50 Direction N Secondary Rd GOLDEN RAIN NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 361 Collision Date 20160715 Time 1201 Day FRI Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160930 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info															Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	48	F	B			SLOWING	S	A	0000	FORD	2001	-	-	-	-	G	-								
2	DRVR	44	M	W			STOPPED	S	A	0000	TOYOT	2008	-	-	-	-	G	-								
Primary Rd SEAL BEACH BL Distance (ft) 27 Direction S Secondary Rd LAMPSON AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 141 Type 0 CalTrans Badge 251 Collision Date 20160715 Time 1424 Day FRI Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160816 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info															Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	72	M	W	HNBD		PROC ST	W	A	0000	FORD	1980	-	-	-	-	G	-								
Primary Rd SEAL BEACH BL Distance (ft) 560 Direction S Secondary Rd LANDING NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 361 Collision Date 20160303 Time 1806 Day THU Primary Collision Factor HAZ PARKING Violation 22515A Collision Type AUTO/PED Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160418 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With PED Lighting DUSK/DAWN Ped Action IN RD, Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																										
Party Info															Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	PED	53	F	W	IMP UNK	IMP UNK	STOPPED	-	-	0000	-	-	-	-	-	-	-	PED	COMP PN	54	F	9	3	-	-	
2	OTHR	998	-	-			BACKING	S	B	0000	LEXUS	1994	-	-	-	-	-									

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd SEAL BEACH BL Distance (ft) 10 Direction S Secondary Rd LANDING AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																											
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 317 Collision Date 20161016 Time 1724 Day SUN																											
Primary Collision Factor LANE CHANGE Violation 21658A Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161208																											
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																											
Hit and Run Motor Vehicle Involved With PKD MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																											
Party Info																											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	33	M	H	HNBD		PROC ST	S	A	0000	DODGE	2005	-	-	A	23123	-	M	-								
2	PRKD	998	-		HNBD		PARKED	W	A	0000	DODGE	1994	-	-	N		-	-									
Primary Rd SEAL BEACH BL Distance (ft) 452 Direction S Secondary Rd N GATE RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																											
City Seal Beach County Orange Population 4 Rpt Dist Beat NORTH Type 0 CalTrans Badge 16-2030 Collision Date 20160927 Time 0845 Day TUE																											
Primary Collision Factor IMPROP TURN Violation 22107 Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161007																											
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																											
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																											
Party Info																											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	65	M	W	HNBD		PROC ST	S	A	0100	TOYOT	2015	-	3	N		-	L	G								
Primary Rd SEAL BEACH BL Distance (ft) 55 Direction N Secondary Rd NORTH GATE RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																											
City Seal Beach County Orange Population 4 Rpt Dist Beat NORTH Type 0 CalTrans Badge 246 Collision Date 20160304 Time 1224 Day FRI																											
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160315																											
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																											
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																											
Party Info																											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	65	F	W	HNBD		PROC ST	S	A	0100	TOYOT	2014	-	3	N		-	M	G								
2	DRVR	48	F	W	HNBD		STOPPED	S	A	0700	HYUND	2014	-	3	N		-	M	G								
Primary Rd SEAL BEACH BL Distance (ft) 545 Direction N Secondary Rd NORTH GATE RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																											
City Seal Beach County Orange Population 4 Rpt Dist Beat NORTH Type 0 CalTrans Badge 432 Collision Date 20161011 Time 0628 Day TUE																											
Primary Collision Factor TOO CLOSE Violation 21703 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161208																											
Weather1 CLOUDY Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																											
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DUSK/DAWN Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																											
Party Info																											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	24	F	W	HNBD		PROC ST	S	A	0100	BMW	2003	-	3	A	22350	-	M	G								
2	DRVR	42	F	H	HNBD		STOPPED	S	A	0100	TOYOT	2014	-	3	N		-	M	G								
3	DRVR	49	M	H	HNBD		STOPPED	S	A	0100	HONDA	2016	-	3	N		-	M	G								
Primary Rd SEAL BEACH BL Distance (ft) 300 Direction N Secondary Rd NORTHGATE NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																											
City Seal Beach County Orange Population 4 Rpt Dist Beat 00N Type 0 CalTrans Badge 152 Collision Date 20160707 Time 1039 Day THU																											
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20161025																											
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																											
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																											
Party Info																											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected		
1F	DRVR	65	F	W	HNBD		SLOWING	S	A	0000	NISSA	2003	-	-	F		-	G	-	DRVR	OTH VIS	65	-	1	0	L	-
2	DRVR	61	M	W	HNBD		STOPPED	S	A	0000	CADIL	2016	-	-	N		-	G	-								

Primary Rd SEAL BEACH BL Distance (ft) 325 Direction N Secondary Rd NORTHGATE BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 001 Type 0 CalTrans Badge 362 Collision Date 20160120 Time 1242 Day WED																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160317																										
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	39	F	W	HNBD		PROC ST	-	A	0100	HONDA	2009	-	3	N	-	M	G								
2	DRVR	54	F	W	HNBD		STOPPED	-	A	0700	CHEVR	2004	-	3	N	-	M	G								
Primary Rd SEAL BEACH BL Distance (ft) 122 Direction S Secondary Rd NORTHGATE RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 362 Collision Date 20160107 Time 0651 Day THU																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160324																										
Weather1 CLOUDY Weather2 Rdw Surface WET Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With PKD MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	29	M	H	HNBD		LFT TURN	-	A	0100	NISSA	2008	-	3	N	-	M	G	PASS		19	M	3	0	M	G
																			PASS		19	M	5	0	M	G
																			PASS		25	M	6	0	M	G
2	PRKD	998	-		HNBD		PARKED	S	I	2000	OTHER	2007	-	3	N	-	-	-								
Primary Rd SEAL BEACH BL Distance (ft) 462 Direction N Secondary Rd NORTHGATE RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 007 Type 0 CalTrans Badge 430 Collision Date 20160116 Time 1533 Day SAT																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160323																										
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With NON-CLSN Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	28	M	W	HNBD		PROC ST	S	C	0200	KAWA	2011	-	3	N	-	P	W	DRVR	OTH VIS	28	M	1	1	P	W
2	DRVR	57	M	H	HNBD		STOPPED	S	D	2200	CHEVR	1997	-	3	N	-	M	G	PASS		30	M	3	0	M	G
Primary Rd SEAL BEACH BL Distance (ft) 45 Direction N Secondary Rd OLD RANCH PKWY NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat 00N Type 0 CalTrans Badge 191 Collision Date 20160118 Time 1428 Day MON																										
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160317																										
Weather1 CLOUDY Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	58	M	O	HNBD		PROC ST	S	A	0000	TOYOT	2000	-	-	-	-	-	-								
2	DRVR	90	F	W	HNBD		STOPPED	S	A	0000	DODGE	2014	-	-	-	-	-	-								
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd OLD RANCH PKWY NCIC 3020 State Hwy? Y Route Postmile Prefix Postmile Side of Hwy																										
City Seal Beach County Orange Population 4 Rpt Dist Beat ROVER Type 0 CalTrans Badge 178 Collision Date 20161012 Time 2228 Day WED																										
Primary Collision Factor R-O-W AUTO Violation 21453C Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161208																										
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																										
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info																										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	22	F	W	HNBD		LFT TURN	S	A	0000	HONDA	2016	-	-	N	-	G	-								
2	DRVR	23	F	W	HNBD		LFT TURN	W	A	0000	NISSA	2006	-	-	N	-	-	G								

Primary Rd SEAL BEACH BL		Distance (ft) 0	Direction	Secondary Rd OLD RANCH PKY	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 365	Collision Date 20160123	Time 0234	Day SAT														
Primary Collision Factor STOP SGN SIG		Violation 21453A	Collision Type BROADSIDE	Severity INJURY	#Killed 0	#Injured 2	Tow Away? Y	Process Date 20160322																
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																	
Motor Vehicle Involved With OTHER MV		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																	
Party Info											Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	29	M	W	HNBD	PROC ST	N	A	0000	MERCE	2016	-	A	14601	F	G	-	DRVR	COMP PN 27	M	1	0	G	-
2	DRVR	54	M	W	HNBD	PROC ST	E	A	0000	TOYOT	2014	-	N	-	G	-	DRVR	COMP PN 54	M	1	0	G	-	
Primary Rd SEAL BEACH BL		Distance (ft) 82	Direction N	Secondary Rd OLD RANCH PKY	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 431	Collision Date 20160509	Time 0624	Day MON														
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20160719																
Weather1 CLOUDY		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																	
Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																	
Party Info											Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	21	F	H	HNBD	PROC ST	S	A	0000	CHRY S	2005	-	N	-	G	-	DRVR	OTH VIS	21	F	1	0	G	-
2	DRVR	32	M	A	HNBD	STOPPED	S	A	0000	HONDA	2013	-	N	-	G	-								
Primary Rd SEAL BEACH BL		Distance (ft) 220	Direction N	Secondary Rd OLD RANCH PKY	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NA	Type 0	CalTrans	Badge 246	Collision Date 20160824	Time 0833	Day WED														
Primary Collision Factor UNSAFE SPEED		Violation 22350	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? Y	Process Date 20161010																
Weather1 CLOUDY		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																	
Motor Vehicle Involved With OTHER MV		Lighting DAYLIGHT	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																	
Party Info											Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	33	F	W	HNBD	PROC ST	S	A	0100	TOYOT	2016	-	3	N	-	L	G	DRVR	COMP PN 33	F	1	0	L	C
2	DRVR	42	F	O	HNBD	STOPPED	N	A	0700	KIA	2011	-	3	N	-	M	G							
Primary Rd SEAL BEACH BL		Distance (ft) 0	Direction	Secondary Rd OLD RANCH RD	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist NA	Beat ONA	Type 0	CalTrans	Badge 317	Collision Date 20160630	Time 2311	Day THU														
Primary Collision Factor UNKNOWN		Violation 21435A	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20160816																
Weather1 CLEAR		Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																	
Motor Vehicle Involved With OTHER MV		Lighting DARK - ST	Ped Action	Cntrl Dev	FUNCTNG	Loc Type	Ramp/Int																	
Party Info											Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	30	F	W	HNBD	PROC ST	N	A	0000	MAZDA	2012	-	-	F	-	-	-							
2	DRVR	22	M	W	HNBD	LFT TURN	E	A	0000	TOYOT	2013	-	-	N	-	-	PASS		22	M	3	0	G	-
Primary Rd SEAL BEACH BL		Distance (ft) 379	Direction N	Secondary Rd PACIFIC COAST	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy														
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat SOUTH	Type 0	CalTrans	Badge 300	Collision Date 20160918	Time 1523	Day SUN														
Primary Collision Factor IMPROP TURN		Violation 22107	Collision Type HEAD-ON	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20161108																
Weather1 CLEAR		Weather2	Rdwy Surface	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0	Hit and Run																	
Motor Vehicle Involved With FIXED OBJ		Lighting DAYLIGHT	Ped Action	Cntrl Dev	NT PRS/FCTR	Loc Type	Ramp/Int																	
Party Info											Victim Info													
Party Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	32	M	O	HBD-UI	PROC ST	N	A	0000	HONDA	2015	-	-	A	23152	-	G	-						

Primary Rd SEAL BEACH BL Distance (ft) 245 Direction S Secondary Rd PLYMOUTH NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat 00N Type 0 CalTrans Badge 191 Collision Date 20160912 Time 1147 Day MON																									
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161007																									
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	33	F				PROC ST	N	A	0000	VOLKS	2005	-	-	A	21703	-	B	-						
2	DRVR	76	M				PROC ST	N	A	0000	TOYOT	2005	-	-	-	-	G	-							
Primary Rd SEAL BEACH BL Distance (ft) 12 Direction N Secondary Rd PLYMOUTH DR NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat NORTH Type 0 CalTrans Badge 178 Collision Date 20160518 Time 1702 Day WED																									
Primary Collision Factor IMPROP TURN Violation 22107 Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160719																									
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	32	F	W			PROC ST	N	A	0000	HONDA	2010	-	-	N	-	G	-							
2	DRVR	33	F	W			RGT TURN	N	A	0000	KIA	2015	-	-	N	-	G	-							
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd PLYMOUTH DR NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat NORTH Type 0 CalTrans Badge 246 Collision Date 20161123 Time 0923 Day WED																									
Primary Collision Factor UNKNOWN Violation Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161207																									
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1	DRVR	87	F				PROC ST	N	A	0100	PONTI	1992	-	3	N	-	M	G							
2	DRVR	46	F	W			LFT TURN	E	A	0700	SUBAR	2016	-	3	N	-	M	G							
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd PLYMOUTH DR NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat NORTH Type 0 CalTrans Badge 246 Collision Date 20161129 Time 1427 Day TUE																									
Primary Collision Factor STOP SGN SIG Violation 21453A Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161207																									
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	85	M	W			PROC ST	N	A	0700	BUICK	2011	-	3	N	-	L	G							
2	DRVR	82	M	A			PROC ST	W	A	0700	LEXUS	2000	-	3	N	-	M	G							
Primary Rd SEAL BEACH BL Distance (ft) 30 Direction N Secondary Rd RD C NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat ROVER Type 0 CalTrans Badge 178 Collision Date 20160703 Time 1845 Day SUN																									
Primary Collision Factor IMPROP TURN Violation 22107 Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160816																									
Weather1 CLEAR Weather2 Rdw Surface DRY Rdw Cond1 NO UNUSL CND Rdw Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	50	F	B			RGT TURN	S	A	0000	MERCE	2000	-	-	N	-	G	-							
2	DRVR	53	F	W			PROC ST	S	A	0000	MERCE	2008	-	-	N	-	G	-							

Primary Rd SEAL BEACH BL Distance (ft) 450 Direction S Secondary Rd ROAD C NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 00S Type 0 CalTrans Badge 191 Collision Date 20160912 Time 1703 Day MON Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161007 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int														
Party Info Victim Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1F DRVR 22 F HNBD PROC ST N A 0000 HYUND 2014 - - A 21658 - G - DRVR OTH VIS 77 M 1 0 G - 2 DRVR 60 M HNBD PROC ST N A 0000 HONDA 2012 - - - - G - DRVR COMP PN 26 F 1 0 G - 3 DRVR 38 F W HNBD STOPPED S A 0000 MAZDA 2010 - - N - G - PASS COMP PN 998 - 3 0 G - 4 DRVR 60 F W HNBD STOPPED S A 0000 DODGE 2006 - - N - G -														
Primary Rd SEAL BEACH BL Distance (ft) 350 Direction N Secondary Rd RT 1 NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 00S Type 0 CalTrans Badge 152 Collision Date 20160614 Time 1412 Day TUE Primary Collision Factor NOT DRIVER Violation Collision Type REAR END Severity INJURY #Killed 0 #Injured 3 Tow Away? Y Process Date 20160829 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int														
Party Info Victim Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1 DRVR 76 M W HNBD PROC ST S A 0000 CHEVR 2002 - - N - G - DRVR OTH VIS 77 M 1 0 G - 2 DRVR 26 F W HNBD STOPPED S A 0000 FORD 2008 - - N - G - DRVR COMP PN 26 F 1 0 G - 3 DRVR 38 F W HNBD STOPPED S A 0000 MAZDA 2010 - - N - G - PASS COMP PN 998 - 3 0 G - 4 DRVR 60 F W HNBD STOPPED S A 0000 DODGE 2006 - - N - G -														
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd RT 405 NCIC 3020 State Hwy? Y Route 405 Postmile Prefix - Postmile 22.558 Side of Hwy N City Seal Beach County Orange Population 4 Rpt Dist Beat 006 Type 0 CalTrans 12 Badge 368 Collision Date 20160424 Time 2121 Day SUN Primary Collision Factor UNKNOWN Violation Collision Type OVERTURNED Severity FATAL #Killed 1 #Injured 0 Tow Away? Y Process Date 20160729 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With NON-CLSN Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type R Ramp/Int 4														
Party Info Victim Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1 DRVR 62 M W IMP UNK IMP UNK PROC ST N C 0200 HARLE 2012 - - L - P W DRVR KILLED 62 M 1 1 P W														
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd RT 405 NCIC 3020 State Hwy? Y Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 00N Type 0 CalTrans Badge 191 Collision Date 20160731 Time 1245 Day SUN Primary Collision Factor STOP SGN SIG Violation 21453A Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161010 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run MSDMNR Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int														
Party Info Victim Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1F DRVR 998 - IMP UNK IMP UNK LFT TURN - A 0000 - - A 20002 - - - 2 DRVR 21 F W HNBD PROC ST N A 0000 TOYOT 2012 - - - - G - DRVR COMP PN 55 M 1 0 L G 2 DRVR 52 M W HNBD LFT TURN W A 0100 FORD 2016 - 3 - - L G DRVR COMP PN 52 M 1 0 L G														
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd RT 405 NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat NORTH Type 0 CalTrans Badge 368 Collision Date 20160922 Time 0357 Day THU Primary Collision Factor UNKNOWN Violation Collision Type BROADSIDE Severity INJURY #Killed 0 #Injured 2 Tow Away? Y Process Date 20161007 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int														
Party Info Victim Info Party Type Age Sex Race Sobriety1 Sobriety2 Move Pre Dir SW Veh CHP Veh Make Year SP Info OAF1 Viol OAF2 Safety Equip ROLE Ext Of Inj AGE Sex Seat Pos Safety EQUIP Ejected 1 DRVR 55 M W HNBD PROC ST N A 0100 NISSA 2008 - 3 - - L G DRVR COMP PN 55 M 1 0 L G 2 DRVR 52 M W HNBD LFT TURN W A 0100 FORD 2016 - 3 - - L G DRVR COMP PN 52 M 1 0 L G														

Primary Rd SEAL BEACH BL Distance (ft) 207 Direction S Secondary Rd SAINT ANDREWS NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat ROVER Type 0 CalTrans Badge 178 Collision Date 20160322 Time 2002 Day TUE Primary Collision Factor OTHER EQPMNT Violation 24002A Collision Type OTHER Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160413 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER OBJ Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																										
Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	50	M	W	HNBD		PROC ST	S	A	0000	CHEVR	2001	-	-	N	-	G	-								
2	DRVR	58	M	W	HNBD		PROC ST	S	D	0000	NISSA	2015	-	-	N	-	G	-								
Primary Rd SEAL BEACH BL Distance (ft) 342 Direction N Secondary Rd TOWN CENTER DR NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 00N Type 0 CalTrans Badge 152 Collision Date 20160921 Time 1241 Day WED Primary Collision Factor IMPROP TURN Violation 22107 Collision Type BROADSIDE Severity INJURY #Killed 0 #Injured 2 Tow Away? Y Process Date 20161007 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	90	M	W	HNBD		LFT TURN	S	-	0000	ACURA	2007	A	-	F	-	L	-	DRVR	OTH VIS	90	-	1	0	L	-
2	DRVR	90	M	W	HNBD		PROC ST	S	-	0000	VOLKS	1996	A	-	N	-	L	-	DRVR	OTH VIS	90	-	1	0	L	-
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd TOWNE CENTER NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist 19 Beat 006 Type 0 CalTrans Badge 257 Collision Date 20160409 Time 2024 Day SAT Primary Collision Factor IMPROP TURN Violation 22107 Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160531 Weather1 CLOUDY Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - NO Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	92	M	W	HBD-NUI		LFT TURN	W	A	0100	HONDA	2008	-	3	A	21461	-	M	B							
2	DRVR	35	F	O	HNBD		LFT TURN	W	D	2200	FORD	2014	-	3	N	-	M	G								
Primary Rd SEAL BEACH BL Distance (ft) 145 Direction S Secondary Rd TOWNE CENTER NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist 19 Beat 006 Type 0 CalTrans Badge 174 Collision Date 20161104 Time 1942 Day FRI Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20161208 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DUSK/DAWN Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																										
Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	52	M	W	HBD-UI		PROC ST	S	A	0000	SUBAR	2014	-	-	F	-	L	-								
2	DRVR	39	M	W	HNBD		STOPPED	S	A	0000	TOYOT	2006	-	-	N	-	G	-	PASS		11	F	9	0	G	-
3	DRVR	48	F	W	HNBD		STOPPED	S	A	0000	TOYOT	2014	-	-	N	-	G	-	DRVR	COMP PN	48	F	1	0	G	-
																			PASS		82	F	3	0	G	-
																			PASS		14	F	4	0	G	-
																			PASS		93	F	6	0	G	-
																			PASS		14	M	7	0	G	-
4	DRVR	45	F	W	HNBD		STOPPED	S	A	0000	INFIN	2013	-	-	N	-	G	-	PASS		9	M	4	0	G	-

Include State Highways cases

Report Run On: 12/12/2016

Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd TOWNE CENTER NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat NORTH Type 0 CalTrans Badge 246 Collision Date 20160310 Time 1545 Day THU																									
Primary Collision Factor UNKNOWN Violation Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160413																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1	DRVR	86	F	W		PHYS	PROC ST	S	A	0100	TOYOT	2001	- 3	N	-	M	G								
2	DRVR	42	F	W	HNBD		PROC ST	E	A	0700	CHEVR	2007	- 3	N	-	M	G	PASS		8	F	4	0	P	Q
																		PASS		6	F	0	0	P	Q
Primary Rd SEAL BEACH BL Distance (ft) 86 Direction S Secondary Rd WESTMINSTER AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat SOUTH Type 0 CalTrans Badge 365 Collision Date 20160304 Time 2110 Day FRI																									
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type HIT OBJECT Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160317																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	52	F	W	HNBD		PROC ST	N	A	0000	MAZDA	2007	- -	N	-	-	G	DRVR	COMP PN	52	F	1	0	-	G
Primary Rd SEAL BEACH BL Distance (ft) 235 Direction S Secondary Rd WESTMINSTER AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat SOUTH Type 0 CalTrans Badge 246 Collision Date 20160305 Time 1340 Day SAT																									
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type HIT OBJECT Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160315																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With FIXED OBJ Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	71	M	W	HNBD		PROC ST	S	A	0100	TOYOT	1995	- 3	N	-	M	G								
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd WESTMINSTER AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat 001 Type 0 CalTrans Badge 362 Collision Date 20160725 Time 1340 Day MON																									
Primary Collision Factor DRVR ALC DRG Violation 23152A Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20160822																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	65	F	W		DRUG	PROC ST	E	A	0700	HONDA	2003	- 3	A	22350	-	M	G							
2	DRVR	43	F	W	HNBD		STOPPED	-	A	0100	TOYOT	2014	- 3	N	-	M	G								
3	DRVR	61	M	W	HNBD		STOPPED	-	D	2200	CHEVR	2004	- 3	N	-	M	G	PASS		25	M	3	0	M	G
Primary Rd SEAL BEACH BL Distance (ft) 0 Direction Secondary Rd WESTMINSTER AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat NORTH Type 0 CalTrans Badge 246 Collision Date 20160829 Time 0827 Day MON																									
Primary Collision Factor STOP SGN SIG Violation 21453A Collision Type BROADSIDE Severity PDO #Killed 0 #Injured 0 Tow Away? N Process Date 20161012																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info														Victim Info											
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	18	F	A	HNBD		PROC ST	W	A	0100	TOYOT	2003	- 3	N	-	M	G								
2	DRVR	28	M	W	HNBD		PROC ST	S	I	1100	FORD	2010	- 3	N	-	M	G								

Primary Rd SEAL BEACH BL Distance (ft) 158 Direction S Secondary Rd WESTMINSTER AV NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat SOUTH Type 0 CalTrans Badge 246 Collision Date 20161121 Time 0832 Day MON																									
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20161208																									
Weather1 CLOUDY Weather2 Rdwy Surface WET Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	33	M	H	HNBD		PROC ST	S	D	2200	TOYOT	1994	- 3	N	-	P	G								
2	DRVR	22	F	W	HNBD		PROC ST	S	A	0100	SUBAR	2014	- 3	N	-	M	G								
Primary Rd WESTMINSTER Distance (ft) 388 Direction W Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist 3020 Beat NORTH Type 0 CalTrans Badge 429 Collision Date 20160117 Time 1755 Day SUN																									
Primary Collision Factor IMPROP TURN Violation 22107 Collision Type SIDESWIPE Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160317																									
Weather1 CLOUDY Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	74	F	H	HNBD		LFT TURN	E	A	0100	HONDA	2006	- 3	N	-	L	G								
2	DRVR	21	M	W	HBD-NUI		PROC ST	W	A	0100	MAZDA	2012	- 3	N	-	L	G	PASS		22	M	6	0	P	G
																		PASS		22	M	4	0	P	G
																		PASS		25	M	3	0	L	G
Primary Rd WESTMINSTER AV Distance (ft) 4593 Direction W Secondary Rd BOLSA CHICA RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat 106 Type 0 CalTrans Badge 251 Collision Date 20160519 Time 1147 Day THU																									
Primary Collision Factor NOT DRIVER Violation Collision Type OTHER Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160719																									
Weather1 CLOUDY Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With NON-CLSN Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1	DRVR	56	M	W	HNBD		PROC ST	E	C	0000	OTHER	1999	- -	-	-	W	-	DRVR	OTH VIS	56	M	1	1	W	-
Primary Rd WESTMINSTER AV Distance (ft) 1285 Direction W Secondary Rd BOLSA CHICA RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy																									
City Seal Beach County Orange Population 4 Rpt Dist Beat ROVER Type 0 CalTrans Badge 178 Collision Date 20160616 Time 1816 Day THU																									
Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160720																									
Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0																									
Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info																									
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	22	F	H	HNBD		PROC ST	E	-	0000	TOYOT	2000	- -	N	-	L	-	PASS		20	F	3	0	G	-
2	DRVR	38	M	H	HNBD		STOPPED	E	-	0000	NISSA	2006	- -	N	-	G	-	PASS		4	F	4	0	Q	-
																		PASS		7	F	5	0	G	-
																		PASS		1	F	6	0	Q	-
3	DRVR	26	M	W	HNBD		STOPPED	E	-	0000	TOYOT	2016	- -	N	-	G	-								
4	DRVR	35	M	W	HNBD		PROC ST	E	-	0000	MERCE	2005	- -	N	-	G	-								

Primary Rd		WESTMINSTER AV		Distance (ft)	2289	Direction	W	Secondary Rd	BOLSA CHICA RD		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy		
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	SOUTH	Type	0	CalTrans	Badge	304	Collision Date	20160721	Time	1510	Day	THU
Primary Collision Factor		IMPROP TURN		Violation	22107	Collision Type	SIDESWIPE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20161010			
Weather1		CLEAR		Weather2		Rdwy Surface		DRY		Rdwy Cond1		NO UNUSL CND		Rdwy Cond2		Spec Cond		0		
Hit and Run		Motor Vehicle Involved With		OTHER MV		Lighting		DAYLIGHT		Ped Action		Cntrl Dev		NT PRS/FCTR		Loc Type		Ramp/Int		

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	58	F	W	HNBD		CHANG LN	E	A	0000	SMART	2010	-	-	-	-	M	-								
2	DRVR	37	M	W	HNBD		PROC ST	E	A	0000	HONDA	2004	-	-	A	22350	-	M	-							

Primary Rd		WESTMINSTER AV		Distance (ft)	203	Direction	W	Secondary Rd	BOLSA CHICA RD		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy		
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat		Type	0	CalTrans	Badge	361	Collision Date	20160820	Time	1113	Day	SAT
Primary Collision Factor		UNSAFE SPEED		Violation	22350	Collision Type	HEAD-ON	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20161129			
Weather1		CLEAR		Weather2		Rdwy Surface		DRY		Rdwy Cond1		NO UNUSL CND		Rdwy Cond2		Spec Cond		0		
Hit and Run		Motor Vehicle Involved With		FIXED OBJ		Lighting		DAYLIGHT		Ped Action		Cntrl Dev		NT PRS/FCTR		Loc Type		Ramp/Int		

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	34	M	W	IMP UNK	IMP UNK	RAN OFF RD	E	A	0000	JEEP	1997	-	-	-	-	G	-								
2	DRVR	49	M	H		null		E	-	0000	GMC	2015	-	-	-	-	G	-								

Primary Rd		WESTMINSTER AV		Distance (ft)	3615	Direction	W	Secondary Rd	BOLSA CHICA RD		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy		
City	Seal Beach	County	Orange	Population	4	Rpt Dist	14	Beat	007	Type	0	CalTrans	Badge	174	Collision Date	20160820	Time	1738	Day	SAT
Primary Collision Factor		UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20161010			
Weather1		CLEAR		Weather2		Rdwy Surface		DRY		Rdwy Cond1		NO UNUSL CND		Rdwy Cond2		Spec Cond		0		
Hit and Run		Motor Vehicle Involved With		OTHER MV		Lighting		DUSK/DAWN		Ped Action		Cntrl Dev		FNCTNG		Loc Type		Ramp/Int		

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	19	M	H	HNBD		SLOWING	E	A	0000	TOYOT	2005	-	-	N	-	G	-								
2	DRVR	69	M	W	HNBD		SLOWING	E	A	0000	CHRY	2016	-	-	N	-	G	-								
																		PASS		35	F	6	0	G	-	
																		PASS		31	M	3	0	G	-	
																		PASS		55	F	4	0	G	-	

Primary Rd		WESTMINSTER AV		Distance (ft)	580	Direction	W	Secondary Rd	BOLSA CHICA RD		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy		
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	SOUTH	Type	0	CalTrans	Badge	246	Collision Date	20161003	Time	0801	Day	MON
Primary Collision Factor		UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	1	Tow Away?	Y	Process Date	20161207			
Weather1		CLEAR		Weather2		Rdwy Surface		DRY		Rdwy Cond1		NO UNUSL CND		Rdwy Cond2		Spec Cond		0		
Hit and Run		Motor Vehicle Involved With		OTHER MV		Lighting		DAYLIGHT		Ped Action		Cntrl Dev		FNCTNG		Loc Type		Ramp/Int		

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	50	F	B	HNBD		SLOWING	E	A	0700	LEXUS	1999	-	3	N	-	M	G								
2	DRVR	55	F	W	HNBD		STOPPED	E	A	0700	BMW	2011	-	3	N	-	M	G	DRVR	COMP PN	55	F	1	0	M	G

Primary Rd		WESTMINSTER AV		Distance (ft)	1014	Direction	W	Secondary Rd	BOLSA CHICA RD		NCIC	3020	State Hwy?	N	Route	Postmile Prefix	Postmile	Side of Hwy		
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	NORTH	Type	0	CalTrans	Badge	432	Collision Date	20161012	Time	0725	Day	WED
Primary Collision Factor		UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20161208			
Weather1		CLOUDY		Weather2		Rdwy Surface		DRY		Rdwy Cond1		NO UNUSL CND		Rdwy Cond2		Spec Cond		0		
Hit and Run		Motor Vehicle Involved With		OTHER MV		Lighting		DAYLIGHT		Ped Action		Cntrl Dev		FNCTNG		Loc Type		Ramp/Int		

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	28	M	W	HNBD		PROC ST	W	A	0700	JEEP	2004	-	3	N	-	M	G								
2	DRVR	58	F	W	HNBD		PROC ST	W	A	0100	SUBAR	2011	-	3	N	-	M	G								

Primary Rd	WESTMINSTER AV	Distance (ft)	222	Direction	W	Secondary Rd	KITTS	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy										
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	PATRO	Type	0	CalTrans		Badge	314	Collision Date	20160524	Time	1817 Day TUE									
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	2	Tow Away?	Y	Process Date	20160719												
Weather1	CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0	Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int	

Party Info														Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected				
1F	DRVR	21	M	O	HNBD		PROC ST	W	A	0000	FORD	2002	-	-	N	-	G	-	DRVR	COMP PN 21	M	1	0	G	-				
2	DRVR	33	M	O	HNBD		STOPPED	W	A	0000	HONDA	2006	-	-	N	-	G	-	DRVR	COMP PN 33	M	1	0	G	-				
3	DRVR	26	M	O	HNBD		STOPPED	W	A	0000	HONDA	2015	-	-	N	-	G	-											

Primary Rd	WESTMINSTER AV	Distance (ft)	233	Direction	W	Secondary Rd	KITTS HWY	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy										
City	Seal Beach	County	Orange	Population	4	Rpt Dist	11	Beat	SOUTH	Type	0	CalTrans		Badge	313	Collision Date	20160502	Time	1159 Day MON									
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	1	Tow Away?	Y	Process Date	20160719												
Weather1	CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0	Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int	

Party Info														Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected				
1F	DRVR	90	M	W	HNBD		PROC ST	E	A	0000	LINCO	2012	-	-	F	-	G	-	DRVR	OTH VIS	90	M	1	0	G	-			
2	DRVR	22	M	H	HNBD		STOPPED	E	A	0000	TOYOT	2003	-	-	N	-	G	-											

Primary Rd	WESTMINSTER AV	Distance (ft)	0	Direction		Secondary Rd	KITTS RD	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy										
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	141	Type	0	CalTrans		Badge	251	Collision Date	20160713	Time	1619 Day WED									
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20160816												
Weather1	CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0	Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int	

Party Info														Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected				
1F	DRVR	19	M	W	HNBD		PROC ST	W	A	0000	FORD	2001	-	-	G	-	G	-											
2	DRVR	43	M	O	HNBD		STOPPED	W	A	0000	VOLKS	2015	-	-	-	-	G	-											
3	DRVR	38	F	W	HNBD		STOPPED	W	A	0000	FORD	2016	-	-	-	-	G	-											

Primary Rd	WESTMINSTER AV	Distance (ft)	108	Direction	W	Secondary Rd	KITTS RD	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy										
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat	SOUTH	Type	0	CalTrans		Badge	246	Collision Date	20160714	Time	1416 Day THU									
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	2	Tow Away?	Y	Process Date	20160816												
Weather1	CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0	Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		FUNCTNG		Loc Type		Ramp/Int	

Party Info														Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected				
1F	DRVR	20	M	O	HNBD		PROC ST	E	A	0000	TOYOT	2005	-	-	N	-	L	-											
2	DRVR	82	M	W	HNBD		SLOWING	E	A	0000	HYUND	2016	-	-	N	-	M	-	DRVR	COMP PN 82	M	1	0	M	-				
																			PASS	COMP PN 66	F	3	0	M	-				

Primary Rd	WESTMINSTER AV	Distance (ft)	70	Direction	W	Secondary Rd	KITTS RD	NCIC	3020	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy										
City	Seal Beach	County	Orange	Population	4	Rpt Dist		Beat		Type	0	CalTrans		Badge	361	Collision Date	20160910	Time	1708 Day SAT									
Primary Collision Factor	UNSAFE SPEED		Violation	22350	Collision Type	REAR END	Severity	INJURY	#Killed	0	#Injured	2	Tow Away?	N	Process Date	20161007												
Weather1	CLEAR		Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0	Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		NT PRS/FCTR		Loc Type		Ramp/Int	

Party Info														Victim Info															
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected				
1F	DRVR	63	F	W	HNBD		PROC ST	E	-	0000	TOYOT	2011	A	-	-	-	G	-											
2	DRVR	23	M	W	HNBD		STOPPED	E	-	0000	FORD	2002	A	-	-	-	G	-	DRVR	COMP PN 24	M	1	0	G	-				

															PASS	COMP PN 14	M	3	0	G	-				
3	DRVR	26	M	W	HNBD	STOPPED	W	-	0000	NISSA	2006	A	-	-	G	-									
Primary Rd WESTMINSTER AV Distance (ft) 25 Direction W Secondary Rd KITTS RD NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 00S Type 0 CalTrans Badge 152 Collision Date 20160921 Time 0957 Day WED Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20161007 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info															Victim Info										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	45	M	W	HNBD	PROC ST	E	-	0000	TOYOT	2008	A	-	A	23123	-	L	-	-	-	-	-	-	-	-
2	DRVR	43	M	W	HNBD	STOPPED	E	-	0000	TOYOT	2014	A	-	F	-	G	-	DRVR	COMP PN 43	-	1	0	G	-	
Primary Rd WESTMINSTER AV Distance (ft) 700 Direction E Secondary Rd ROAD B NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat ROVER Type 0 CalTrans Badge 178 Collision Date 20160308 Time 1810 Day TUE Primary Collision Factor R-O-W AUTO Violation 21801A Collision Type BROADSIDE Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160412 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info															Victim Info										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	86	M	W	HNBD	LFT TURN	N	A	0000	HONDA	2008	-	-	N	-	-	L	-	-	-	-	-	-	-	
2	DRVR	50	F	A	HNBD	PROC ST	E	A	0000	SATUR	2004	-	-	N	-	-	L	DRVR	COMP PN 50	F	1	0	-	G	
Primary Rd WESTMINSTER AV Distance (ft) 368 Direction W Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist 11 Beat ROVER Type 0 CalTrans Badge 368 Collision Date 20160226 Time 1758 Day FRI Primary Collision Factor R-O-W AUTO Violation 21801A Collision Type BROADSIDE Severity INJURY #Killed 0 #Injured 2 Tow Away? N Process Date 20160315 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER OBJ Lighting DARK - ST Ped Action Cntrl Dev NT PRS/FCTR Loc Type Ramp/Int																									
Party Info															Victim Info										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	92	M	W	HNBD	LFT TURN	E	M	9500	OTHER	2015	-	3	-	-	M	B	DRVR	OTH VIS	92	M	1	0	M	B
2	DRVR	41	M	W	HNBD	PROC ST	W	A	0100	CHEVR	2006	-	3	-	-	M	G	PASS	OTH VIS	63	F	3	0	M	B
Primary Rd WESTMINSTER AV Distance (ft) 776 Direction W Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat 001 Type 0 CalTrans Badge 362 Collision Date 20160301 Time 1537 Day TUE Primary Collision Factor STRTNGJCKNG Violation 22106 Collision Type HIT OBJECT Severity INJURY #Killed 0 #Injured 1 Tow Away? Y Process Date 20160323 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info															Victim Info										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	67	M	W	HBD-NUI	PARKING	N	D	2200	CHEVR	2003	-	3	N	-	M	G	DRVR	OTH VIS	67	M	1	0	M	G
2	PRKD	998	-	-	HNBD	PARKED	N	A	0800	TOYOT	2004	-	3	N	-	-	-	-	-	-	-	-	-	-	
3	DRVR	33	M	W	HNBD	PROC ST	-	A	0100	NISSA	2001	-	3	N	-	L	G	-	-	-	-	-	-	-	
Primary Rd WESTMINSTER AV Distance (ft) 500 Direction E Secondary Rd SEAL BEACH BL NCIC 3020 State Hwy? N Route Postmile Prefix Postmile Side of Hwy City Seal Beach County Orange Population 4 Rpt Dist Beat Type 0 CalTrans Badge 317 Collision Date 20160406 Time 0655 Day WED Primary Collision Factor UNSAFE SPEED Violation 22350 Collision Type REAR END Severity PDO #Killed 0 #Injured 0 Tow Away? Y Process Date 20160531 Weather1 CLEAR Weather2 Rdwy Surface DRY Rdwy Cond1 NO UNUSL CND Rdwy Cond2 Spec Cond 0 Hit and Run Motor Vehicle Involved With OTHER MV Lighting DAYLIGHT Ped Action Cntrl Dev FNCTNG Loc Type Ramp/Int																									
Party Info															Victim Info										
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	23	F	W	HNBD	PROC ST	W	A	0000	HYUND	2004	-	-	N	-	G	-	-	-	-	-	-	-	-	
2	DRVR	40	F	W	HNBD	STOPPED	W	A	0000	AUDI	2015	-	-	N	-	G	-	PASS	-	8	M	3	0	G	-

PASS	14	F	9	3	-	-
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Primary Rd WESTMINSTER AV	Distance (ft) 43	Direction W	Secondary Rd SEAL BEACH BL	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy	
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 431	Collision Date 20160706	Time 1607 Day WED	
Primary Collision Factor UNSAFE SPEED	Violation 22350	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20160816			
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0					
Hit and Run	Motor Vehicle Involved With OTHER MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int				

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	33	F	H	HNBD		STOPPED	E	D	0000	CHEVR	2001	-	-	N	-	G									
2	DRVR	49	F	A	HNBD		STOPPED	E	A	0000	AUDI	2003	-	-	N	-	G	DRVR	COMP PN	49	F	1	0	G		

Primary Rd WESTMINSTER AV	Distance (ft) 353	Direction E	Secondary Rd SEAL BEACH BL	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy	
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat SOUTH	Type 0	CalTrans	Badge 246	Collision Date 20160727	Time 1555 Day WED	
Primary Collision Factor UNSAFE SPEED	Violation 22350	Collision Type REAR END	Severity INJURY	#Killed 0	#Injured 1	Tow Away? N	Process Date 20160819			
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0					
Hit and Run	Motor Vehicle Involved With OTHER MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int				

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	23	M	W	HNBD		PROC ST	W	A	0800	NISSA	2015	-	3	N	-	M	G								
2	DRVR	70	M	W	HNBD		STOPPED	W	A	0100	MERCE	2001	-	3	N	-	M	G	DRVR	COMP PN	70	M	1	0	M	G
3	DRVR	32	F	H	HNBD		STOPPED	W	D	2200	FORD	1997	-	3	N	-	M	G	PASS		37	F	3	0	M	G

Primary Rd WESTMINSTER AV	Distance (ft) 956	Direction W	Secondary Rd SEAL BEACH BL	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy	
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 361	Collision Date 20160826	Time 1005 Day FRI	
Primary Collision Factor IMPROP TURN	Violation 22107	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? N	Process Date 20161013			
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0					
Hit and Run	Motor Vehicle Involved With OTHER MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev NT PRS/FCTR	Loc Type	Ramp/Int				

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	83	F	A	HNBD		RGT TURN	S	A	0000	FORD	1998	-	-	-	-	G									
2	DRVR	45	M	W	HNBD		PROC ST	E	A	0000	HONDA	1997	-	-	-	-	G									

Primary Rd WESTMINSTER AV	Distance (ft) 255	Direction W	Secondary Rd SEAL BEACH BL	NCIC 3020	State Hwy? N	Route	Postmile Prefix	Postmile	Side of Hwy	
City Seal Beach	County Orange	Population 4	Rpt Dist	Beat NORTH	Type 0	CalTrans	Badge 246	Collision Date 20160926	Time 0713 Day MON	
Primary Collision Factor R-O-W AUTO	Violation 21804A	Collision Type BROADSIDE	Severity PDO	#Killed 0	#Injured 0	Tow Away? Y	Process Date 20161011			
Weather1 CLEAR	Weather2	Rdwy Surface DRY	Rdwy Cond1 NO UNUSL CND	Rdwy Cond2	Spec Cond 0					
Hit and Run	Motor Vehicle Involved With OTHER MV	Lighting DAYLIGHT	Ped Action	Cntrl Dev FNCTNG	Loc Type	Ramp/Int				

Party Info														Victim Info												
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected	
1F	DRVR	29	F	W	HNBD		RGT TURN	N	A	0700	JEEP	2015	-	3	N	-	M	G								
2	DRVR	56	M	W	HNBD		PROC ST	E	I	1100	FORD	2013	-	3	N	-	M	G								

APPENDIX E

**SIMTRAFFIC QUEUING AND ARTERIAL PERFORMANCE
WORKSHEETS**

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB	
Directions Served	L	TR	L	TR	L	T	T	T	R	L	T	T	
Maximum Queue (ft)	141	108	55	77	133	145	115	132	9	60	198	223	
Average Queue (ft)	61	37	12	25	51	32	34	34	0	22	58	68	
95th Queue (ft)	113	78	37	54	103	93	88	94	5	54	141	167	
Link Distance (ft)	231	231	160	160		827	827	827			1070	1070	
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)					80					50	150		
Storage Blk Time (%)					7	0					3	1	
Queuing Penalty (veh)					40	0					1	0	

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	258	79
Average Queue (ft)	81	10
95th Queue (ft)	186	50
Link Distance (ft)	1070	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)	13	0
Queuing Penalty (veh)	9	0

Intersection: 7: Seal Beach Boulevard & Bradbury Road

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB	
Directions Served	L	TR	LT	R	L	T	T	TR	L	T	T	TR	
Maximum Queue (ft)	342	125	135	43	224	236	281	254	66	185	212	267	
Average Queue (ft)	191	56	61	15	111	92	113	121	14	80	98	128	
95th Queue (ft)	299	102	115	42	192	194	222	227	43	156	184	233	
Link Distance (ft)	1217	1217	476			1070	1070	1070		2901	2901	2901	
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)					60	360					205		
Storage Blk Time (%)					14	0					0		
Queuing Penalty (veh)					3	0					0		

Intersection: 11: Montecito Road & Bradbury Road

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	44	105	111	55	114	90	47
Average Queue (ft)	19	51	52	29	53	37	17
95th Queue (ft)	45	84	88	41	89	67	34
Link Distance (ft)	701	1217	1217	1020	1020	664	664
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: West Road & Rossmoor Center Way

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	48	53	31
Average Queue (ft)	31	32	14
95th Queue (ft)	43	45	39
Link Distance (ft)	324	259	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	EB	WB	NB	SB
Directions Served	LT	TR	LTR	LTR	LTR
Maximum Queue (ft)	58	64	104	67	72
Average Queue (ft)	34	30	53	29	33
95th Queue (ft)	51	51	89	53	60
Link Distance (ft)	210	210	231	274	166
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	T	R	L	T	T
Maximum Queue (ft)	237	119	43	30	174	440	442	435	116	145	394	432
Average Queue (ft)	125	42	11	9	113	142	117	106	10	38	113	135
95th Queue (ft)	213	81	34	27	190	341	317	308	76	95	256	288
Link Distance (ft)	231	231	160	160		827	827	827			1070	1070
Upstream Blk Time (%)	0											
Queuing Penalty (veh)	1											
Storage Bay Dist (ft)					80				50	150		
Storage Blk Time (%)					22	11		17		0	6	
Queuing Penalty (veh)					114	17		4		1	2	

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	460	250
Average Queue (ft)	153	52
95th Queue (ft)	311	160
Link Distance (ft)	1070	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)	30	4
Queuing Penalty (veh)	57	22

Intersection: 7: Seal Beach Boulevard & Bradbury Road

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	LT	R	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	250	121	108	32	208	182	181	209	60	236	281	328
Average Queue (ft)	115	52	44	8	97	46	54	58	18	69	104	141
95th Queue (ft)	194	95	90	31	176	122	133	145	47	166	204	256
Link Distance (ft)	1217	1217	476			1070	1070	1070		2901	2901	2901
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				60	360				205			
Storage Blk Time (%)			6							1		
Queuing Penalty (veh)			1							0		

Intersection: 11: Montecito Road & Bradbury Road

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	36	100	58	52	77	62	41
Average Queue (ft)	14	53	30	26	36	31	14
95th Queue (ft)	39	87	53	43	57	51	32
Link Distance (ft)	701	1217	1217	1020	1020	664	664
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: West Road & Rossmoor Center Way

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	54	65	45
Average Queue (ft)	33	35	21
95th Queue (ft)	44	51	47
Link Distance (ft)	324	259	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	EB	WB	NB	SB
Directions Served	LT	TR	LTR	LTR	LTR
Maximum Queue (ft)	45	54	199	125	75
Average Queue (ft)	28	28	97	58	41
95th Queue (ft)	48	50	165	92	65
Link Distance (ft)	210	210	231	274	166
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	T	R	L	T	T
Maximum Queue (ft)	200	111	59	39	174	270	201	123	27	108	230	253
Average Queue (ft)	113	45	14	10	98	87	65	53	2	25	86	99
95th Queue (ft)	185	87	42	31	168	197	140	111	12	67	174	199
Link Distance (ft)	231	231	160	160		827	827	827			1070	1070
Upstream Blk Time (%)	0											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)					80				50	150		
Storage Blk Time (%)					18	3		8			1	
Queuing Penalty (veh)					85	5		1			0	

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	266	202
Average Queue (ft)	112	44
95th Queue (ft)	213	116
Link Distance (ft)	1070	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)	22	5
Queuing Penalty (veh)	50	21

Intersection: 7: Seal Beach Boulevard & Bradbury Road

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	LT	R	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	206	107	124	40	125	188	182	196	51	160	196	262
Average Queue (ft)	109	47	51	10	72	70	84	89	19	77	108	152
95th Queue (ft)	183	86	98	34	119	146	162	171	45	144	181	243
Link Distance (ft)	1217	1217	476			1070	1070	1070		2901	2901	2901
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				60	360				205			
Storage Blk Time (%)			7	0						0		
Queuing Penalty (veh)			1	0						0		

Intersection: 11: Montecito Road & Bradbury Road

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	35	82	56	45	58	52	34
Average Queue (ft)	15	42	30	22	30	27	10
95th Queue (ft)	41	69	53	41	46	44	29
Link Distance (ft)	701	1217	1217	1020	1020	664	664
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: West Road & Rossmoor Center Way

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	53	54	54
Average Queue (ft)	31	34	25
95th Queue (ft)	46	47	49
Link Distance (ft)	324	259	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	EB	WB	NB	SB
Directions Served	LT	TR	LTR	LTR	LTR
Maximum Queue (ft)	72	59	180	119	93
Average Queue (ft)	33	31	97	68	51
95th Queue (ft)	56	52	156	103	81
Link Distance (ft)	210	210	231	274	166
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB	
Directions Served	L	TR	L	TR	L	T	T	T	R	L	T	T	
Maximum Queue (ft)	147	112	59	70	136	148	109	111	17	59	224	262	
Average Queue (ft)	67	39	15	27	53	40	39	35	1	18	76	86	
95th Queue (ft)	128	82	43	58	107	102	90	88	10	50	178	206	
Link Distance (ft)	231	231	160	160		827	827	827			1070	1070	
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)					80					50	150		
Storage Blk Time (%)					7	1					4		1
Queuing Penalty (veh)					36	1					1		0

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	263	204
Average Queue (ft)	97	16
95th Queue (ft)	222	84
Link Distance (ft)	1070	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)	14	0
Queuing Penalty (veh)	12	0

Intersection: 7: Seal Beach Boulevard & Bradbury Road

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB	
Directions Served	L	TR	LT	R	L	T	T	TR	L	T	T	TR	
Maximum Queue (ft)	397	138	151	48	233	206	244	252	60	168	197	259	
Average Queue (ft)	203	50	64	15	106	95	114	122	13	74	99	131	
95th Queue (ft)	339	97	125	42	190	194	225	229	41	142	183	236	
Link Distance (ft)	1217	1217	476			1070	1070	1070		2901	2901	2901	
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)					60	360					205		
Storage Blk Time (%)					13	0						0	
Queuing Penalty (veh)					3	0						0	

Intersection: 11: Montecito Road & Bradbury Road

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	35	115	99	70	116	67	43
Average Queue (ft)	20	53	47	32	55	36	17
95th Queue (ft)	45	94	79	52	91	59	37
Link Distance (ft)	701	1217	1217	1020	1020	664	664
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: West Road & Rossmoor Center Way

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	44	63	36
Average Queue (ft)	30	34	14
95th Queue (ft)	43	50	39
Link Distance (ft)	324	259	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	EB	WB	NB	SB
Directions Served	LT	TR	LTR	LTR	LTR
Maximum Queue (ft)	56	55	117	50	61
Average Queue (ft)	33	31	57	30	34
95th Queue (ft)	50	49	96	47	54
Link Distance (ft)	210	210	231	274	166
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	T	R	L	T	T
Maximum Queue (ft)	244	123	47	38	174	471	451	440	117	160	410	420
Average Queue (ft)	152	51	10	9	124	159	129	109	10	40	128	156
95th Queue (ft)	240	96	34	29	198	373	329	308	68	104	275	310
Link Distance (ft)	231	231	160	160		827	827	827			1070	1070
Upstream Blk Time (%)	2											
Queuing Penalty (veh)	4											
Storage Bay Dist (ft)					80				50	150		
Storage Blk Time (%)					27	12		19		0	7	
Queuing Penalty (veh)					138	23		5		0	3	

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	451	250
Average Queue (ft)	163	77
95th Queue (ft)	317	195
Link Distance (ft)	1070	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)	36	8
Queuing Penalty (veh)	81	44

Intersection: 7: Seal Beach Boulevard & Bradbury Road

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	LT	R	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	234	128	106	49	244	157	195	194	55	285	346	379
Average Queue (ft)	124	49	40	10	103	45	56	63	17	71	111	154
95th Queue (ft)	203	95	83	37	192	121	142	157	45	178	229	290
Link Distance (ft)	1217	1217	476			1070	1070	1070		2901	2901	2901
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				60	360				205			
Storage Blk Time (%)			5	0						1		
Queuing Penalty (veh)			1	0						0		

Intersection: 11: Montecito Road & Bradbury Road

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	39	132	73	50	72	65	49
Average Queue (ft)	14	56	33	26	36	31	16
95th Queue (ft)	40	98	56	42	57	53	37
Link Distance (ft)	701	1217	1217	1020	1020	664	664
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: West Road & Rossmoor Center Way

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	58	64	53
Average Queue (ft)	33	36	26
95th Queue (ft)	48	52	49
Link Distance (ft)	324	259	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	EB	WB	NB	SB
Directions Served	LT	TR	LTR	LTR	LTR
Maximum Queue (ft)	62	61	222	116	99
Average Queue (ft)	35	33	121	59	44
95th Queue (ft)	56	53	200	93	75
Link Distance (ft)	210	210	231	274	166
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			1		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	T	R	L	T	T
Maximum Queue (ft)	227	141	52	38	174	311	233	140	33	111	217	252
Average Queue (ft)	122	56	14	10	103	92	59	50	3	26	91	106
95th Queue (ft)	200	103	41	28	176	226	138	108	18	72	184	213
Link Distance (ft)	231	231	160	160		827	827	827			1070	1070
Upstream Blk Time (%)	0	0										
Queuing Penalty (veh)	1	0										
Storage Bay Dist (ft)					80				50	150		
Storage Blk Time (%)					23	3		8	0		2	
Queuing Penalty (veh)					110	6		1	0		0	

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	294	224
Average Queue (ft)	119	47
95th Queue (ft)	228	124
Link Distance (ft)	1070	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)	23	4
Queuing Penalty (veh)	57	19

Intersection: 7: Seal Beach Boulevard & Bradbury Road

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	LT	R	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	228	96	120	44	161	181	202	230	62	173	234	305
Average Queue (ft)	106	48	47	10	75	59	74	82	15	73	105	160
95th Queue (ft)	184	88	96	35	133	140	159	174	46	145	196	257
Link Distance (ft)	1217	1217	476			1070	1070	1070		2901	2901	2901
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				60	360				205			
Storage Blk Time (%)			6	0						0		
Queuing Penalty (veh)			1	0						0		

Intersection: 11: Montecito Road & Bradbury Road

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	36	77	58	32	55	60	24
Average Queue (ft)	17	43	33	23	30	26	10
95th Queue (ft)	43	67	55	39	43	43	26
Link Distance (ft)	701	1217	1217	1020	1020	664	664
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: West Road & Rossmoor Center Way

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	61	62	63
Average Queue (ft)	31	34	27
95th Queue (ft)	49	49	51
Link Distance (ft)	324	259	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	EB	WB	NB	SB
Directions Served	LT	TR	LTR	LTR	LTR
Maximum Queue (ft)	60	72	206	149	95
Average Queue (ft)	33	36	109	69	49
95th Queue (ft)	53	59	172	113	81
Link Distance (ft)	210	210	231	274	166
Upstream Blk Time (%)			0		0
Queuing Penalty (veh)			0		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	TR	L	T	T	T	R	L	T	T
Maximum Queue (ft)	146	74	42	80	150	100	107	113	15	80	248	300
Average Queue (ft)	64	29	11	24	56	29	35	34	1	18	74	88
95th Queue (ft)	121	58	34	57	115	77	90	88	9	52	187	220
Link Distance (ft)	231		160	160		822	822	822			1063	1063
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		150			250				50	150		
Storage Blk Time (%)	0							4		0		2
Queuing Penalty (veh)	0							1		0		0

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	325	170
Average Queue (ft)	98	21
95th Queue (ft)	237	107
Link Distance (ft)	1063	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)	14	0
Queuing Penalty (veh)	12	1

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	LTR	LTR
Maximum Queue (ft)	64	92	64	56	71
Average Queue (ft)	38	45	29	30	26
95th Queue (ft)	58	77	55	53	50
Link Distance (ft)	210	231	231	286	152
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	LTR	LTR
Maximum Queue (ft)	89	215	68	144	73
Average Queue (ft)	43	99	34	62	35
95th Queue (ft)	73	180	58	106	64
Link Distance (ft)	210	231	231	286	152
Upstream Blk Time (%)		0			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	TR	L	T	T	T	R	L	T	T
Maximum Queue (ft)	239	195	50	27	281	288	267	241	74	140	238	244
Average Queue (ft)	134	75	10	8	127	69	68	64	4	35	113	135
95th Queue (ft)	231	168	33	26	224	187	181	172	42	89	205	222
Link Distance (ft)	231		160	160		822	822	822			1063	1063
Upstream Blk Time (%)	2											
Queuing Penalty (veh)	7											
Storage Bay Dist (ft)		150			250				50	150		
Storage Blk Time (%)	12	0			1	1		13		0	5	
Queuing Penalty (veh)	19	1			3	3		3		0	2	

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	323	245
Average Queue (ft)	147	51
95th Queue (ft)	251	140
Link Distance (ft)	1063	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)	33	4
Queuing Penalty (veh)	74	21

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	TR	L	T	T	T	R	L	T	T
Maximum Queue (ft)	240	195	57	26	252	169	124	124	24	92	213	233
Average Queue (ft)	129	77	14	9	116	56	53	50	3	21	93	107
95th Queue (ft)	223	168	43	26	210	120	105	103	15	60	190	214
Link Distance (ft)	231		160	160		822	822	822			1063	1063
Upstream Blk Time (%)	1											
Queuing Penalty (veh)	6											
Storage Bay Dist (ft)		150			250				50	150		
Storage Blk Time (%)	6	0			0	0		9			2	
Queuing Penalty (veh)	10	0			1	0		1			0	

Intersection: 6: Seal Beach Boulevard & Rossmoor Center Way/Plymouth Drive

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	238	210
Average Queue (ft)	121	44
95th Queue (ft)	223	112
Link Distance (ft)	1063	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)	26	3
Queuing Penalty (veh)	65	14

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	LTR	LTR
Maximum Queue (ft)	93	169	85	148	112
Average Queue (ft)	50	89	38	74	44
95th Queue (ft)	80	145	64	120	83
Link Distance (ft)	210	231	231	286	152
Upstream Blk Time (%)		0			0
Queuing Penalty (veh)		0			0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Montecito Road & Bradbury Road

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	50	135	114	70	111	71	47
Average Queue (ft)	23	55	54	32	53	34	17
95th Queue (ft)	50	101	92	52	85	58	38
Link Distance (ft)	701	1217	1217	1020	1020	664	664
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: West Road & Rossmoor Center Way

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	55	66	31
Average Queue (ft)	33	32	13
95th Queue (ft)	42	51	38
Link Distance (ft)	324	259	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	EB	WB	NB	SB
Directions Served	LT	TR	LTR	LTR	LTR
Maximum Queue (ft)	63	60	105	60	60
Average Queue (ft)	32	31	51	28	34
95th Queue (ft)	50	50	85	54	56
Link Distance (ft)	210	210	231	274	166
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Montecito Road & Bradbury Road

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	43	101	68	38	64	56	49
Average Queue (ft)	17	52	33	25	36	30	17
95th Queue (ft)	43	84	57	39	55	51	40
Link Distance (ft)	701	1217	1217	1020	1020	664	664
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: West Road & Rossmoor Center Way

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	54	68	62
Average Queue (ft)	33	38	26
95th Queue (ft)	45	57	51
Link Distance (ft)	324	259	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	EB	WB	NB	SB
Directions Served	LT	TR	LTR	LTR	LTR
Maximum Queue (ft)	57	55	202	122	96
Average Queue (ft)	33	33	116	55	43
95th Queue (ft)	50	50	189	90	73
Link Distance (ft)	210	210	231	274	166
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Montecito Road & Bradbury Road

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	TR	LT	TR
Maximum Queue (ft)	44	80	63	36	55	57	46
Average Queue (ft)	16	45	32	23	31	26	13
95th Queue (ft)	43	71	57	39	45	43	33
Link Distance (ft)	701	1217	1217	1020	1020	664	664
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 12: West Road & Rossmoor Center Way

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	67	66	60
Average Queue (ft)	32	34	27
95th Queue (ft)	49	51	52
Link Distance (ft)	324	259	236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Internal Driveway & Rossmoor Center Way

Movement	EB	EB	WB	NB	SB
Directions Served	LT	TR	LTR	LTR	LTR
Maximum Queue (ft)	62	66	172	133	107
Average Queue (ft)	36	36	103	66	50
95th Queue (ft)	55	56	164	107	85
Link Distance (ft)	210	210	231	274	166
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Arterial Level of Service: NB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Saint Cloud Drive	II	45	31.3	16.6	47.9	0.32	23.8	C
Towne Center Drive	II	45	11.8	1.2	13.0	0.11	30.1	B
Plymouth Drive	II	45	18.7	1.9	20.6	0.17	30.1	B
Bradbury Road	II	45	23.5	10.6	34.1	0.22	22.8	C
Orangewood Avenue	II	40	51.0	24.3	75.3	0.57	27.1	C
Farquhar Avenue	II	35	29.8	3.6	33.4	0.25	27.0	C
Katella Avenue	II	35	29.7	32.5	62.2	0.25	14.4	E
Total	II		195.8	90.7	286.5	1.88	23.6	C

Arterial Level of Service: SB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Katella Avenue	II	35	35.1	60.4	95.5	0.33	12.3	F
Farquhar Avenue	II	35	29.7	4.5	34.2	0.25	26.3	C
Orangewood Avenue	II	35	29.8	6.1	35.9	0.25	25.1	C
Bradbury Road	II	45	45.3	9.5	54.8	0.57	37.2	A
Rossmoor Center Way	II	45	23.5	4.8	28.3	0.22	27.5	C
Towne Center Drive	II	45	18.7	0.8	19.5	0.17	31.7	B
Saint Cloud Drive	II	45	11.8	17.1	28.9	0.11	13.5	E
Total	II		193.9	103.2	297.1	1.89	22.9	C

Arterial Level of Service: NB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Saint Cloud Drive	II	45	31.3	17.0	48.3	0.32	23.6	C
Towne Center Drive	II	45	11.8	4.7	16.5	0.11	23.7	C
Plymouth Drive	II	45	18.7	7.1	25.8	0.17	24.0	C
Bradbury Road	II	45	23.5	2.4	25.9	0.22	30.0	B
Orangewood Avenue	II	40	51.0	4.6	55.6	0.57	36.7	A
Farquhar Avenue	II	35	29.8	8.3	38.1	0.25	23.7	C
Katella Avenue	II	35	29.7	29.6	59.3	0.25	15.1	E
Total	II		195.8	73.7	269.5	1.88	25.1	C

Arterial Level of Service: SB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Katella Avenue	II	35	35.1	75.7	110.8	0.33	10.6	F
Farquhar Avenue	II	35	29.7	3.4	33.1	0.25	27.1	C
Orangewood Avenue	II	35	29.8	3.6	33.4	0.25	27.0	C
Bradbury Road	II	45	45.3	6.8	52.1	0.57	39.1	A
Rossmoor Center Way	II	45	23.5	7.8	31.3	0.22	24.8	C
Towne Center Drive	II	45	18.7	6.1	24.8	0.17	25.0	C
Saint Cloud Drive	II	45	11.8	27.0	38.8	0.11	10.1	F
Total	II		193.9	130.4	324.3	1.89	21.0	D

Arterial Level of Service: NB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Saint Cloud Drive	II	45	31.3	22.9	54.2	0.32	21.0	D
Towne Center Drive	II	45	11.8	12.7	24.5	0.11	16.0	E
Plymouth Drive	II	45	18.7	4.2	22.9	0.17	27.0	C
Bradbury Road	II	45	23.5	5.8	29.3	0.22	26.5	C
Orangewood Avenue	II	40	51.0	1.3	52.3	0.57	39.0	A
Farquhar Avenue	II	35	29.8	4.7	34.5	0.25	26.1	C
Katella Avenue	II	35	29.7	23.0	52.7	0.25	17.0	D
Total	II		195.8	74.6	270.4	1.88	25.0	C

Arterial Level of Service: SB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Katella Avenue	II	35	35.1	34.7	69.8	0.33	16.8	E
Farquhar Avenue	II	35	29.7	4.4	34.1	0.25	26.3	C
Orangewood Avenue	II	35	29.8	2.3	32.1	0.25	28.1	B
Bradbury Road	II	45	45.3	4.3	49.6	0.57	41.1	A
Rossmoor Center Way	II	45	23.5	7.3	30.8	0.22	25.2	C
Towne Center Drive	II	45	18.7	12.3	31.0	0.17	20.0	D
Saint Cloud Drive	II	45	11.8	34.0	45.8	0.11	8.5	F
Total	II		193.9	99.3	293.2	1.89	23.2	C

Arterial Level of Service: NB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Saint Cloud Drive	II	45	31.3	16.7	48.0	0.32	23.7	C
Towne Center Drive	II	45	11.8	1.2	13.0	0.11	30.1	B
Plymouth Drive	II	45	18.7	2.0	20.7	0.17	29.9	B
Bradbury Road	II	45	23.5	12.2	35.7	0.22	21.8	D
Orangewood Avenue	II	40	51.0	23.1	74.1	0.57	27.5	C
Farquhar Avenue	II	35	29.8	3.6	33.4	0.25	27.0	C
Katella Avenue	II	35	29.7	33.0	62.7	0.25	14.3	E
Total	II		195.8	91.8	287.6	1.88	23.5	C

Arterial Level of Service: SB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Katella Avenue	II	35	35.1	62.1	97.2	0.33	12.0	F
Farquhar Avenue	II	35	29.7	4.5	34.2	0.25	26.3	C
Orangewood Avenue	II	35	29.8	6.1	35.9	0.25	25.1	C
Bradbury Road	II	45	45.3	10.7	56.0	0.57	36.4	A
Rossmoor Center Way	II	45	23.5	4.9	28.4	0.22	27.4	C
Towne Center Drive	II	45	18.7	0.9	19.6	0.17	31.6	B
Saint Cloud Drive	II	45	11.8	16.0	27.8	0.11	14.1	E
Total	II		193.9	105.2	299.1	1.89	22.7	C

Arterial Level of Service: NB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Saint Cloud Drive	II	45	31.3	17.2	48.5	0.32	23.5	C
Towne Center Drive	II	45	11.8	4.6	16.4	0.11	23.9	C
Plymouth Drive	II	45	18.7	7.1	25.8	0.17	24.0	C
Bradbury Road	II	45	23.5	2.6	26.1	0.22	29.8	B
Orangewood Avenue	II	40	51.0	4.2	55.2	0.57	36.9	A
Farquhar Avenue	II	35	29.8	8.6	38.4	0.25	23.5	C
Katella Avenue	II	35	29.7	29.9	59.6	0.25	15.1	E
Total	II		195.8	74.2	270.0	1.88	25.1	C

Arterial Level of Service: SB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Katella Avenue	II	35	35.1	83.3	118.4	0.33	9.9	F
Farquhar Avenue	II	35	29.7	3.5	33.2	0.25	27.0	C
Orangewood Avenue	II	35	29.8	3.5	33.3	0.25	27.1	C
Bradbury Road	II	45	45.3	6.7	52.0	0.57	39.2	A
Rossmoor Center Way	II	45	23.5	9.2	32.7	0.22	23.8	C
Towne Center Drive	II	45	18.7	6.1	24.8	0.17	25.0	C
Saint Cloud Drive	II	45	11.8	27.7	39.5	0.11	9.9	F
Total	II		193.9	140.0	333.9	1.89	20.4	D

Arterial Level of Service: NB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Saint Cloud Drive	II	45	31.3	23.2	54.5	0.32	20.9	D
Towne Center Drive	II	45	11.8	12.8	24.6	0.11	15.9	E
Plymouth Drive	II	45	18.7	4.5	23.2	0.17	26.7	C
Bradbury Road	II	45	23.5	6.6	30.1	0.22	25.8	C
Orangewood Avenue	II	40	51.0	1.4	52.4	0.57	38.9	A
Farquhar Avenue	II	35	29.8	5.0	34.8	0.25	25.9	C
Katella Avenue	II	35	29.7	23.1	52.8	0.25	17.0	D
Total	II		195.8	76.6	272.4	1.88	24.8	C

Arterial Level of Service: SB Seal Beach Boulevard

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Katella Avenue	II	35	35.1	35.0	70.1	0.33	16.7	E
Farquhar Avenue	II	35	29.7	4.4	34.1	0.25	26.3	C
Orangewood Avenue	II	35	29.8	2.4	32.2	0.25	28.0	C
Bradbury Road	II	45	45.3	4.5	49.8	0.57	40.9	A
Rossmoor Center Way	II	45	23.5	8.4	31.9	0.22	24.4	C
Towne Center Drive	II	45	18.7	13.0	31.7	0.17	19.5	D
Saint Cloud Drive	II	45	11.8	37.5	49.3	0.11	7.9	F
Total	II		193.9	105.2	299.1	1.89	22.7	C