



City of Oceanside Coast Highway Corridor

Task 5.1: Existing Conditions Review and Analysis

Technical Memorandum
August 2014



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1.0 INTRODUCTION

This existing conditions technical memorandum has been prepared as part of the Oceanside Coast Highway Corridor Study. This memorandum summarizes the results of the review of existing roadway, multi-modal, and parking conditions in the study area, as well as a collision analysis of Coast Highway. Key work elements contained in the existing conditions analysis include the following:

- Field Review – IBI Group completed a field review of the Coast Highway corridor and key intersecting and parallel streets that will be included in the analysis to document existing conditions in terms of number of travel lanes, presence of on-street parking, and the presence of bicycle and pedestrian facilities.
- Multi-Modal Assessment – The existing conditions analysis includes the completion of a multi-modal level of service (MMLOS) analysis for the Coast Highway corridor.
- Data Collection – Traffic, bicycle, pedestrian, and parking counts were completed in August 2013 to obtain information regarding existing volumes for the daily and peak hour time periods.
- Traffic Analysis – An analysis of daily roadway and study intersection weekday peak hour level of service (LOS) is provided.

The objective of this memorandum is to provide an understanding of operating conditions in the Coast Highway Corridor for all modes of transportation.

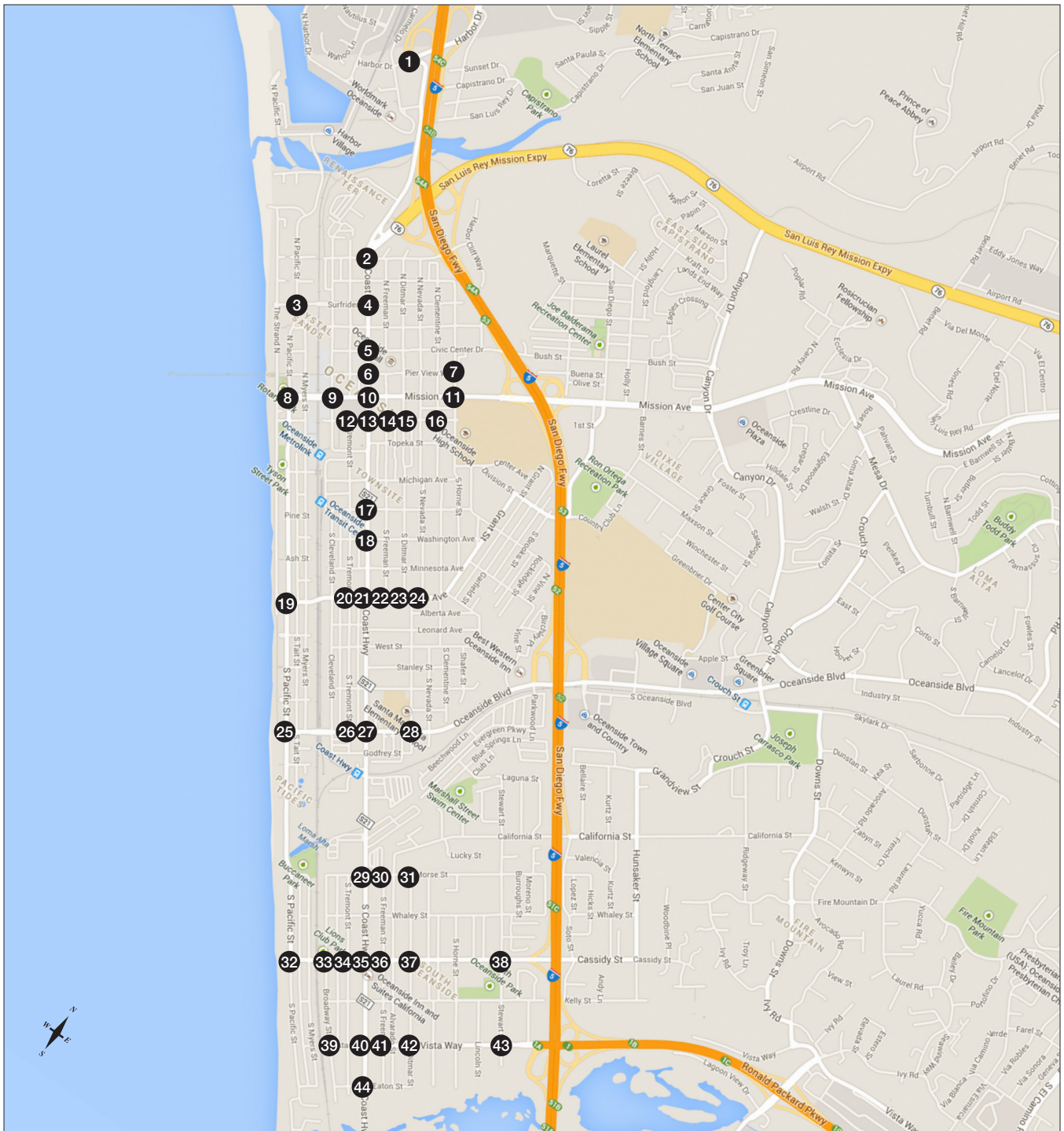
1.1 PROJECT DESCRIPTION

Coast Highway is designated as a secondary arterial in the City of Oceanside General Plan Circulation Element. The proposed project would reconfigure Coast Highway inside the city limits. The project will maintain the existing number of lanes between Harbor Drive and the SR-76 ramps, and consider the feasibility of reducing the number of lanes from four to two, south of SR-76 until the southern limits of the city. The new roadway configuration also proposes the construction of six new roundabouts in place of existing signalized intersections. The City of Oceanside Circulation Map and Roadway Classification Table are provided in Appendix A.

1.2 STUDY AREA

The proposed project is located in the City of Oceanside, west of Interstate 5 (I-5), and crosses the city in the northwest-southeast direction. The study area is roughly defined by the Coast Highway Vision Plan boundary and encompasses the areas surrounding Coast Highway in Oceanside. The roadway network within the study area consists of arterial roadways and local streets that form a grid system. The study area is shown in Figure 1.1.

FIGURE 1.1 STUDY AREA



Legend
 ● Project Intersections





2.0 ANALYSIS METHODOLOGY

The analysis completed for the existing conditions includes the assessment of automobile LOS for the roadway segments and identified study intersections, as well as MMLOS to quantify LOS for bicycles, pedestrians, and transit services in the corridor. The methodology used for the data collection and analysis efforts is described below.

2.1 TRAFFIC COUNT DATA

Existing peak hour intersection count data and 48-hour roadway segment volumes were collected at the selected intersections and roadway segments in the study area during August 2013. The detailed traffic count data can be found in Appendix B. Locations for roadway segment counts and intersection peak hour counts are illustrated in Figure 2.1.

2.2 SEGMENT ANALYSIS & PERFORMANCE CRITERIA

Arterial roadway segment performance is based on the capacity of the facility (as determined by the functional classification, roadway geometrics, and number of through lanes) and the Average Daily Traffic (ADT) volumes. The City of Oceanside General Plan Circulation Element evaluates roadway segment performance in terms of Level of Service (LOS), where the thresholds for each LOS grade are based on daily volume-to-capacity (v/c) ratios. Level of service designations are based on a volume-to-capacity ratio, and range from “A” to “F” with LOS A representing the lowest level of congestion and LOS F representing extremely congested and restricted operations. The goal is to provide the right balance of paved roadway to serve the surrounding uses with an acceptable amount of peak period delay. The maximum average daily volumes for each street classification and lane configuration and the corresponding Level of Service are summarized in Table 2-1.

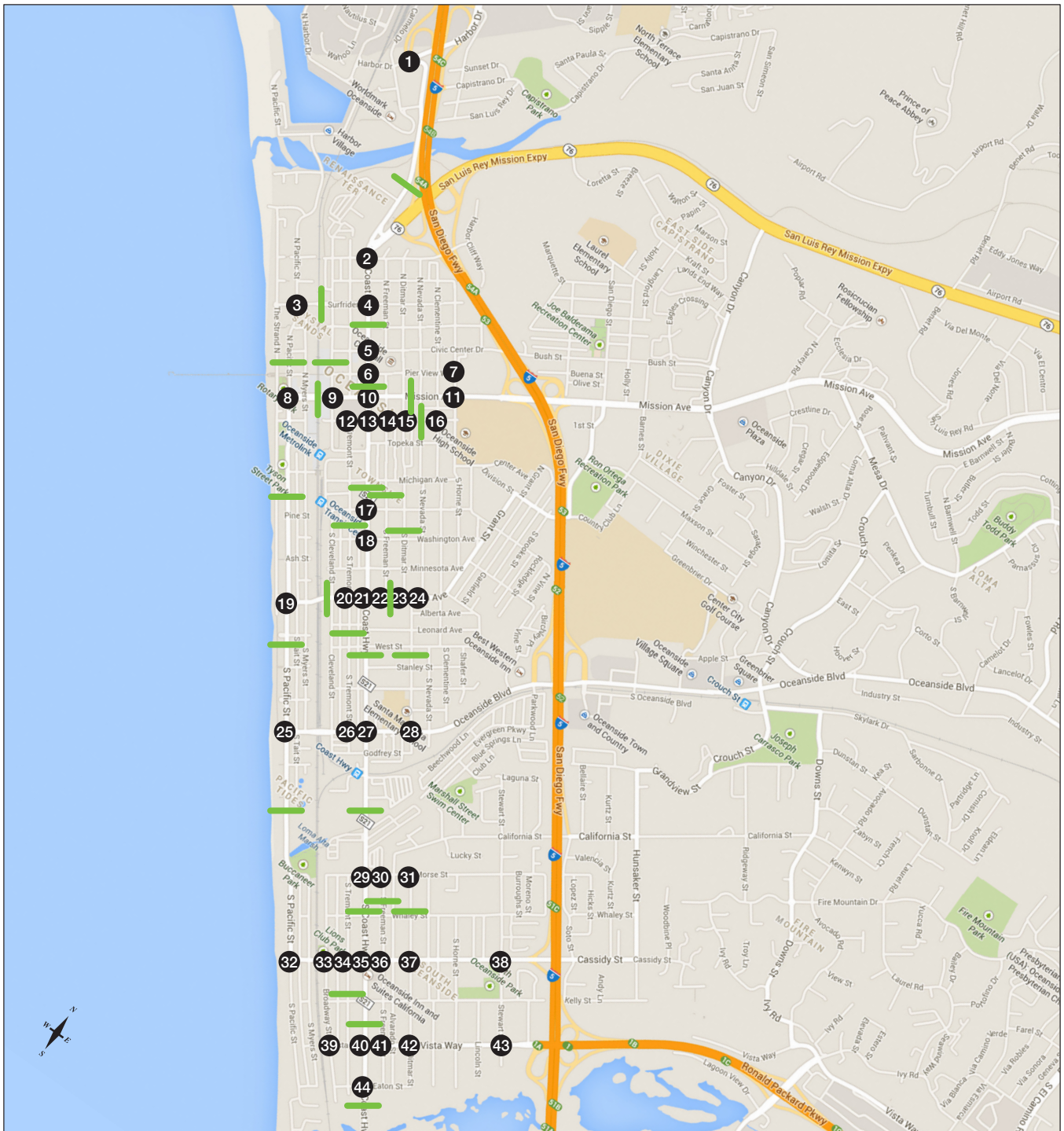
Table 2-1 Roadway Classification LOS & Capacity

Class	Lanes	Cross Section ¹	Level of Service				
			A	B	C	D	E
Expressway	6	102/160, 122/200	30,000	42,000	60,000	70,000	80,000
Expressway	4	102/160, 122/200	25,000	35,000	50,000	55,000	60,000
Prime Arterial	6	104/124	25,000	35,000	50,000	55,000	60,000
6-Lane Major Arterial	6	104/124	20,000	28,000	40,000	45,000	50,000
5-Lane Major Arterial ²	5	102/122	17,500	24,500	35,000	40,000	45,000
4-Lane Major Arterial	4	80/100	15,000	21,000	30,000	35,000	40,000
Secondary Collector (4 lanes with 2-way left turn lane)	4	64/84	10,000	14,000	20,000	25,000	30,000
Secondary Collector (4 lanes without 2-way left-turn lane, with left turn pockets)	4	54/74, 60/80	9,000	13,000	18,000	22,000	25,000
Collector (commercial fronting, 2-lanes with 2-way left turn lane) ³	2	50/70	5,000	7,000	10,000	13,000	15,000
Collector (residential streets in the Circulation Element or industrial fronting)	2	40/60, 50/70	4,000	5,500	7,500	9,000	10,000
Local Street (residential streets NOT in the Circulation Element)	2	36/56, 40/60	—	—	2,200	—	—

Note:

1. Cross sections are listed as curb-to-curb width/total right-of-way width, in feet.
2. Vandegrift Boulevard is the only roadway designated as a 5-Lane Major Arterial. It is not intended that other roadways be built to 5-lane Major Arterial standards.
3. This capacity will also be assumed for two-lane one-way collectors.

FIGURE 2.1 TRAFFIC COUNT LOCATIONS



- Legend**
- Project Intersections
 - Project ADT Count Locations





2.3 INTERSECTION ANALYSIS & PERFORMANCE CRITERIA

The efficiency of intersection operations is measured in terms of seconds of average delay and LOS. Also, the evaluation of intersections involves the assignment of grades from “A” to “F.” The Highway Capacity Manual (HCM) LOS for intersections is determined by measuring delay by seconds per vehicle. Each LOS letter grade corresponds to a range of second/vehicle delay values, which are described in Tables 2-2 and 2-3 for signalized and unsignalized intersections, respectively. Based on the current Circulation Element, LOS D is the acceptable threshold for intersections during peak hour operations.

The intersection level of service analysis was performed using Synchro (version 7) software. Synchro is a network-based interactive computer program that enables calculation of levels of service at signalized and unsignalized intersections. Synchro also calculates signal timing (green times and cycle lengths) and maximum queue lengths to assist in evaluating signalized intersections. Four of the intersections were analyzed using Traffix because Synchro only allows geometry of two lanes per leg for all-way-stop-controlled (AWSC) intersections.

For signalized intersections, the methodology described in HCM 2010, Chapter 18 for signalized intersections is used. With this methodology, the average control delay per vehicle is estimated for each lane group and aggregated for each approach and for the intersection as a whole. The relationship between control total delay and LOS for signalized intersections is summarized in Table 2-2.

Table 2-2 HCM Level of Service Description for Signalized Intersections

Level of Service	Description of Traffic Conditions	Control Delay (sec/veh)
A	Insignificant delays: no approach phase is fully utilized and no vehicle waits longer than one red indication.	≤ 10
B	Minimal delays: an occasional approach phase is fully utilized. Drivers begin to feel restricted.	> 10 – 20
C	Acceptable delays: major approach phase may become fully utilized. Most drivers feel somewhat restricted.	> 20 – 35
D	Tolerable delays: drivers may wait through more than one red indication. Queues may develop but dissipate rapidly, without excessive delays.	> 35 – 55
E	Significant delays: volumes approaching capacity. Vehicles may wait through several cycles and long vehicle queues form upstream.	> 55 – 80
F	Excessive delays: represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80

Source: Highway Capacity Manual, Transportation Research Board, 2010.

For unsignalized intersections, the methodology described in HCM 2010, Chapter 19 for unsignalized intersections is used. With this methodology, LOS is related to the control delay for each stop-controlled movement. The relationship between control total delay and LOS for unsignalized intersections is summarized in Table 2-3.



Table 2-3 HCM Level of Service Description for Unsignalized Intersections

Level of Service	Description of Traffic Conditions	Control Delay (sec/veh)
A	No delay for stop-controlled approaches.	≤ 10
B	Operations with minor delay.	> 10 – 15
C	Operations with moderate delays.	> 15 – 25
D	Operations with some delays.	> 25 – 35
E	Operations with high delays and long queues.	> 35 – 50
F	Operation with extreme congestion, with very high delays and long queues unacceptable to most drivers.	> 50

Source: Highway Capacity Manual, Transportation Research Board, 2010.

2.4 MMLOS ANALYSIS & PERFORMANCE CRITERIA

Multimodal Level of Service (MMLOS) was calculated for motorized and non-motorized modes of traffic using ARTPLAN 2012, the arterial street component of the LOSPLAN software suite. The underlying analysis methodologies are based on HCM 2010 procedures. The level of service score outputs from ARTPLAN correspond to LOS Grades A to F, where A is of the highest quality and F of the lowest quality.

A numerical score is associated with a range of statistically significant variables determined in the HCM 2010. Inputs which contribute to the scoring include: number of lanes, curbside lane width, presence and occupancy of parking lane, presence of a bicycle lane or cycle track, sidewalk presence and width, separation between the sidewalk and the roadway, transit service frequency, and amenities such as a shelter.



3.0 EXISTING CONDITIONS


The project study area includes key arterials, streets, and intersections in the vicinity of the project corridor. Descriptions of geometrical features and intersection level of service analysis results are included in this section.

3.1 ROADWAY CONDITIONS




3.1.1 Existing Roadway Network

Selected arterials and streets that are located in the vicinity of the project corridor are described in Tables 3-1 and 3-2. Items of note include existing geometry, bicycle facilities, adjacent land uses, and the roadway classification designation. Figure 3.1 depicts the existing roadway network.

Table 3-1 Roadways that run in the North-South Direction

Site Photo	Street	Description
	<p>Coast Highway</p>	<p>A secondary collector that runs north/south through Oceanside's downtown area, and has two typical sections within the City. The first section is a two-lane roadway with a continuous two-way left turn lane that spans from Harbor Drive to the intersection with SR-76. The speed limit is 25 miles per hour and no parking is allowed on most of the segment except for a small stretch just south of Harbor Drive. South of the SR-76, Coast Highway is generally built to secondary collector standards (as a four-lane undivided roadway). Between SR-76 and Wisconsin Avenue, the posted speed limit is 25 miles per hour, and south of Wisconsin, the speed limit increases to 35 miles per hour. Parking is not allowed on Coast Highway between SR-76 and Surfrider Way, from Oceanside Boulevard to Morse Street, and south of Vista Way, but is allowed in some sections between Surfrider Way and Oceanside Boulevard, and between Morse Street and Vista Way. Between Oceanside Boulevard and Morse Street and south of Vista Way, there is a striped bike lane on each side of the roadway.</p>



Site Photo	Street	Description
	Pacific Street	<p>A collector roadway located west of Coast Highway. This street runs parallel to Coast Highway between Harbor Drive and Eaton Street. Pacific Street is a two-lane undivided roadway, with a 25 mile per hour posted speed limit and on-street parking permitted on all segments. It is also designated as a bike route and has bike sharrows marked throughout the corridor.</p>
	Cleveland Street	<p>A collector roadway located east of Pacific Street. Cleveland Street is interrupted between Seagaze Street and Michigan Avenue in the area occupied by the Oceanside Transit Station. Cleveland Street continues south of Missouri Avenue ending at Godfrey Street. This street is a two-lane undivided roadway. The speed limit is assumed to be 25 miles per hour.</p>
	Broadway Street	<p>A collector that runs from Morse Street to Eaton Street. Broadway Street is a two-lane undivided roadway located west of Coast Highway. The speed limit is 25 miles per hour and parking is permitted. The Coastal Rail Trail runs adjacent to Broadway Street from Cassidy Street to Vista Way.</p>
	Tremont Street	<p>A local street located between Coast Highway and Cleveland Street. This street is a two-lane undivided roadway, with parking allowed on all segments of the street and a posted speed limit of 25 miles per hour. Tremont Street is a designated bike route from Missouri Avenue to Wisconsin Avenue.</p>











Site Photo	Street	Description
	Freeman Street	<p>A local street located east of Coast Highway. This street is a two-lane undivided roadway, with a 25 mile per hour posted speed limit and on-street parking permitted on all segments. Freeman Street is interrupted between Civic Center Drive and Pier View Way (area occupied by Oceanside's Civic Center) and between Wisconsin Avenue and Morse Street (with one block between Oceanside Boulevard and Godfrey Street). The last segment of Freeman Street is from Morse Street to Eaton Street.</p>
	Ditmar Street	<p>Designated as a collector roadway from Missouri Avenue to Eucalyptus Street and a local street north of Missouri Avenue and south of Eucalyptus Street. Ditmar Street is a two-lane undivided roadway located east of Freeman Street. The speed limit is 25 miles per hour and parking is permitted. Ditmar Street is interrupted south of Oceanside Boulevard, restarts at Morse Street and ends at Eaton Street.</p>
	Stewart Street	<p>A local street located east of Ditmar Street. This street is a two-lane undivided roadway. The posted speed limit is 25 miles per hour. Stewart Street runs parallel to Coast Highway between Laguna Street and Vista Way.</p>






Table 3-2 Roadways that run in the East-West Direction

Site Photo	Street	Description
	<p>State Route 76 (SR-76)</p>	<p>This is a State Highway located east of the study area, connecting to Coast Highway in the northern portion of the City. East of Coast Highway, SR-76 starts as a four-lane undivided roadway, becoming a four-lane divided roadway in the proximity of the interchange with Interstate 5.</p>
	<p>Surfrider Way</p>	<p>A collector street located south of the intersection of Coast Highway and SR-76. East of Coast Highway, Surfrider Way is a two-lane undivided roadway, with a speed limit of 25 miles per hour. West of Coast Highway, the street is two-lane roadway divided by a landscaped median from Coast Highway to the rail tracks, and a two-lane undivided roadway from the rail tracks to the beach. Parallel on-street parking is allowed on Surfrider Way, with the exception of the block closest to the beach.</p>
	<p>Civic Center Drive</p>	<p>A collector street located south of Surfrider Way, running from Cleveland Street to beyond the eastern limit of the study area. This street is a two-lane undivided roadway, with a 25 mile per hour speed limit. Parallel parking is allowed on all segments of the street within the study area limits, with the exception of the south side of Civic Center Drive east of Coast Highway. Diagonal on-street parking is provided in this section of the roadway.</p>
	<p>Pier View Way</p>	<p>A local street located south of Civic Center Drive, and runs from Cleveland Street to Horne Street. This street is a two-lane undivided roadway with a 25 mile per hour speed limit. Parking is allowed on all segments of the street, and diagonal parking is allowed on the segment between Cleveland Street and Ditmar Street.</p>



Site Photo	Street	Description
	Mission Avenue	<p>A secondary collector that connects the Coast Highway corridor and beach area with portions of the city located east of Interstate 5. Mission Avenue is currently being converted from a four-lane roadway to a two-lane roadway between Coast Highway and Horne Street as part of a project to improve the pedestrian realm and help to revitalize the street.</p>
	Seagaze Street	<p>A two-lane collector roadway located south of Mission Avenue. Parallel parking is allowed on most parts of the street, with diagonal parking allowed on a portion of the north side of the street between Cleveland Street and Coast Highway and on the south side of the street between Coast Highway and Freeman Street.</p>
	Missouri Avenue	<p>A local street located south of Michigan Avenue. This street begins at Cleveland Street and crosses the study area, ending at Vine Street. This street is a two-lane undivided roadway. Parking is allowed, and the speed limit is 25 miles per hour.</p>
	Washington Avenue	<p>A local street located south of Missouri Avenue. This street begins at Cleveland Street and crosses the majority of the study area, ending at Grant Street. This street is a two-lane undivided roadway. Parking is allowed.</p>



Site Photo	Street	Description
	<p>Wisconsin Avenue</p>	<p>A collector street located south of Washington Avenue. This street begins at The Strand and crosses the majority of the study area, ending at Weitzel Street. This street is a two-lane undivided roadway. On-street parking is allowed east of Pacific Street, and the posted speed limit is 25 miles per hour.</p>
	<p>Oceanside Boulevard</p>	<p>A collector street located south of Wisconsin Avenue. It begins at Pacific Street, crosses the study area and continues east outside the study area boundaries. It provides access to industrial, residential, and retail/commercial uses. West of Coast Highway, Oceanside Boulevard is a two-lane undivided collector street, and parallel on-street parking is permitted. Between Coast Highway and I-5, Oceanside Boulevard is designated a secondary collector with four lanes, an undivided median and a striped bicycle lane. The posted speed limit is 25 miles per hour.</p>
	<p>Morse Street</p>	<p>A two-lane undivided collector street located south of Oceanside Boulevard and south of the Sprinter rail corridor. This street begins at Broadway Street and crosses the study area, ending at Griffin Street. On-street parking is allowed, and the posted speed limit is 25 miles per hour.</p>
	<p>Cassidy Street</p>	<p>A collector street located south of Morse Street. This street begins at Broadway Street and crosses the study area, continues east outside the study area boundaries. It is a two-lane undivided roadway. Parking is allowed on selected segments of the street, and the speed limit is 25 miles per hour. Bicycle sharrows are installed between Broadway and Ditmar Street.</p>




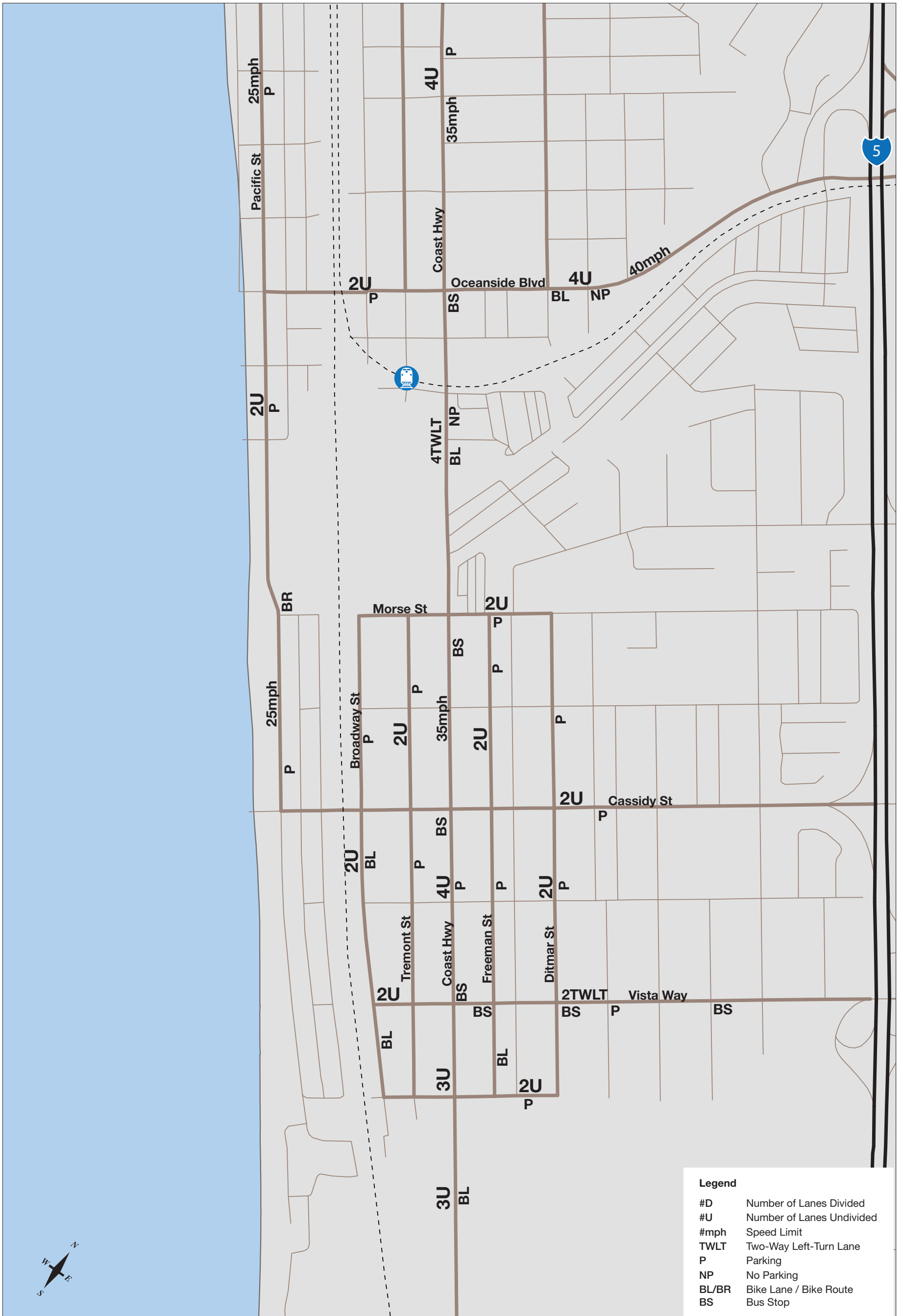
Site Photo	Street	Description
 A photograph showing a two-lane road with a double yellow center line and a white arrow pointing forward. The road is lined with palm trees and utility poles. A grey pickup truck is visible in the distance on the right side of the road.	Vista Way	<p>A collector street located south of Morse Street. From Broadway Street to Coast Highway, it is a two-lane undivided roadway with parallel parking permitted. East of Coast Highway, Vista Way is a two-lane roadway with a continuous two-way center left turn lane. The posted speed limit is 30 miles per hour. Parking is permitted from Broadway Street to the SR-78 ramps.</p>

FIGURE 3.1A EXISTING ROADWAY CONDITIONS



FIGURE 3.1B EXISTING ROADWAY CONDITIONS





3.1.2 Existing Average Daily Traffic (ADT) and Roadway Level of Service (LOS)

Average Daily Traffic (ADT) volumes for the study area network are summarized in Table 3-3. The only current roadway segment in the study area operating at a deficient LOS is Vista Way from Coast Highway to Ditmar Street (LOS F). Figure 3.2 illustrates the observed ADT volumes and allows for a comparison of the magnitude between roadways.

Table 3-3 Existing Segment Volumes

Street	Lanes ^a	Classification	LOS E Capacity ^b	ADT ^c	V/C	LOS ^d
Coast Highway						
Harbor Drive to SR-76 Ramps	2TWLT	Collector	15,000	9,368	0.625	B
SR-76 Ramps to Civic Center Drive	4U	Secondary Collector	25,000	15,450	0.618	B
Civic Center Drive to Seagaze Drive	4U	Secondary Collector	25,000	16,488	0.660	B
Seagaze Drive to Wisconsin Avenue	4U	Secondary Collector	25,000	15,592	0.624	B
Wisconsin Avenue to Oceanside Boulevard	4U	Secondary Collector	25,000	18,470	0.739	C
Oceanside Boulevard to Morse Street	4TWLT	Secondary Collector	30,000	19,099	0.637	B
Morse Street to Cassidy Street	4U	Secondary Collector	25,000	16,918	0.677	B
Cassidy Street to Vista Way	4U	Secondary Collector	25,000	18,416	0.737	C
Vista Way to Southern City Limits	4TWLT	Secondary Collector	30,000	16,662	0.555	A
Pacific Street						
Surfrider Way to Seagaze Drive	2U	Collector	10,000	4,614	0.464	A
Seagaze Drive to Wisconsin Avenue	2U	Collector	10,000	5,153	0.517	A
Wisconsin Avenue to Oceanside Boulevard	2U	Collector	10,000	4,112	0.406	A
Oceanside Boulevard to Cassidy Street	2U	Collector	10,000	3,636	0.366	A
Surfrider Way						
Pacific Street to Coast Highway	2D	Collector	10,000	5,784	0.580	A
Mission Avenue						
Pacific Street to Coast Highway	4U	Secondary Collector	25,000	9,375	0.376	A
Coast Highway to Clementine Street	4U	Secondary Collector	25,000	12,440	0.503	A
Seagaze Street						
Coast Highway to Clementine Street	2U	Collector	10,000	2,267	0.231	A
Cleveland Street						
Civic Center Drive to Mission Avenue	2U	Collector	10,000	1,642	0.164	A
Tremont Street						
Michigan Avenue to Wisconsin Avenue	2U	Local	2,200	1,090	0.493	A
Wisconsin Avenue to Oceanside Boulevard	2U	Local	2,200	1,183	0.557	A
Cassidy Street to Vista Way	2U	Local	2,200	611	0.283	A
Freeman Street						
Michigan Avenue to Wisconsin Avenue	2U	Local	2,200	551	0.258	A
Morse Street to Cassidy Street	2U	Local	2,200	562	0.262	A
Ditmar Street						
Michigan Avenue to Wisconsin Avenue	2U	Local	2,200	750	0.341	A
Wisconsin Avenue to Oceanside Boulevard	2U	Collector	10,000	2,463	0.240	A
Morse Street to Cassidy Street	2U	Local	2,200	501	0.219	A
Wisconsin Avenue						
Cleveland to Coast Highway	2U	Collector	10,000	4,724	0.481	A



Street	Lanes ^a	Classification	LOS E Capacity ^b	ADT ^c	V/C	LOS ^d
Coast Highway to Ditmar Street	2U	Collector	10,000	2,289	0.226	A
Oceanside Boulevard						
Cleveland to Coast Highway	2U	Collector	10,000	4,479	0.446	A
Coast Highway to Ditmar Street	4U	Secondary Collector	25,000	14,484	0.580	A
Broadway Street						
Cassidy Street to Vista Way	2U	Collector	10,000	1,883	0.186	A
Morse Street						
Coast Highway to Ditmar Street	2U	Collector	10,000	2,606	0.271	A
Cassidy Street						
Broadway Street to Coast Highway	2U	Collector	10,000	4,575	0.459	A
Coast Highway to Ditmar Street	2U	Collector	10,000	4,667	0.459	A
Vista Way						
Broadway Street to Coast Highway	2U	Collector	10,000	2,192	0.221	A
Coast Highway to Ditmar Street	2TWLT	Collector	15,000	16,453	1.098	F

Footnotes:

- #D – total number of lanes in both directions divided by a raised median; #U – total number of undivided lanes in both lanes, including facilities with a striped median island; and #TWLT – total number of lanes in both directions with a center continuous two-way left turn lane.
- LOS E capacity is based on criteria established in the City of Oceanside Circulation Element Roadway Capacity Table (2009)
- ADT – average daily traffic volumes
- LOS – level of service

Notes:

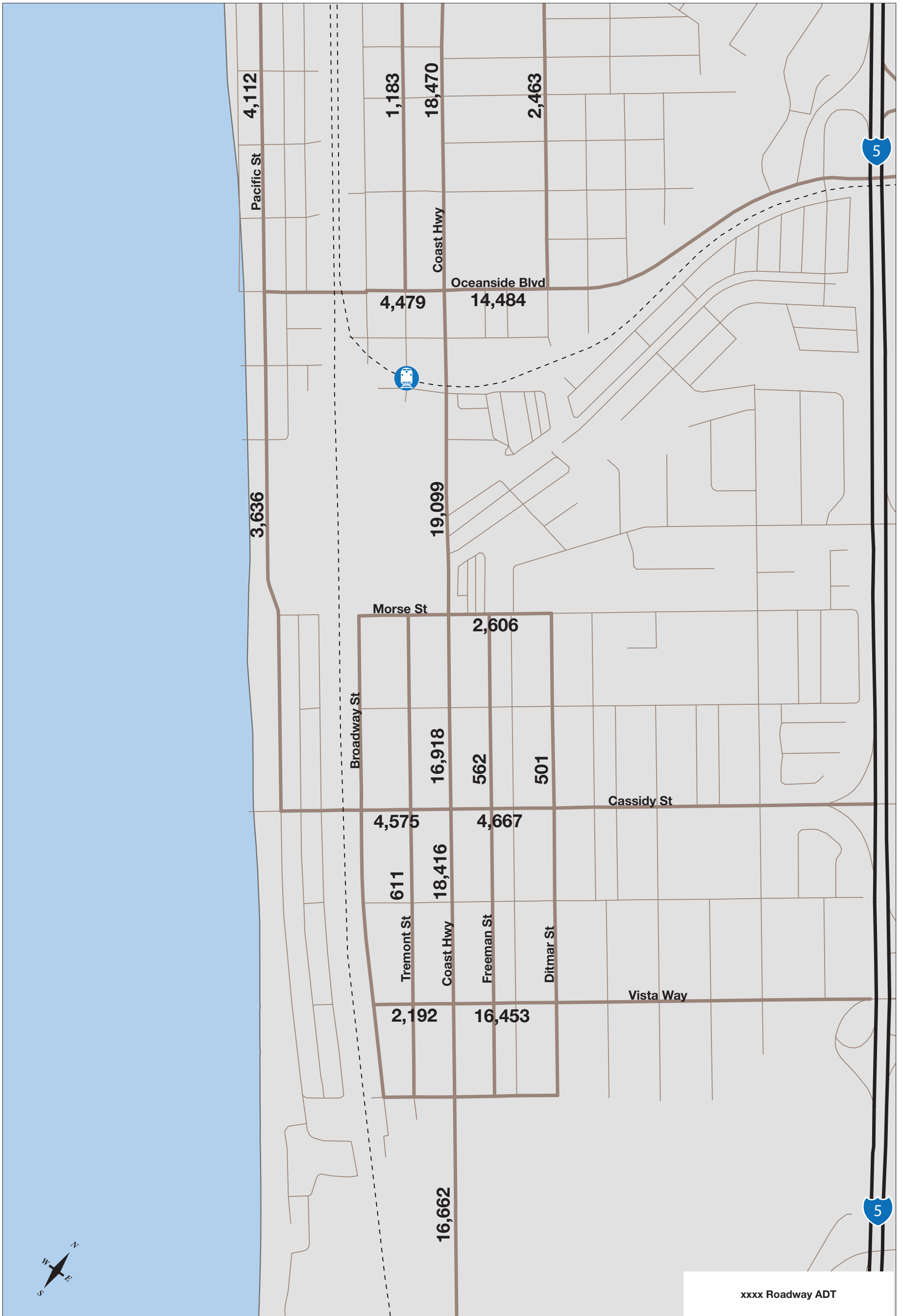
- Bold** indicates an unacceptable level of service.

It should be noted that some existing streets are not currently built to their full capacity/classification.

FIGURE 3.2A EXISTING ROADWAY ADT



FIGURE 3.2B EXISTING ROADWAY ADT





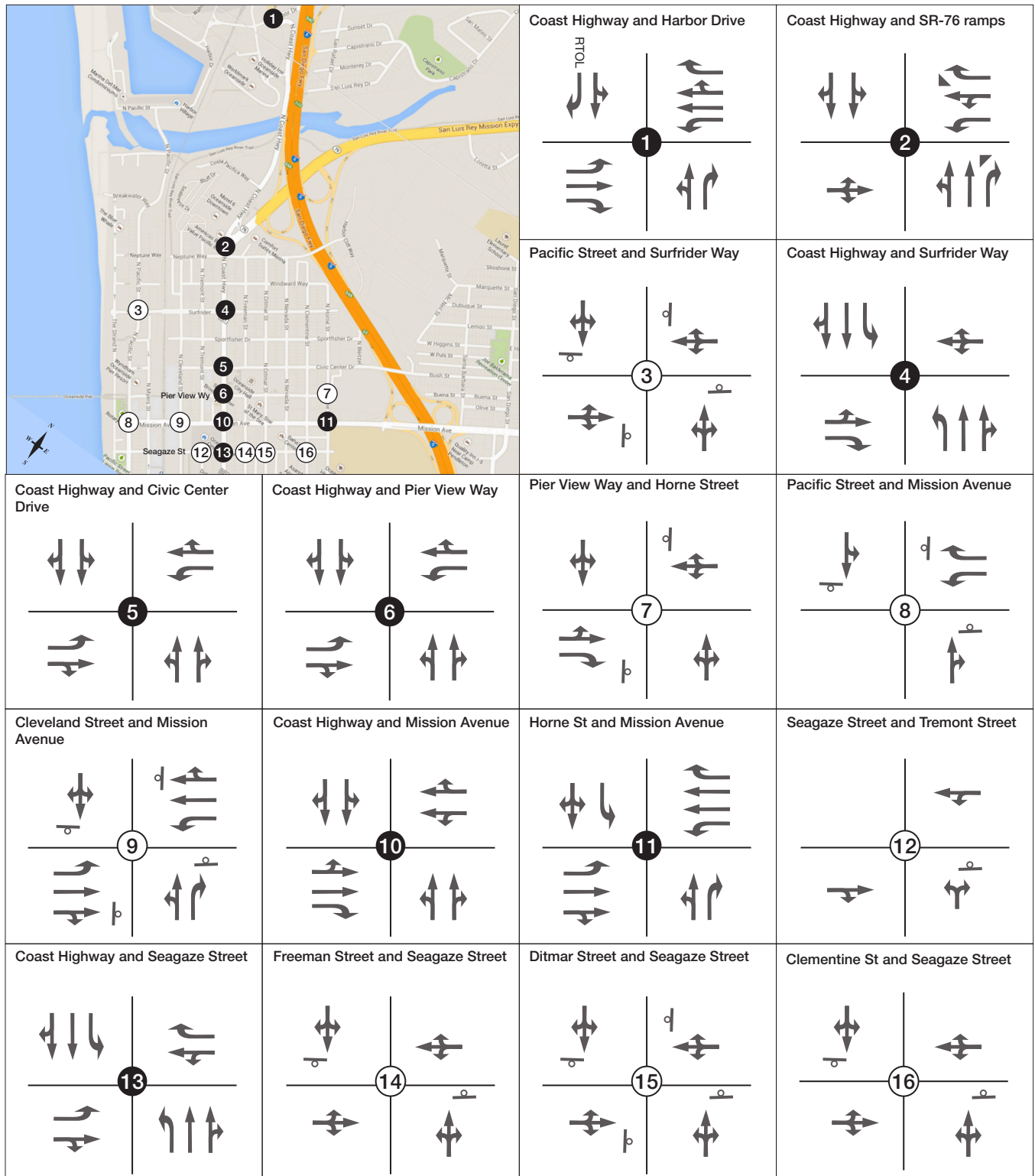
3.2 STUDY AREA INTERSECTIONS

3.2.1 Existing Intersection Geometry & Controls

Forty-four study intersections have been selected for analysis based on a review of the updated Circulation Element and major street corridors, as well as city staff input. The lane geometry and traffic control for each of the existing intersections are presented in Figure 3.3. The list of study intersections includes:

1. Coast Highway and I-5 Ramps
2. Coast Highway and SR-76 Ramps
3. Pacific Street and Surfrider Way
4. Coast Highway and Surfrider Way
5. Coast Highway and Civic Center Drive
6. Coast Highway and Pier View Way
7. Pier View Way and Horne Street
8. Pacific Street and Mission Avenue
9. Cleveland Street and Mission Avenue
10. Coast Highway and Mission Avenue
11. Horne St and Mission Avenue
12. Seagaze Street and Tremont Street
13. Coast Highway and Seagaze Street
14. Freeman Street and Seagaze Street
15. Ditmar Street and Seagaze Street
16. Clementine St and Seagaze Street
17. Coast Highway and Missouri Avenue
18. Coast Highway and Washington Avenue
19. Pacific Street and Wisconsin Avenue
20. Tremont Street and Wisconsin Avenue
21. Coast Highway and Wisconsin Avenue
22. Freeman Street and Wisconsin Avenue
23. Ditmar Street (North) and Wisconsin Avenue
24. Ditmar Street (South) and Wisconsin Avenue
25. Pacific St and Oceanside Blvd
26. Tremont Street and Oceanside Boulevard
27. Coast Highway and Oceanside Boulevard
28. Ditmar Street and Oceanside Boulevard
29. Coast Highway and Morse Street
30. Freeman St and Morse Street
31. Ditmar Street and Morse Street
32. Pacific St and Cassidy Street
33. Broadway Street and Cassidy Street
34. Tremont Street and Cassidy Street
35. Coast Highway and Cassidy Street
36. Freeman Street and Cassidy Street
37. Ditmar Street and Cassidy Street
38. Stewart Street and Cassidy Street
39. Broadway Street and Vista Way
40. Coast Highway and Vista Way
41. Freeman Street and Vista Way
42. Ditmar Street and Vista Way
43. Stewart Street and Vista Way
44. Coast Highway and Eaton Street

FIGURE 3.3A EXISTING INTERSECTION GEOMETRY AND CONTROLS



Legend

- Signalized Intersections
- Unsignalized Intersections
- Turning Movement Volume
- Stop Sign Control
- Free Right Turn Lane



FIGURE 3.3B EXISTING INTERSECTION GEOMETRY AND CONTROLS

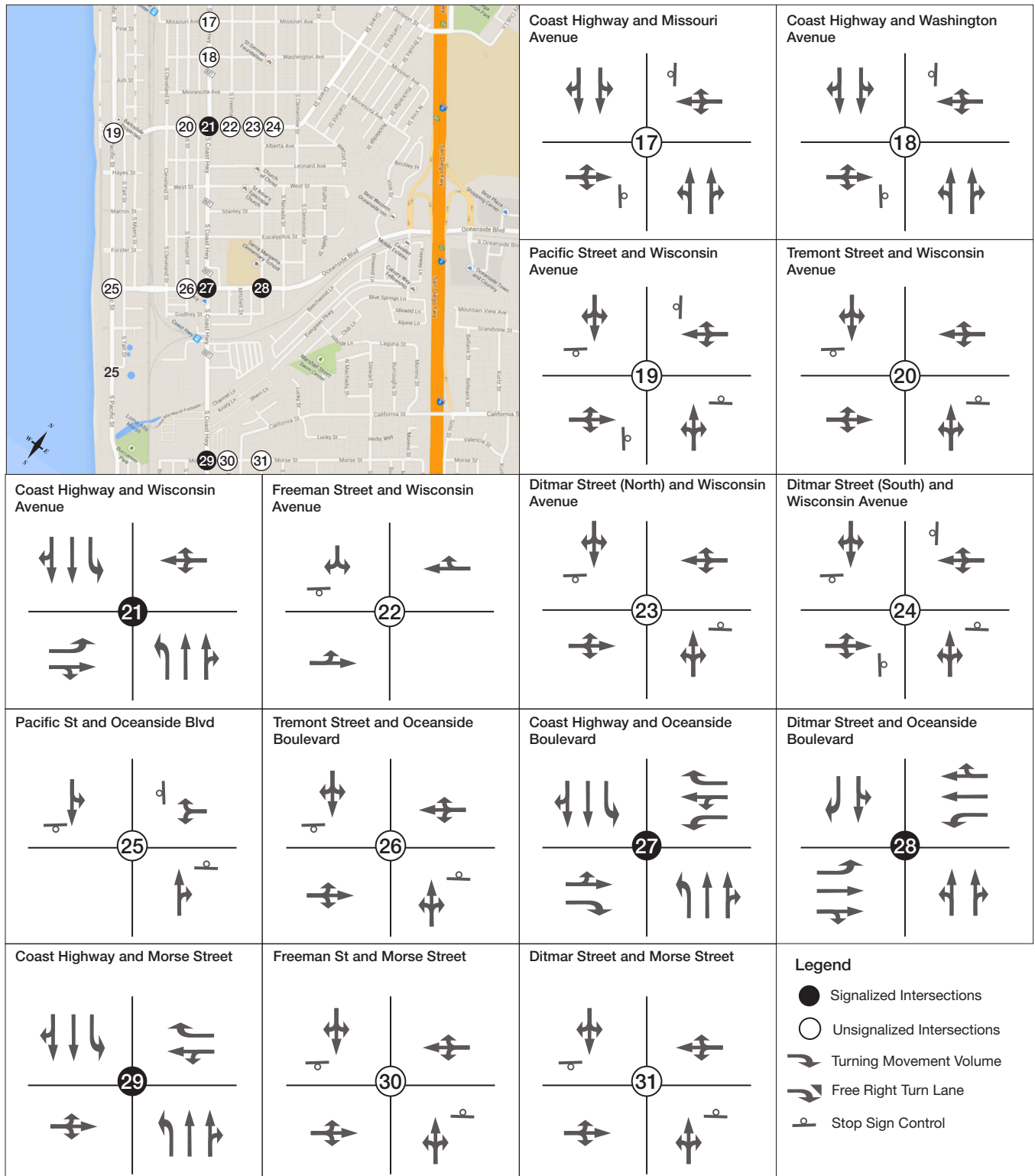
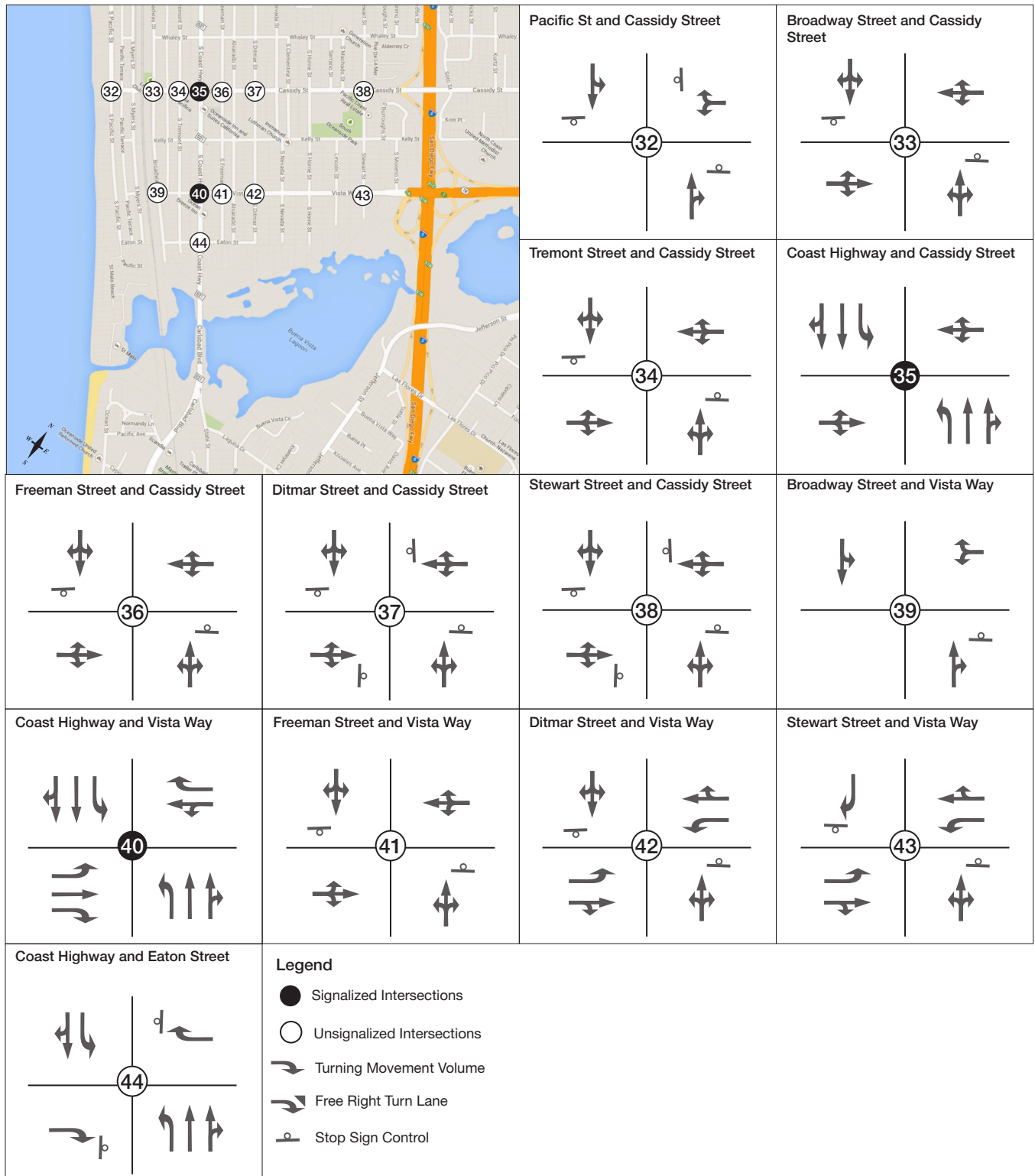


FIGURE 3.3C EXISTING INTERSECTION GEOMETRY AND CONTROLS





3.2.4 Existing Intersection Level of Service (LOS)

Existing AM and PM peak hour turning movement volumes at study intersections are shown in Figure 3.4. Table 3-4 displays the results of the weekday peak hour LOS analysis conducted for each study intersection. The Synchro and Traffix worksheets used for the intersection analysis are presented in Appendix C. As shown in Table 3-4, all of the intersections are currently operating at an acceptable level of service D or better.

Table 3-4 Existing Peak Hour Intersection Level of Service (LOS)

No.	Intersection	Control Type	Peak Hour	Existing	
				Delay ^a	LOS ^b
1	Coast Highway and Harbor Drive	Signal	AM	13.8	B
			PM	28.7	C
2	Coast Highway and SR-76 ramps	Signal	AM	13.7	B
			PM	36.8	D
3	Pacific Street and Surfrider Way	AWSC ^d	AM	8.5	A
			PM	10.5	B
4	Coast Highway and Surfrider Way	Signal	AM	10.4	B
			PM	14.4	B
5	Coast Highway and Civic Center Drive	Signal	AM	13.7	B
			PM	15.0	B
6	Coast Highway and Pier View Way	Signal	AM	16.8	B
			PM	16.6	B
7	Pier View Way and Horne Street	TWSC ^e	AM	12.8	B
			PM	34.5	D
8	Pacific Street and Mission Avenue	AWSC ^d	AM	7.9	A
			PM	10.0	A
9	Cleveland Street and Mission Avenue ^c	AWSC ^d	AM	8.1	A
			PM	10.6	B
10	Coast Highway and Mission Avenue	Signal	AM	14.4	B
			PM	16.6	B
11	Horne St and Mission Avenue	Signal	AM	6.2	A
			PM	10.6	B
12	Seagaze Street and Tremont Street	OWSC ^f	AM	9.1	A
			PM	11.6	B
13	Coast Highway and Seagaze Street	Signal	AM	26.8	C
			PM	35.7	D
14	Freeman Street and Seagaze Street	TWSC ^e	AM	9.4	A
			PM	11.2	B
15	Ditmar Street and Seagaze Street	AWSC ^d	AM	7.3	A
			PM	8.3	A
16	Clementine St and Seagaze Street	TWSC ^e	AM	9.3	A
			PM	10.4	B
17	Coast Highway and Missouri Avenue	TWSC ^e	AM	12.1	B
			PM	26.0	D
18	Coast Highway and Washington Avenue	TWSC ^e	AM	11.3	B
			PM	23.1	C



No.	Intersection	Control Type	Peak Hour	Existing	
				Delay ^a	LOS ^b
19	Pacific Street and Wisconsin Avenue	AWSC ^d	AM	7.8	A
			PM	9.5	A
20	Tremont Street and Wisconsin Avenue	TWSC ^e	AM	10.6	B
			PM	13.9	B
21	Coast Highway and Wisconsin Avenue	Signal	AM	8.9	A
			PM	12.2	B
22	Freeman Street and Wisconsin Avenue	OWSC ^f	AM	9.1	A
			PM	9.7	A
23	Ditmar Street (North) and Wisconsin Avenue	TWSC ^e	AM	9.7	A
			PM	10.1	B
24	Ditmar Street (South) and Wisconsin Avenue	AWSC ^d	AM	7.3	A
			PM	7.9	A
25	Pacific St and Oceanside Blvd	AWSC ^d	AM	7.7	A
			PM	8.7	A
26	Tremont Street and Oceanside Boulevard	TWSC ^e	AM	10.9	B
			PM	14.7	B
27	Coast Highway and Oceanside Boulevard	Signal	AM	29.7	C
			PM	39.7	D
28	Ditmar Street and Oceanside Boulevard	Signal	AM	5.7	A
			PM	6.8	A
29	Coast Highway and Morse Street	Signal	AM	9.0	A
			PM	9.8	A
30	Freeman St and Morse Street	TWSC ^e	AM	9.0	A
			PM	10.0	B
31	Ditmar Street and Morse Street	TWSC ^e	AM	8.8	A
			PM	9.2	A
32	Pacific St and Cassidy Street	AWSC ^d	AM	7.3	A
			PM	8.7	A
33	Broadway Street and Cassidy Street	TWSC ^e	AM	10.3	B
			PM	14.5	B
34	Tremont Street and Cassidy Street	TWSC ^e	AM	9.9	A
			PM	12.4	B
35	Coast Highway and Cassidy Street	Signal	AM	9.1	A
			PM	13.9	B
36	Freeman Street and Cassidy Street	TWSC ^e	AM	10.1	B
			PM	12.7	B
37	Ditmar Street and Cassidy Street	AWSC ^d	AM	7.9	A
			PM	9.0	A
38	Stewart Street and Cassidy Street	AWSC ^d	AM	8.9	A
			PM	12.1	B
39	Broadway Street and Vista Way ^c	OWSC ^f	AM	9.2	A
			PM	9.6	A
40	Coast Highway and Vista Way	Signal	AM	22.7	C
			PM	36.9	D
41	Freeman Street and Vista Way	TWSC ^e	AM	12.2	B
			PM	15.3	C



No.	Intersection	Control Type	Peak Hour	Existing	
				Delay ^a	LOS ^b
42	Ditmar Street and Vista Way	TWSC ^e	AM	13.1	B
			PM	18.8	C
43	Stewart Street and Vista Way ^c	TWSC ^e	AM	12.5	B
			PM	23.2	C
44	Coast Highway and Eaton Street ^c	TWSC ^e	AM	12.8	B
			PM	14.5	B

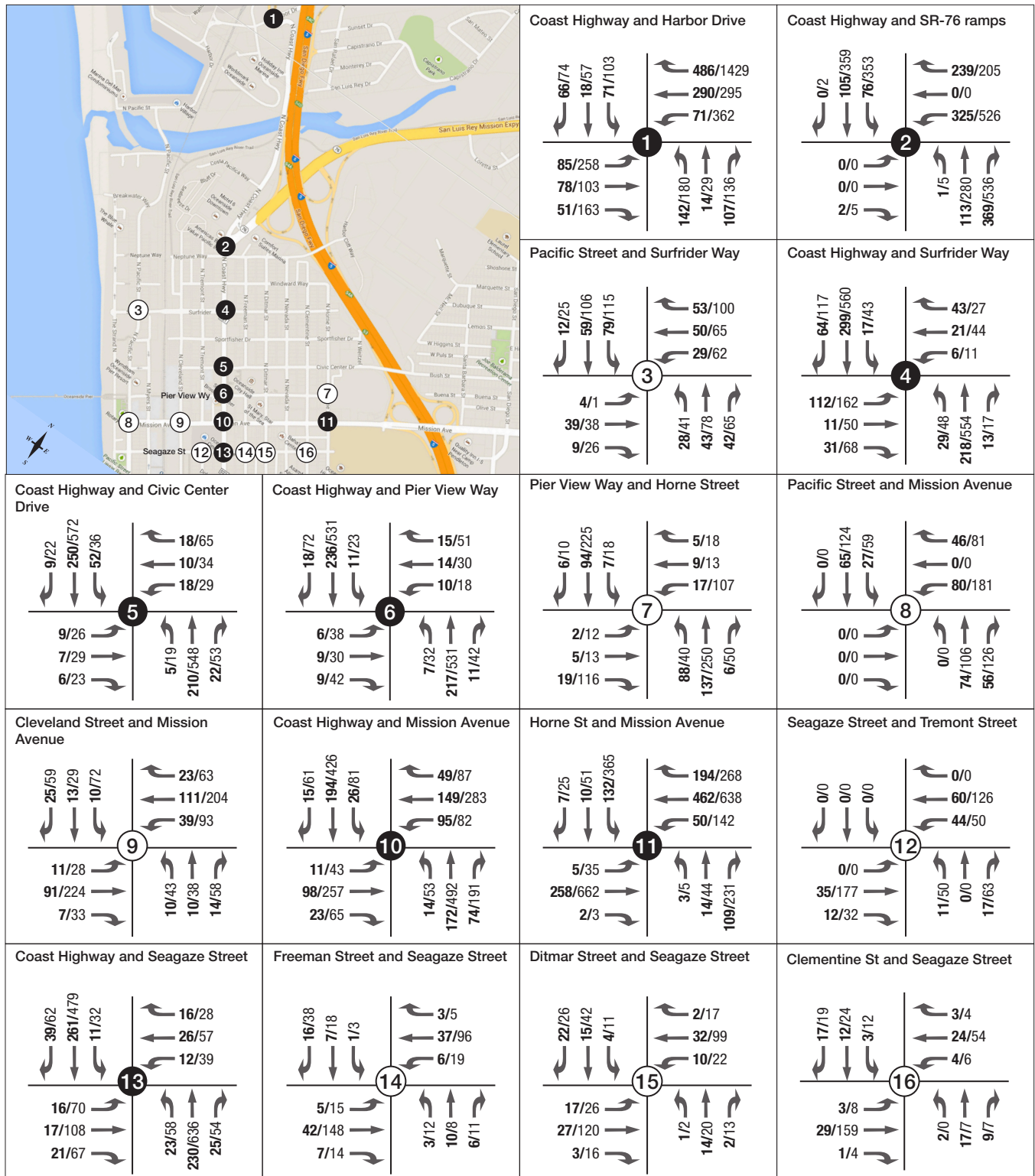
Footnotes:

- a. Delay is expressed as average seconds of delay per vehicle.
- b. LOS – Level of Service
- c. These intersection calculations were done in Traffix using 2000 HCM methodologies. Synchro only allows geometry of 2-lanes per leg for AWSC intersections
- d. AWSC – All way stop controlled intersection
- e. TWSC – Two way stop controlled intersection
- f. OWSC – One way stop controlled intersection

Notes:

1. **Bold** indicates an unacceptable level of service.
2. Acceptable level of service at intersections in Oceanside is LOS D.

FIGURE 3.4A EXISTING PEAK HOUR TRAFFIC VOLUMES - AM & PM



Legend
 ● Signalized Intersections ○ Unsignalized Intersections ###/### AM/PM Turning Movement Volume



FIGURE 3.4B EXISTING PEAK HOUR TRAFFIC VOLUMES - AM & PM

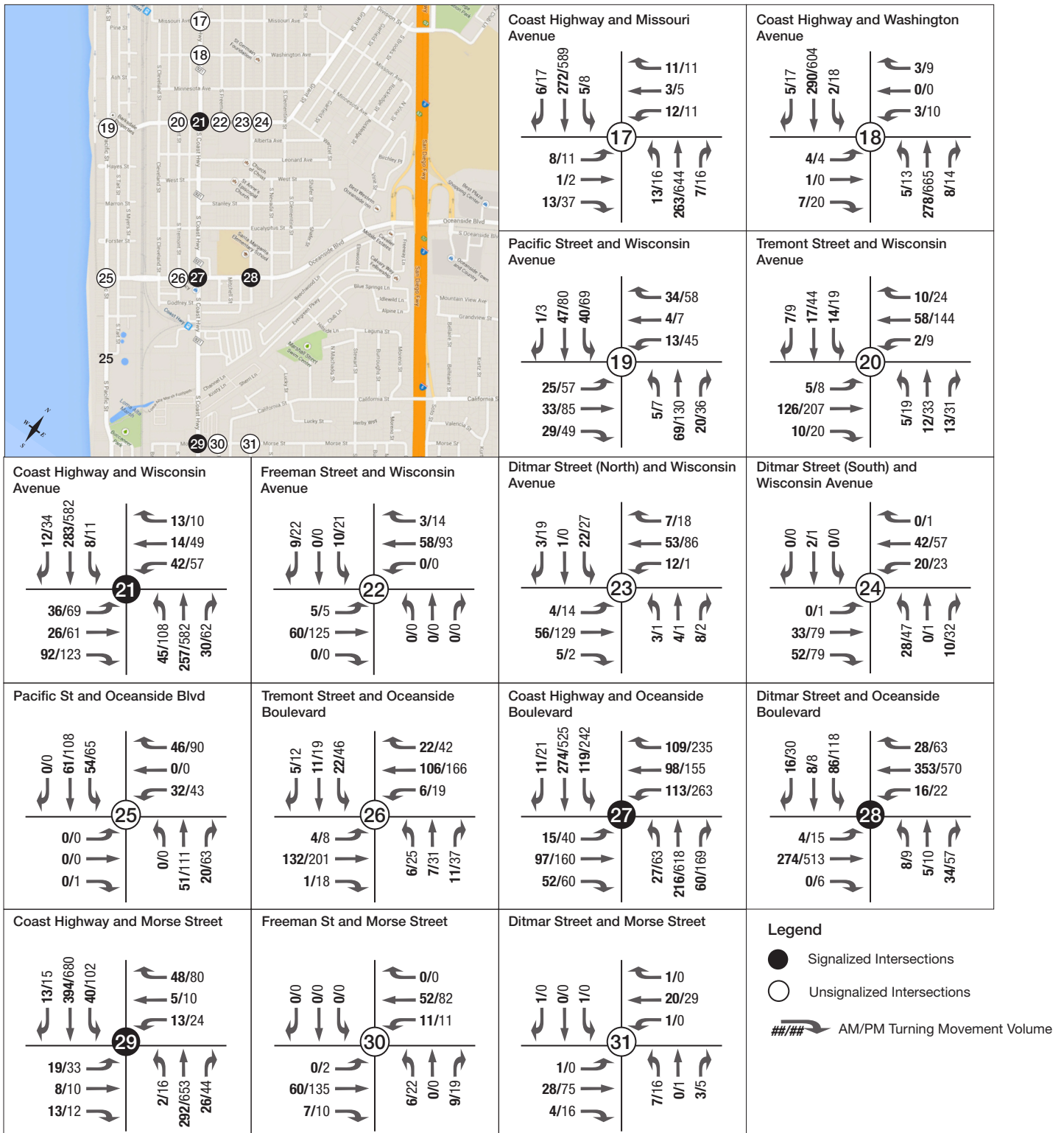
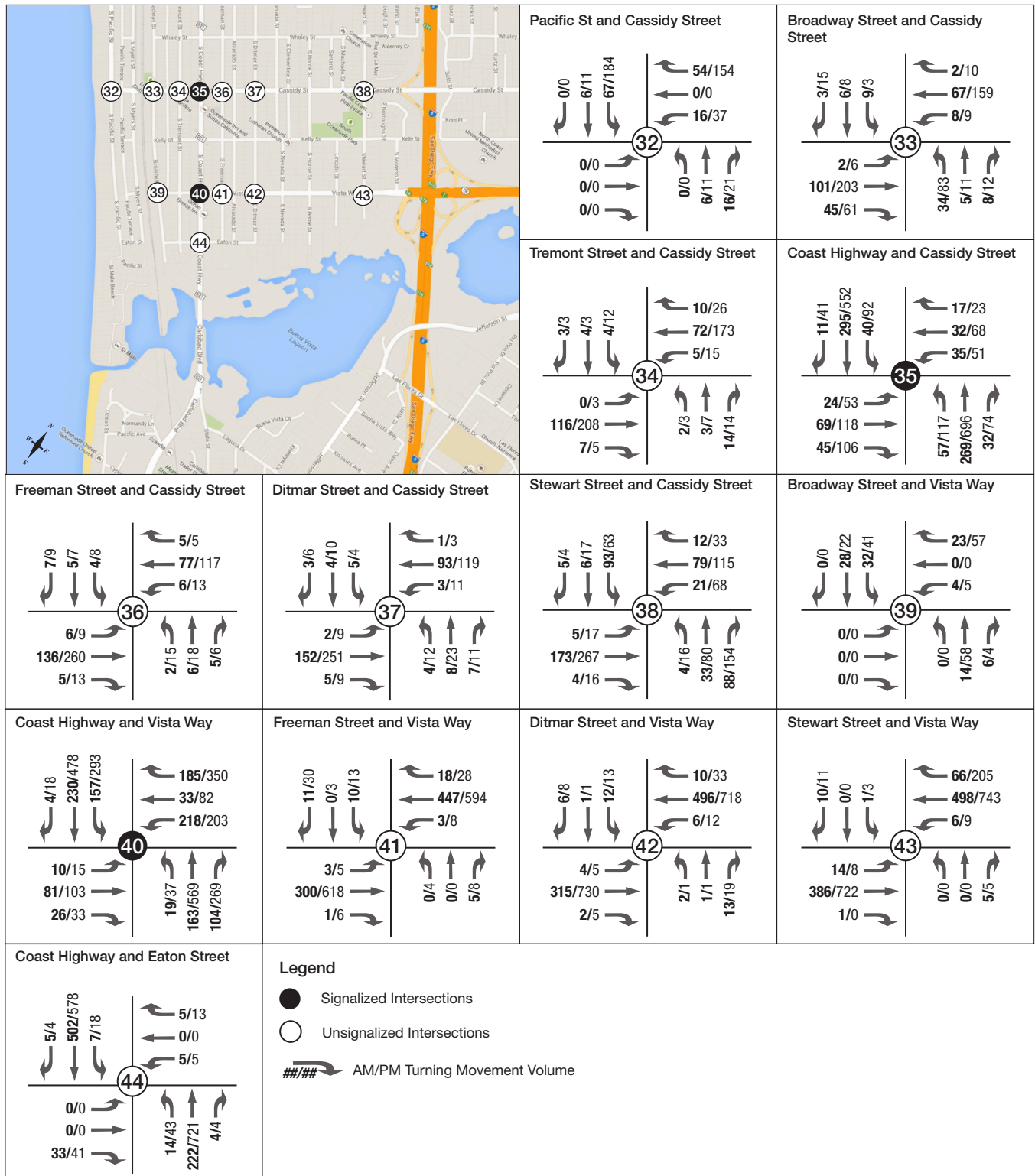


FIGURE 3.4C EXISTING PEAK HOUR TRAFFIC VOLUMES - AM & PM





4.0 MULTI-MODAL ASSESSMENT

The following section describes the review of existing conditions for bicyclists, pedestrians, and transit services in the Coast Highway Corridor. The review includes observations and discussion of the existing pedestrian and bicycle environment, as well as a summary of a multi-modal level of service (MMLOS) analysis completed for the corridor.

The benefit in using the MMLOS analysis is that this methodology allows for the comparison of LOS for bike, pedestrian, and transit uses in the corridor in conditions before and after proposed changes to the roadway configuration, number of lanes, and the presence and quality of bicycle and pedestrian facilities.

In order to conduct the MMLOS analysis, the team utilized the ARTPLAN software package, which was originally developed by the Florida Department of Transportation (FDOT). While developed in Florida, the software package incorporates the analysis methodology and procedures used in the Highway Capacity Manual 2010 (HCM 2010), as applied by traffic engineering and transportation planning professionals nationwide. The software is also configured to calculate MMLOS for any type of roadway, regardless of location. A key benefit of this software package is its ability to calculate MMLOS for roadway intersections in addition to roadway segments.

The existing conditions MMLOS analysis presented in this report serves to provide an understanding of the current conditions for bicycles, pedestrians, and transit, allowing for comparison on how these conditions are forecast to change in the future both with and without changes to Coast Highway.

4.1 MULTI-MODAL ASSESSMENT

This assessment reviews and discusses current conditions for pedestrian, bicycle, and transit infrastructure along Coast Highway, with the objective of identifying existing opportunities and constraints related to mobility for each of these travel modes within the corridor. This information serves as input to the MMLOS analysis presented later in this section, and will also help to support the development of project alternatives in subsequent tasks completed as part of this study.

4.1.1 Pedestrian Conditions

The assessment of pedestrian infrastructure conditions is primarily concerned with the presence and condition of existing sidewalks, the presence of landscape buffers adjacent to sidewalks, and condition of pedestrian crossings along the corridor, including both accessible ramps and pedestrian crossing treatments (i.e. crosswalks, pedestrian signals, etc).

Information regarding the presence and width of existing sidewalks and landscape buffers is presented in Table 4-1. A discussion of the condition of pedestrian infrastructure by section along Coast Highway follows Table 4-1.



Table 4-1 Existing Coast Highway Sidewalk Conditions

Segment	Sidewalk Width (feet)		Landscape Buffer Width (feet)	
	West Side	East Side	West Side	East Side
Harbor Drive to SR-76 Ramps	4-7	0-4	None	None (except for small segment near SR-76)
SR-76 Ramps to Civic Center Drive	4-5	4-5	4-5	4-5
Civic Center Drive to Seagaze Drive	10	10	4 (w/tree wells)	4 (w/tree wells)
Seagaze Drive to Wisconsin Avenue	6-10	6-10	4 (w/tree wells)	4 (w/tree wells)
Wisconsin Avenue to Oceanside Boulevard	4-8	4-8	4 (w/tree wells)	4 (w/tree wells)
Oceanside Boulevard to Morse Street	4-6	4-6	Intermittent tree wells	Intermittent tree wells
Morse Street to Cassidy Street	4-5	4-5	4 (w/tree wells)	4 (w/tree wells)
Cassidy Street to Vista Way	4-5	4-5	4	4
Vista Way to Southern City Limits	4	4	0-4	0-4

n/a = sidewalk not present

Harbor Drive to SR-76 Ramps

Between Harbor Drive and the south end of the bridge over the San Luis Rey River there is an existing sidewalk on the west side of the street and no sidewalk on the east side. The absence of a sidewalk on the east side of the street is due in part to the proximity of the roadway to Interstate 5 in this segment. South of the bridge, a sidewalk is provided on both sides of the street. The large island between the free right turn lane and left turn lanes on State Route 76 does provide a landscape buffer for the east side sidewalk, the only landscaped buffer present in this segment. The only marked pedestrian crosswalks in this segment are at the intersections with Harbor Drive and State Route 76.

SR-76 Ramps to Civic Center Drive

The west side of Coast Highway features a sidewalk that is generally about five feet wide, with an adjacent landscape buffer that is about four to five feet wide. The buffer on the west side of the street is generally continuous in this segment, except where driveways are present and for the block between State Route 76 and Neptune Way. On the east side of the street, the landscape buffer is not continuous for the full length of this segment. The buffer primarily consists of tree wells and existing palm trees planted at intervals along the street. Marked pedestrian crosswalks are provided at signalized intersections with Surf Rider and Civic Center Drive.

Civic Center Drive to Seagaze Drive

This segment features a generally wider sidewalk area when compared to the segments to the north, and does include some limited outdoor dining for selected restaurants located within this segment. The sidewalk is separated from the street by tree wells spaced at generally regular intervals and distinctive pavement treatments for the three to four foot section adjacent to the curb. The east side sidewalk widens into a pedestrian plaza between Civic Center Drive and Pier View Way. Pedestrian crosswalks are provided at all signalized intersections within this segment (Pier View Way, Mission Avenue, Seagaze Drive).

Seagaze Drive to Wisconsin Avenue

The combined sidewalk and parkway for this segment of Coast Highway is generally about 10 feet wide. The landscape buffer consists primarily of regularly spaced tree wells, with some segments (between Michigan Avenue and Missouri Avenue and south of Washington Avenue) offering a full four foot wide landscape buffer adjacent to a sidewalk that is then about five to six



feet wide. The traffic signal at Michigan Avenue provides the only marked crossing of Coast Highway between Seagaze Drive and Wisconsin Avenue.

Wisconsin Avenue to Oceanside Boulevard

The combined sidewalk and landscape buffer/parkway is about eight feet wide in this segment. The sidewalk generally provides for a four foot minimum clear area throughout the segment. A full landscape buffer is present between West Street and Stanley Street. Tree wells adjacent to the curb are provided in this other sections of this segment. The street is generally wider from curb-to-curb in this segment when compared to segments to the north. There are no marked pedestrian crossings of Coast Highway between Wisconsin Avenue and Oceanside Boulevard.

Oceanside Boulevard to Morse Street

This segment provides generally narrower sidewalks when compared to segments to the north. Landscaping adjacent the sidewalk is also generally reduced and in many locations, the sidewalk is adjacent to the curb with no buffer or tree wells. Tree spacing is more intermittent than is the case along segments north of this portion of the corridor. The only marked pedestrian crossings are provided at Oceanside Boulevard and Morse Street.

Morse Street to Cassidy Street

This segment of Coast Highway provides a generally consistent cross section with a four to five foot wide sidewalk, separated from the curb by either a landscape buffer or regularly spaced tree wells. Pedestrian crossings are facilitated via signalized intersections at Morse Street and Cassidy Street.

Cassidy Street to Vista Way

This segment of the street is very similar to the segment between Morse Street and Cassidy Street, providing a four to five foot sidewalk and a nearly continuous landscape buffer with street trees. This is another short segment with pedestrians crosswalks across Coast Highway provided at Cassidy Street and Vista Way

Vista Way to Southern City Limits

Between Vista Way and Eaton Street, the landscaped buffer and four to five foot sidewalk continue in a manner consistent with the segments to the north. South of Eaton Street, the landscaped buffer disappears and the sidewalk is located adjacent to the curb. The existing sidewalk ends on both sides of the street near the southern city limit, about ¼ mile south of Eaton Street. Crosswalks are present at Vista Way, but not south of this intersection.

Observations

The sidewalk and adjacent landscaping are generally consistent through the Coast Highway corridor in the existing condition. However, there are segments (for example between Oceanside Boulevard and Morse Street) where the sidewalk width and frequency and amount of landscaping is substantially reduced when compared to other segments of the corridor. The north portion of the corridor has a much denser street grid, which offers pedestrians more opportunities to cross Coast Highway at signalized intersections. As you move south along the corridor, protected pedestrian crossing opportunities diminish, reducing pedestrian mobility across Coast Highway.



4.1.2 Bicycle Conditions

Bicycle facilities are provided intermittently along Coast Highway. Within the study area, there are several existing bike routes, including the Class I off-road, paved San Luis Rey bikeway and the Class III signed bike route along Pacific Street to the west of Coast Highway. Table 4-2 highlights the current bicycle facilities in place on Coast Highway.

Table 4-2 Existing Coast Highway Bicycle Facilities

Segment	Bicycle Facility Designation		Bicycle Facility Width/Location	
	Southbound	Northbound	Southbound	Northbound
Harbor Drive to SR-76 Ramps	None	None	None	None
SR-76 Ramps to Civic Center Drive	None	None	None	None
Civic Center Drive to Seagaze Drive	None	None	None	None
Seagaze Drive to Wisconsin Avenue	None	None	None	None
Wisconsin Avenue to Oceanside Boulevard	None	None	None	None
Oceanside Boulevard to Morse Street	Class II	Class II	On-street, striped – 5 feet wide	On-street, striped – 5 feet wide
Morse Street to Cassidy Street	None	None	None	None
Cassidy Street to Vista Way	None	None	None	None
Vista Way to Southern City Limits	Class II	Class II	On-street, striped – 5 feet wide – south of Eaton Street	On-street, striped – 5 feet wide – south of Eaton Street

In addition to the facilities noted above along Coast Highway, other bicycle facilities in the study area include the following:

North-South Bikeways

- Pacific Street/Harbor Drive – Class III
- Coast Rail Trail – Class I (portions complete between Oceanside Boulevard and Wisconsin Avenue and south of Morse Street)
- Broadway – Class III

East-West Bikeways

- San Luis Rey River Trail – Class I
- Oceanside Boulevard – Class II
- California Street/Morse Street – Class III

As shown in the summary above, existing bicycle facilities in the study area are somewhat limited, but the existing facilities do provide connectivity across the study area. Coast Highway could potentially serve as a key north-south bicycle connection west of Interstate 5.

4.1.3 Transit Conditions

The Coast Highway corridor and surrounding study area are served by several transit routes. The Oceanside Transportation Center, located just west of Coast Highway, offers access to regional transit services, including Amtrak and the Coaster commuter rail.

Amtrak

The Amtrak Pacific Surfliner inter-city rail service stops at the Oceanside Transportation Center and provides connections to San Luis Obispo, Santa Barbara, Los Angeles and Los Angeles County, Orange County, and San Diego. The transportation center is served by 12 trains per day



in each direction during weekdays. Weekend service is also provided with the same number of daily trains.

Coaster

The Coaster commuter rail service connects Oceanside with San Diego, with intermediate stops in Carlsbad, Encinitas, Solana Beach, Sorrento Valley, and Old Town. Service operates primarily on weekdays with some limited weekend service. The Coaster operates 11 round trips per weekday between Oceanside and Downtown San Diego.

Sprinter

The Sprinter is an east-west running rail service that is operated by the North County Transit District (NCTD) and connects Oceanside with Vista, San Marcos, and Escondido. The line generally parallels State Route 78 and provides a connection to the Oceanside Transportation Center for transfers to Coaster and Amtrak services.

Metrolink

The Metrolink commuter rail service is operated by the Southern California Regional Rail Authority (SCRRA) and connects Oceanside to Orange County and Downtown Los Angeles. Metrolink service is generally focused on weekdays during the peak morning and evening commute time periods. Oceanside is served by six round-trip trains each weekday.

NCTD Bus

NCTD is the primary bus operator within Oceanside. Current NCTD bus routes operating along Coast Highway and within the study area are shown below in Table 4-3.

Table 4-3 Existing NCTD Bus Services

NCTD Bus Route	Peak Frequency	Span of Service	Primary Corridors Served
101	30 mins	5am – 11pm	Coast Highway
302	20 mins	4:40am – 11pm	Coast Highway/Vista Way
303	15 mins	4am – 12am	Mission Avenue
313	90 mins	6:30am – 7:30pm	Seagaze/Mission/Mesa
318	60 mins	4:30am – 8pm	Oceanside Blvd
395	3 hours	7am – 8:15pm	Coast Highway/Stuart Mesa

The existing bus transit services in the study area converge on the Oceanside Transportation Center as the primary transfer point between bus routes and between local and regional transit services. Existing transit service frequency is generally better closer to the transportation center given that all routes current converge at this location.

4.2 MULTI-MODAL LEVEL OF SERVICE ANALYSIS ASSUMPTIONS

The following software settings have been utilized to calculate MMLOS for the study area segments.

- Peak Travel Direction: For the heavier volume afternoon (PM) peak period, most intersections have a slightly higher southbound (SB) volume.
- Area Type: Other Urbanized based on Oceanside’s population of over 183,000; this area type is for urban areas between 50,000 and 1,000,000.



- Arterial Class: Class 2 based on the posted speed of 25 mph; the break point for a Class 1 arterial is a posted speed of 40 mph.
- Study Period Traffic Volumes: Directional peak hour volumes were used based on data gathered in August 2013. For this base model, only the PM peak period has been analyzed as this has about twice the volume as the AM peak period. A K-factor of 0.9 has been assumed (i.e. 10% of the AADT is traveling during the peak hour).
- Intersection Data
 - Control Type – Coordinated/actuated rather than pre-timed or fully actuated
 - Cycle Time – 100 seconds
 - Effective Green Time – Default values of 0.45 (through) and 0.15 (left)
 - Arrival Type – Level 3 on a six-point scale representing random arrivals has been selected; if more favorable progression exists then this setting may be advanced towards level 4 (coordinated) up to level 6 (high level of coordination favoring the main road)
 - Through Lanes – Two lanes (for the one direction roadway cross-section excluding turning lanes)
 - Left Turn Phasing – Protected/Permissive
 - Right Turn Lanes – Set as none, although most of the curbside lanes are 16 feet wide and may in fact be operating as unmarked right turn lanes
- Link (Auto)
 - Speeds posted (free flow) – North of Wisconsin Avenue: 25 mph (30 mph); south of Wisconsin Avenue: 35 mph (40 mph)
 - On-Street Parking – Available between Surfrider Way and Oceanside Boulevard; utilization high between Civic Center Drive and Wisconsin Avenue (medium otherwise)
- Link (Multi-Modal)
 - Outside Lane Width – 11 feet based on a typical center strip to curb face distance of 18 feet less a 7 feet estimated, unmarked parking lane dimension
 - Sidewalk / Roadway Separation – “Adjacent” (0-3’) as the typical condition is for trees to be planted within the 6-foot sidewalk
 - Bus Frequency – Level 4, routes #101 and #302 have a 30-minute headway during the peak periods
 - Passenger Load Factor – Default 0.6
 - Amenities – Poor if only a sign is present, fair if a bench is provided, and good if a shelter is provided. The amenities would be excellent if features like enclosed shelter and/or real-time information displays were to be provided.

4.3 MULTI-MODAL LEVEL OF SERVICE RESULTS

Table 4-4 displays the results of the weekday PM peak hour MMLOS analysis conducted for the specified study area segments and intersections. The ARTPLAN worksheets used for the analysis are presented in Appendix D. The MMLOS analysis has focused on the PM peak hour because this condition contains the highest observed automobile volumes, and would be anticipated to have the highest pedestrian and bicycle volumes as well. The southbound direction was selected for analysis due to the observed higher traffic flows in this direction during the PM peak hour.



Table 4-4 Existing PM Peak Hour Southbound Multimodal Level of Service (MMLoS)

Segment	Bike		Ped		Bus
	Int	Seg	Int	Seg	
SR-76 – Surfrider	C	D	B	C	E
Surfrider – Civic Center	A	D	B	B	D
Civic Center – Pier View	A	C	B	B	E
Pier View – Mission	A	C	B	B	E
Mission - Seagaze	A	C	B	B	E
Seagaze - Michigan	A	D	B	B	E
Michigan - Wisconsin	A	D	B	B	D
Wisconsin - Oceanside	A	D	B	C	D
Oceanside - Morse	B	D	B	C	E

Footnotes:

- a. Column headings refer to intersection (Int) and segment (Seg).

Bicycle level of service varies along the corridor, with a higher level of service between Civic Center and Seagaze. The narrow traffic lanes and lower traffic speeds present in this part of the corridor contribute to improved level of service for bicyclists. Outside of the downtown, the existing level of service for bicycles decreases to LOS D generally due to higher traffic volumes and traffic speeds.

The separation between traffic lanes and sidewalks along Coast Highway, primarily due to the presence of on-street parking and the existing parkway, help to generate an observed level of service of B or C along all studied segments for pedestrian level of service.

Transit level of service is observed as LOS D or worse, primarily due to the limited frequency of existing transit services in the corridor.



5.0 COLLISION ANALYSIS

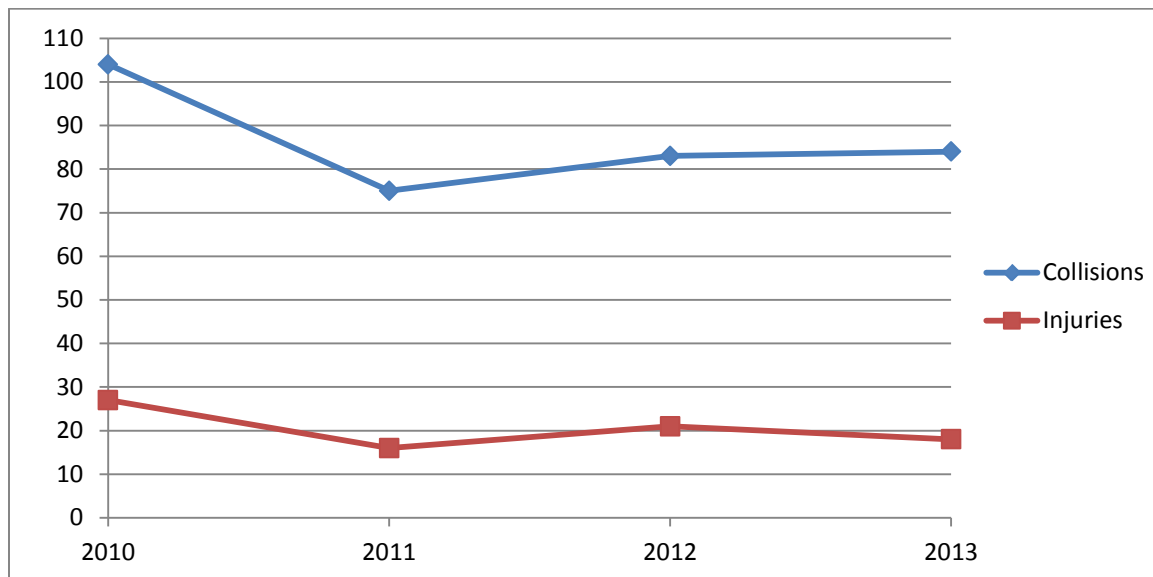
Collision data for the time period between July 2009 and September 2013 was provided by the City of Oceanside. The data was provided as computer generated summary lists of collisions and their characteristics rather than hard-copy police reports.

The following crash variables were used in the collision analysis:

- Date of Collision (Month and Year)
- Collision Type (Broadside, Head-On, Rear-End, Sideswipe, Hit object)
- Involved Parties (Vehicle to Vehicle, Vehicle to Bicyclist, Vehicle to Pedestrian, Vehicle to Object)
- Number of Injuries

Collision reports were reviewed for the four complete year-long periods from October 2009 to September 2013. This collision data is included in Appendix E. A total of 111 collisions and 30 injuries occurred in the study corridor during the 4-year period. Figure 5-1 presents the number of collisions and injuries from 2010 to 2013 (each year was October – September).

Figure 5-1 Total Number of Collisions and Injuries in the Study Area (2010~2013)



5.1 PRIMARY COLLISION TYPE

Rear-end collisions were the predominant collision type on the study corridor with 29 incidents, closely followed by broadside collisions (28) as well as sideswipes (15), head-on collisions (13), and vehicle/pedestrian incidents (11).

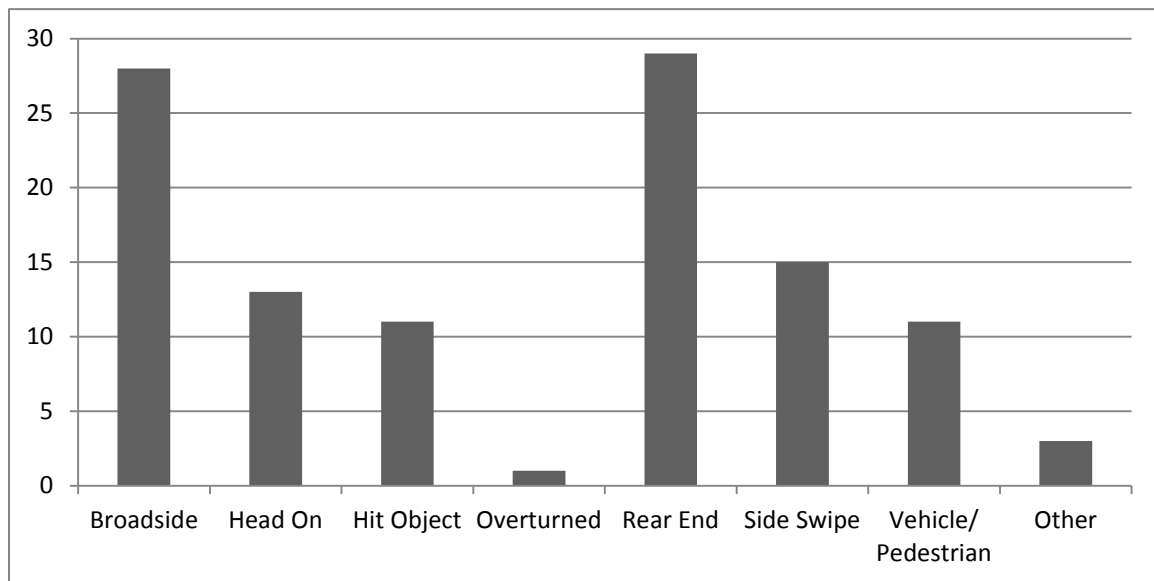
Rear-end collisions are some of the most common types of car accidents. These types of accidents occur when the front end of a vehicle hits the back of the vehicle in front of it. Rear-end collisions tend to occur at lower speeds, but the impact can still cause serious injuries to the occupants of the vehicle. Most rear-end collisions occur when drivers are inattentive or distracted.



A broadside collision refers to the scenario upon which the front of one vehicle impacts or collides with the driver side or passenger side of another vehicle. Occupants experiencing a broadside collision are at higher risks of injury as the force impacting the broadsided vehicle are close in proximity to where the occupants are positioned. Most broadside collisions occur at intersections when drivers fail to obey traffic signals or yield to the right of way.

Collisions types are summarized by type in Figure 5-2.

Figure 5-2 Total Number of Collisions by Type along the Study Corridor (2010~2013)



5.2 COLLISIONS BY INVOLVED PARTIES

More than half of the collisions on Coast Highway involved other vehicles (65). Left and U-turn movements were the predominant violation type in the study corridor with 15 incidents, closely followed by speeding (13) and DUI's (10).

Of the 111 collisions, nine percent (10) involved bicycles. The most common collision cause was cyclists riding on the wrong side of the road. This violation occurs when bicyclists ride against traffic and accounted for half of all bicycle collisions within the corridor. Some bicyclists believe that in the absence of bike lanes, they are more visible to motorists when riding against the flow of automobile traffic. Doing so, however, results in turning conflicts between bicycles and autos and poses a danger for less experienced bicyclists who might unintentionally weave into the path of oncoming automobiles.

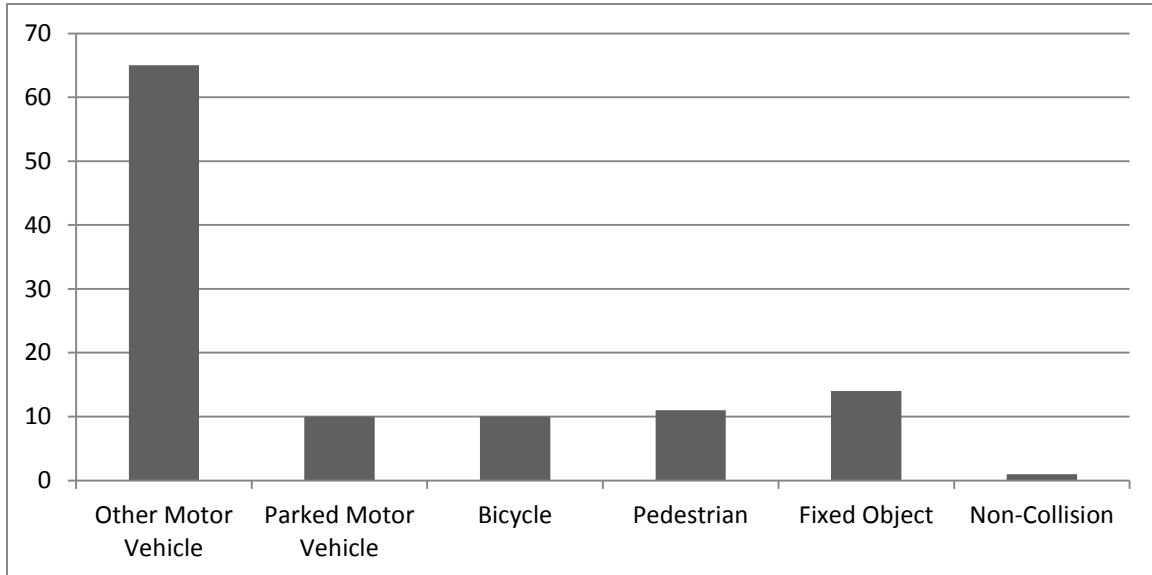
Eleven collisions involving pedestrians occurred on Coast Highway between 2010 and 2013. Half of the collisions (5) were due to drivers not yielding to pedestrians in the crosswalk and all of them occurred in the busy downtown area between Civic Center Drive and Mission Avenue. Other causes of pedestrian collisions included pedestrians crossing against a no walk sign and pedestrians not crossing in the crosswalk.

Half of all collisions involving bicyclists and pedestrians resulted in injury, in contrast with only 25% of vehicle to vehicle collisions resulting in injury.



Collisions types are summarized by type in Figure 5-3.

Figure 5-3 Total Number of Collisions by Involvement along the Study Corridor (2010-2013)



5.3 COLLISIONS BY LOCATION

Of the 111 total collisions and 30 injuries, 25 collisions and 6 injuries occurred at Mission Avenue & Coast Highway and 14 collisions and 4 injuries occurred at Vista Way & Coast Highway. Both of these intersections are major connectors to I-5. This may indicate that vehicles are traveling at higher speeds near these intersections when they are entering or exiting the freeway which leads to more frequent collisions and injuries.

Furthermore, half of the collisions occurred in the northern portion of the corridor between Coast Highway & SR-76 and Coast Highway & Seagaze Drive, including the majority of the pedestrian collisions. This section of Coast Highway is near the pier, the transit center and a variety commercial land uses. This creates conflicts between vehicles traveling through the corridor, vehicles that are driving slowly and looking for parking, and pedestrians.

Figure 5-4 shows the locations of the collisions along Coast Highway as well as their magnitude.



Figure 5-4 Vehicle Collision Magnitude 2010 – 2013





5.4 CONCLUSIONS

Based on the reported collision data obtained from the City of Oceanside, the following conclusions can be drawn:

- According to the collision analysis, 35% of all collisions (39 out of 111) and 33% of injuries (10 out of 30) for the past 4 years occurred at two of the intersections within the study corridor that serve as connectors to I-5
- Half of all the collisions occurred in the northern portion of the corridor between Coast Highway & SR-76 and Coast Highway & Seagaze Drive, including the majority of the pedestrian collisions
- As a whole, broadside collisions are one of the most common collision types, accounting for 25% of all collisions (28 out of 111 collisions) and 57% (17 out of 30 injuries) of all injuries.
- Improving intersection safety and reducing collisions at these locations is a critical element in improving overall safety of the study corridor.

One of the alternatives that will be evaluated during the Coast Highway Corridor Study is a road diet with roundabouts. Road diets have the potential to increase traffic safety and reduce collisions, as the changes associated with road diets (reducing travel lanes, adding bicycle lanes, improving pedestrian facilities) typically help to reduce travel speeds and conflicts between different travel modes. Additionally, roundabouts will be evaluated as part of the study. Roundabouts have been shown to dramatically decrease the number of collisions and injuries by slowing down traffic, enabling one way travel, and removing the temptation for drivers to speed up to catch a yellow light. The design of roundabouts also makes broadside collisions much less likely.



6.0 EXISTING PARKING OCCUPANCY DATA

Existing on-street parking occupancy counts were conducted along the Coast Highway Corridor for a twelve-hour period on Thursday, August 8, 2013 from 7am to 7pm. A summary of the parking occupancy data is shown in Tables 6-1 and 6-2 on the following page. The complete parking occupancy data is included in Appendix B.

The study area contains 543 on-street parking spaces along Coast Highway from Harbor Drive to Eaton Street. The average percent occupancy for the total study area is 33 percent during the peak between 12:00 pm to 2:00 pm and 25 percent for the twelve-hour period. Table 5-1 shows trends in parking occupancy over the course of the day. The parking occupancy increases steadily from 6:00 am to 12:00 pm and then remains relatively constant until 2:00 PM. There is a drop in occupancy from 3:00 pm to 5:00 pm and then occupancy starts to increase again from 6:00 pm to 7:00 pm.

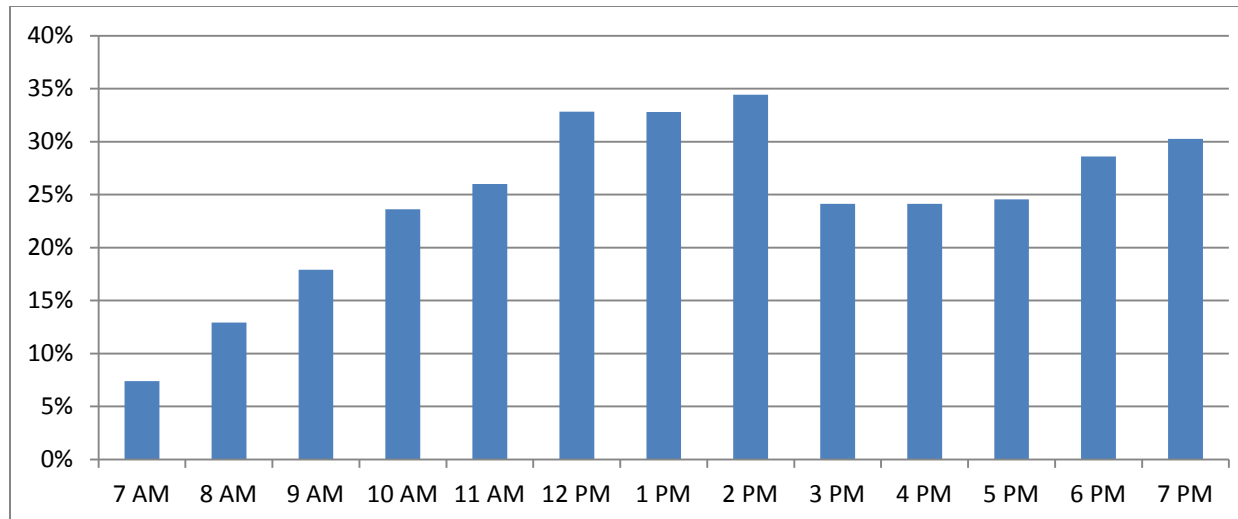
The first segment from Harbor Drive to Civic Center Drive has a low average occupancy (11%). This is probably because of the lack of businesses and attractions along this segment. A high average occupancy (56%) can be observed between Civic Center Drive and Michigan Avenue due to the commercial storefronts and restaurants in this area. The segment between Michigan Avenue and Oceanside Boulevard has a low average occupancy (19%). This trend may be the result of the adjacent land uses (used car lots, auto repair, etc.) and the higher speed limit (35 mph) through the southern half of the segment. The last segment from Oceanside Boulevard to Eaton Street has an average occupancy of 26% which is very close to the average occupancy for the entire corridor. This part of Coast Highway has more street-front oriented businesses and fewer used car lots and auto-oriented land uses.



Table 6-1 Parking Utilization Summary

Street Segment	Value	Capacity (Spaces)	Average Occupancy	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM
Harbor Drive to Civic Center Drive	No. Cars	131	15	8	5	4	10	14	17	10	16	12	11	21	29	34
	% Occupied	100%	11%	6%	4%	3%	8%	11%	13%	8%	12%	9%	8%	16%	22%	26%
Civic Center Drive to Michigan Avenue	No. Cars	90	50	18	33	51	58	57	67	65	48	38	42	57	61	58
	% Occupied	100%	56%	20%	37%	57%	64%	63%	74%	72%	53%	42%	47%	63%	68%	64%
Michigan Avenue to Oceanside Boulevard	No. Cars	206	38	13	17	24	30	35	57	49	53	45	47	35	44	47
	% Occupied	100%	19%	6%	8%	12%	15%	17%	28%	24%	26%	22%	23%	17%	21%	23%
Oceanside Boulevard to Eaton Street	No. Cars	116	30	1	15	18	30	35	37	54	70	36	31	20	21	25
	% Occupied	100%	26%	1%	13%	16%	26%	30%	32%	47%	60%	31%	27%	17%	18%	22%
Total	No. Cars	543	134	40	70	98	129	142	179	179	188	132	132	134	156	165
	% Occupied	100%	25%	7%	13%	18%	24%	26%	33%	33%	34%	24%	24%	25%	29%	30%

Table 6-2 Average Parking Utilization





7.0 SUMMARY

The proposed project is located in the City of Oceanside, west of Interstate 5, and crosses the city in the Northwest-Southeast direction. The study area spans from Pacific Street to the west, Stewart Street to the east, Harbor Drive to the north, and Eaton Street to the south. There are 543 parking spaces available along Coast Highway from Harbor Drive to Eaton Street. An analysis of the existing conditions for 2013 was conducted for 44 study intersections and 36 roadway segments.

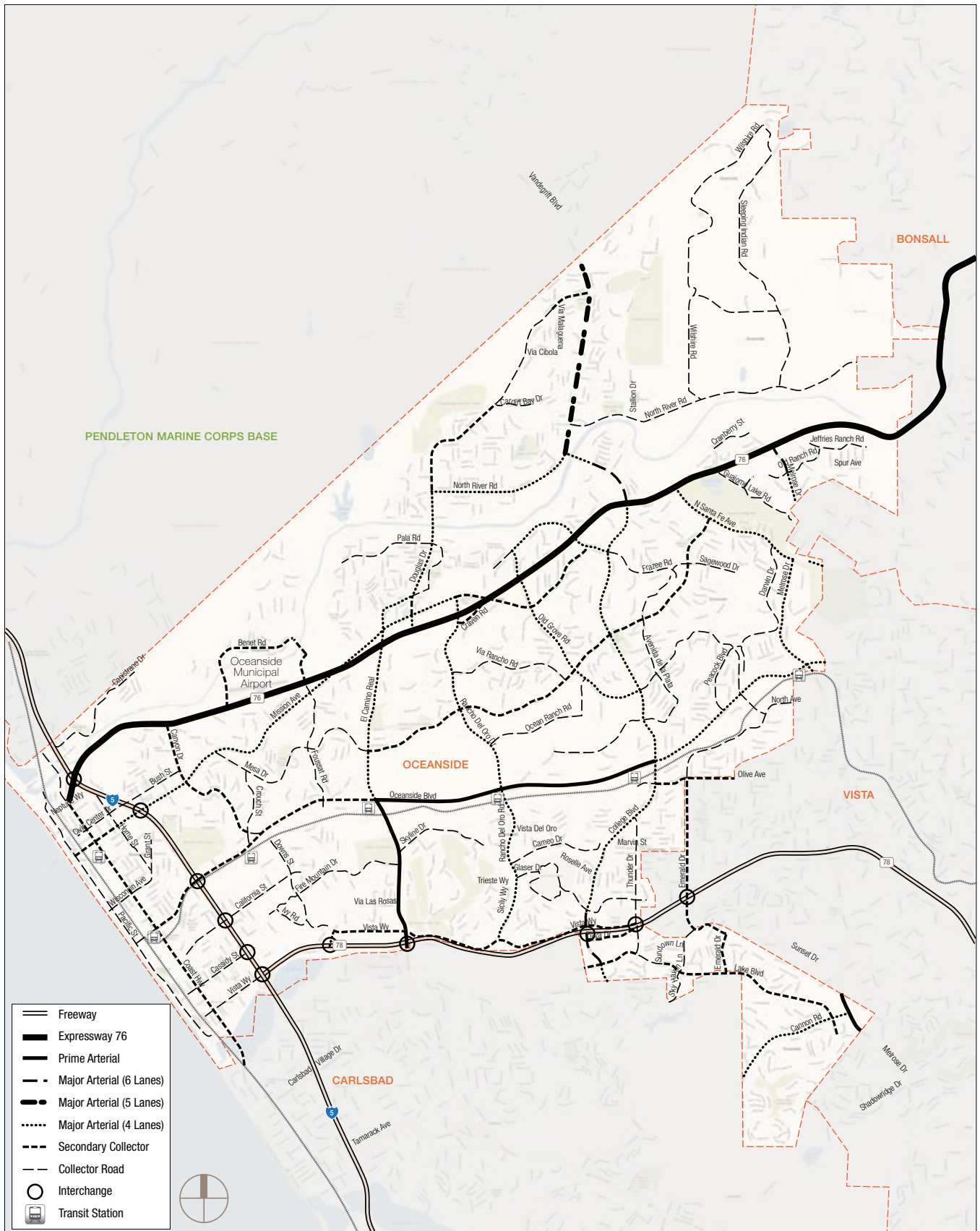
- All of the 44 study intersections operate at an acceptable level of service D or better in the Existing Year 2013.
- All 36 study roadway segments operate at an acceptable level of service D or better in the Existing Year 2013, with the exception of a segment of Vista Way between Coast Highway and Ditmar Street, which operates at a LOS F.
- Using the MMLOS analysis methodology for bikes and pedestrians, all segments along Coast Highway were found to currently provide a level of service of D or better. However, existing bus service has a level of service of E for several segments, primarily due to the limited frequency of existing bus service in the corridor.
- Half of all the collisions occurred in the northern portion of the corridor between Coast Highway & SR-76 and Coast Highway & Seagaze Drive, including the majority of the pedestrian collisions.
- Existing on-street parking occupancy rates in the Coast Highway corridor are generally below 50% of the current parking supply, except for the segment between Civic Center Drive and Michigan Avenue, which does experience occupancy rates about 50% during the weekday mid-day hours.

The analysis results presented in this memorandum provide a snapshot of existing conditions for automobile traffic, bicycles, pedestrians, transit, and on-street parking. This information can be used as a point of comparison for the analysis of future conditions that will be part of subsequent tasks for this project.



Appendix A

City of Oceanside Circulation Map and Roadway Classification Table



Not to Scale



Existing Roadway Classifications

Figure 3.1



**TABLE 3-3
CIRCULATION ELEMENT ROADWAY CLASSIFICATION LOS & CAPACITY**

Class	Lanes	Cross Section ¹	Level of Service				
			A	B	C	D	E
Expressway	6	102/160 122/200	30,000	42,000	60,000	70,000	80,000
Expressway	4	102/160 122/200	25,000	35,000	50,000	55,000	60,000
Prime Arterial	6	104/124	25,000	35,000	50,000	55,000	60,000
6-Lane Major Arterial	6	104/124	20,000	28,000	40,000	45,000	50,000
5-Lane Major Arterial ²	5	102/122	17,500	24,500	35,000	40,000	45,000
4-Lane Major Arterial	4	80/100	15,000	21,000	30,000	35,000	40,000
Secondary Collector (4 lanes with 2-way left-turn lane)	4	64/84	10,000	14,000	20,000	25,000	30,000
Secondary Collector (4 lanes without 2-way left-turn lane, with left turn pockets)	4	54/74, 60/80	9,000	13,000	18,000	22,000	25,000
Collector (commercial fronting, 2-lanes with 2-way left-turn lane) ³	2	50/70	5,000	7,000	10,000	13,000	15,000
Collector (residential streets in the Circulation Element or industrial fronting)	2	40/60, 50/70	4,000	5,500	7,500	9,000	10,000
Local Street (residential streets NOT in the Circulation Element)	2	36/56, 40/60	—	—	2,200	—	—

Footnotes:

1. Cross sections are listed as curb-to-curb width/total right-of-way width, in feet.
2. Vandegrift Boulevard and El Camino Real are the only Circulation Element roadways designated as a 5-lane Major Arterial. It is not intended that other roadways be built to 5-lane Major Arterial standards.
3. This capacity will also be assumed for a two-lane one-way collector.



Appendix B

Existing Traffic & Parking Counts

ITM Peak Hour Summary

Prepared by:



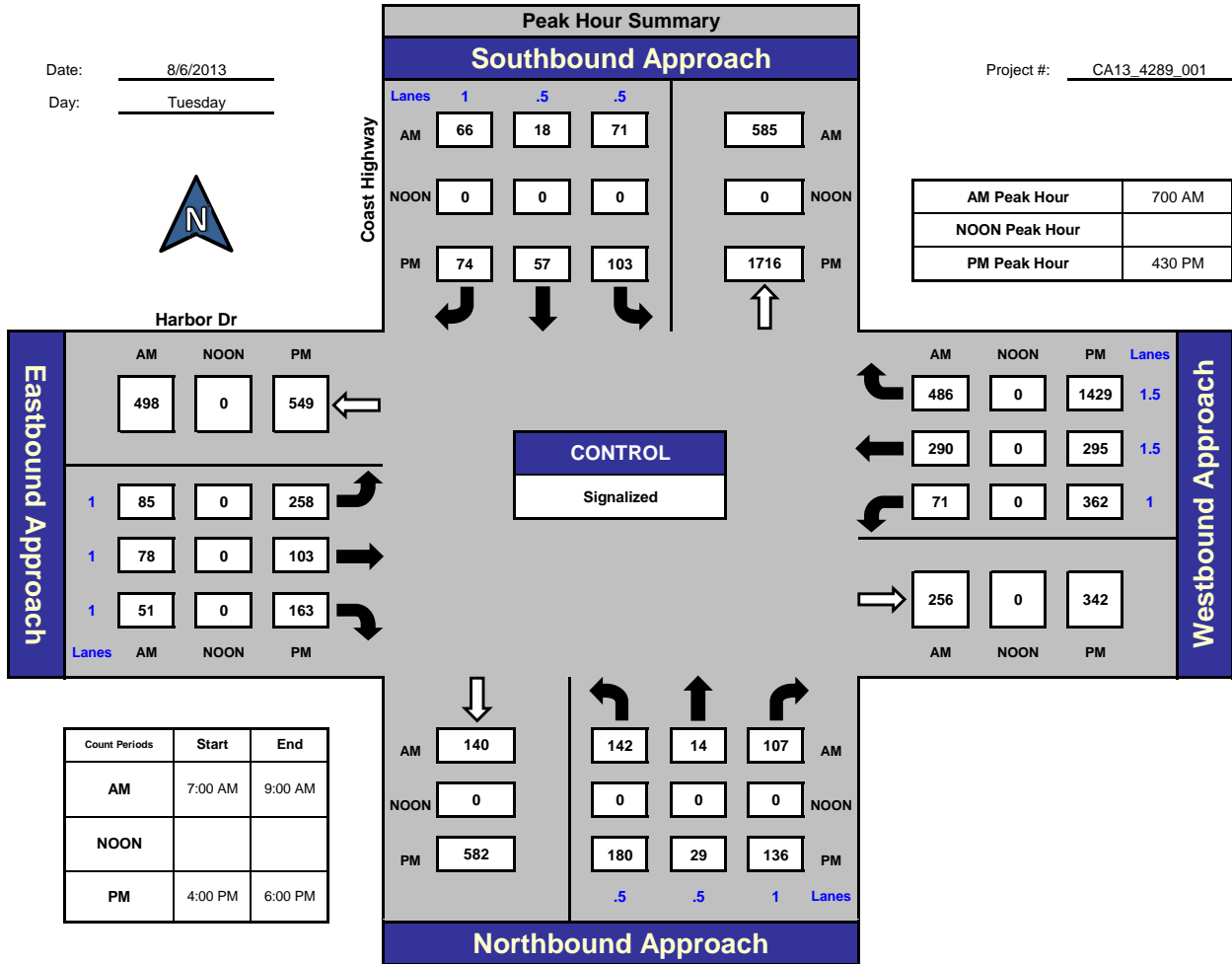
National Data & Surveying Services

Coast Highway and Harbor Dr., City of Oceanside

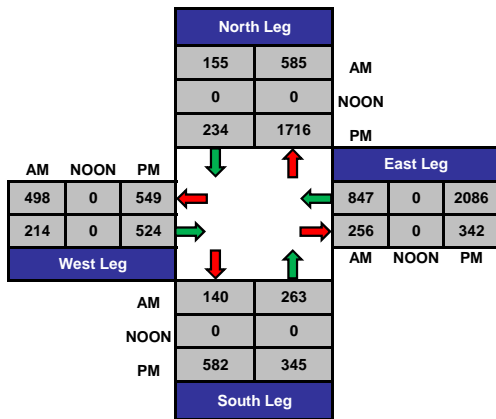
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Day: Tuesday

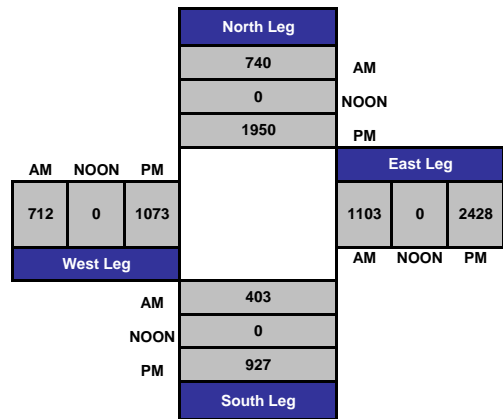
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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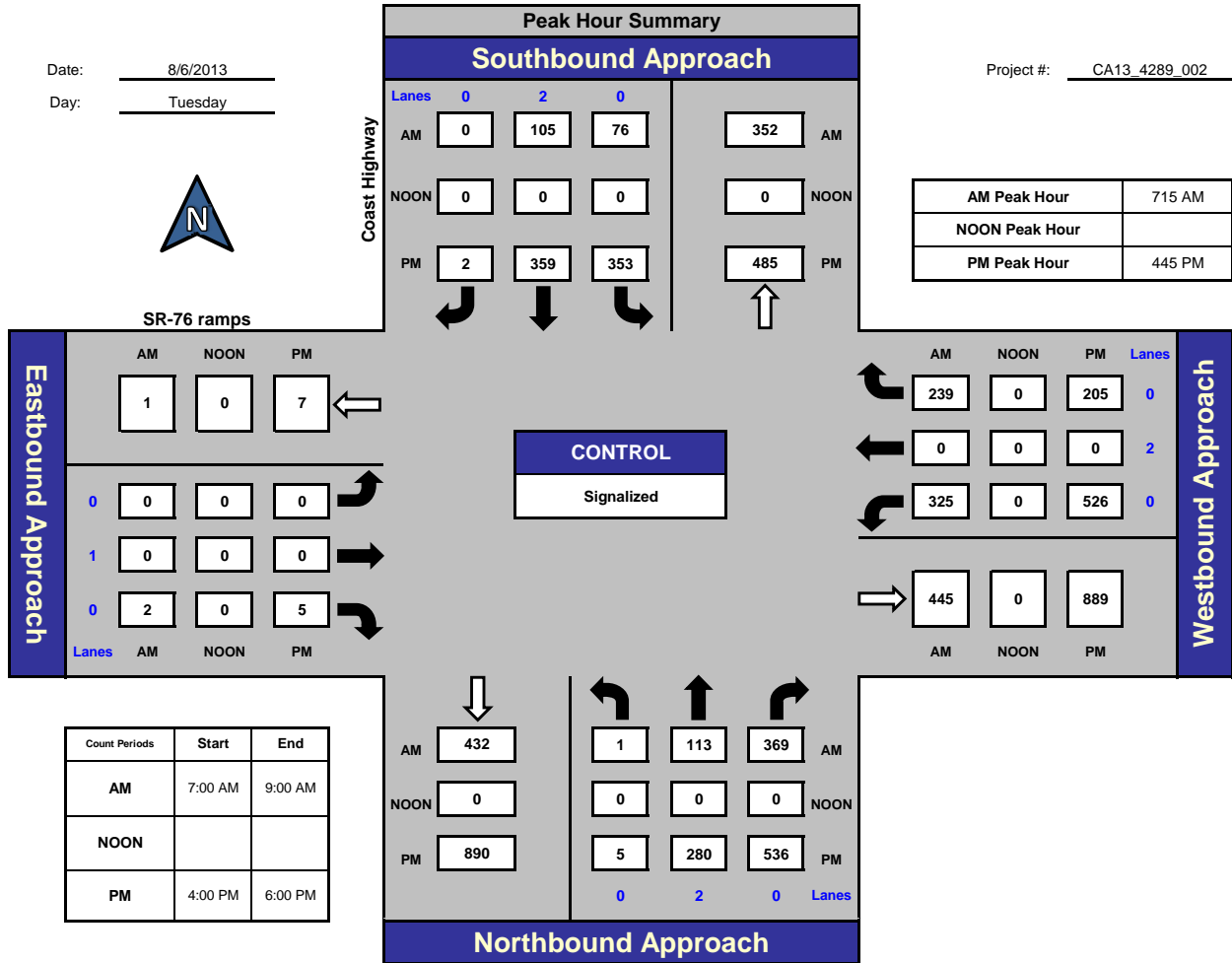
National Data & Surveying Services

Coast Highway and SR-76 ramps , City of Oceanside

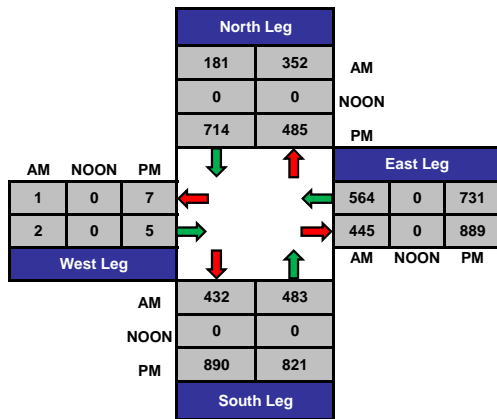
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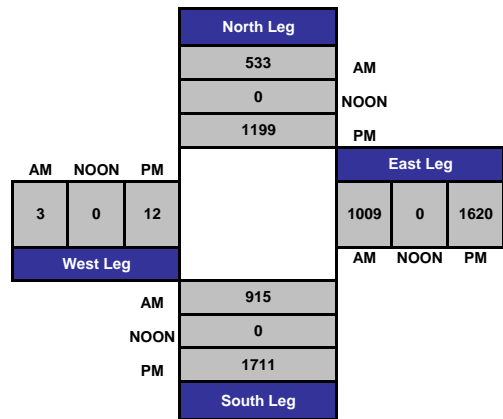
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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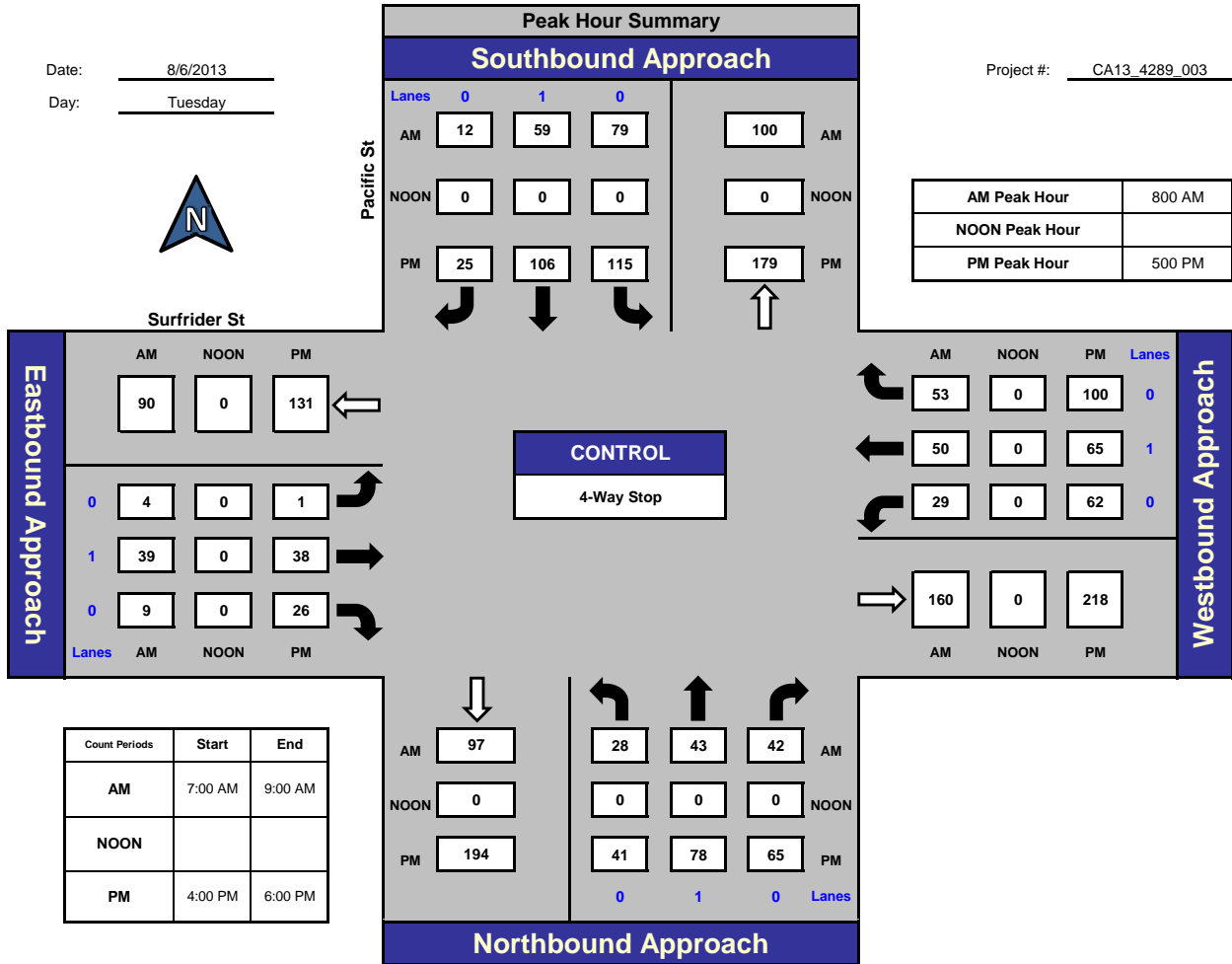
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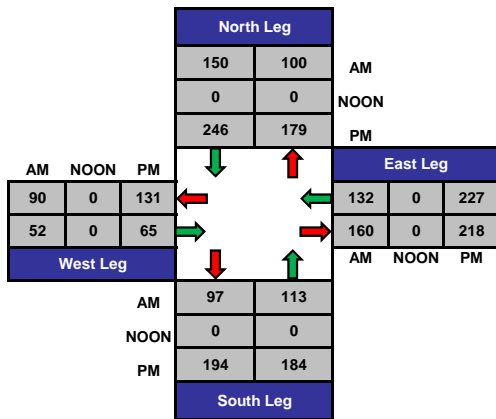
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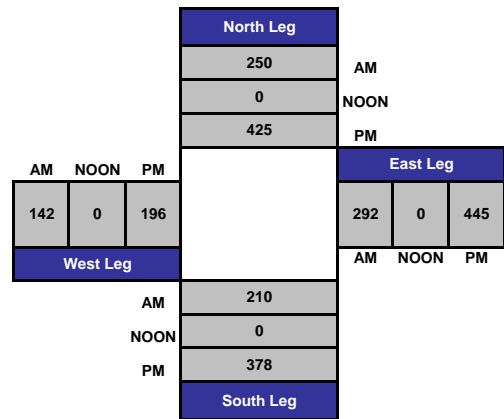
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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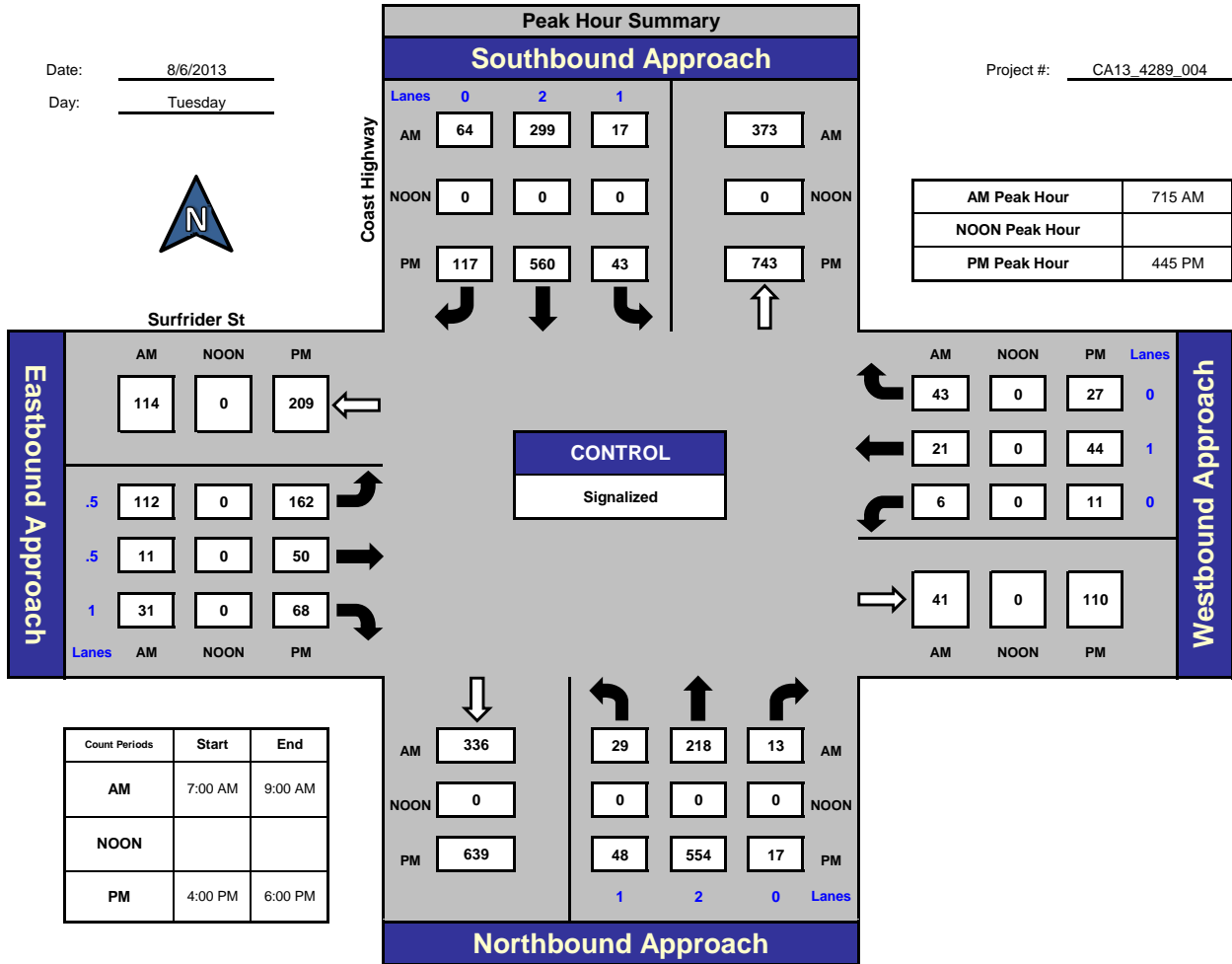
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Coast Highway and Surfrider St., City of Oceanside

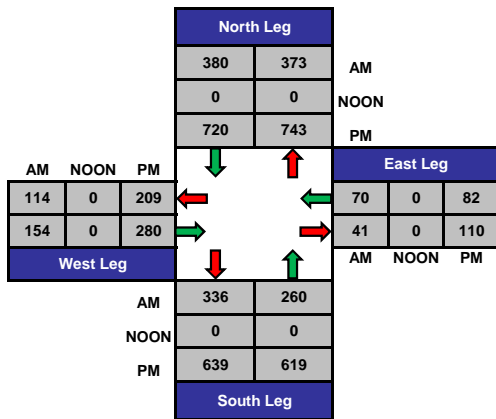
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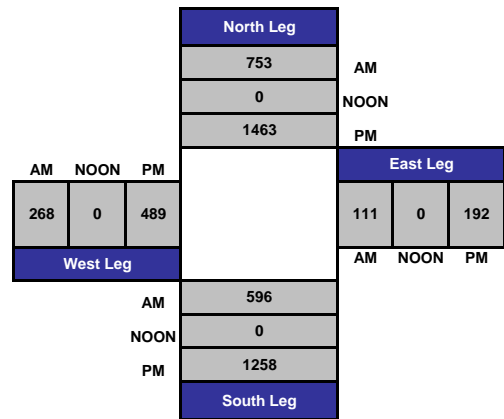
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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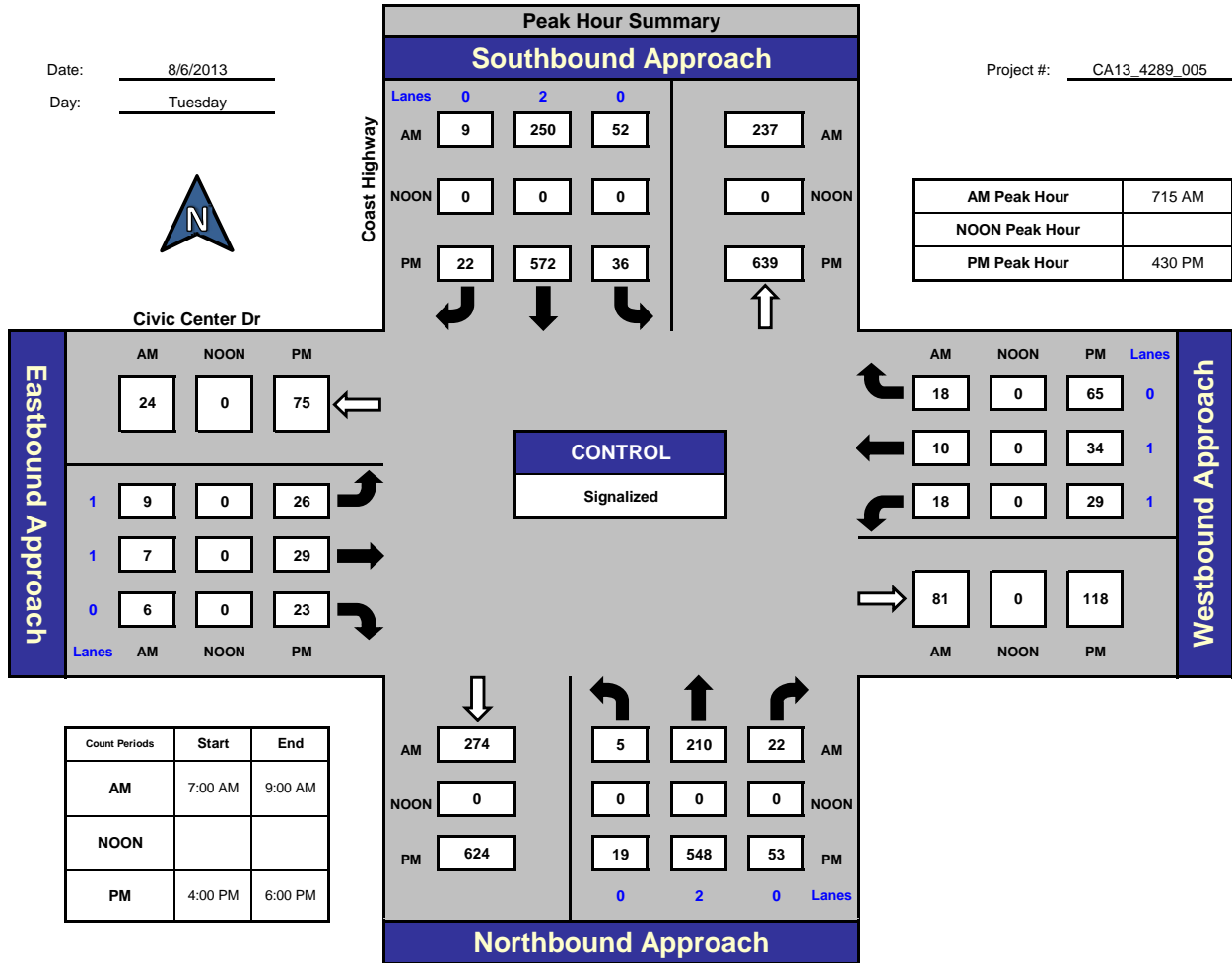
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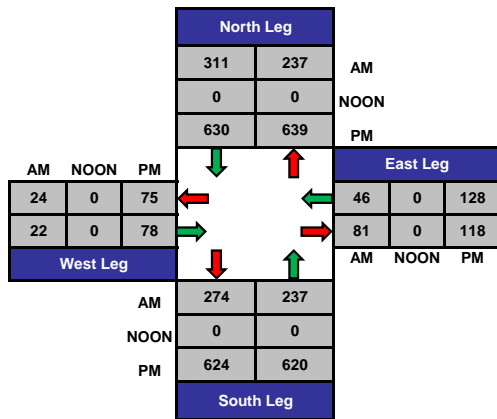
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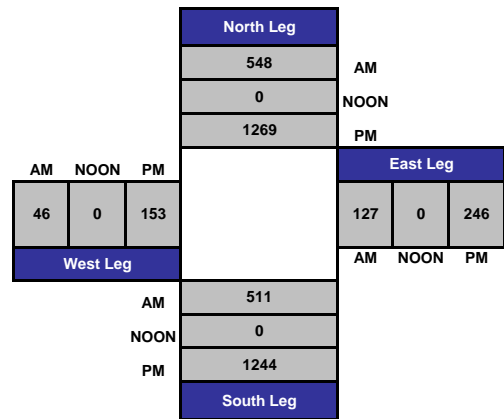
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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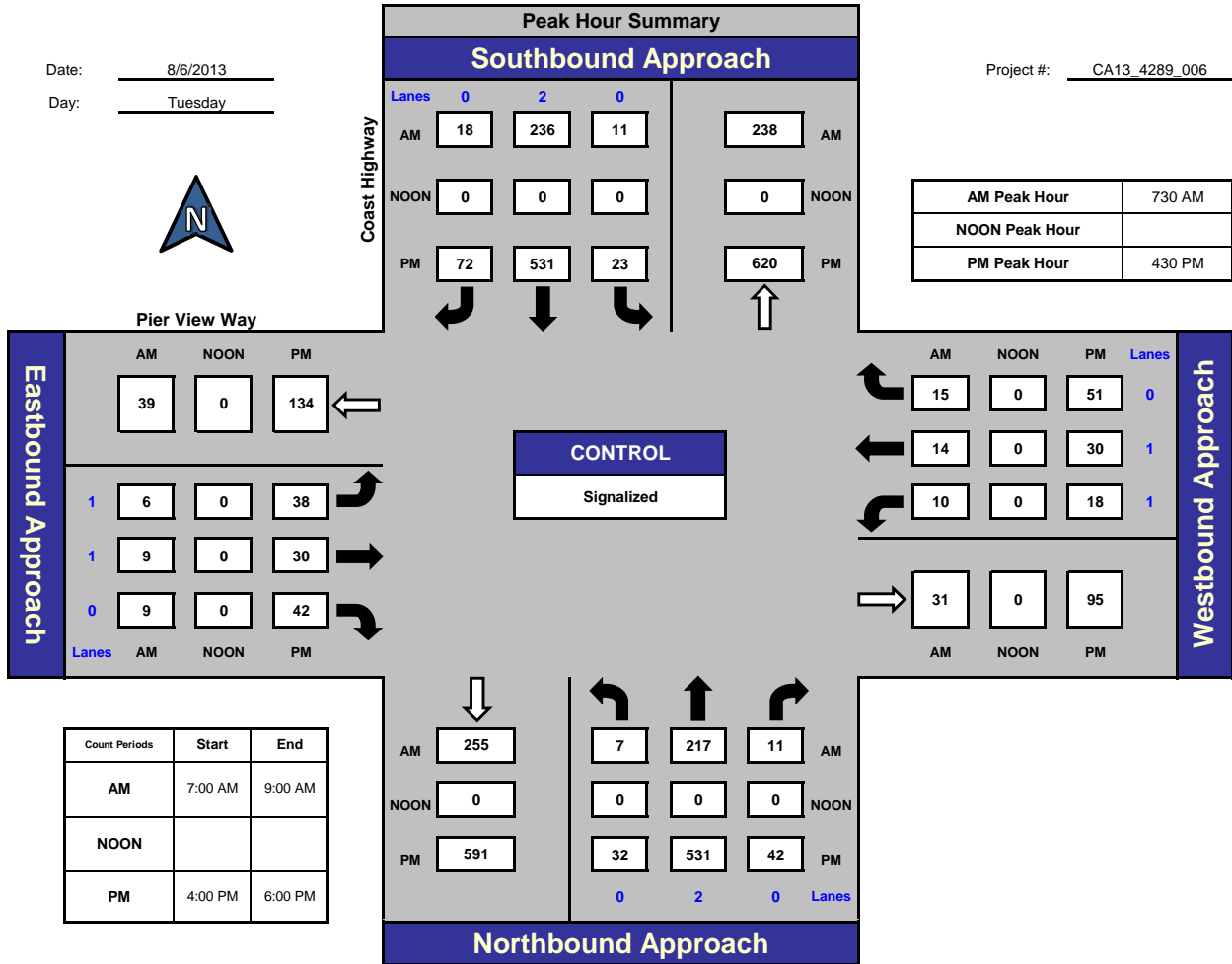
National Data & Surveying Services

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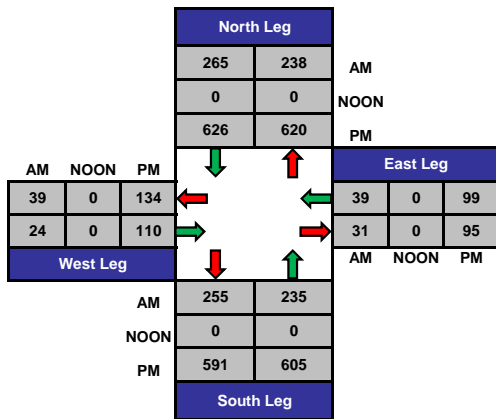
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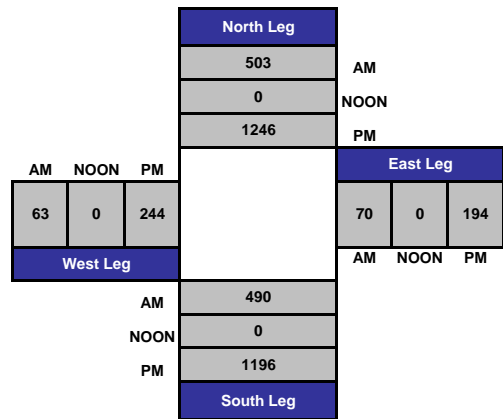
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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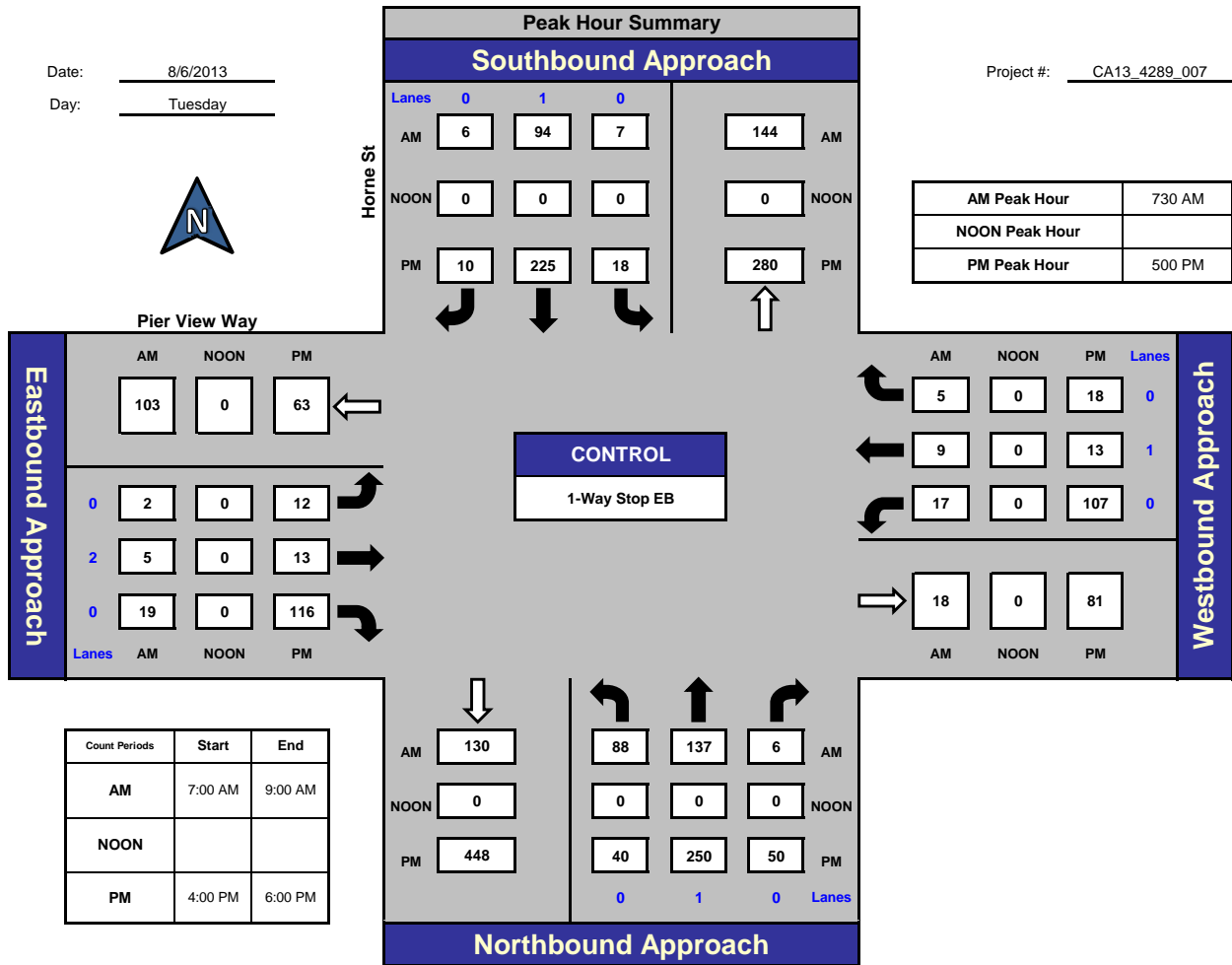


National Data & Surveying Services

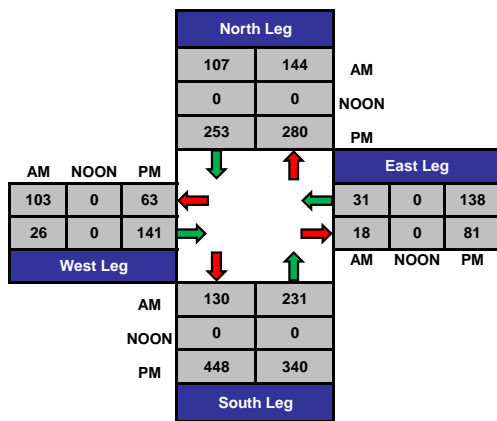
Horne St and Pier View Way, City of Oceanside

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Day: Tuesday

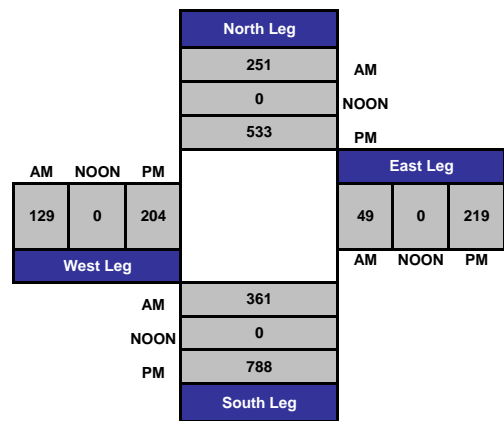
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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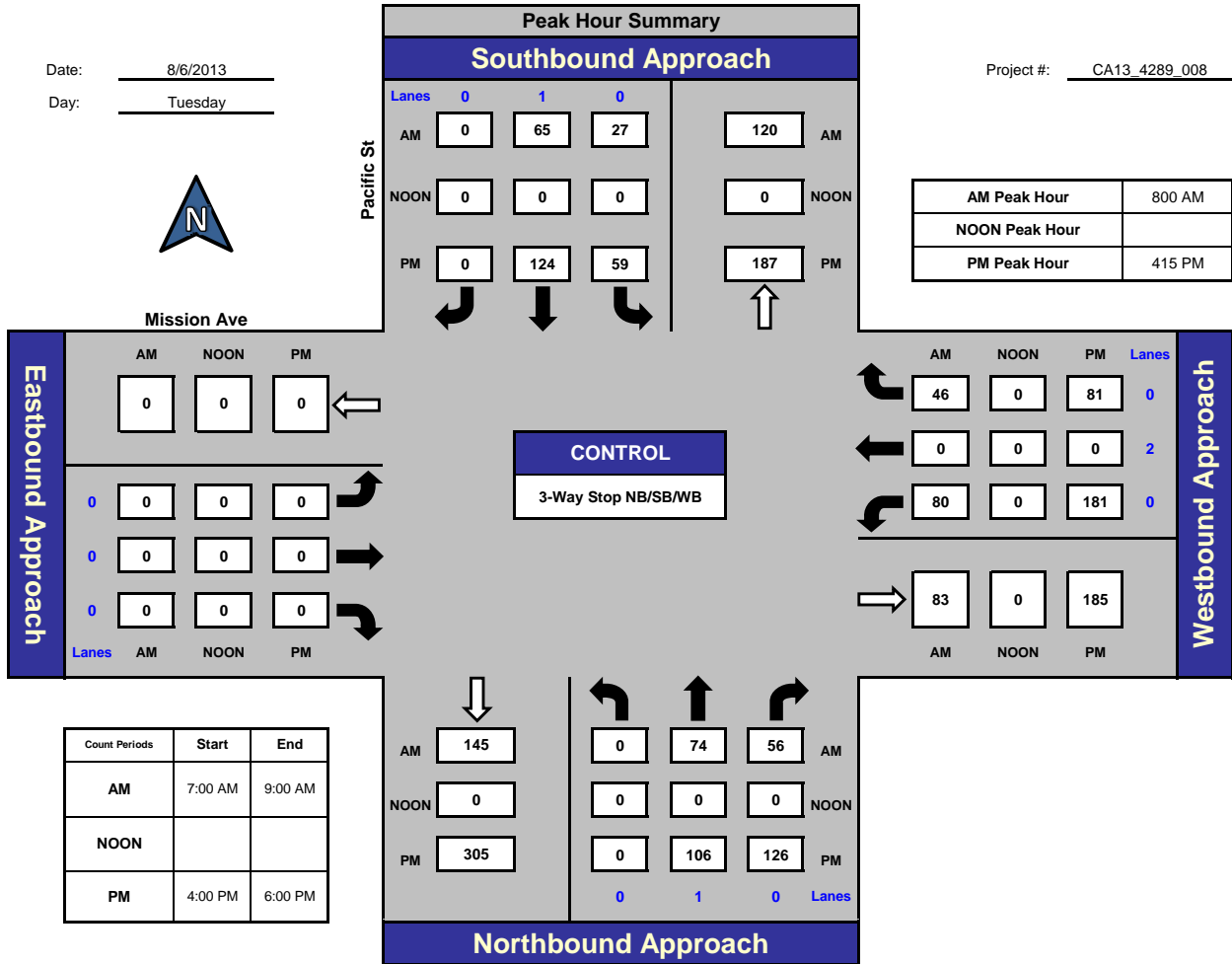
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Pacific St and Mission Ave, City of Oceanside

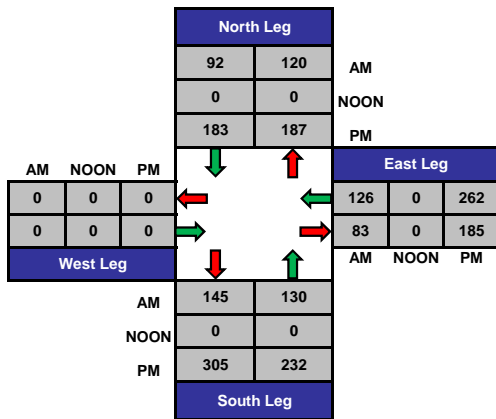
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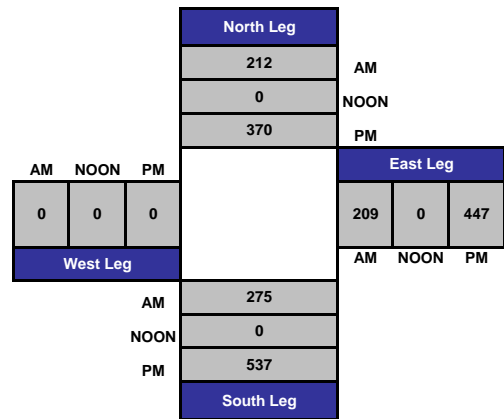
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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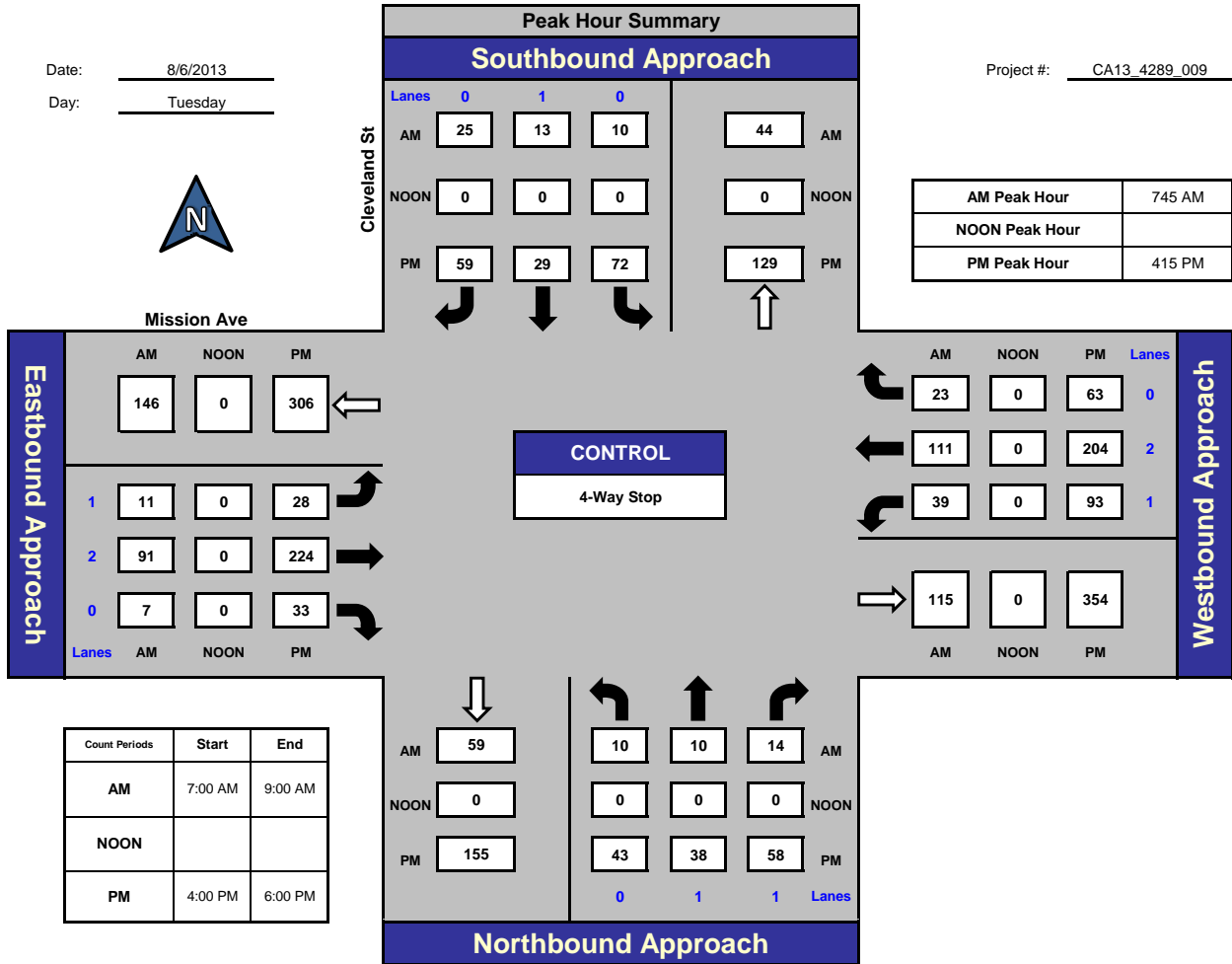
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Cleveland St and Mission Ave, City of Oceanside

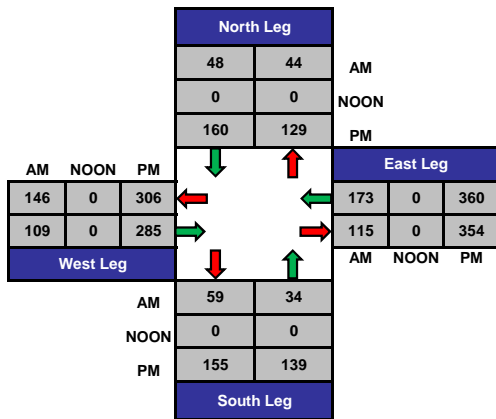
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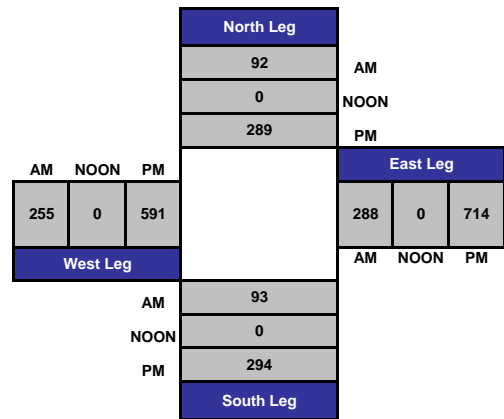
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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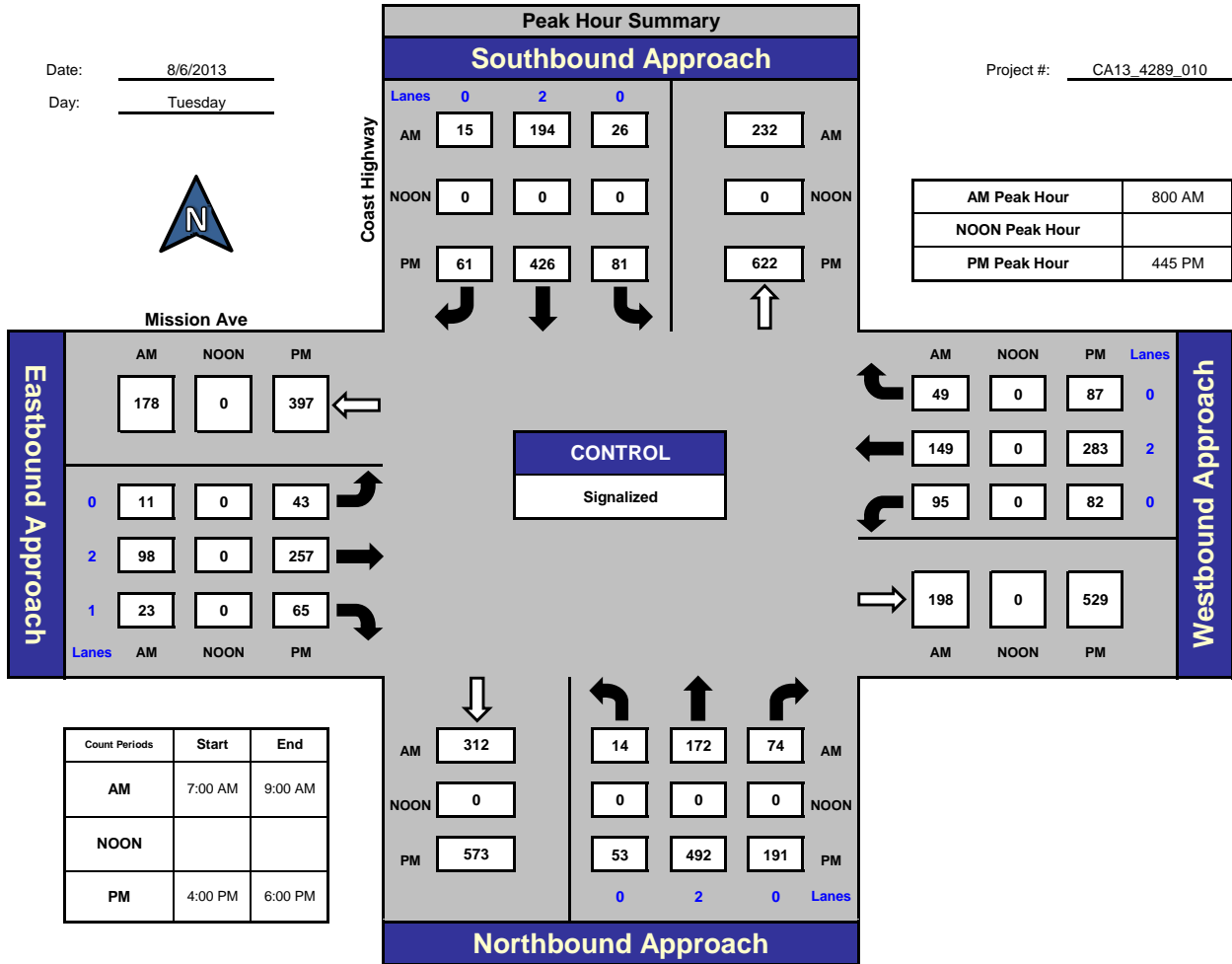
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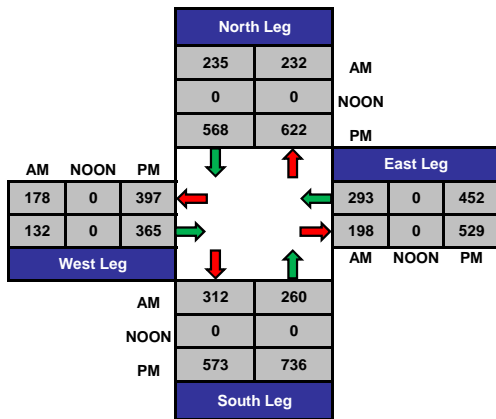
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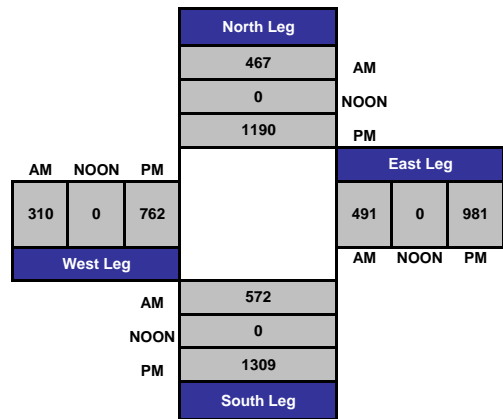
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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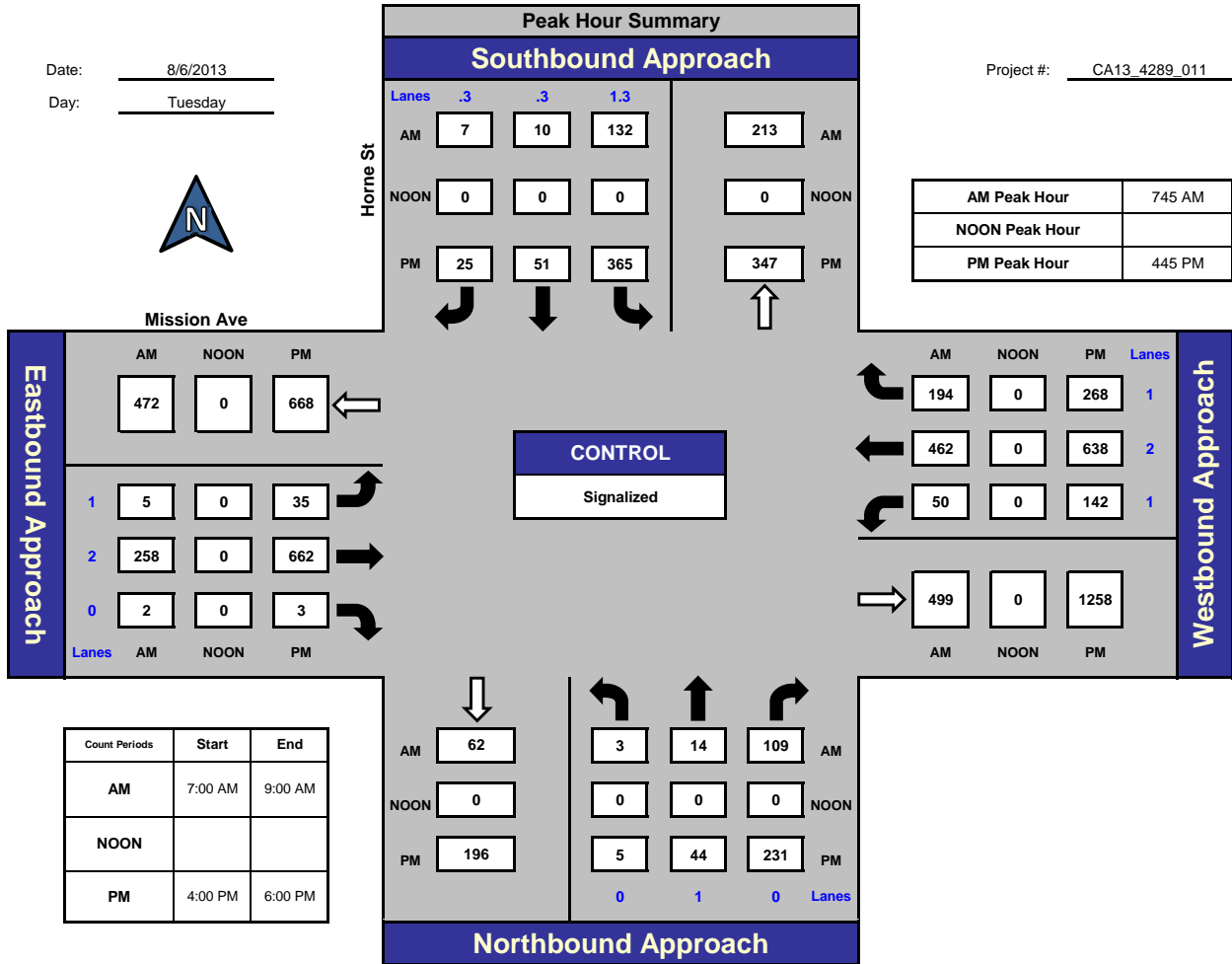
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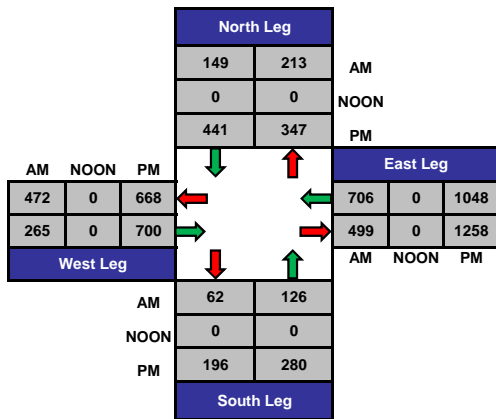
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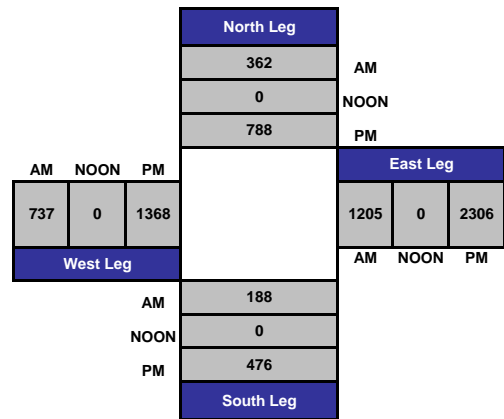
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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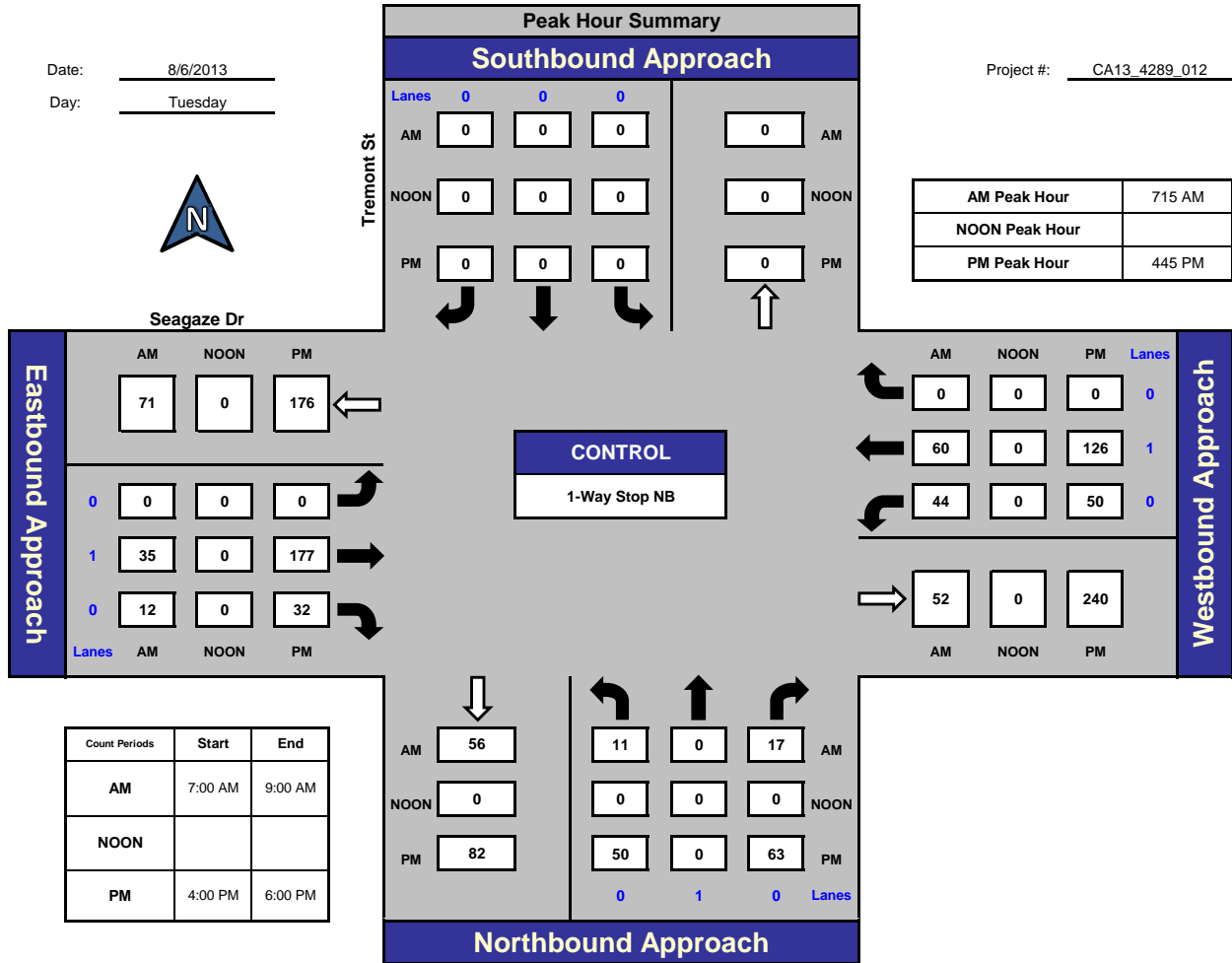
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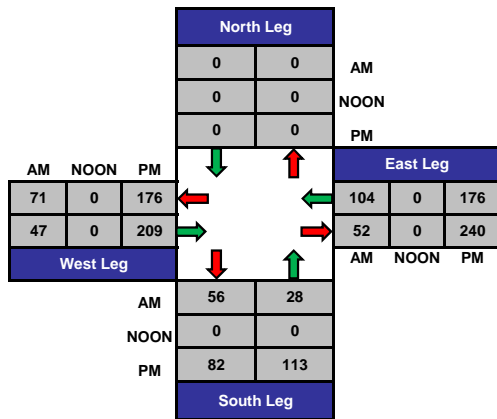
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Day: Tuesday

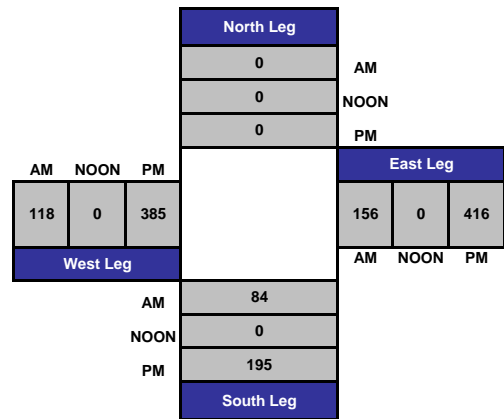
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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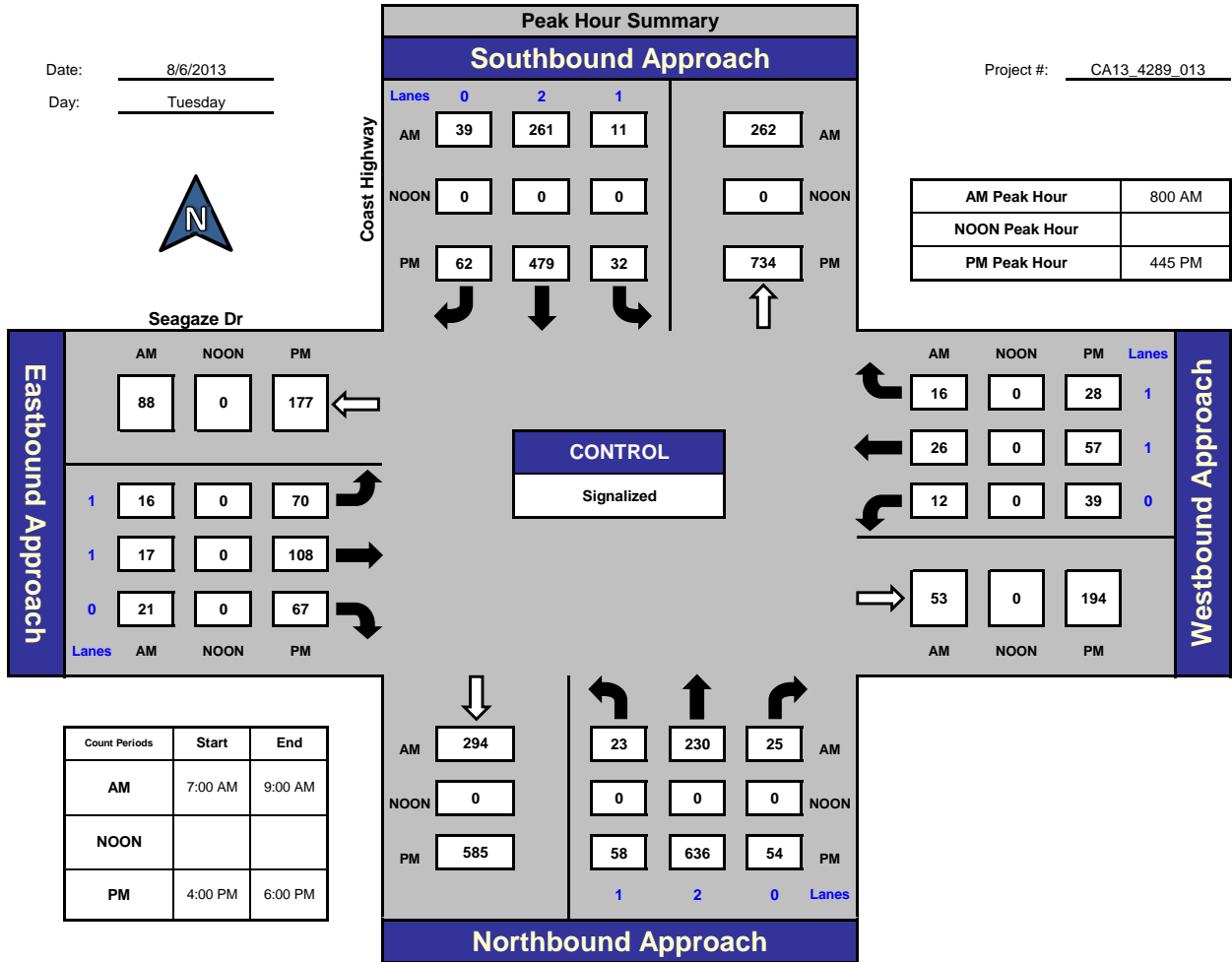
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Coast Highway and Seagaze Dr., City of Oceanside

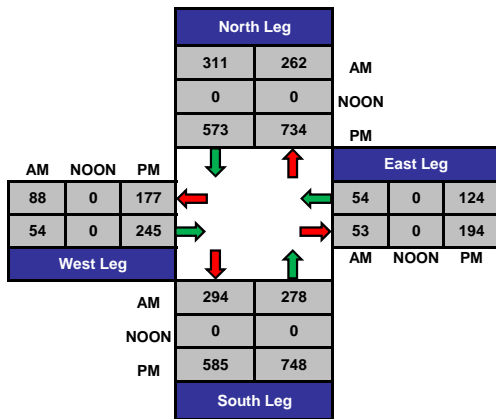
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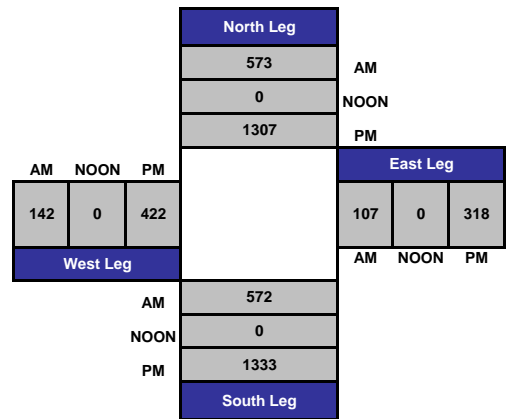
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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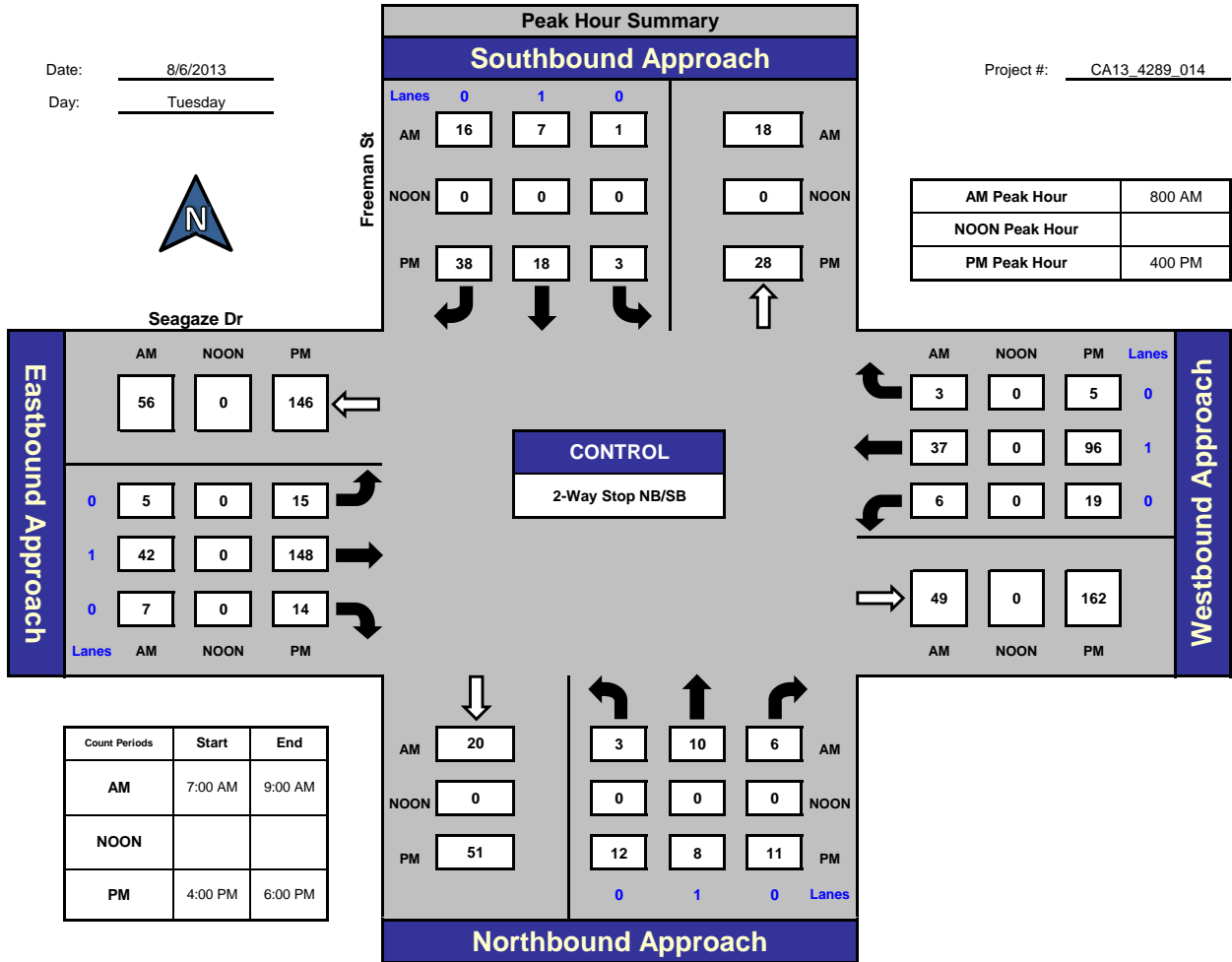
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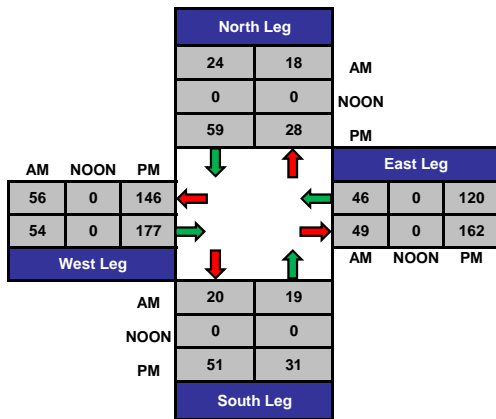
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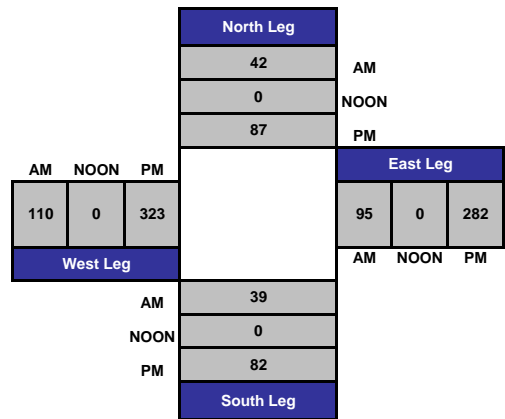
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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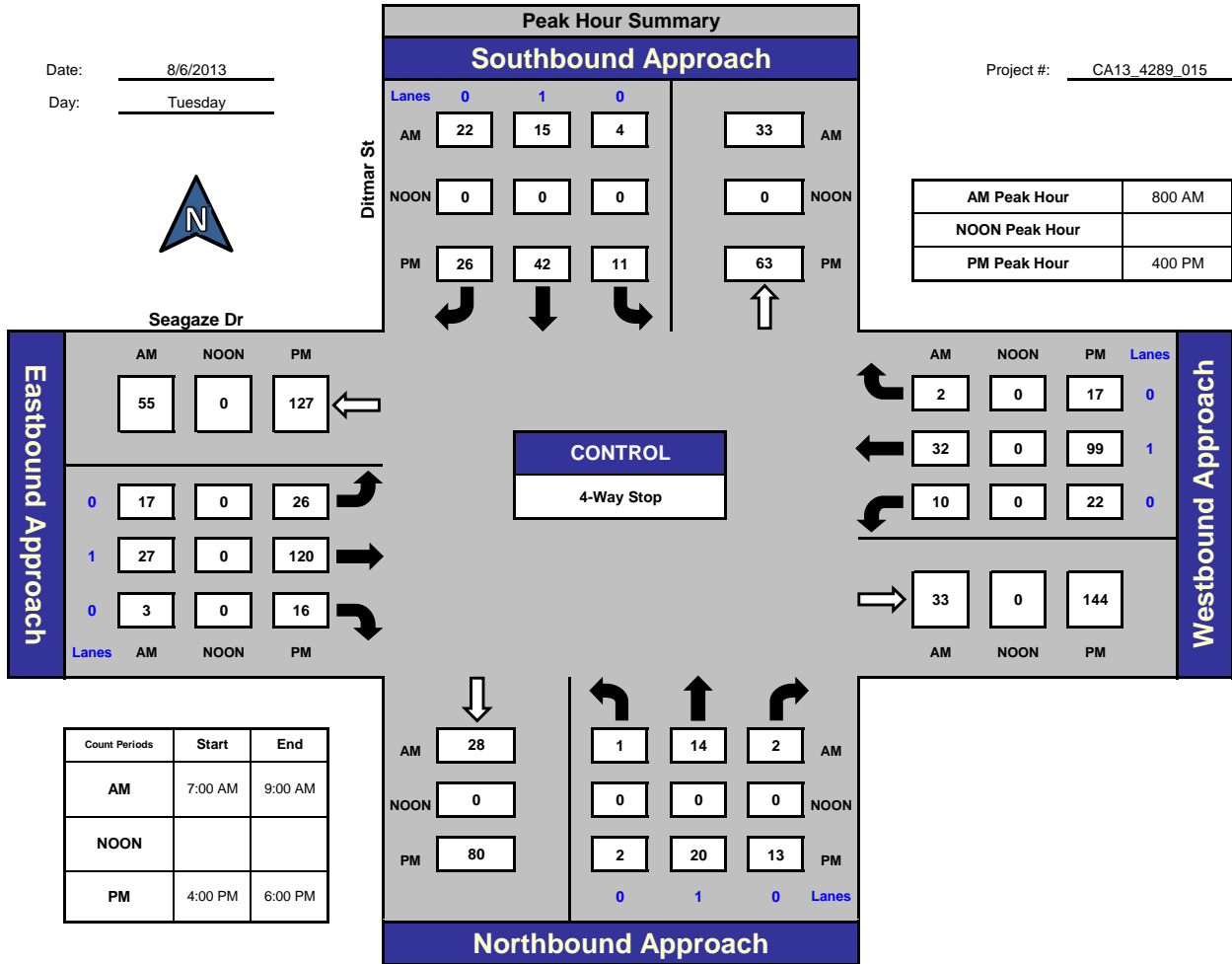
National Data & Surveying Services

Ditmar St and Seagaze Dr., City of Oceanside

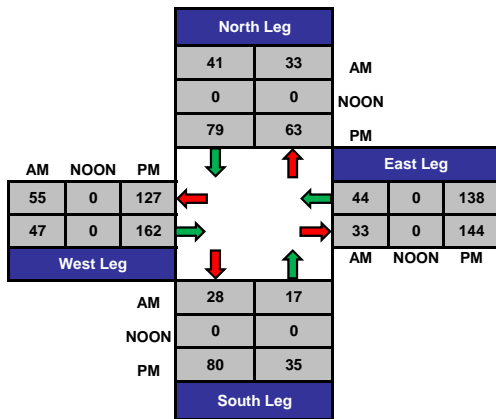
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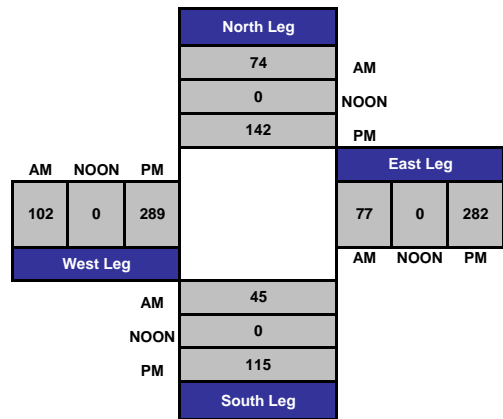
Project #: CA13_4289_015



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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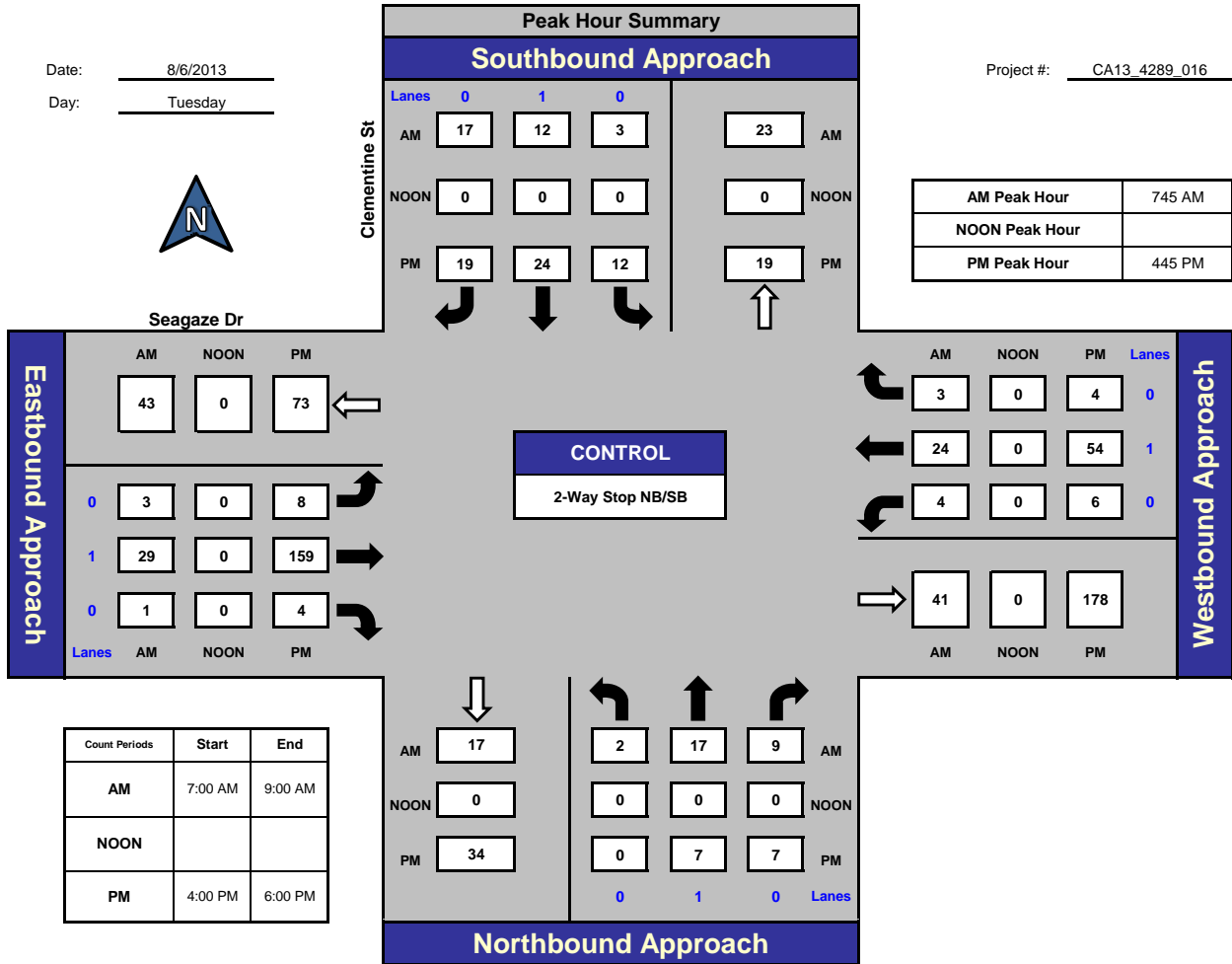
National Data & Surveying Services

Clementine St and Seagaze Dr, City of Oceanside

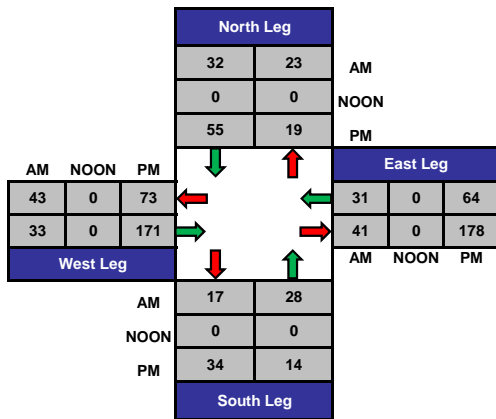
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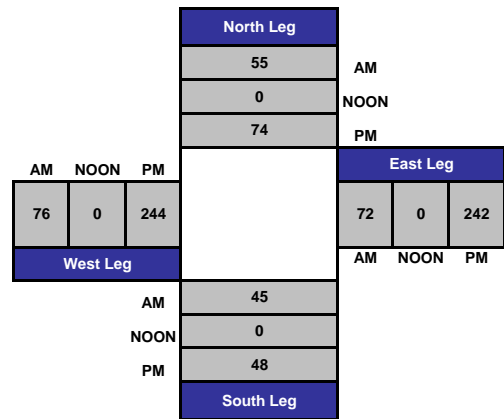
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Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

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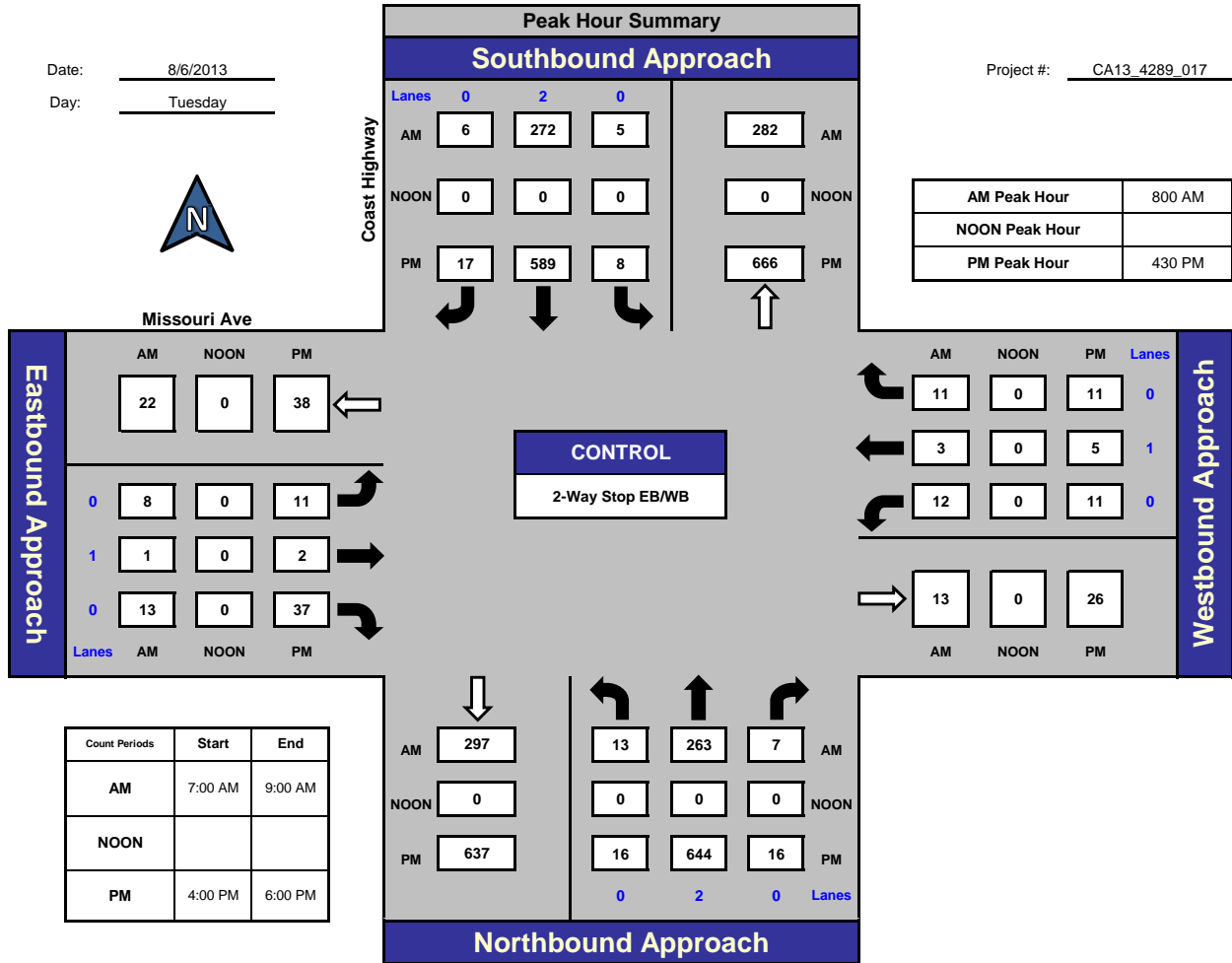
National Data & Surveying Services

Coast Highway and Missouri Ave , City of Oceanside

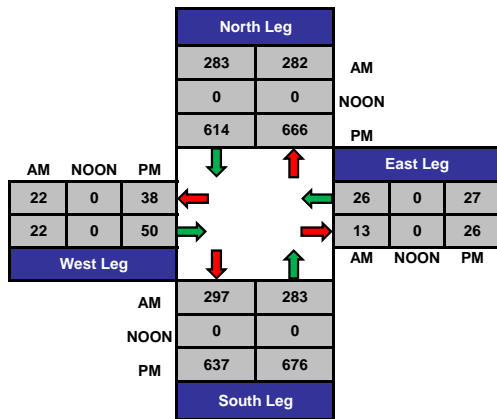
Date: 8/6/2013

Day: Tuesday

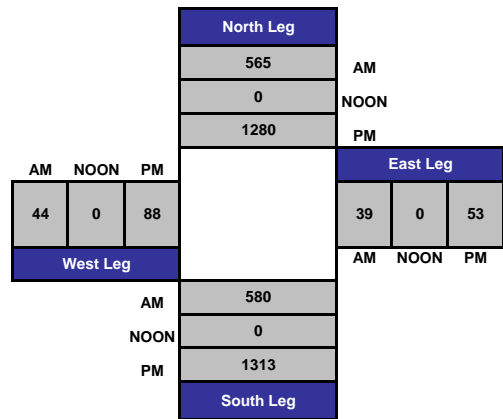
Project #: CA13_4289_017



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



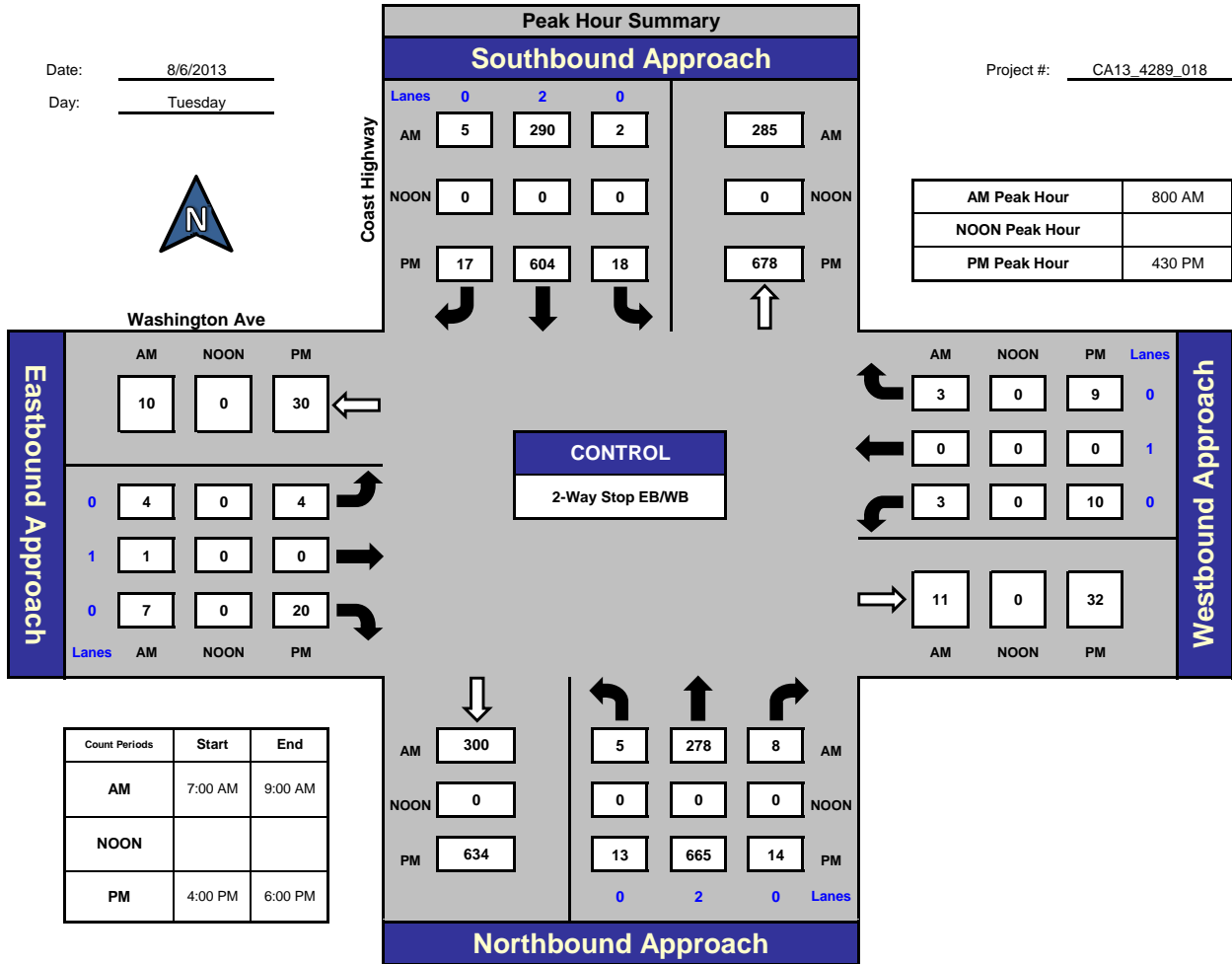
National Data & Surveying Services

Coast Highway and Washington Ave, City of Oceanside

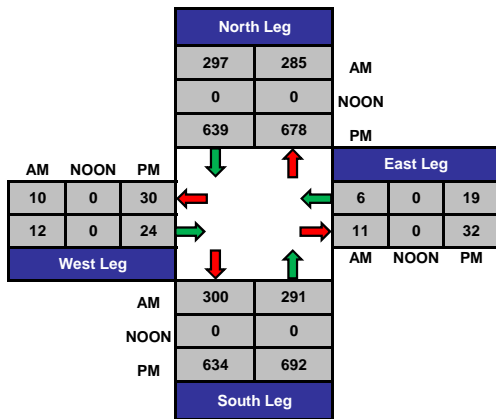
Date: 8/6/2013

Day: Tuesday

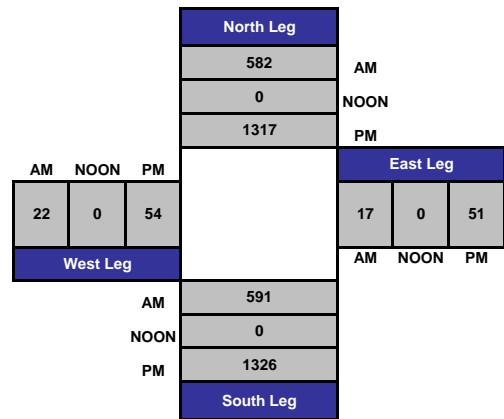
Project #: CA13_4289_018



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

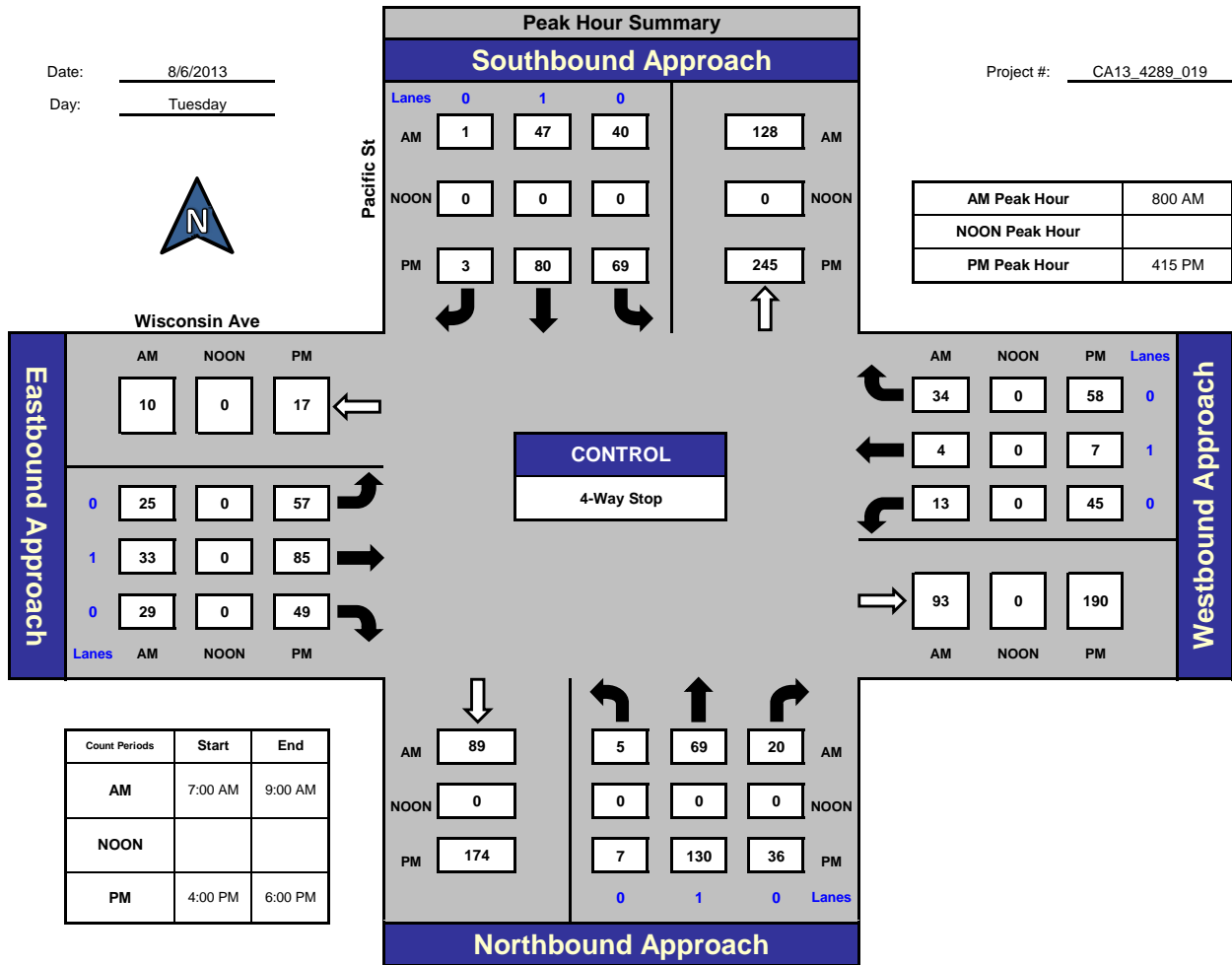


National Data & Surveying Services

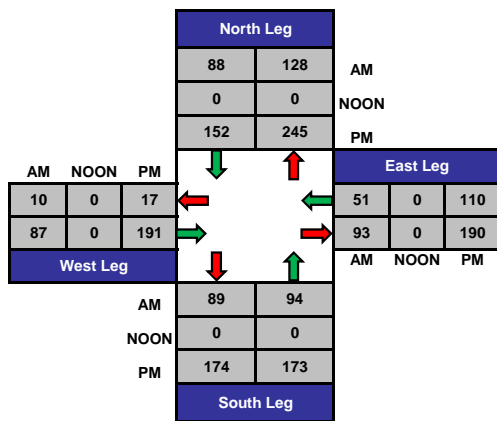
Pacific St and Wisconsin Ave, City of Oceanside

Date: 8/6/2013
Day: Tuesday

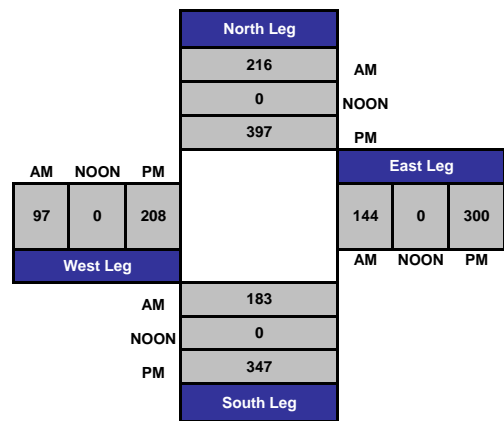
Project #: CA13_4289_019



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



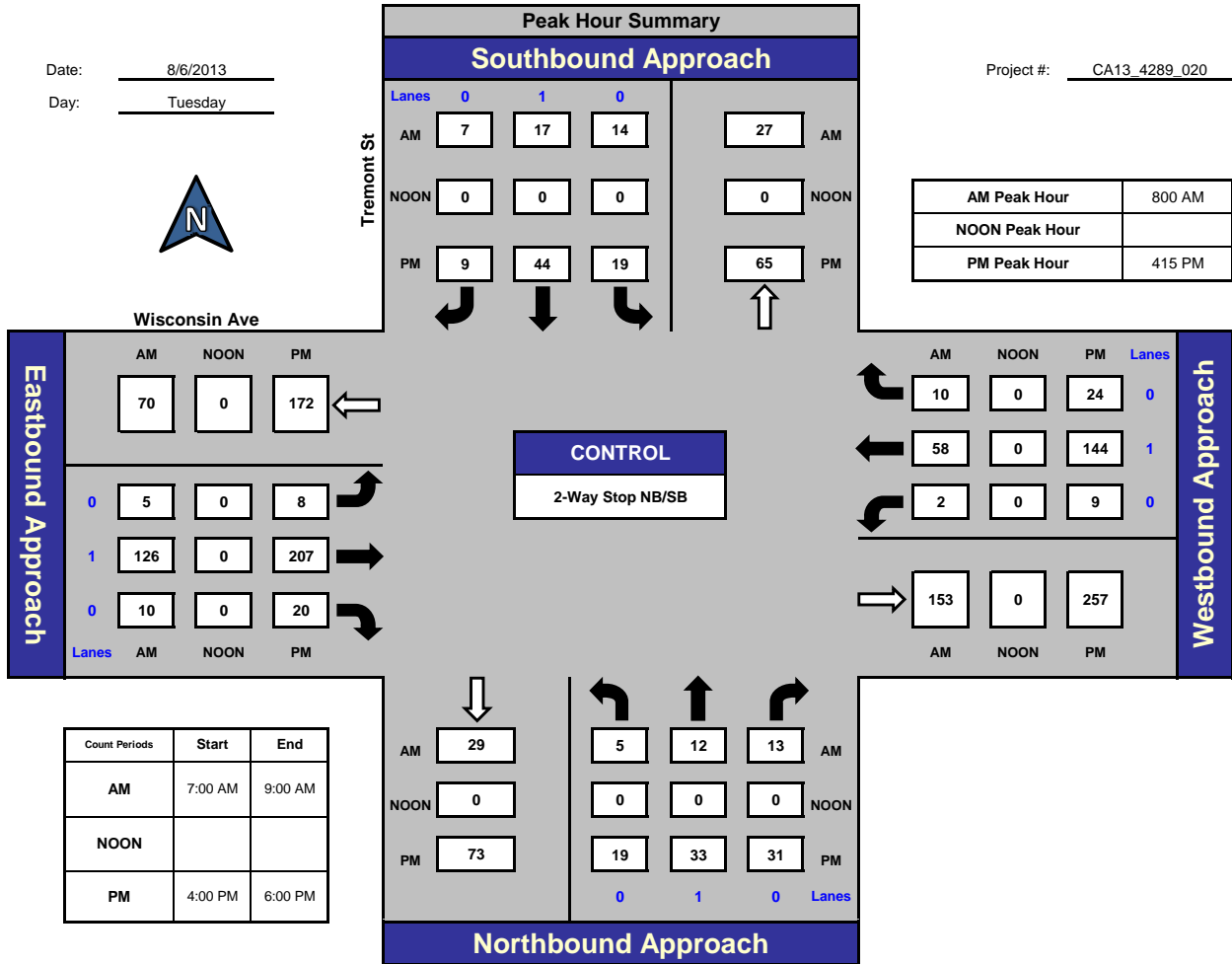
National Data & Surveying Services

Tremont St and Wisconsin Ave, City of Oceanside

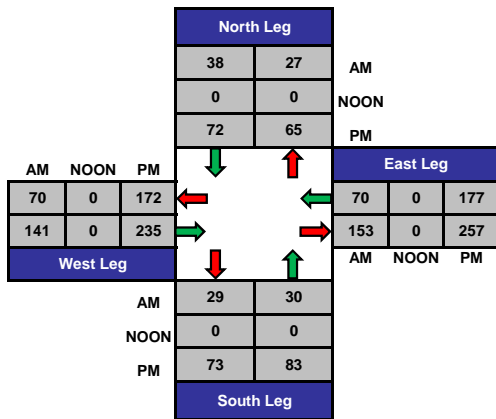
Date: 8/6/2013

Day: Tuesday

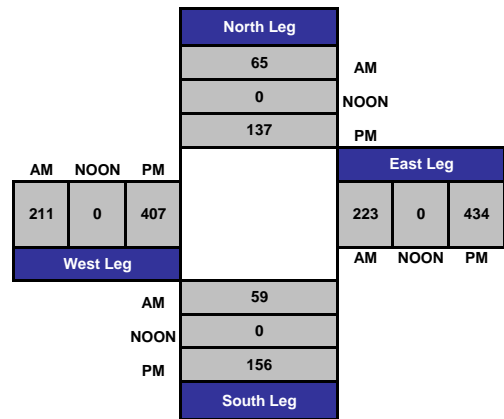
Project #: CA13_4289_020



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



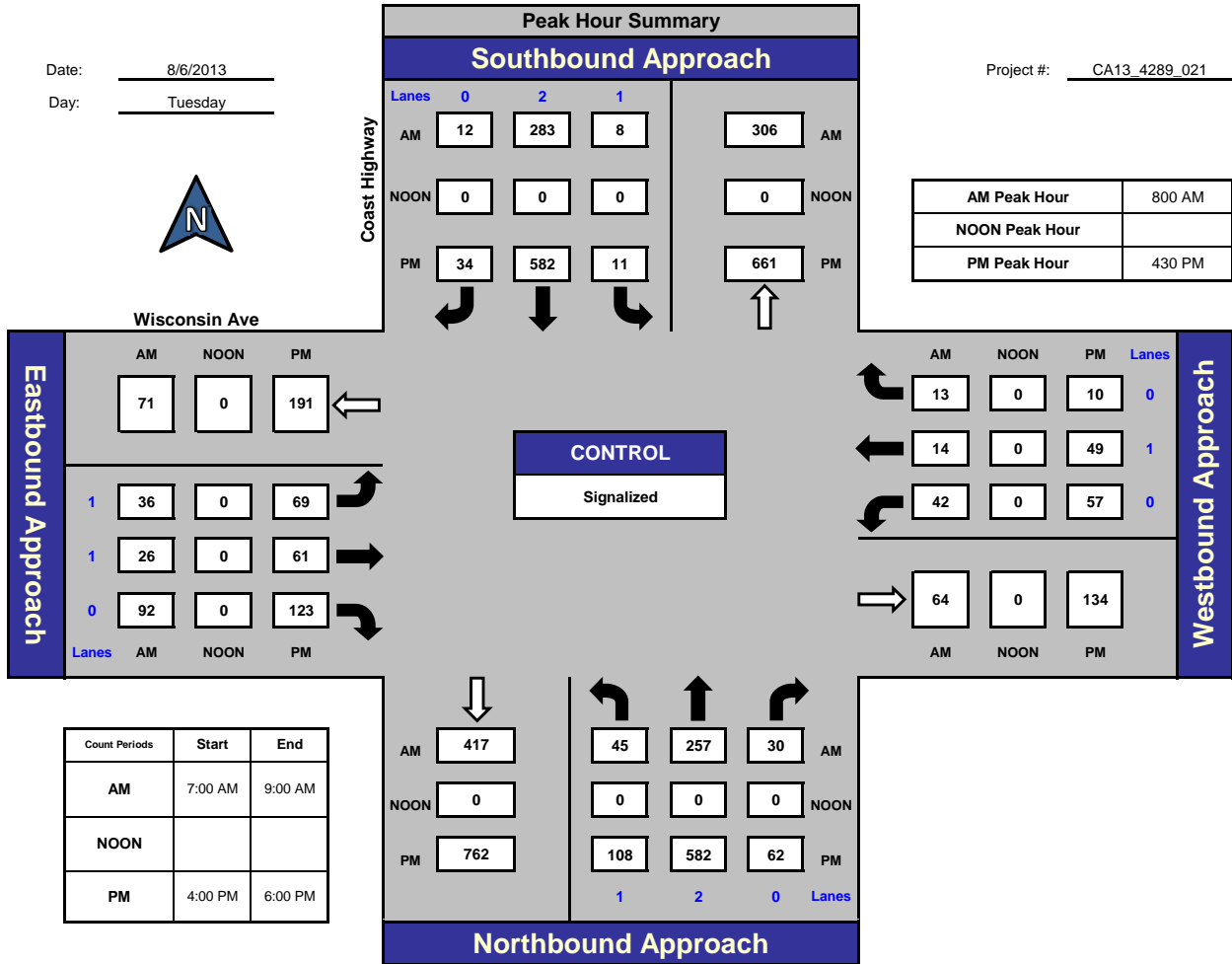
National Data & Surveying Services

Coast Highway and Wisconsin Ave., City of Oceanside

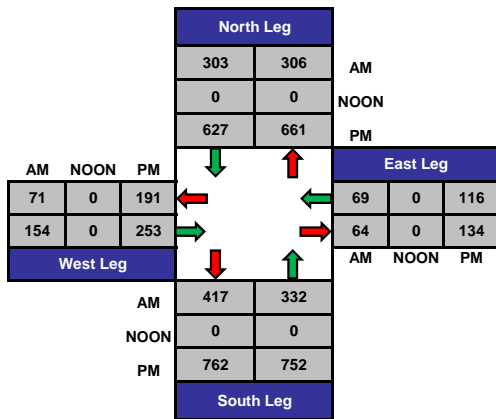
Date: 8/6/2013

Day: Tuesday

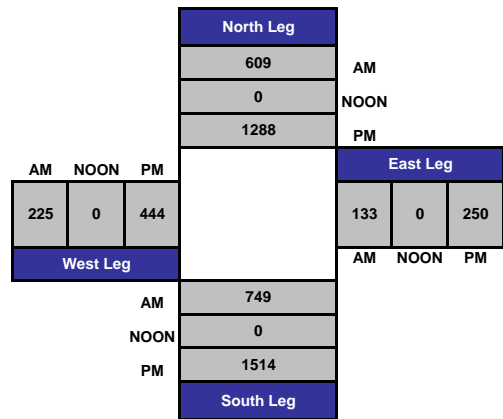
Project #: CA13_4289_021



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



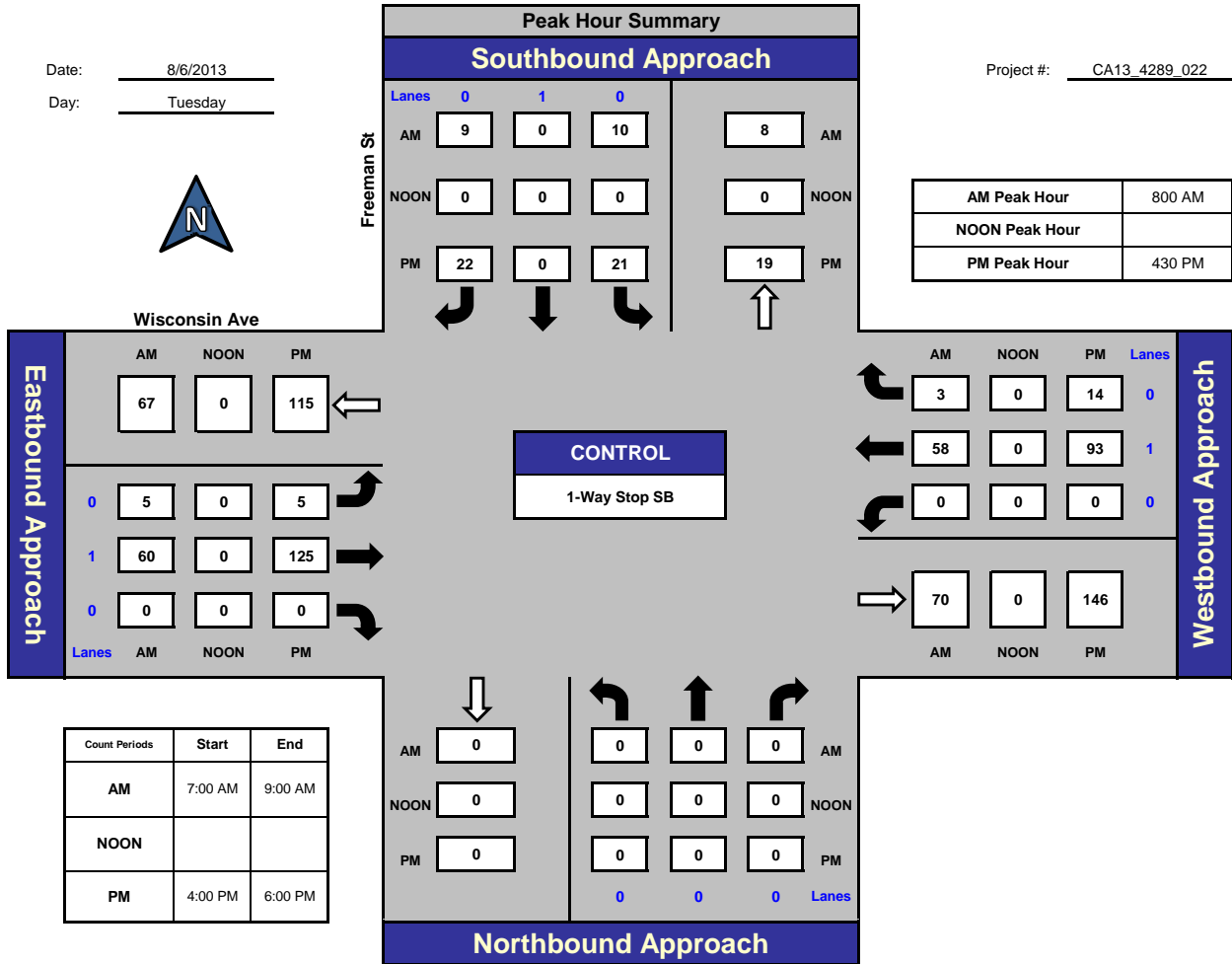
National Data & Surveying Services

Freeman St and Wisconsin Ave, City of Oceanside

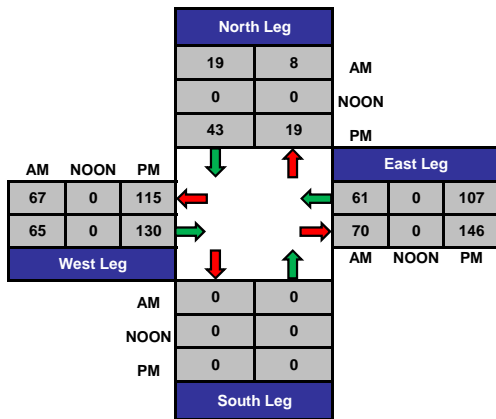
Date: 8/6/2013

Day: Tuesday

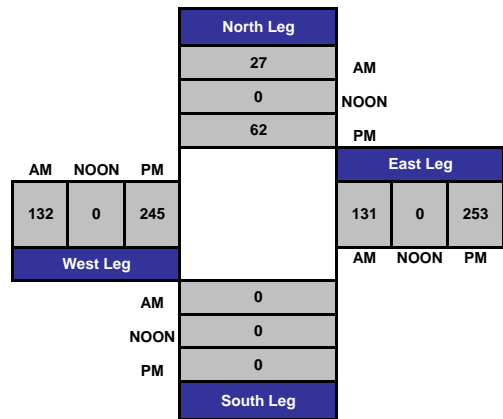
Project #: CA13_4289_022



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

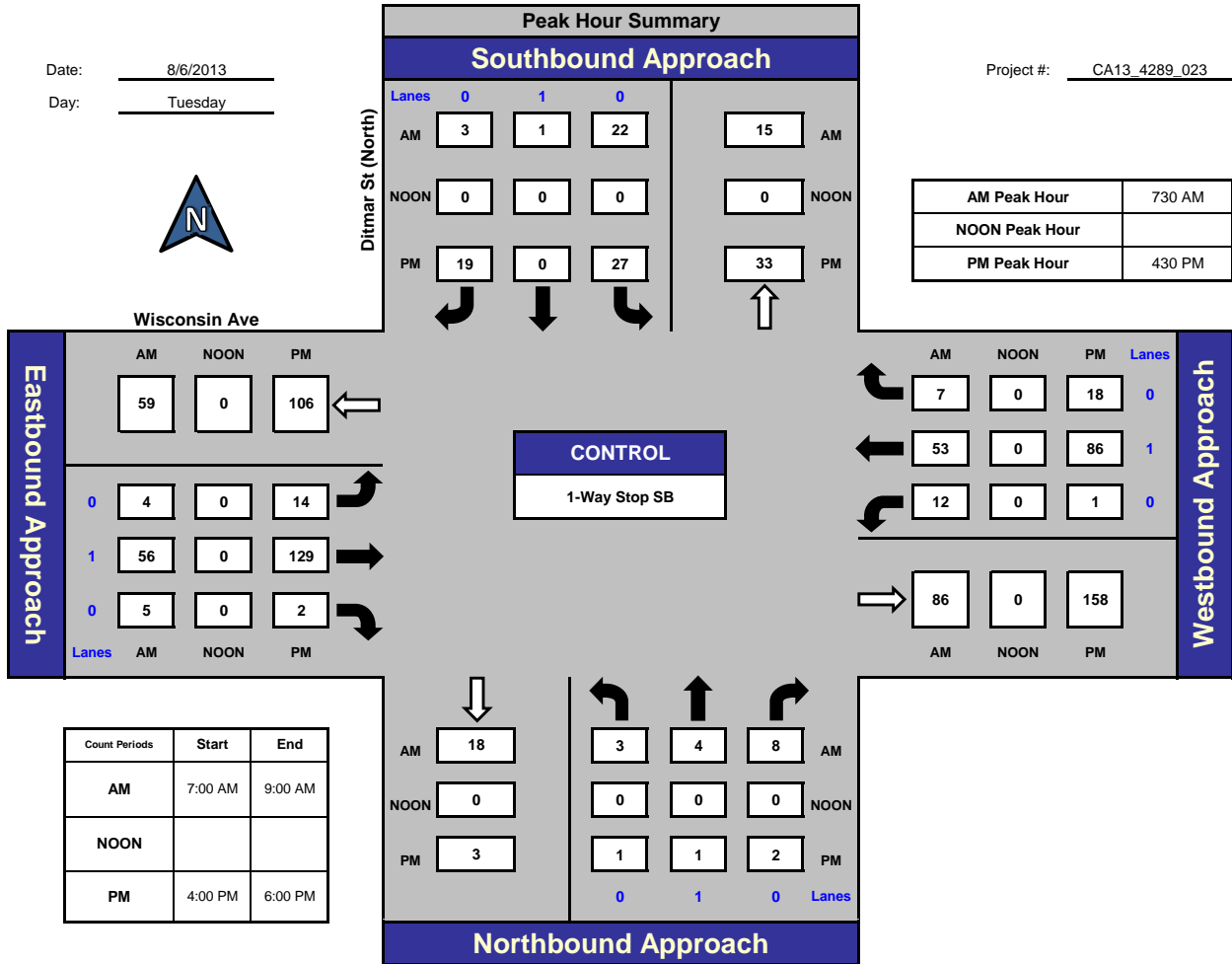


National Data & Surveying Services

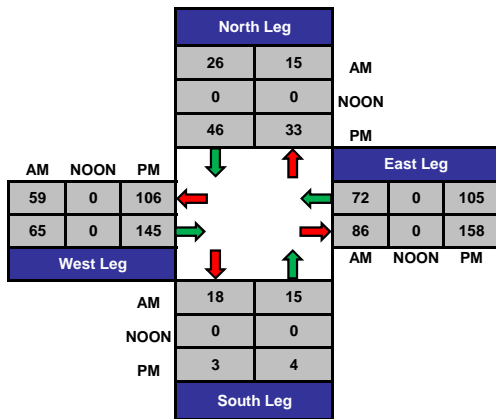
Ditmar St (North) and Wisconsin Ave, City of Oceanside

Date: 8/6/2013
Day: Tuesday

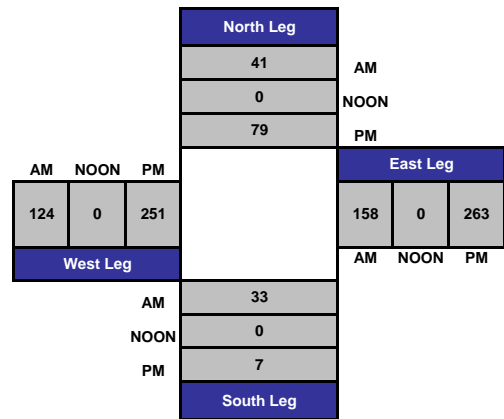
Project #: CA13_4289_023



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

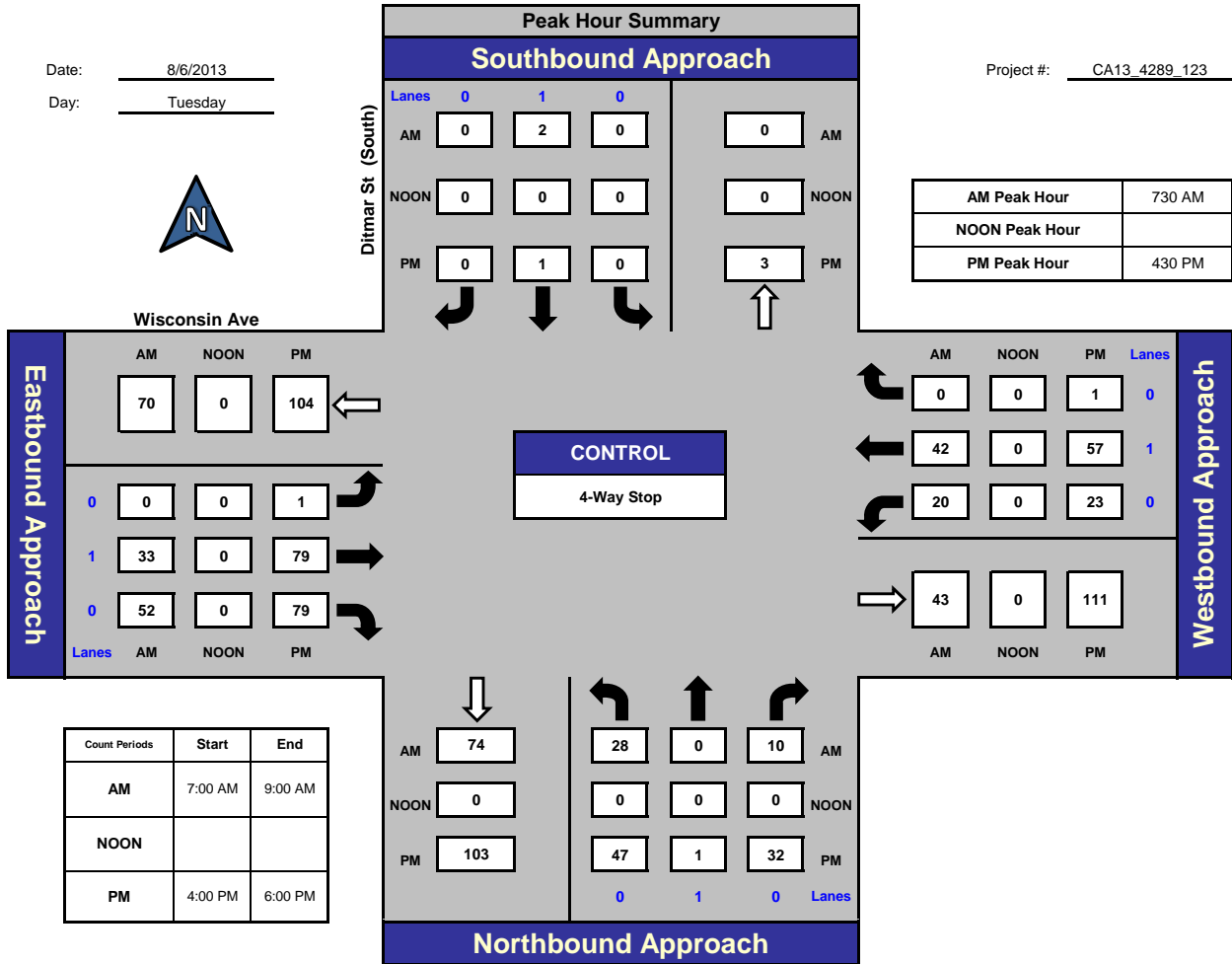


National Data & Surveying Services

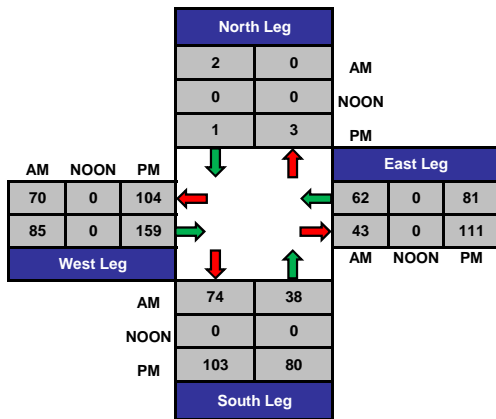
Ditmar St (South) and Wisconsin Ave., City of Oceanside

Date: 8/6/2013
Day: Tuesday

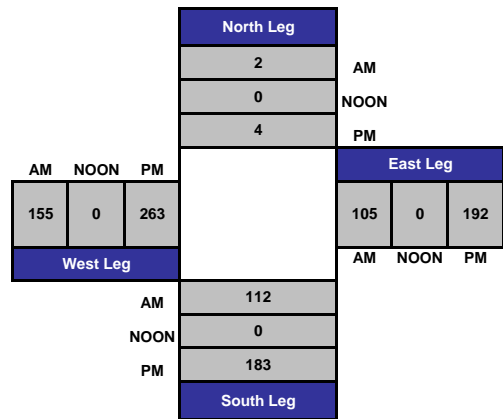
Project #: CA13_4289_123



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



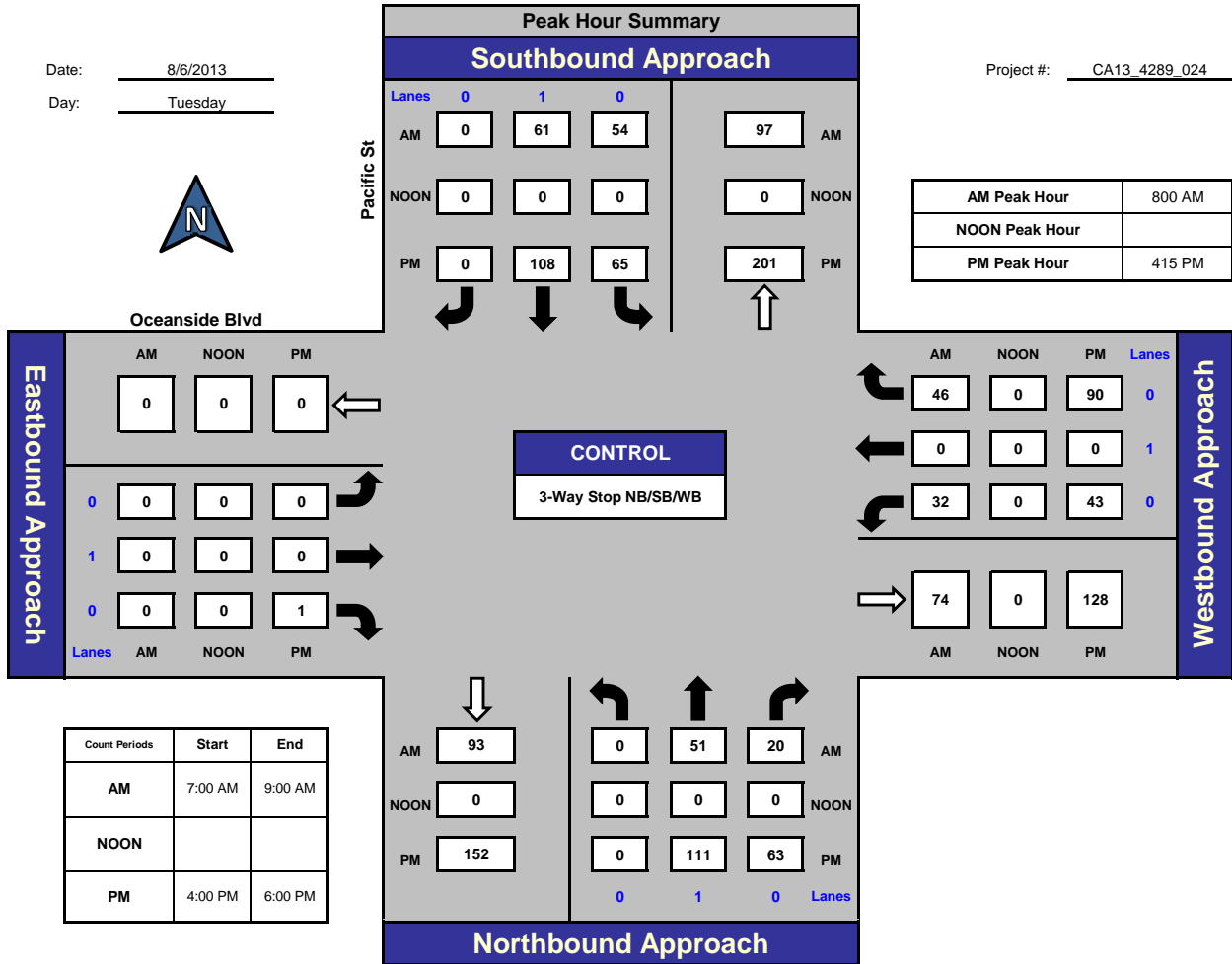
National Data & Surveying Services

Pacific St and Oceanside Blvd, City of Oceanside

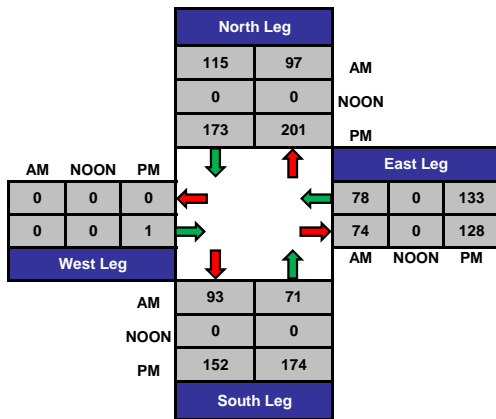
Date: 8/6/2013

Day: Tuesday

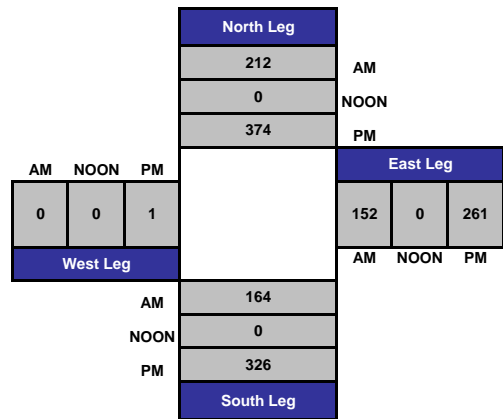
Project #: CA13_4289_024



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



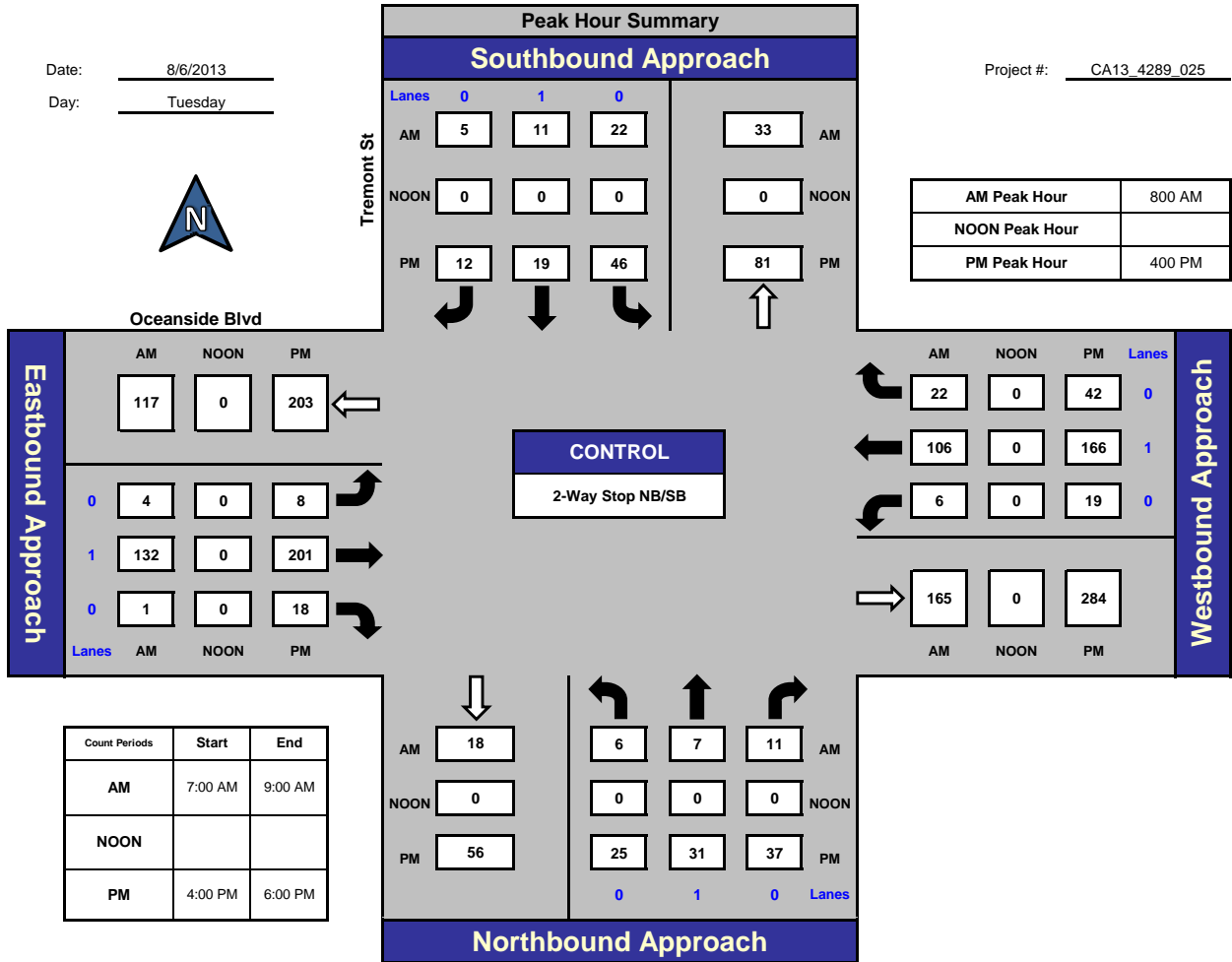
National Data & Surveying Services

Tremont St and Oceanside Blvd, City of Oceanside

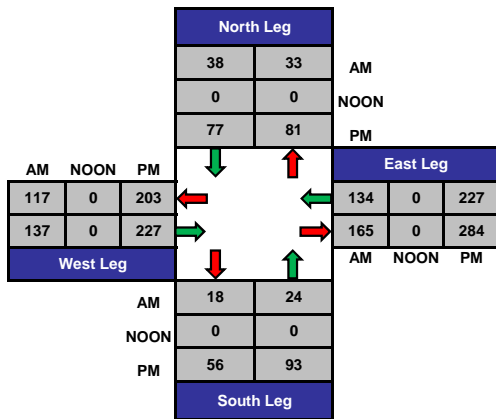
Date: 8/6/2013

Day: Tuesday

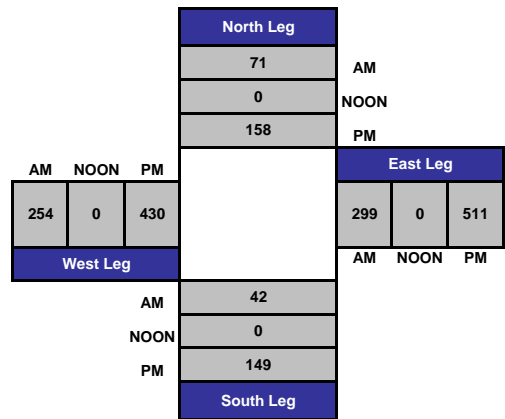
Project #: CA13_4289_025



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



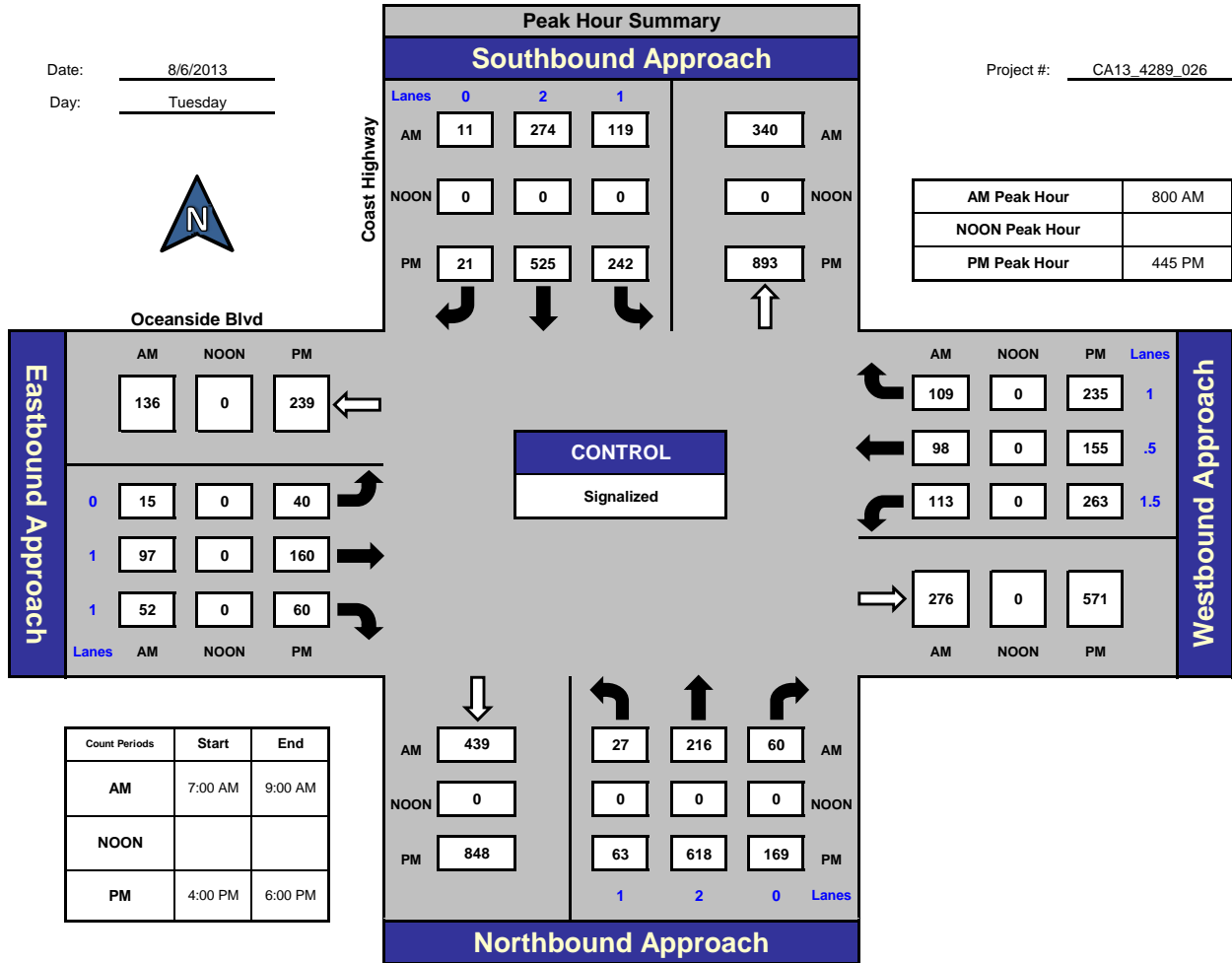
National Data & Surveying Services

Coast Highway and Oceanside Blvd, City of Oceanside

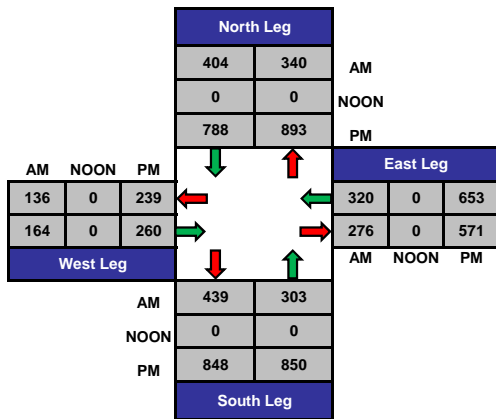
Date: 8/6/2013

Day: Tuesday

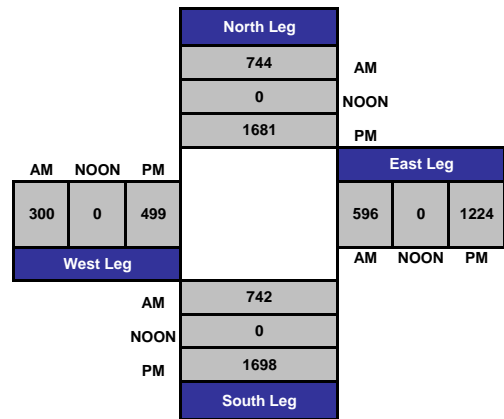
Project #: CA13_4289_026



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



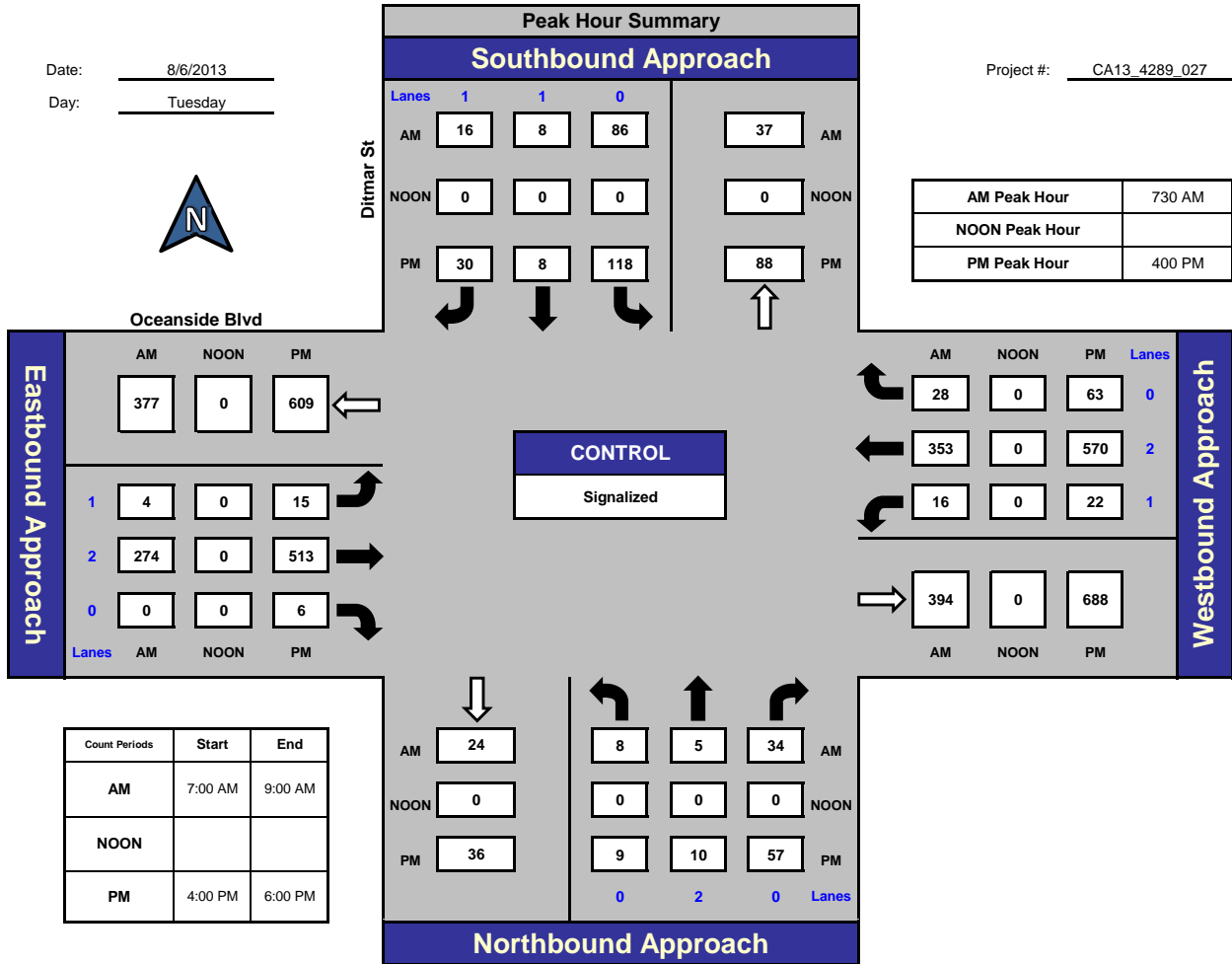
National Data & Surveying Services

Ditmar St and Oceanside Blvd, City of Oceanside

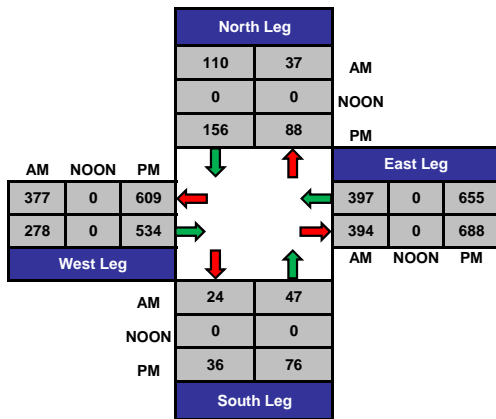
Date: 8/6/2013

Day: Tuesday

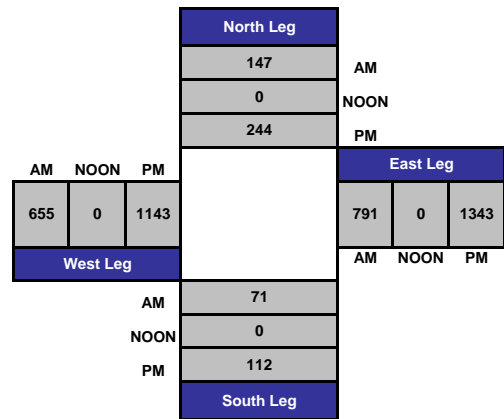
Project #: CA13_4289_027



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



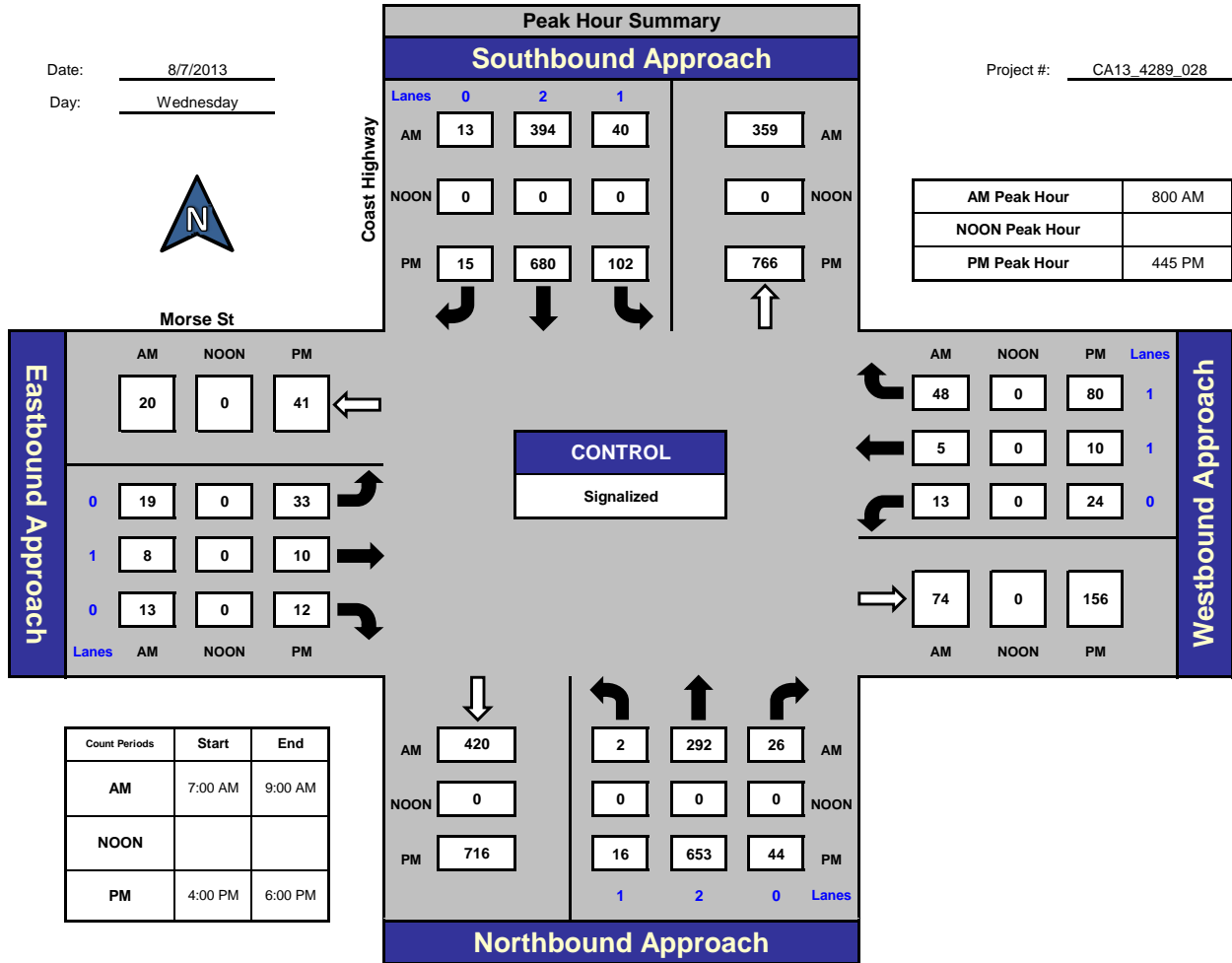
National Data & Surveying Services

Coast Highway and Morse St., City of Oceanside

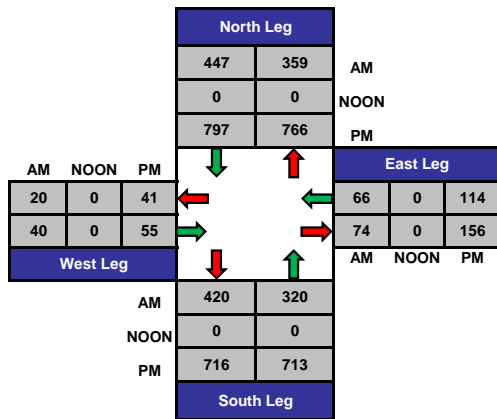
Date: 8/7/2013

Day: Wednesday

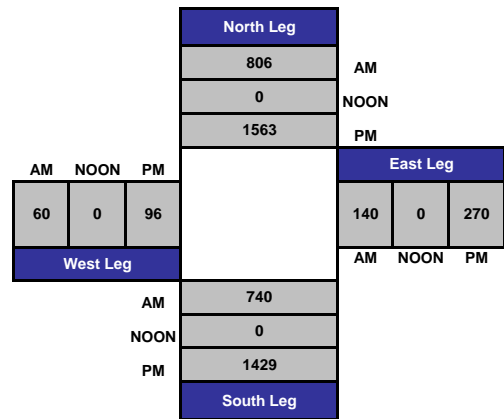
Project #: CA13_4289_028



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



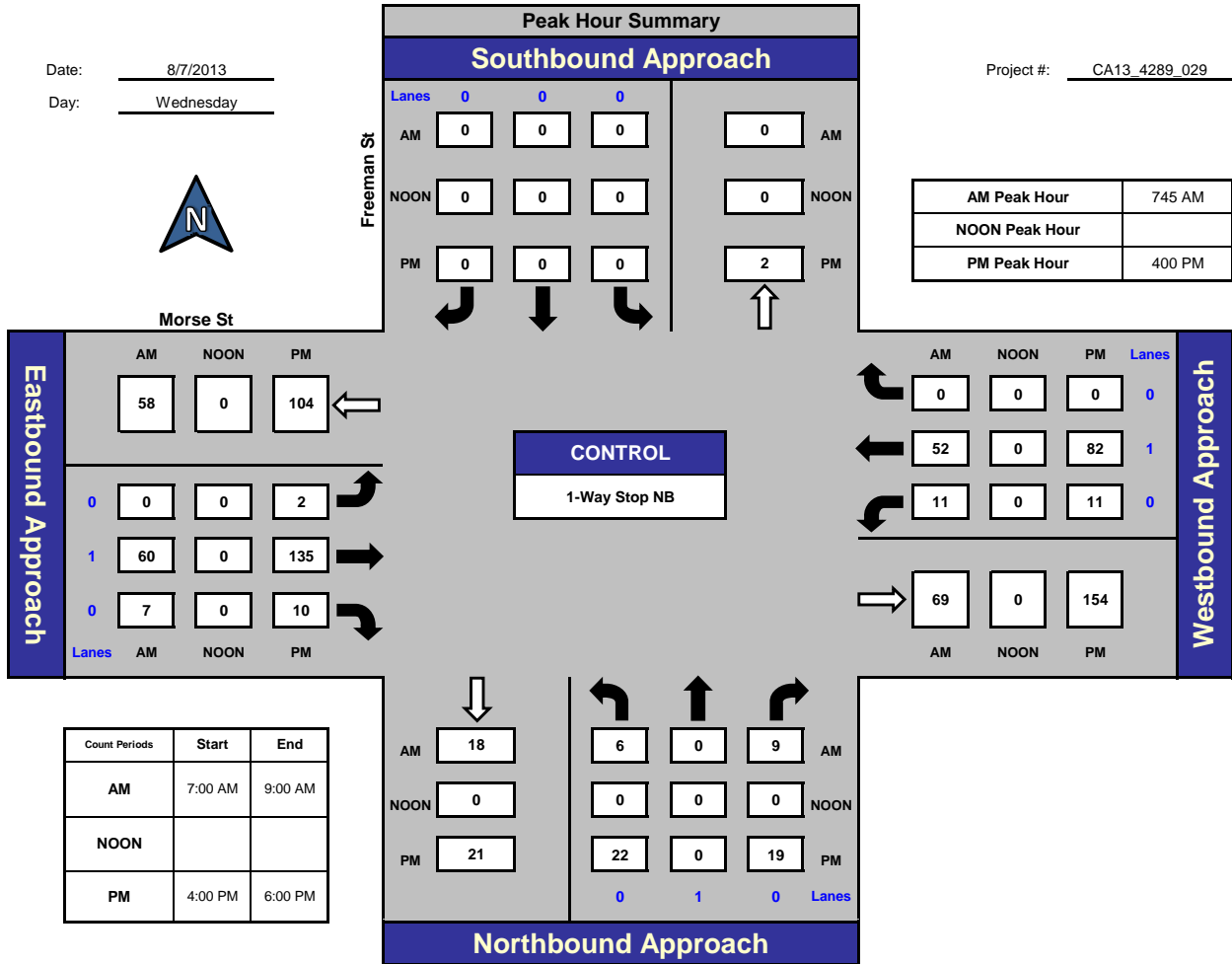
National Data & Surveying Services

Freeman St and Morse St, City of Oceanside

Date: 8/7/2013

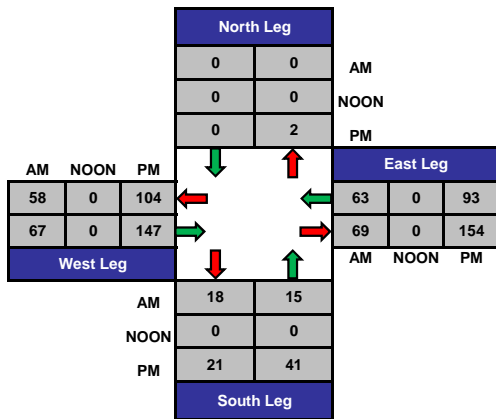
Day: Wednesday

Project #: CA13_4289_029

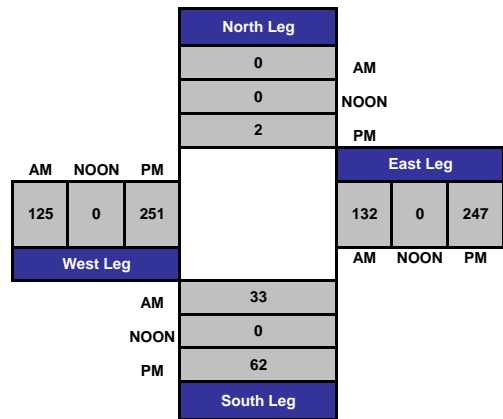


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



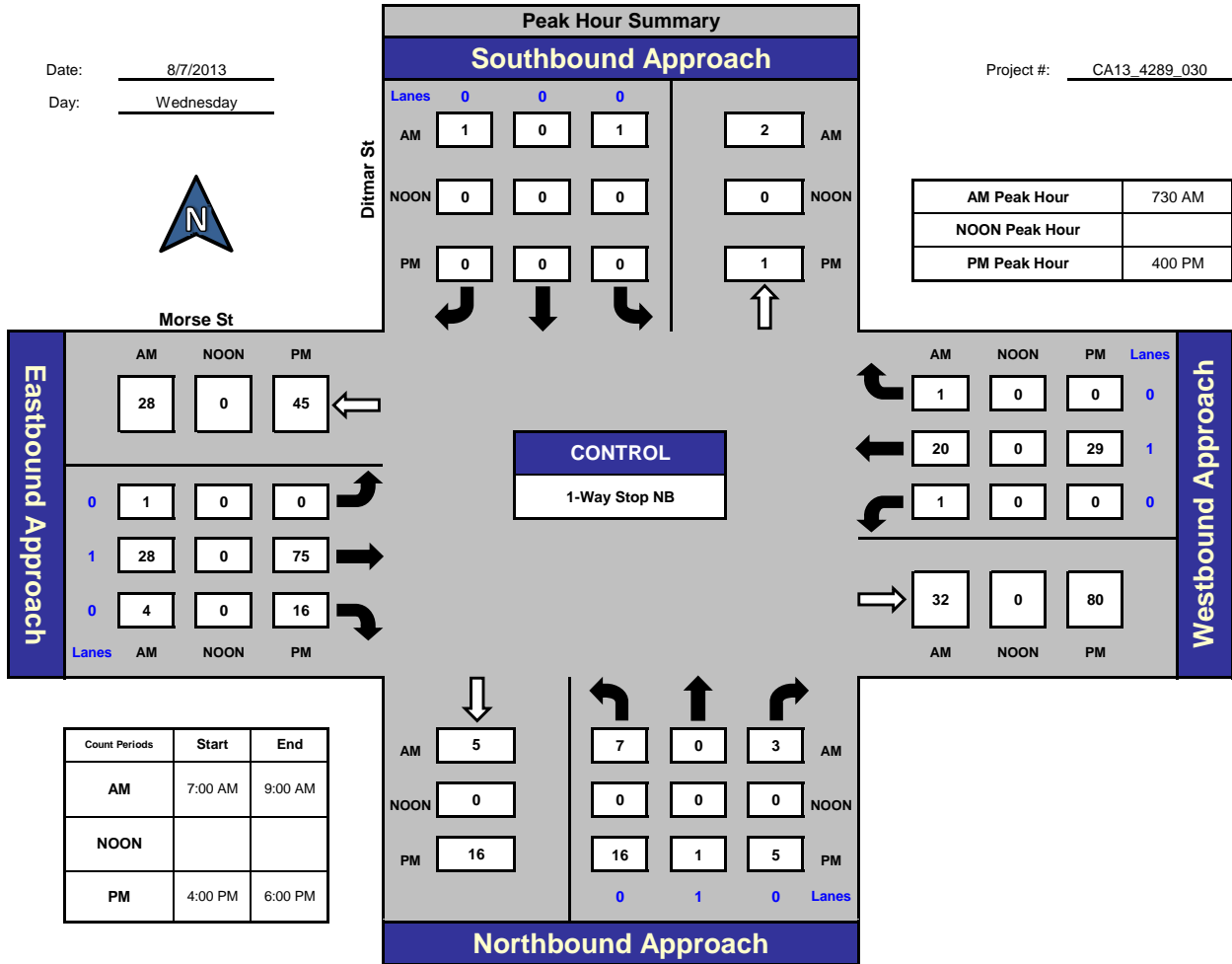
National Data & Surveying Services

Ditmar St and Morse St, City of Oceanside

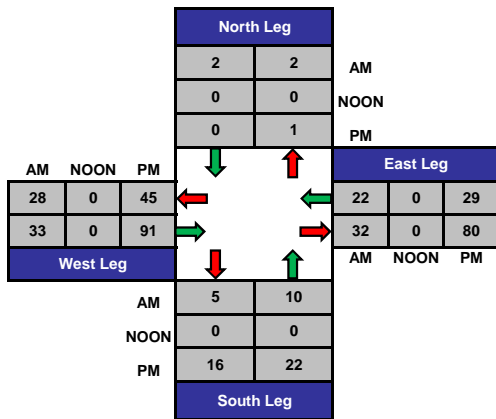
Date: 8/7/2013

Day: Wednesday

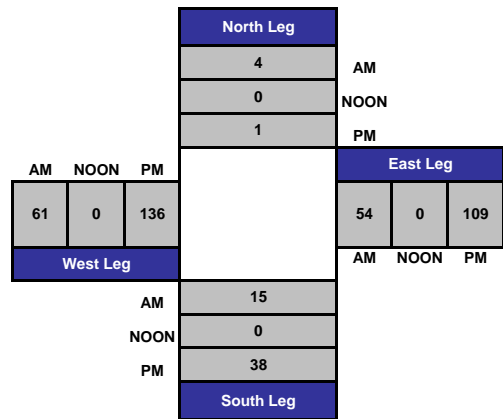
Project #: CA13_4289_030



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



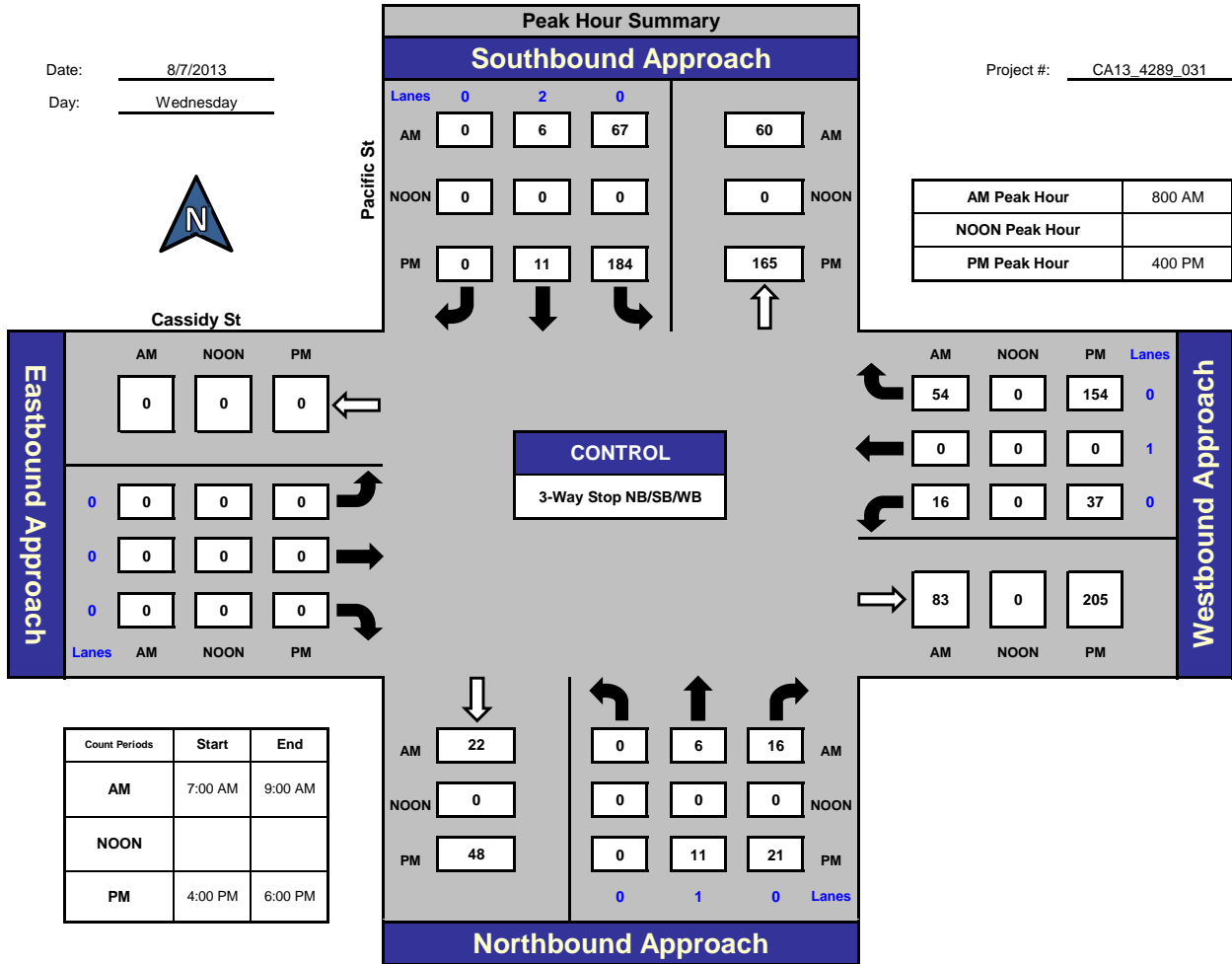
National Data & Surveying Services

Pacific St and Cassidy St, City of Oceanside

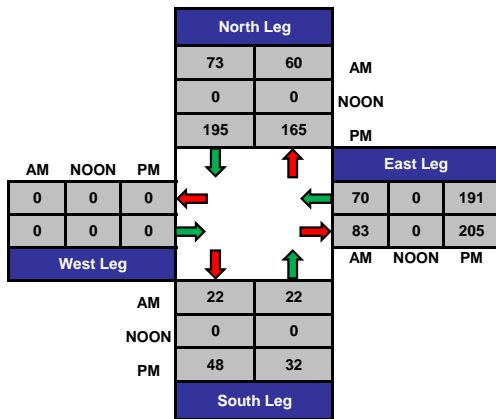
Date: 8/7/2013

Day: Wednesday

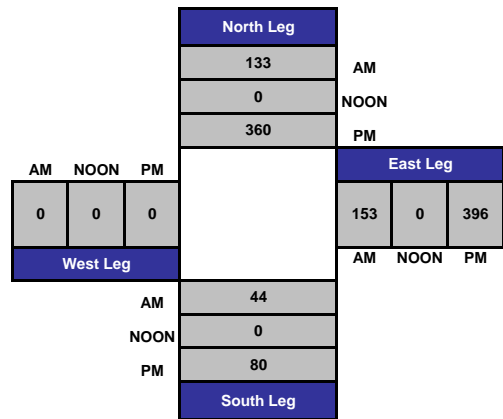
Project #: CA13_4289_031



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



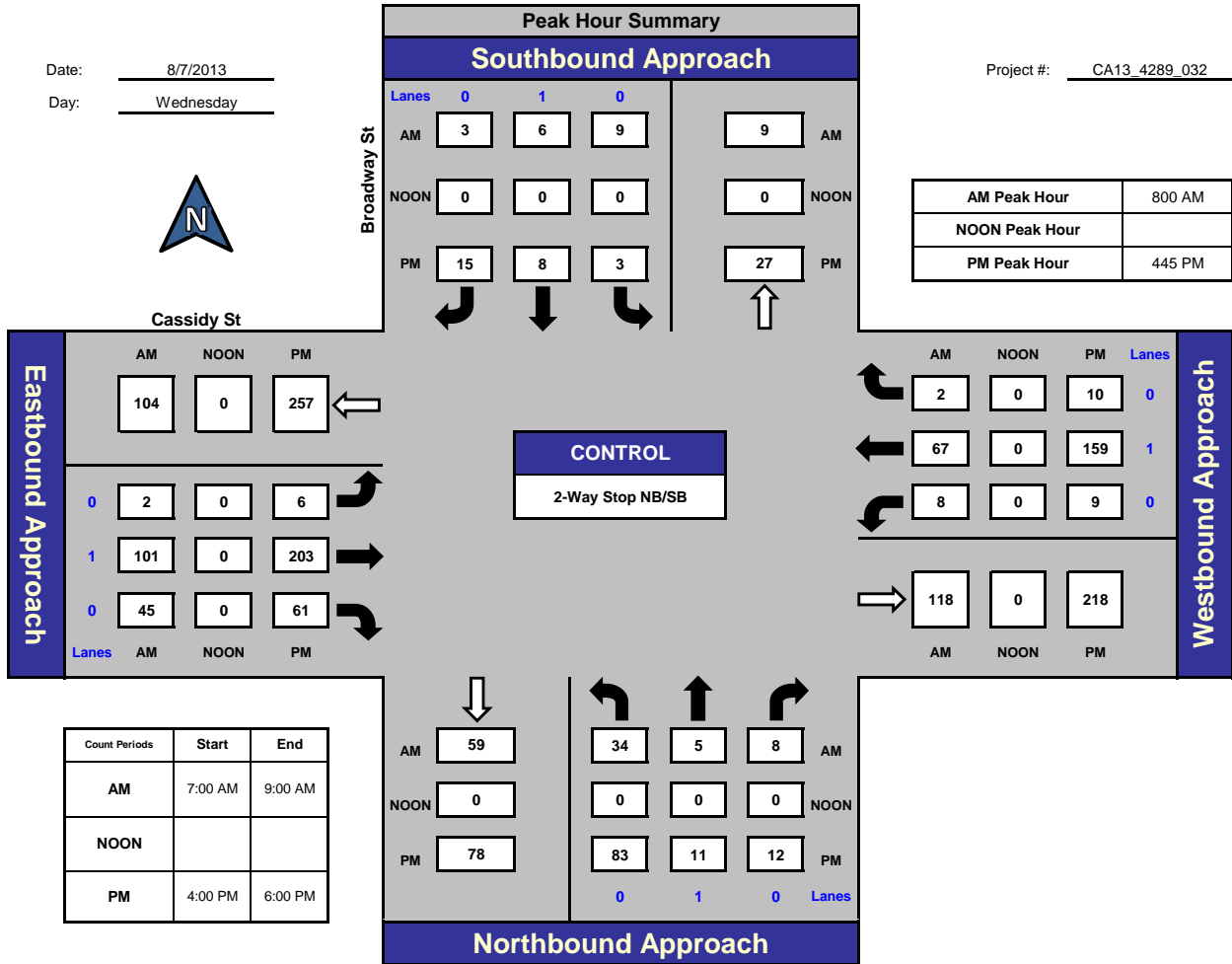
National Data & Surveying Services

Broadway St and Cassidy St, City of Oceanside

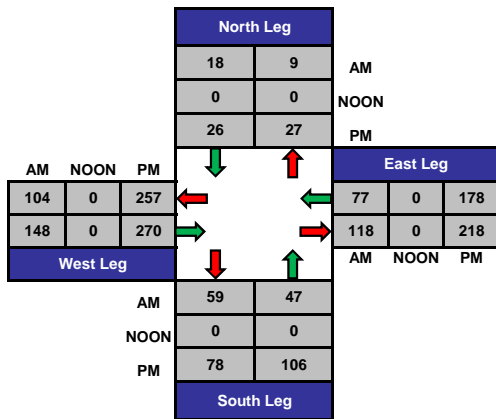
Date: 8/7/2013

Day: Wednesday

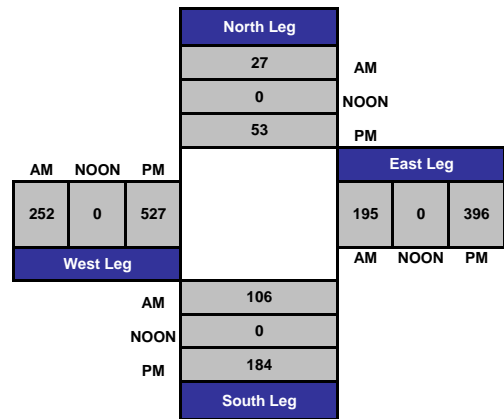
Project #: CA13_4289_032



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



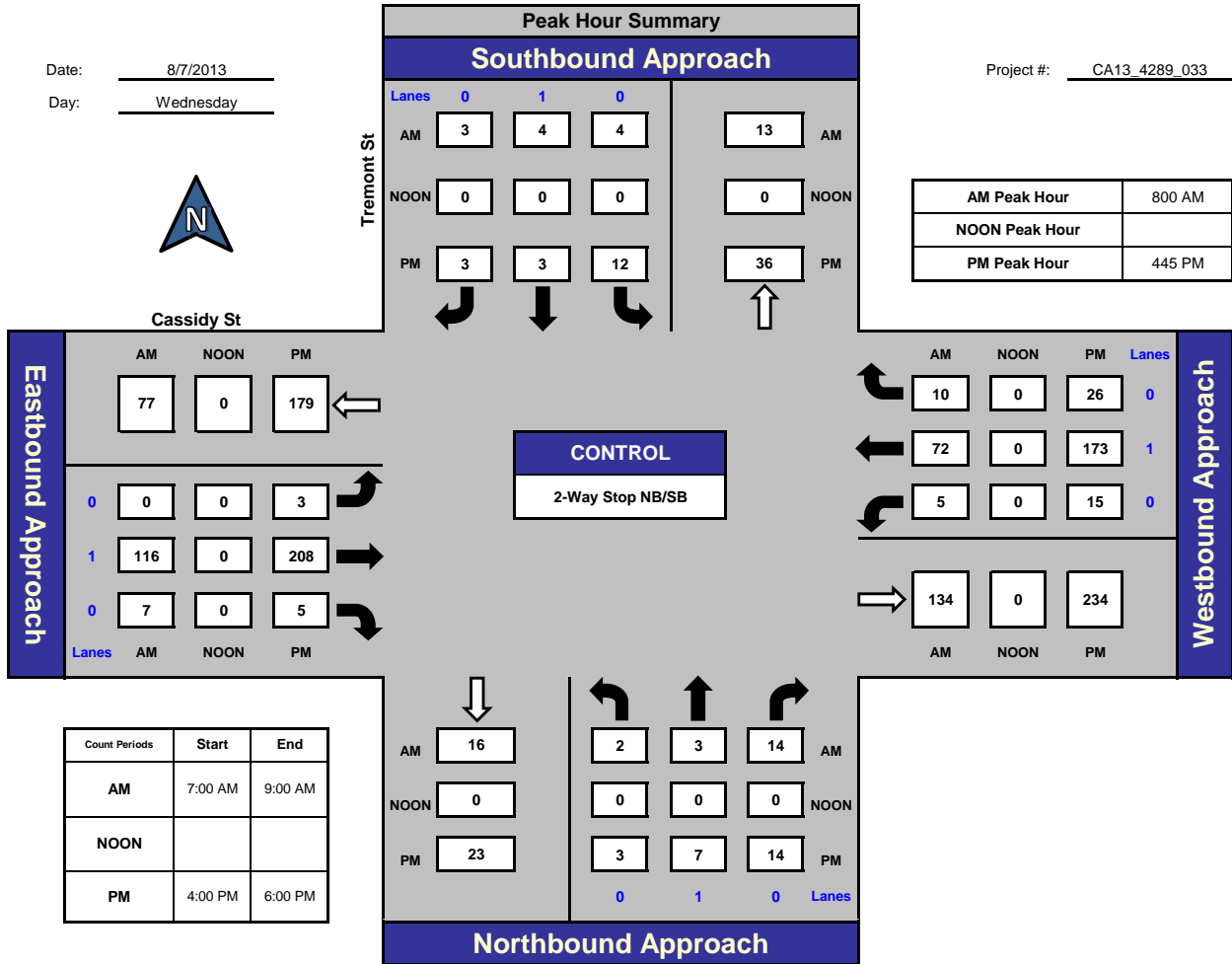
National Data & Surveying Services

Tremont St and Cassidy St, City of Oceanside

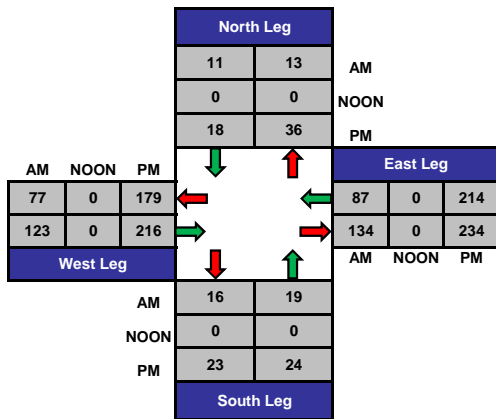
Date: 8/7/2013

Day: Wednesday

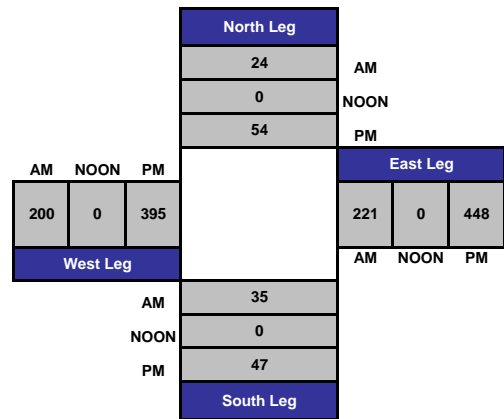
Project #: CA13_4289_033



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



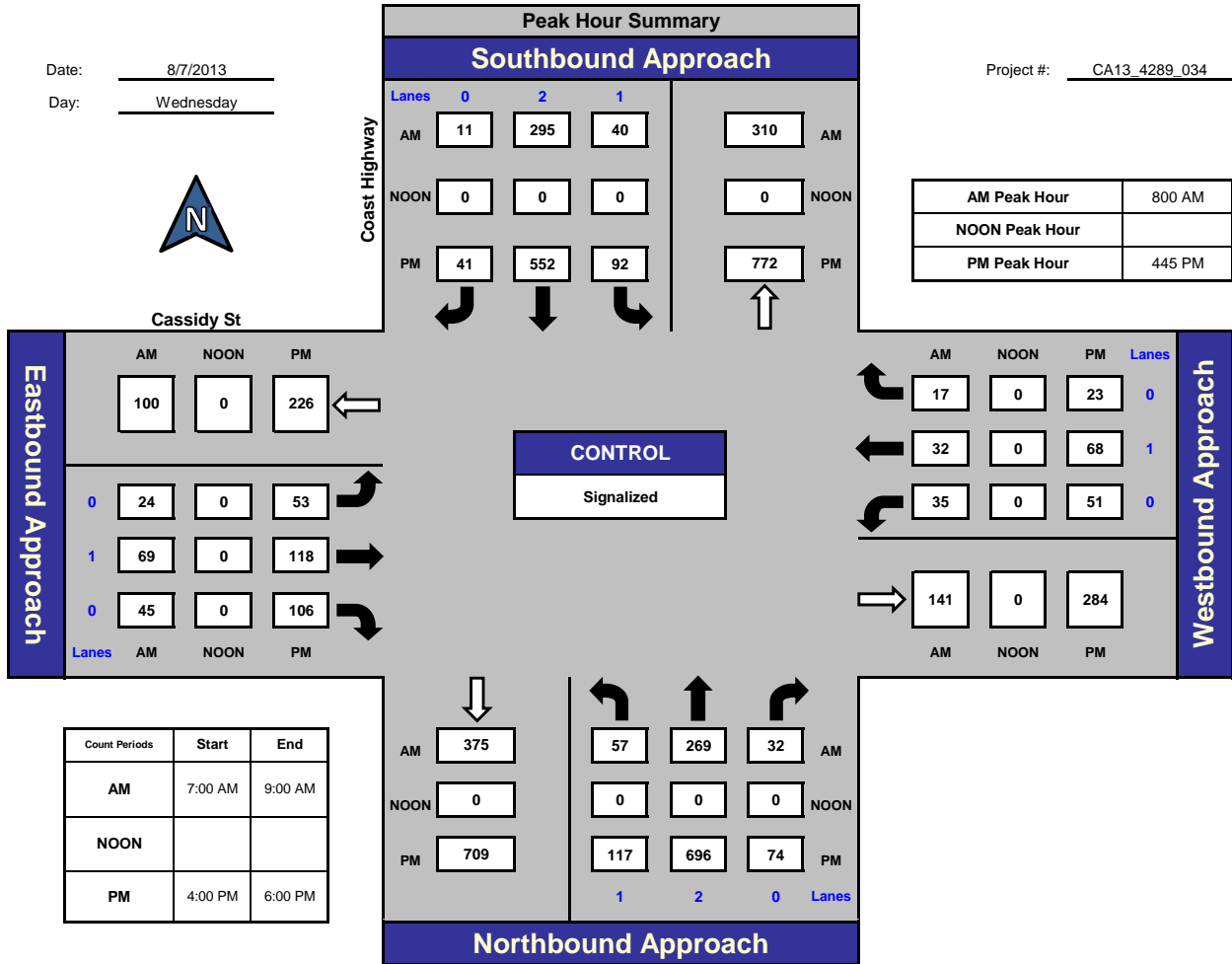
National Data & Surveying Services

Coast Highway and Cassidy St., City of Oceanside

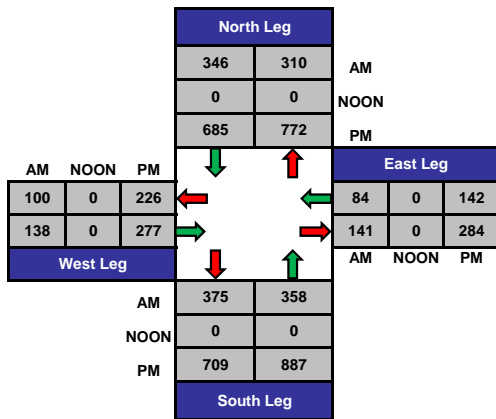
Date: 8/7/2013

Day: Wednesday

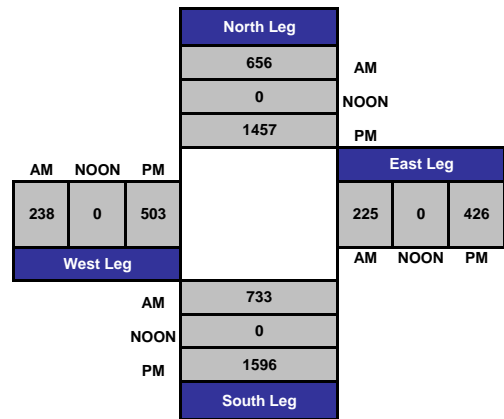
Project #: CA13_4289_034



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



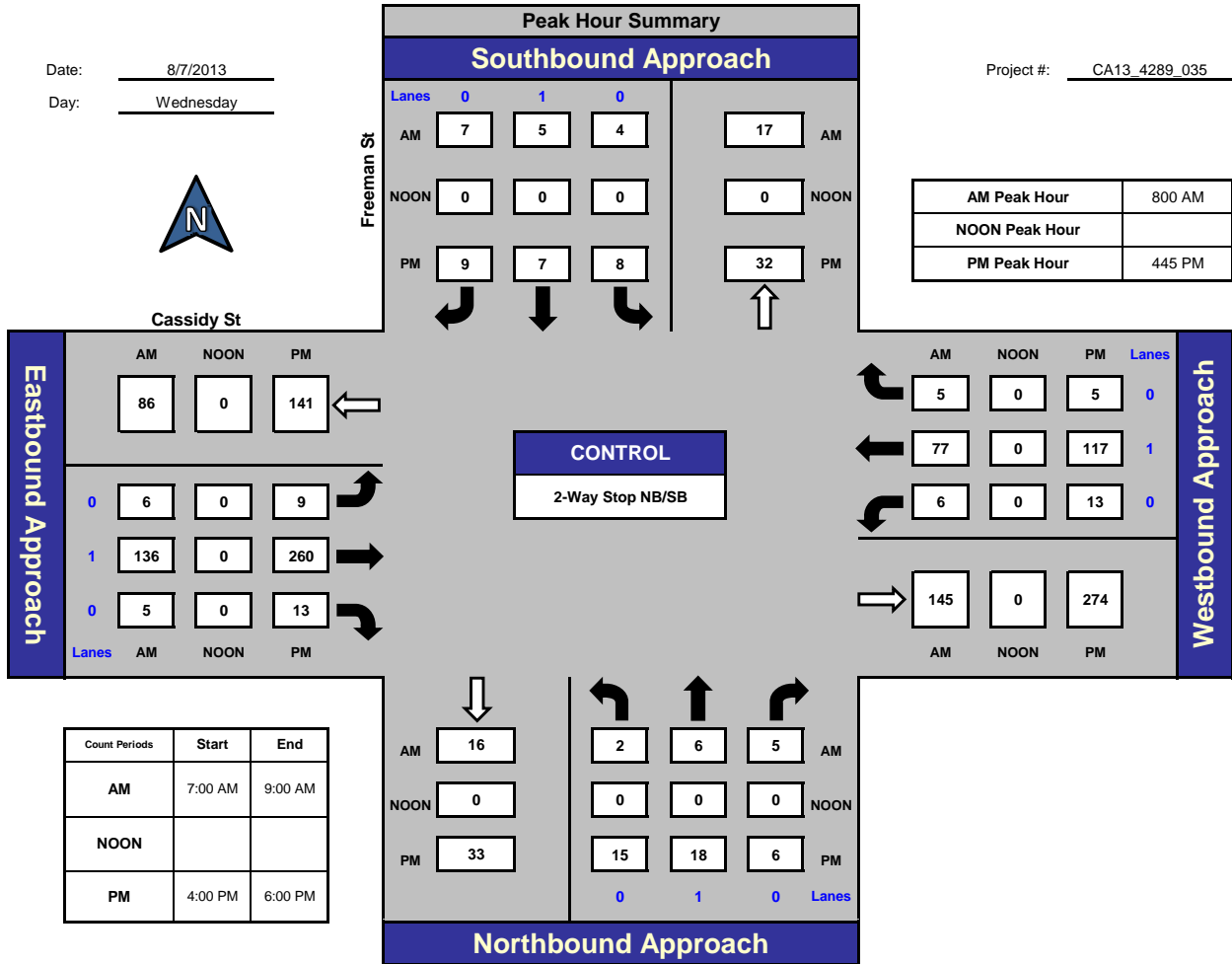
National Data & Surveying Services

Freeman St and Cassidy St, City of Oceanside

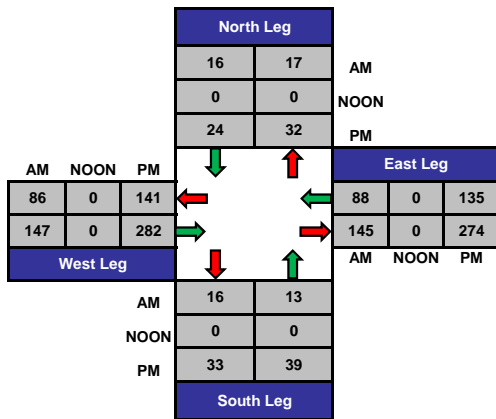
Date: 8/7/2013

Day: Wednesday

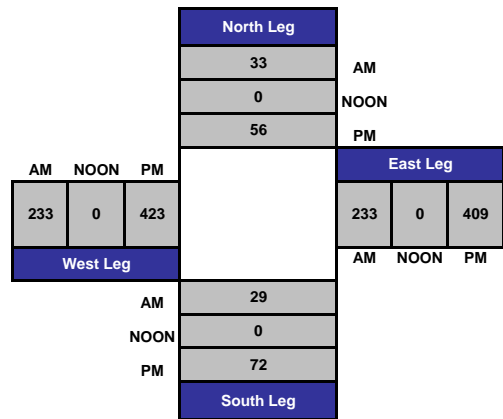
Project #: CA13_4289_035



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



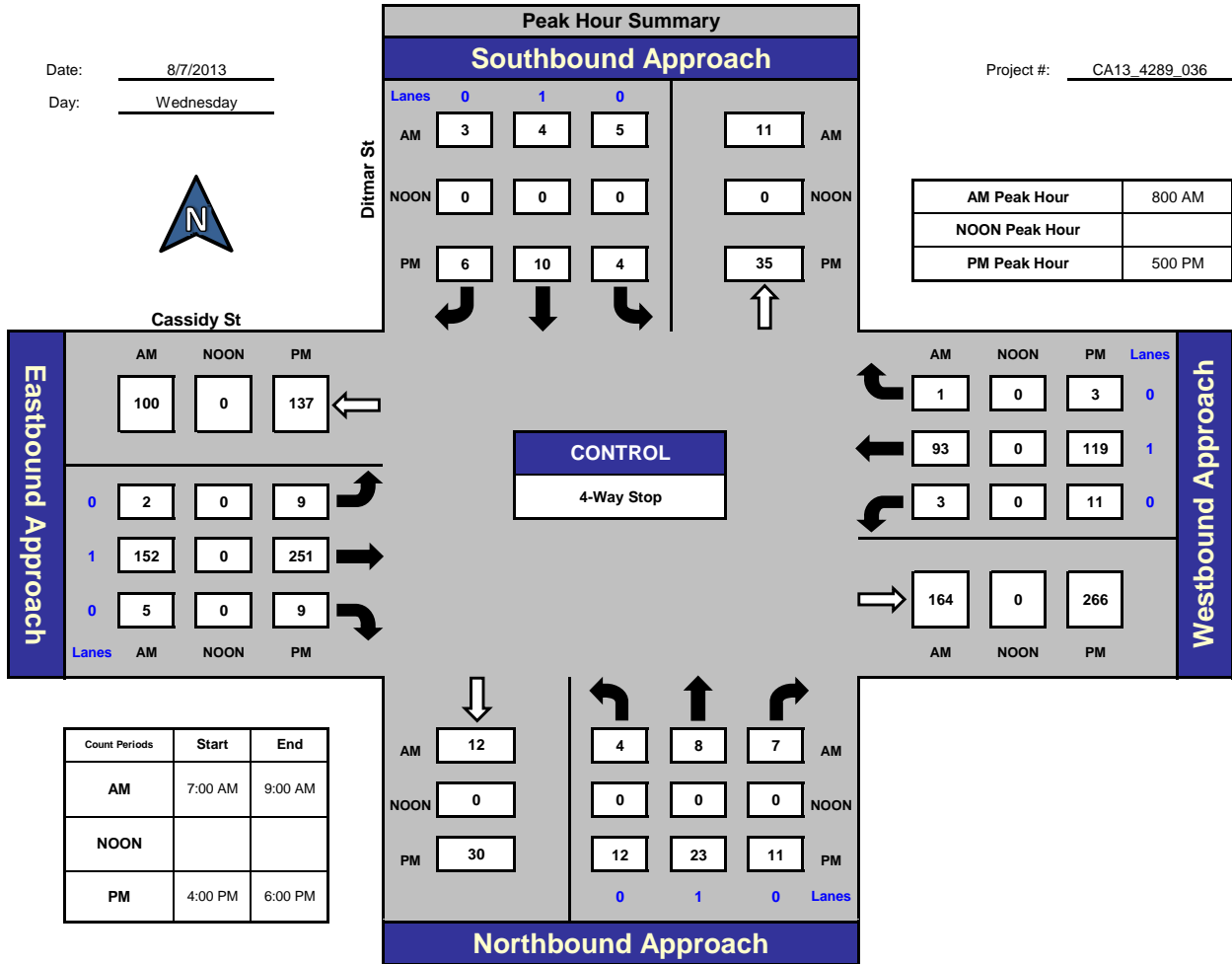
National Data & Surveying Services

Ditmar St and Cassidy St, City of Oceanside

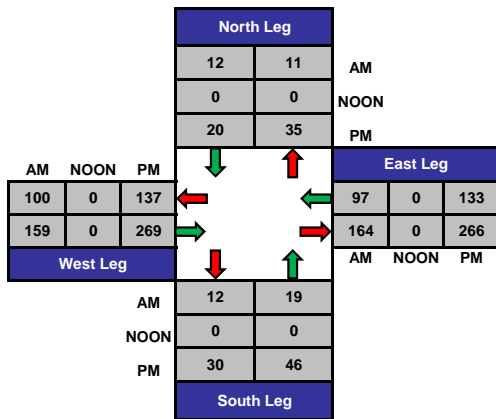
Date: 8/7/2013

Day: Wednesday

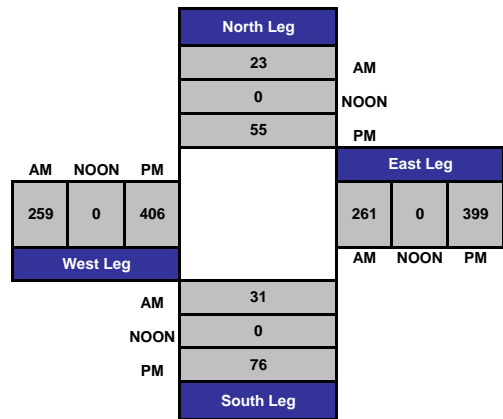
Project #: CA13_4289_036



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



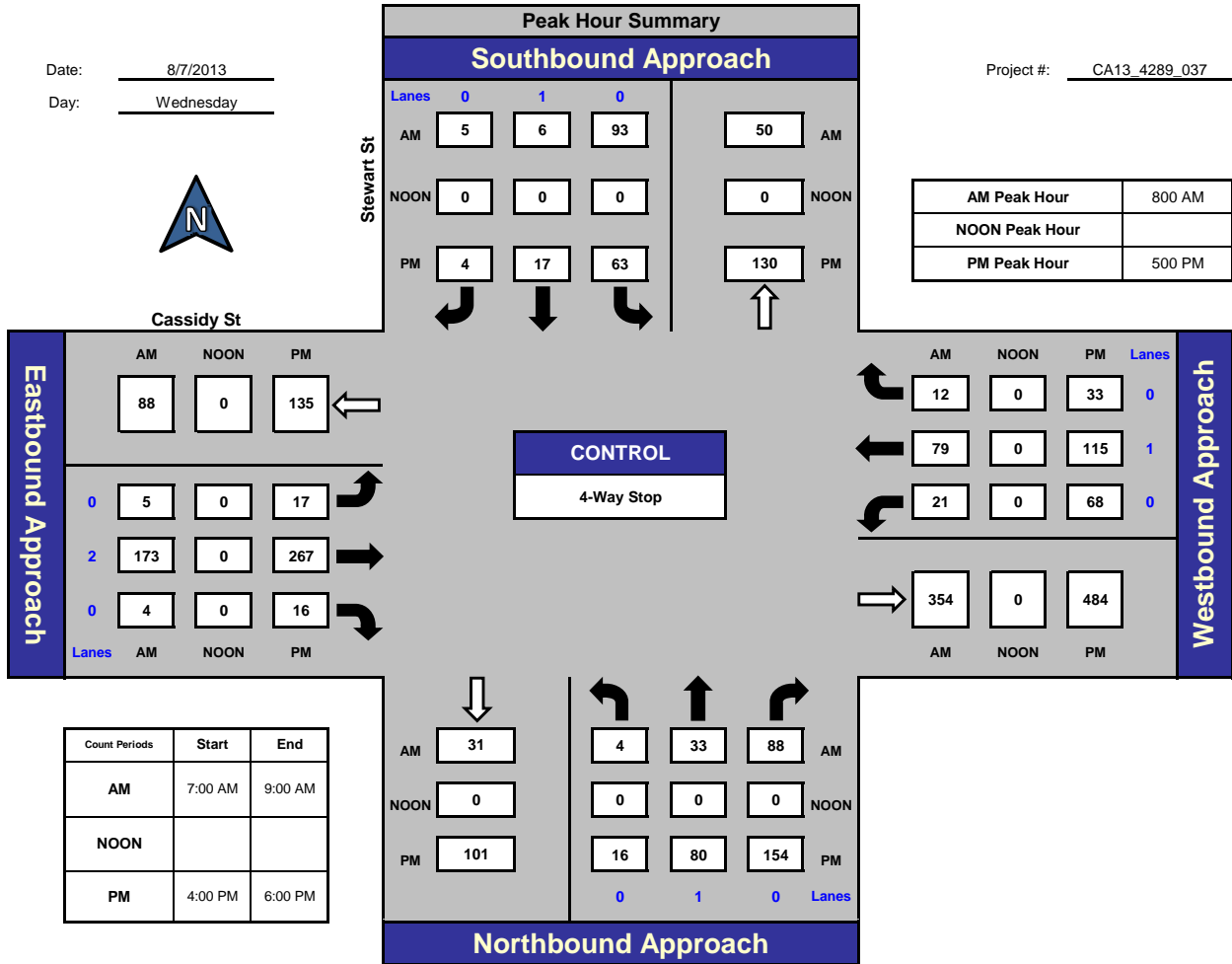
National Data & Surveying Services

Stewart St and Cassidy St, City of Oceanside

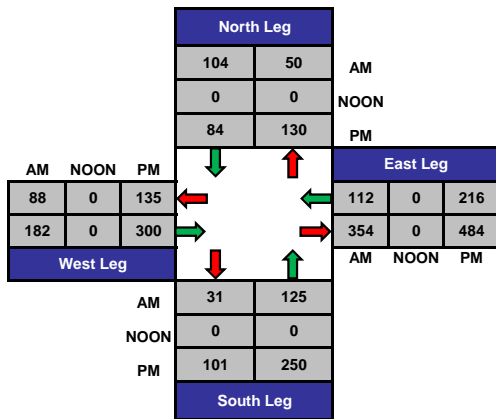
Date: 8/7/2013

Day: Wednesday

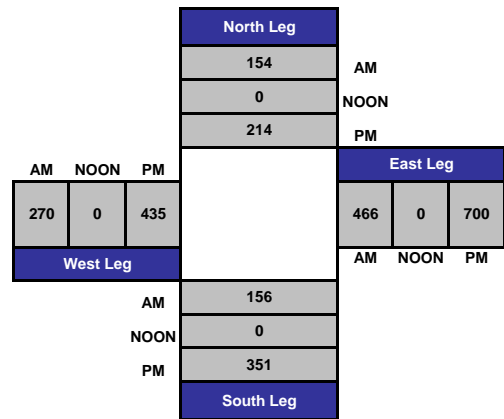
Project #: CA13_4289_037



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



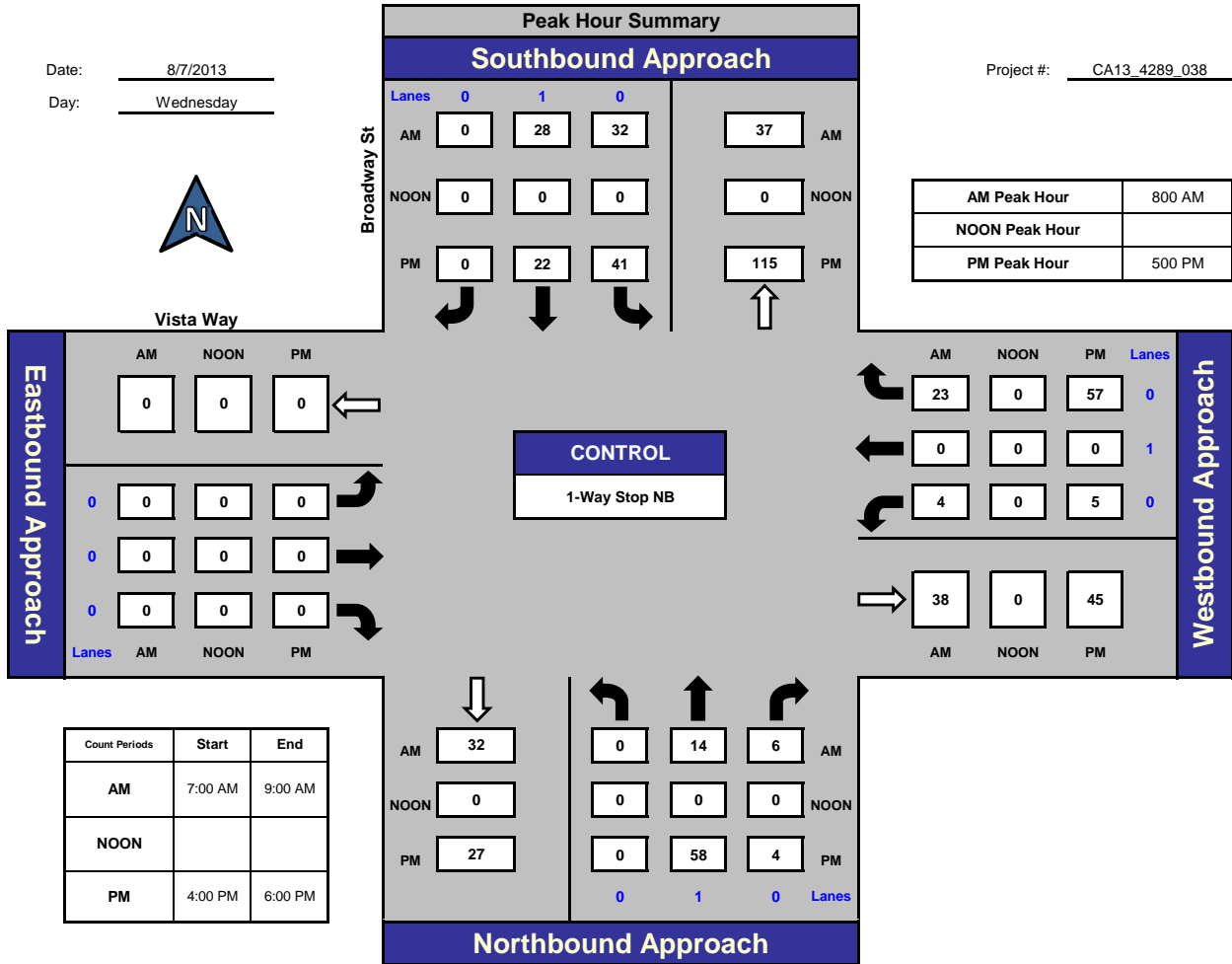
National Data & Surveying Services

Broadway St and Vista Way, City of Oceanside

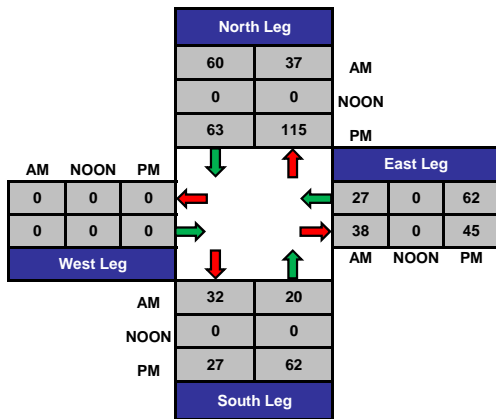
Date: 8/7/2013

Day: Wednesday

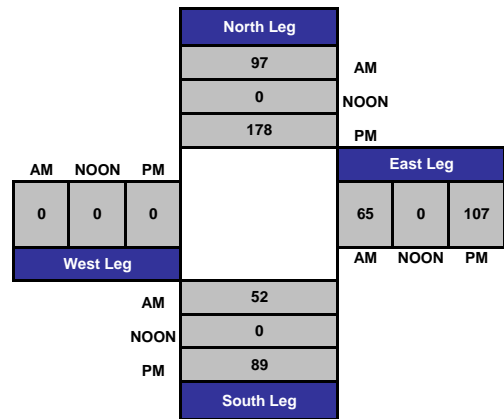
Project #: CA13_4289_038



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



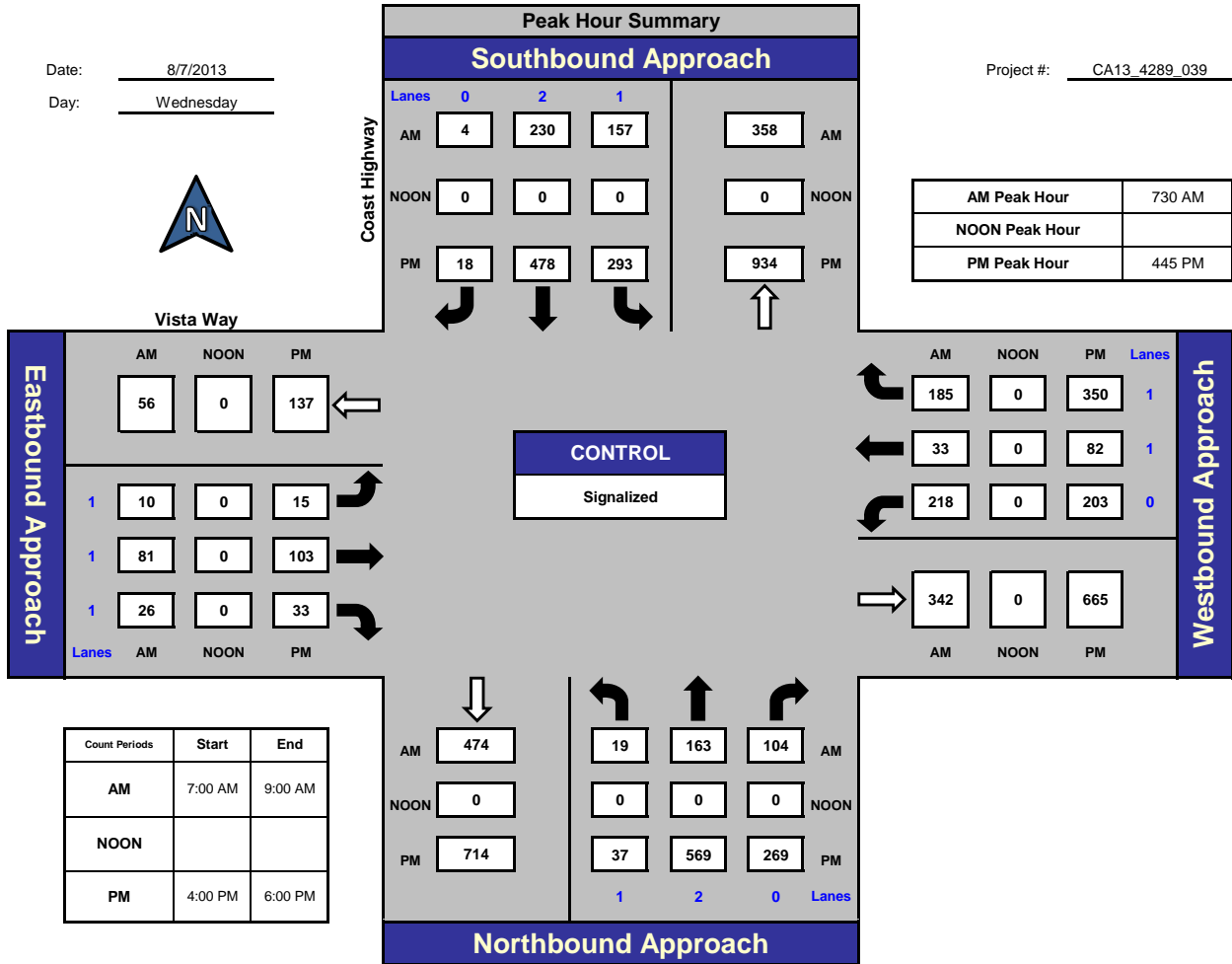
National Data & Surveying Services

Coast Highway and Vista Way, City of Oceanside

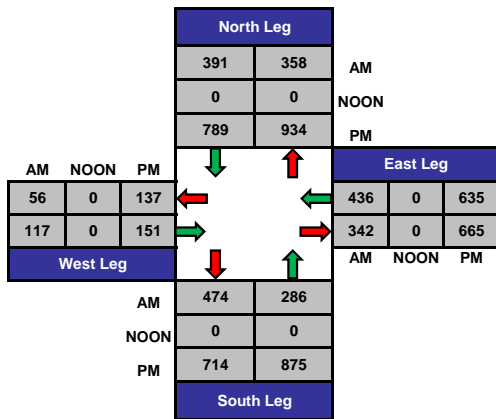
Date: 8/7/2013

Day: Wednesday

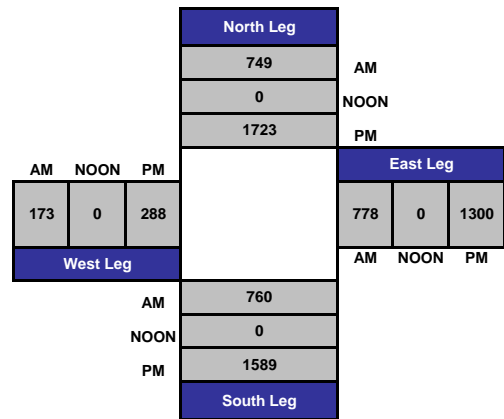
Project #: CA13_4289_039



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



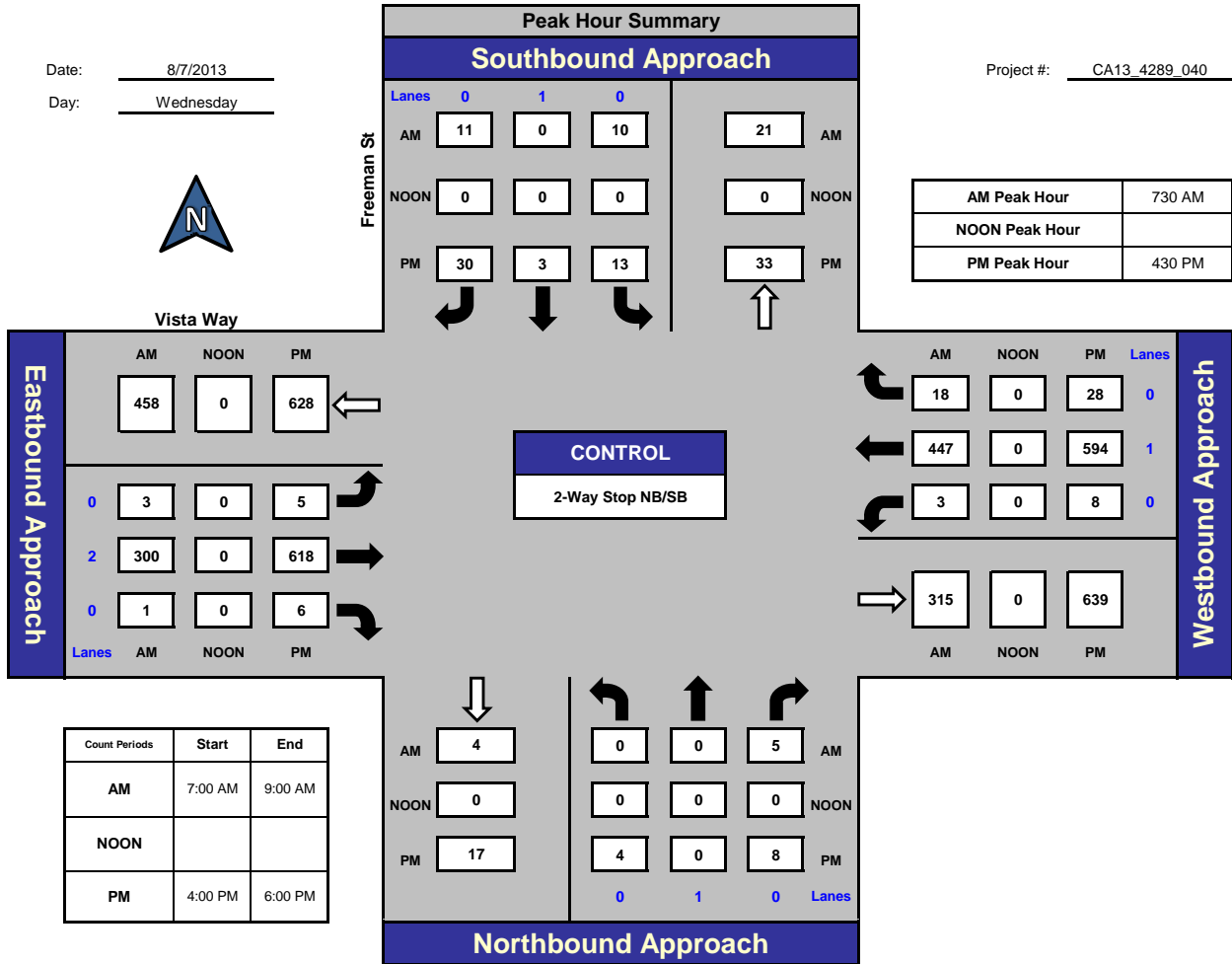
National Data & Surveying Services

Freeman St and Vista Way, City of Oceanside

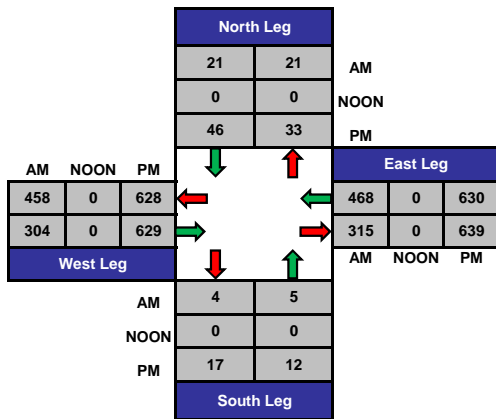
Date: 8/7/2013

Day: Wednesday

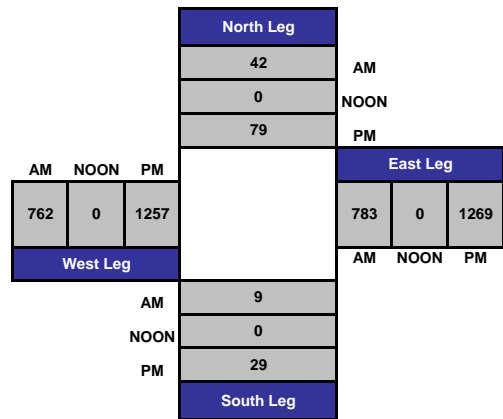
Project #: CA13_4289_040



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



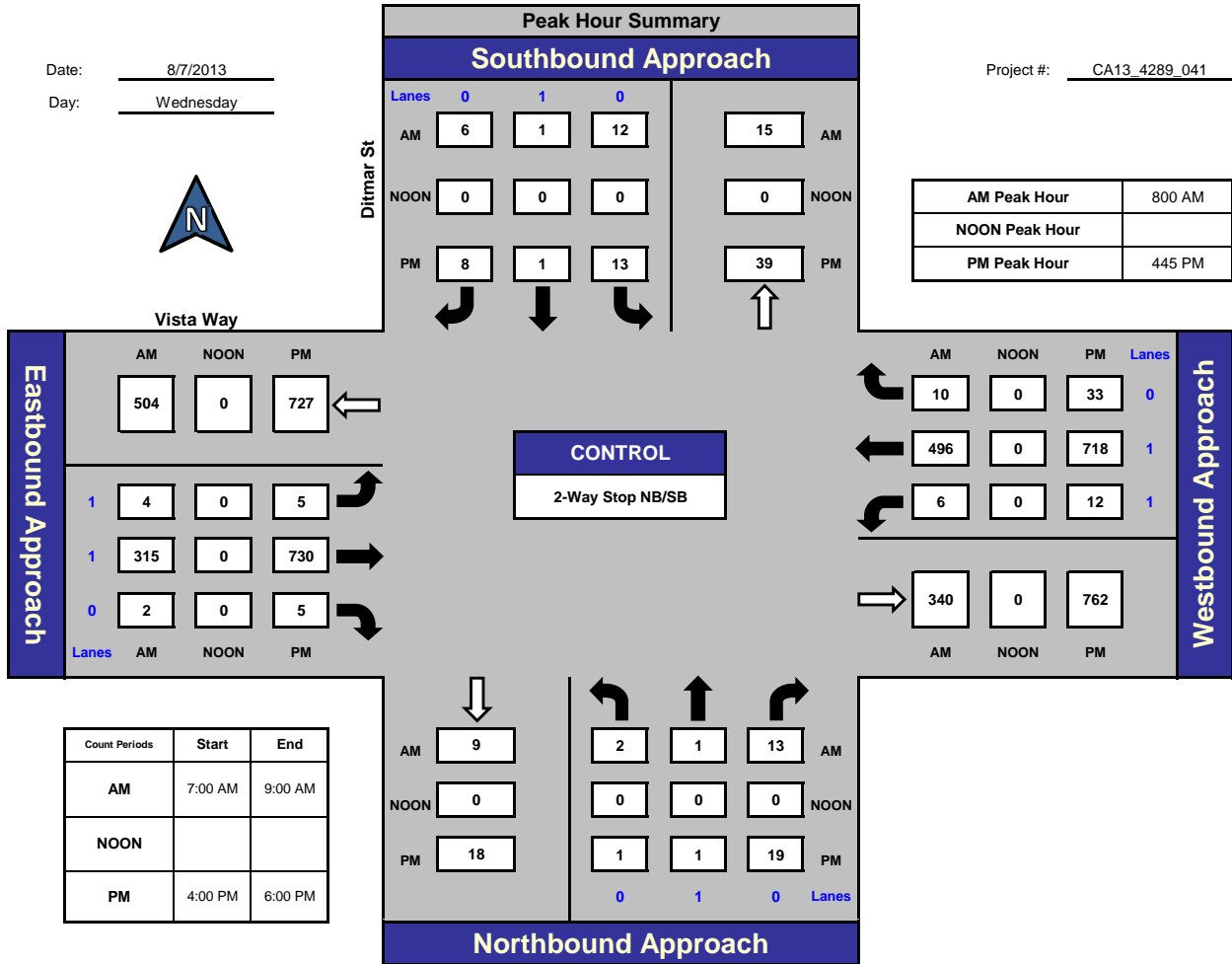
National Data & Surveying Services

Ditmar St and Vista Way, City of Oceanside

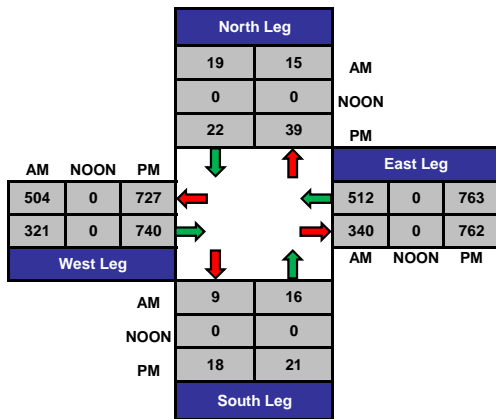
Date: 8/7/2013

Day: Wednesday

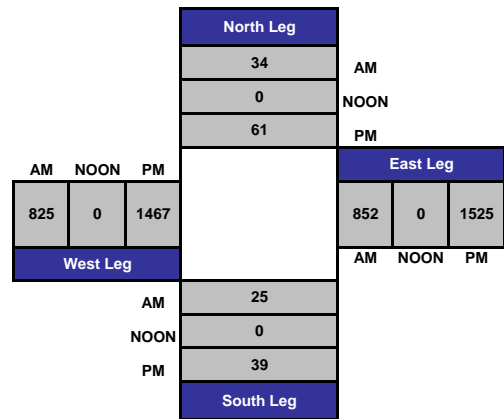
Project #: CA13_4289_041



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



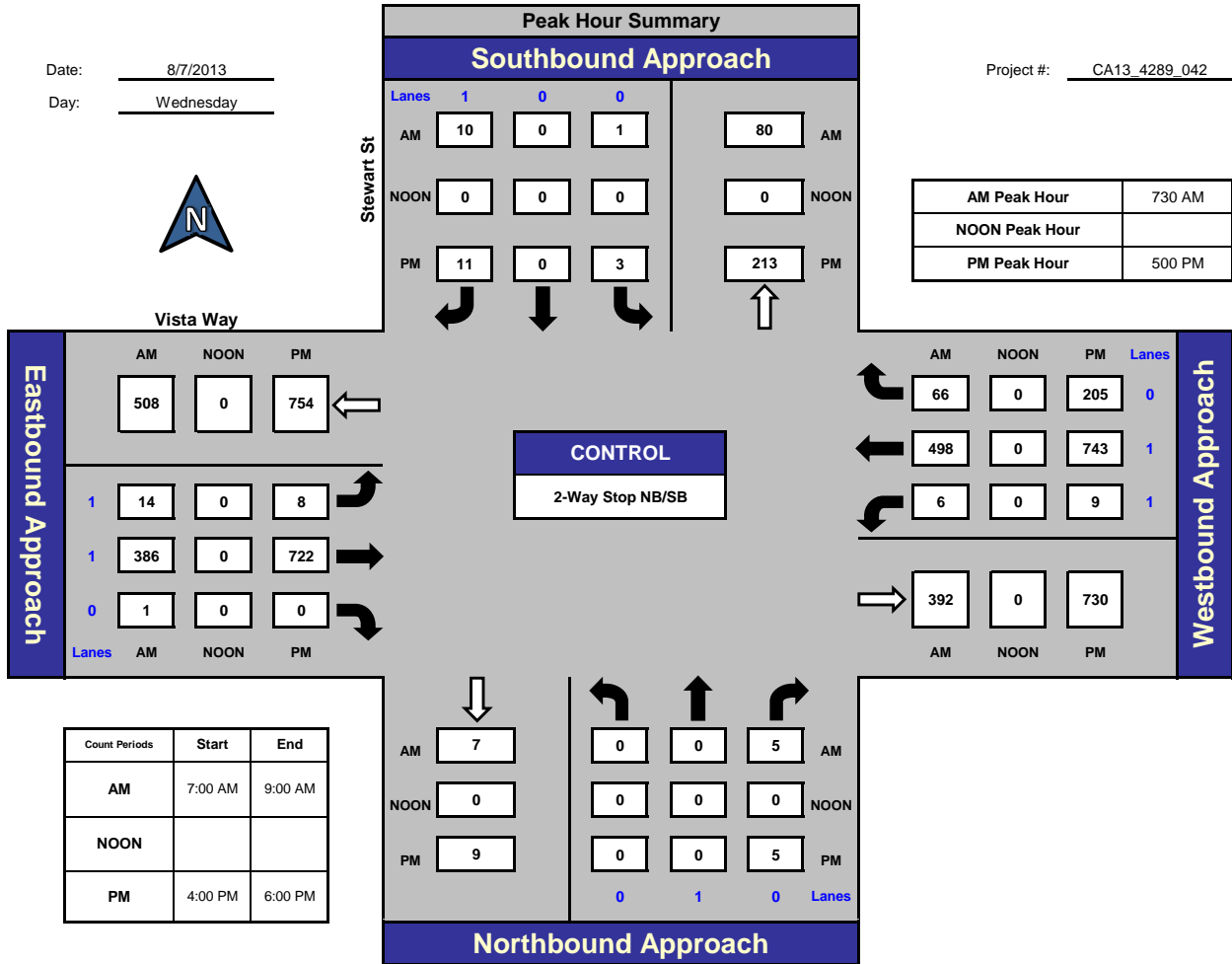
National Data & Surveying Services

Stewart St and Vista Way, City of Oceanside

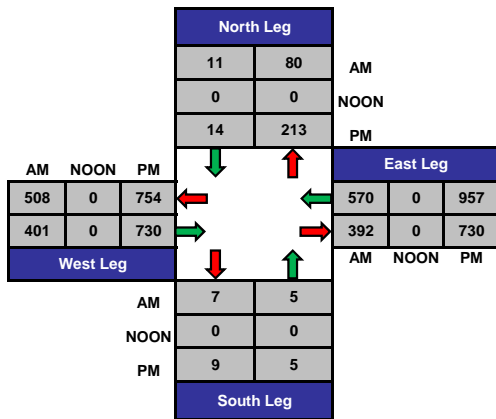
Date: 8/7/2013

Day: Wednesday

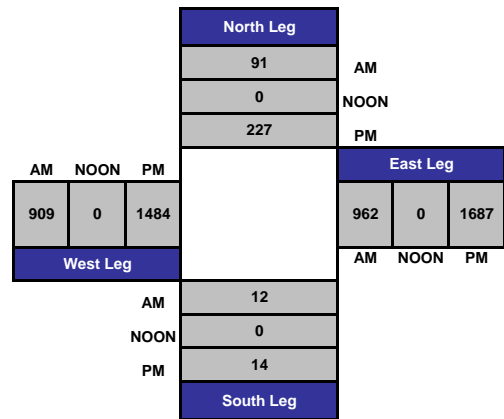
Project #: CA13_4289_042



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



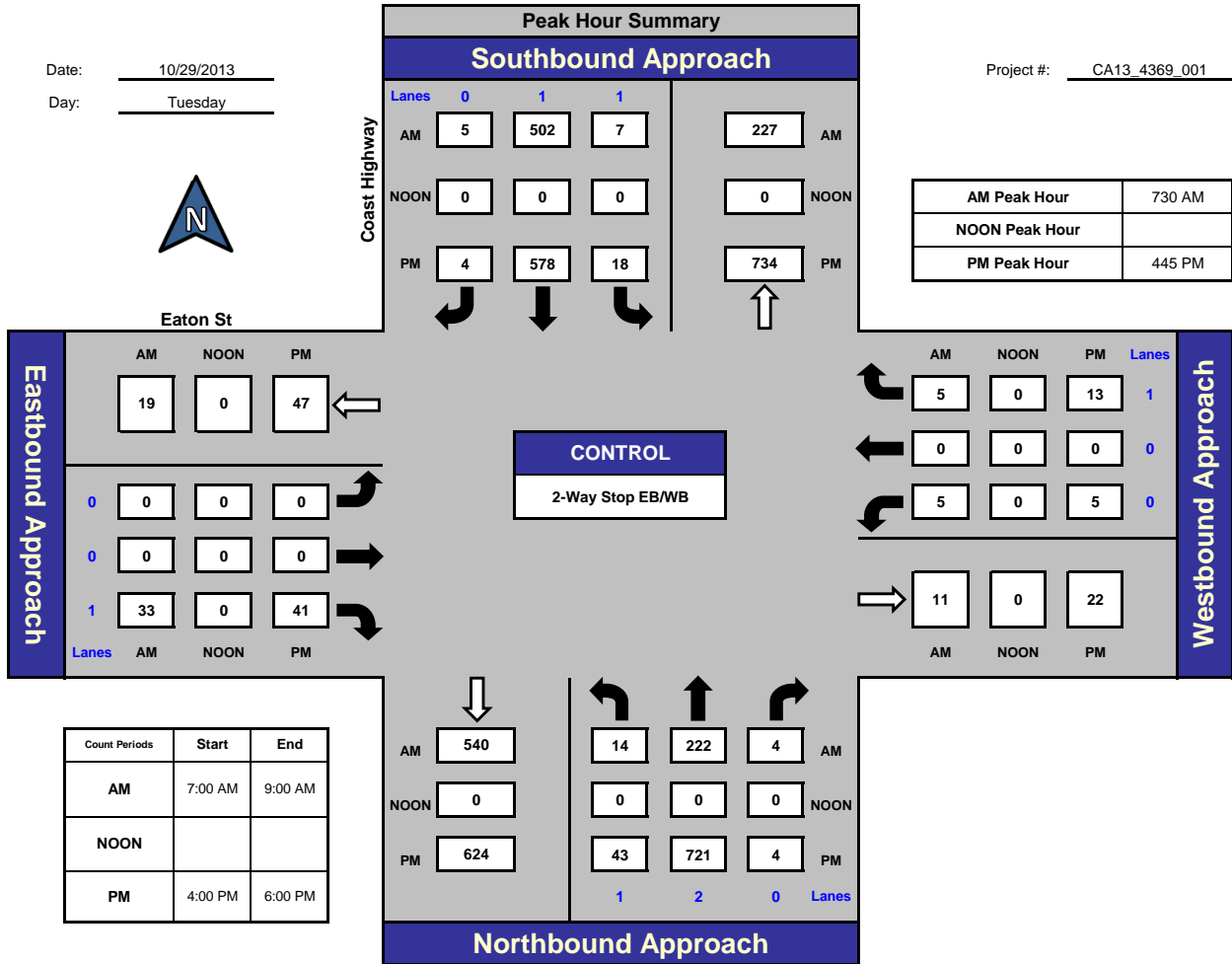
National Data & Surveying Services

Coast Highway and Eaton St., City of Oceanside

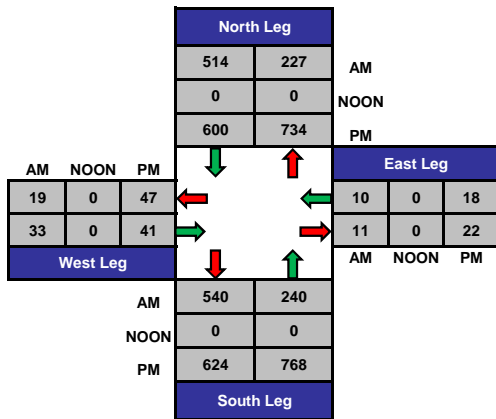
Date: 10/29/2013

Day: Tuesday

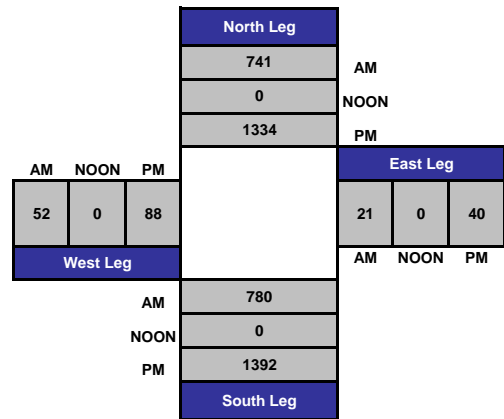
Project #: CA13_4369_001



Total Ins & Outs



Total Volume Per Leg



Prepared by NDS/ATD

VOLUME

Coast Highway btwn Sportfisher Dr & Civic Center Dr

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_002

DAILY TOTALS					NB	SB	EB	WB	Total		
					7,252	8,198	0	0	15,450		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	23	21			44	12:00	120	144			264
00:15	12	17			29	12:15	115	127			242
00:30	19	12			31	12:30	117	151			268
00:45	13	67	6	56	19	12:45	139	491	136	558	275
01:00	11	11			22	13:00	128	161			289
01:15	10	4			14	13:15	128	123			251
01:30	10	14			24	13:30	123	129			252
01:45	8	39	8	37	16	13:45	145	524	131	544	276
02:00	11	5			16	14:00	129	145			274
02:15	7	10			17	14:15	133	158			291
02:30	3	6			9	14:30	121	136			257
02:45	4	25	1	22	5	14:45	139	522	134	573	273
03:00	9	5			14	15:00	121	134			255
03:15	7	6			13	15:15	127	153			280
03:30	6	5			11	15:30	137	160			297
03:45	5	27	7	23	12	15:45	120	505	204	651	324
04:00	5	6			11	16:00	165	141			306
04:15	3	4			7	16:15	116	156			272
04:30	7	9			16	16:30	151	176			327
04:45	15	30	26	45	41	16:45	145	577	143	616	288
05:00	16	31			47	17:00	137	137			274
05:15	16	17			33	17:15	163	176			339
05:30	23	39			62	17:30	158	161			319
05:45	28	83	52	139	80	17:45	144	602	165	639	309
06:00	50	31			81	18:00	143	164			307
06:15	30	60			90	18:15	123	150			273
06:30	50	59			109	18:30	136	157			293
06:45	56	186	74	224	130	18:45	147	549	160	631	307
07:00	36	67			103	19:00	130	143			273
07:15	49	91			140	19:15	116	149			265
07:30	67	75			142	19:30	133	108			241
07:45	51	203	93	326	144	19:45	119	498	112	512	231
08:00	45	62			107	20:00	109	101			210
08:15	60	68			128	20:15	104	96			200
08:30	58	74			132	20:30	76	71			147
08:45	71	234	97	301	168	20:45	72	361	87	355	159
09:00	56	83			139	21:00	122	72			194
09:15	60	108			168	21:15	78	55			133
09:30	66	108			174	21:30	60	58			118
09:45	76	258	112	411	188	21:45	73	333	56	241	129
10:00	86	124			210	22:00	57	48			105
10:15	94	114			208	22:15	58	43			101
10:30	89	118			207	22:30	40	40			80
10:45	96	365	127	483	223	22:45	34	189	36	167	70
11:00	102	124			226	23:00	40	32			72
11:15	116	158			274	23:15	33	23			56
11:30	114	128			242	23:30	27	24			51
11:45	117	449	135	545	252	23:45	35	135	20	99	55
TOTALS	1966	2612			4578	TOTALS	5286	5586			10872
SPLIT %	42.9%	57.1%			29.6%	SPLIT %	48.6%	51.4%			70.4%

DAILY TOTALS					NB	SB	EB	WB	Total		
					7,252	8,198	0	0	15,450		
AM Peak Hour	11:45	11:15			11:15	PM Peak Hour	17:15	15:45			17:15
AM Pk Volume	469	565			1032	PM Pk Volume	608	677			1274
Pk Hr Factor	0.977	0.894			0.942	Pk Hr Factor	0.933	0.830			0.940
7 - 9 Volume	437	627	0	0	1064	4 - 6 Volume	1179	1255	0	0	2434
7 - 9 Peak Hour	08:00	07:00			08:00	4 - 6 Peak Hour	16:45	17:00			17:00
7 - 9 Pk Volume	234	326	0	0	535	4 - 6 Pk Volume	603	639	0	0	1241
Pk Hr Factor	0.824	0.876	0.000	0.000	0.796	Pk Hr Factor	0.925	0.908	0.000	0.000	0.915

VOLUME

Coast Highway btwn Sportfisher Dr & Civic Center Dr

Day: Wednesday
Date: 8/7/2013

City: Oceanside
Project #: CA13_4290_002

DAILY TOTALS					NB	SB	EB	WB	Total
					7,574	8,240	0	0	15,814

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	29	10			39	12:00	121	152			273
00:15	20	14			34	12:15	141	163			304
00:30	28	12			40	12:30	134	146			280
00:45	15	92	16	52	31 144	12:45	146	542	136	597	282 1139
01:00	20	7			27	13:00	127	157			284
01:15	18	11			29	13:15	115	115			230
01:30	8	6			14	13:30	114	141			255
01:45	21	67	15	39	36 106	13:45	108	464	135	548	243 1012
02:00	9	4			13	14:00	106	131			237
02:15	5	5			10	14:15	120	138			258
02:30	3	3			6	14:30	124	144			268
02:45	5	22	1	13	6 35	14:45	103	453	111	524	214 977
03:00	3	6			9	15:00	128	131			259
03:15	3	4			7	15:15	131	140			271
03:30	3	4			7	15:30	141	134			275
03:45	3	12	7	21	10 33	15:45	118	518	148	553	266 1071
04:00	2	8			10	16:00	144	138			282
04:15	12	4			16	16:15	122	168			290
04:30	12	17			29	16:30	146	171			317
04:45	9	35	28	57	37 92	16:45	142	554	145	622	287 1176
05:00	13	42			55	17:00	104	182			286
05:15	12	19			31	17:15	131	162			293
05:30	29	31			60	17:30	157	174			331
05:45	29	83	62	154	91 237	17:45	156	548	177	695	333 1243
06:00	39	33			72	18:00	169	140			309
06:15	41	59			100	18:15	161	158			319
06:30	53	72			125	18:30	137	158			295
06:45	58	191	66	230	124 421	18:45	185	652	140	596	325 1248
07:00	53	64			117	19:00	152	133			285
07:15	46	66			112	19:15	150	143			293
07:30	60	75			135	19:30	127	124			251
07:45	67	226	65	270	132 496	19:45	142	571	102	502	244 1073
08:00	61	95			156	20:00	115	118			233
08:15	56	84			140	20:15	137	88			225
08:30	56	64			120	20:30	116	112			228
08:45	82	255	95	338	177 593	20:45	102	470	60	378	162 848
09:00	70	106			176	21:00	122	72			194
09:15	59	101			160	21:15	86	74			160
09:30	65	102			167	21:30	81	53			134
09:45	94	288	124	433	218 721	21:45	94	383	54	253	148 636
10:00	88	108			196	22:00	65	48			113
10:15	83	133			216	22:15	54	52			106
10:30	95	143			238	22:30	31	56			87
10:45	94	360	122	506	216 866	22:45	43	193	34	190	77 383
11:00	102	136			238	23:00	37	34			71
11:15	89	130			219	23:15	46	24			70
11:30	128	120			248	23:30	38	24			62
11:45	119	438	172	558	291 996	23:45	36	157	29	111	65 268
TOTALS	2069	2671			4740	TOTALS	5505	5569			11074
SPLIT %	43.6%	56.4%			30.0%	SPLIT %	49.7%	50.3%			70.0%

DAILY TOTALS					NB	SB	EB	WB	Total
					7,574	8,240	0	0	15,814

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	18:00	17:00			17:30
AM Pk Volume	515	633			1148	PM Pk Volume	652	695			1292
Pk Hr Factor	0.913	0.920			0.944	Pk Hr Factor	0.881	0.955			0.970
7 - 9 Volume	481	608	0	0	1089	4 - 6 Volume	1102	1317	0	0	2419
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	16:00	17:00			17:00
7 - 9 Pk Volume	255	338	0	0	593	4 - 6 Pk Volume	554	695	0	0	1243
Pk Hr Factor	0.777	0.889	0.000	0.000	0.838	Pk Hr Factor	0.949	0.955	0.000	0.000	0.933

Prepared by NDS/ATD

VOLUME

Coast Highway btwn Mission Ave & Seagaze Dr

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_003

DAILY TOTALS					NB	SB	EB	WB	Total
					8,442	8,046	0	0	16,488

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	33	14			47	12:00	157	145			302
00:15	28	16			44	12:15	148	125			273
00:30	14	14			28	12:30	143	128			271
00:45	9	84	9	53	18	12:45	145	593	143	541	288
01:00	4	7			11	13:00	149	157			306
01:15	11	5			16	13:15	148	139			287
01:30	10	13			23	13:30	142	123			265
01:45	8	33	13	38	21	13:45	131	570	135	554	266
02:00	3	8			11	14:00	141	142			283
02:15	7	7			14	14:15	157	159			316
02:30	5	4			9	14:30	146	161			307
02:45	2	17	2	21	4	14:45	162	606	133	595	295
03:00	6	7			13	15:00	144	152			296
03:15	8	5			13	15:15	149	143			292
03:30	4	6			10	15:30	148	157			305
03:45	6	24	11	29	17	15:45	153	594	150	602	303
04:00	3	14			17	16:00	155	141			296
04:15	11	16			27	16:15	144	137			281
04:30	14	22			36	16:30	143	163			306
04:45	12	40	41	93	53	16:45	202	644	146	587	348
05:00	22	51			73	17:00	187	130			317
05:15	20	23			43	17:15	154	161			315
05:30	23	61			84	17:30	199	135			334
05:45	24	89	73	208	97	17:45	160	700	145	571	305
06:00	33	45			78	18:00	194	139			333
06:15	39	88			127	18:15	161	132			293
06:30	43	84			127	18:30	193	126			319
06:45	53	168	93	310	146	18:45	186	734	127	524	313
07:00	47	81			128	19:00	212	142			354
07:15	52	86			138	19:15	126	110			236
07:30	92	71			163	19:30	136	97			233
07:45	53	244	97	335	150	19:45	133	607	106	455	239
08:00	62	77			139	20:00	160	106			266
08:15	67	73			140	20:15	112	99			211
08:30	60	81			141	20:30	91	60			151
08:45	75	264	86	317	161	20:45	100	463	74	339	174
09:00	86	93			179	21:00	87	73			160
09:15	79	107			186	21:15	90	70			160
09:30	89	113			202	21:30	93	49			142
09:45	108	362	119	432	227	21:45	67	337	55	247	122
10:00	94	115			209	22:00	53	44			97
10:15	125	120			245	22:15	46	35			81
10:30	125	115			240	22:30	49	29			78
10:45	111	455	115	465	226	22:45	35	183	33	141	68
11:00	129	118			247	23:00	27	33			60
11:15	120	113			233	23:15	32	25			57
11:30	130	122			252	23:30	30	26			56
11:45	140	519	125	478	265	23:45	23	112	27	111	50
TOTALS	2299	2779			5078	TOTALS	6143	5267			11410
SPLIT %	45.3%	54.7%			30.8%	SPLIT %	53.8%	46.2%			69.2%

DAILY TOTALS					NB	SB	EB	WB	Total
					8,442	8,046	0	0	16,488

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	18:15	14:15			16:45
AM Pk Volume	588	523			1111	PM Pk Volume	752	605			1314
Pk Hr Factor	0.936	0.902			0.920	Pk Hr Factor	0.887	0.939			0.944
7 - 9 Volume	508	652	0	0	1160	4 - 6 Volume	1344	1158	0	0	2502
7 - 9 Peak Hour	07:30	07:00			07:30	4 - 6 Peak Hour	16:45	16:30			16:45
7 - 9 Pk Volume	274	335	0	0	592	4 - 6 Pk Volume	742	600	0	0	1314
Pk Hr Factor	0.745	0.863	0.000	0.000	0.908	Pk Hr Factor	0.918	0.920	0.000	0.000	0.944

VOLUME

Coast Highway btwn Mission Ave & Seagaze Dr

Day: Wednesday
Date: 8/7/2013

City: Oceanside
Project #: CA13_4290_003

DAILY TOTALS					NB	SB	EB	WB	Total
					8,541	7,957	0	0	16,498

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	32	11			43	12:00	182	171			353
00:15	28	20			48	12:15	146	143			289
00:30	16	13			29	12:30	141	142			283
00:45	6	82	12	56	18 138	12:45	164	633	136	592	300 1225
01:00	8	8			16	13:00	137	139			276
01:15	5	5			10	13:15	145	123			268
01:30	7	9			16	13:30	140	143			283
01:45	6	26	15	37	21 63	13:45	141	563	129	534	270 1097
02:00	3	4			7	14:00	150	148			298
02:15	5	7			12	14:15	161	131			292
02:30	11	8			19	14:30	160	135			295
02:45	3	22	2	21	5 43	14:45	146	617	132	546	278 1163
03:00	6	6			12	15:00	144	140			284
03:15	4	5			9	15:15	158	141			299
03:30	7	2			9	15:30	165	142			307
03:45	10	27	10	23	20 50	15:45	148	615	130	553	278 1168
04:00	4	9			13	16:00	163	129			292
04:15	9	12			21	16:15	161	145			306
04:30	12	24			36	16:30	163	167			330
04:45	13	38	41	86	54 124	16:45	185	672	147	588	332 1260
05:00	20	63			83	17:00	158	164			322
05:15	17	26			43	17:15	149	143			292
05:30	22	50			72	17:30	217	133			350
05:45	32	91	83	222	115 313	17:45	171	695	154	594	325 1289
06:00	31	41			72	18:00	202	114			316
06:15	41	76			117	18:15	165	136			301
06:30	43	90			133	18:30	182	121			303
06:45	57	172	84	291	141 463	18:45	177	726	125	496	302 1222
07:00	54	66			120	19:00	199	124			323
07:15	52	80			132	19:15	126	117			243
07:30	66	76			142	19:30	148	97			245
07:45	79	251	75	297	154 548	19:45	158	631	95	433	253 1064
08:00	72	91			163	20:00	119	104			223
08:15	82	94			176	20:15	125	89			214
08:30	54	55			109	20:30	109	105			214
08:45	63	271	98	338	161 609	20:45	105	458	57	355	162 813
09:00	78	106			184	21:00	100	67			167
09:15	78	97			175	21:15	104	86			190
09:30	93	89			182	21:30	75	51			126
09:45	86	335	119	411	205 746	21:45	71	350	48	252	119 602
10:00	95	108			203	22:00	60	41			101
10:15	101	110			211	22:15	52	37			89
10:30	115	128			243	22:30	31	36			67
10:45	126	437	118	464	244 901	22:45	34	177	23	137	57 314
11:00	141	123			264	23:00	31	35			66
11:15	120	118			238	23:15	39	23			62
11:30	115	134			249	23:30	29	29			58
11:45	154	530	145	520	299 1050	23:45	23	122	24	111	47 233
TOTALS	2282	2766			5048	TOTALS	6259	5191			11450
SPLIT %	45.2%	54.8%			30.6%	SPLIT %	54.7%	45.3%			69.4%

DAILY TOTALS					NB	SB	EB	WB	Total
					8,541	7,957	0	0	16,498

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	17:30	16:15			16:45
AM Pk Volume	623	601			1224	PM Pk Volume	755	623			1296
Pk Hr Factor	0.856	0.879			0.867	Pk Hr Factor	0.870	0.933			0.926
7 - 9 Volume	522	635	0	0	1157	4 - 6 Volume	1367	1182	0	0	2549
7 - 9 Peak Hour	07:30	08:00			07:30	4 - 6 Peak Hour	16:45	16:15			16:45
7 - 9 Pk Volume	299	338	0	0	635	4 - 6 Pk Volume	709	623	0	0	1296
Pk Hr Factor	0.912	0.862	0.000	0.000	0.902	Pk Hr Factor	0.817	0.933	0.000	0.000	0.926

Prepared by NDS/ATD

VOLUME

Coast Highway btwn Missouri Ave & Washington Ave

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_004

DAILY TOTALS					NB	SB	EB	WB	Total
					7,910	7,682	0	0	15,592

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	15	25			40	12:00	150	136			286
00:15	26	13			39	12:15	168	126			294
00:30	13	8			21	12:30	164	147			311
00:45	9	63	10	56	119	12:45	134	616	141	550	1166
01:00	3	5			8	13:00	141	152			293
01:15	11	3			14	13:15	153	140			293
01:30	6	11			17	13:30	158	133			291
01:45	9	29	14	33	62	13:45	145	597	135	560	1157
02:00	2	5			7	14:00	137	142			279
02:15	6	3			9	14:15	141	167			308
02:30	2	4			6	14:30	150	148			298
02:45	3	13	4	16	29	14:45	152	580	145	602	1182
03:00	4	4			8	15:00	143	157			300
03:15	6	5			11	15:15	154	140			294
03:30	9	3			12	15:30	163	169			332
03:45	4	23	7	19	42	15:45	64	524	136	602	1126
04:00	3	4			7	16:00	121	151			272
04:15	9	2			11	16:15	163	131			294
04:30	12	7			19	16:30	168	170			338
04:45	18	42	7	20	62	16:45	164	616	173	625	1241
05:00	10	10			20	17:00	191	139			330
05:15	13	6			19	17:15	160	164			324
05:30	22	16			38	17:30	144	150			294
05:45	29	74	21	53	127	17:45	168	663	143	596	1259
06:00	30	21			51	18:00	129	168			297
06:15	41	25			66	18:15	171	126			297
06:30	46	34			80	18:30	163	148			311
06:45	49	166	50	130	296	18:45	141	604	132	574	1178
07:00	51	50			101	19:00	159	163			322
07:15	58	53			111	19:15	123	123			246
07:30	70	62			132	19:30	105	108			213
07:45	56	235	85	250	485	19:45	111	498	101	495	993
08:00	69	90			159	20:00	119	98			217
08:15	79	79			158	20:15	104	98			202
08:30	56	59			115	20:30	71	65			136
08:45	89	293	76	304	597	20:45	83	377	68	329	706
09:00	83	86			169	21:00	79	70			149
09:15	82	95			177	21:15	76	87			163
09:30	89	99			188	21:30	70	66			136
09:45	126	380	111	391	771	21:45	60	285	59	282	567
10:00	91	104			195	22:00	36	49			85
10:15	90	104			194	22:15	41	36			77
10:30	120	123			243	22:30	39	32			71
10:45	132	433	110	441	874	22:45	30	146	34	151	297
11:00	123	116			239	23:00	31	36			67
11:15	137	113			250	23:15	28	29			57
11:30	144	126			270	23:30	28	27			55
11:45	146	550	134	489	1039	23:45	16	103	22	114	217
TOTALS	2301	2202			4503	TOTALS	5609	5480			11089
SPLIT %	51.1%	48.9%			28.9%	SPLIT %	50.6%	49.4%			71.1%

DAILY TOTALS					NB	SB	EB	WB	Total
					7,910	7,682	0	0	15,592

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	16:15	16:30			16:30
AM Pk Volume	628	543			1171	PM Pk Volume	686	646			1329
Pk Hr Factor	0.935	0.923			0.941	Pk Hr Factor	0.898	0.934			0.983
7 - 9 Volume	528	554	0	0	1082	4 - 6 Volume	1279	1221	0	0	2500
7 - 9 Peak Hour	08:00	07:30			08:00	4 - 6 Peak Hour	16:15	16:30			16:30
7 - 9 Pk Volume	293	316	0	0	597	4 - 6 Pk Volume	686	646	0	0	1329
Pk Hr Factor	0.823	0.878	0.000	0.000	0.905	Pk Hr Factor	0.898	0.934	0.000	0.000	0.983

VOLUME

Coast Highway btwn Missouri Ave & Washington Ave

Day: Wednesday
Date: 8/7/2013

City: Oceanside
Project #: CA13_4290_004

DAILY TOTALS		NB	SB	EB	WB	Total
		8,240	7,658	0	0	15,898

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	19	20			39	12:00	170	180			350
00:15	13	28			41	12:15	142	133			275
00:30	10	17			27	12:30	133	145			278
00:45	5	47	16	81	21 128	12:45	179	624	133	591	312 1215
01:00	11	13			24	13:00	124	121			245
01:15	5	5			10	13:15	151	144			295
01:30	7	8			15	13:30	151	127			278
01:45	5	28	6	32	11 60	13:45	145	571	126	518	271 1089
02:00	3	4			7	14:00	154	146			300
02:15	4	4			8	14:15	172	141			313
02:30	8	8			16	14:30	139	145			284
02:45	1	16	0	16	1 32	14:45	159	624	136	568	295 1192
03:00	2	4			6	15:00	158	152			310
03:15	5	4			9	15:15	154	143			297
03:30	6	3			9	15:30	155	160			315
03:45	10	23	2	13	12 36	15:45	154	621	130	585	284 1206
04:00	3	3			6	16:00	174	134			308
04:15	11	4			15	16:15	162	130			292
04:30	6	8			14	16:30	192	162			354
04:45	14	34	13	28	27 62	16:45	165	693	196	622	361 1315
05:00	11	13			24	17:00	153	171			324
05:15	17	9			26	17:15	157	157			314
05:30	22	14			36	17:30	155	154			309
05:45	25	75	21	57	46 132	17:45	194	659	157	639	351 1298
06:00	35	19			54	18:00	167	157			324
06:15	48	31			79	18:15	168	132			300
06:30	43	48			91	18:30	158	128			286
06:45	60	186	55	153	115 339	18:45	160	653	143	560	303 1213
07:00	57	49			106	19:00	145	134			279
07:15	57	59			116	19:15	128	110			238
07:30	60	66			126	19:30	125	95			220
07:45	72	246	67	241	139 487	19:45	128	526	109	448	237 974
08:00	63	82			145	20:00	118	108			226
08:15	78	91			169	20:15	122	94			216
08:30	69	50			119	20:30	87	100			187
08:45	78	288	81	304	159 592	20:45	96	423	77	379	173 802
09:00	80	90			170	21:00	86	72			158
09:15	78	92			170	21:15	74	97			171
09:30	93	92			185	21:30	66	60			126
09:45	94	345	103	377	197 722	21:45	60	286	68	297	128 583
10:00	94	94			188	22:00	51	40			91
10:15	108	105			213	22:15	56	31			87
10:30	118	114			232	22:30	37	26			63
10:45	127	447	102	415	229 862	22:45	31	175	26	123	57 298
11:00	147	108			255	23:00	25	32			57
11:15	115	123			238	23:15	25	27			52
11:30	131	123			254	23:30	26	17			43
11:45	159	552	150	504	309 1056	23:45	22	98	31	107	53 205
TOTALS	2287	2221			4508	TOTALS	5953	5437			11390
SPLIT %	50.7%	49.3%			28.4%	SPLIT %	52.3%	47.7%			71.6%

DAILY TOTALS		NB	SB	EB	WB	Total
		8,240	7,658	0	0	15,898

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	16:00	16:30			16:30
AM Pk Volume	604	608			1212	PM Pk Volume	693	686			1353
Pk Hr Factor	0.888	0.844			0.866	Pk Hr Factor	0.902	0.875			0.937
7 - 9 Volume	534	545	0	0	1079	4 - 6 Volume	1352	1261	0	0	2613
7 - 9 Peak Hour	08:00	07:30			08:00	4 - 6 Peak Hour	16:00	16:30			16:30
7 - 9 Pk Volume	288	306	0	0	592	4 - 6 Pk Volume	693	686	0	0	1353
Pk Hr Factor	0.923	0.841	0.000	0.000	0.876	Pk Hr Factor	0.902	0.875	0.000	0.000	0.937

VOLUME

Coast Highway btwn Stanley St & Eucalyptus St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_005

DAILY TOTALS					NB	SB	EB	WB	Total
					9,206	9,264	0	0	18,470

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	13	21			34	12:00	160	162			322
00:15	21	16			37	12:15	173	161			334
00:30	19	10			29	12:30	181	180			361
00:45	6	59	10	57	16	12:45	152	666	154	657	306
01:00	2	4			6	13:00	177	184			361
01:15	11	10			21	13:15	164	171			335
01:30	10	14			24	13:30	184	160			344
01:45	9	32	15	43	24	13:45	172	697	171	686	343
02:00	3	5			8	14:00	171	179			350
02:15	8	4			12	14:15	168	177			345
02:30	2	7			9	14:30	155	176			331
02:45	2	15	3	19	5	14:45	170	664	175	707	345
03:00	2	1			3	15:00	158	179			337
03:15	7	5			12	15:15	183	182			365
03:30	10	5			15	15:30	169	198			367
03:45	4	23	6	17	10	15:45	174	684	164	723	338
04:00	4	7			11	16:00	188	179			367
04:15	9	6			15	16:15	191	162			353
04:30	9	7			16	16:30	182	180			362
04:45	13	35	7	27	20	16:45	192	753	200	721	392
05:00	12	9			21	17:00	208	169			377
05:15	16	18			34	17:15	198	172			370
05:30	24	16			40	17:30	198	176			374
05:45	22	74	26	69	48	17:45	169	773	157	674	326
06:00	31	34			65	18:00	173	178			351
06:15	45	34			79	18:15	198	151			349
06:30	42	55			97	18:30	175	188			363
06:45	55	173	67	190	122	18:45	174	720	158	675	332
07:00	61	71			132	19:00	172	153			325
07:15	62	69			131	19:15	131	144			275
07:30	64	82			146	19:30	122	139			261
07:45	65	252	99	321	164	19:45	135	560	125	561	260
08:00	78	107			185	20:00	133	129			262
08:15	75	110			185	20:15	105	125			230
08:30	77	97			174	20:30	89	82			171
08:45	98	328	100	414	198	20:45	87	414	80	416	167
09:00	103	106			209	21:00	69	80			149
09:15	110	119			229	21:15	107	93			200
09:30	116	123			239	21:30	71	82			153
09:45	131	460	137	485	268	21:45	65	312	68	323	133
10:00	113	121			234	22:00	51	47			98
10:15	145	144			289	22:15	54	48			102
10:30	138	168			306	22:30	45	41			86
10:45	155	551	153	586	308	22:45	40	190	37	173	77
11:00	144	143			287	23:00	31	39			70
11:15	149	151			300	23:15	33	26			59
11:30	169	139			308	23:30	32	33			65
11:45	195	657	167	600	362	23:45	18	114	22	120	40
TOTALS	2659	2828			5487	TOTALS	6547	6436			12983
SPLIT %	48.5%	51.5%			29.7%	SPLIT %	50.4%	49.6%			70.3%

DAILY TOTALS					NB	SB	EB	WB	Total
					9,206	9,264	0	0	18,470

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	16:45	14:45			16:45
AM Pk Volume	709	670			1379	PM Pk Volume	796	734			1513
Pk Hr Factor	0.909	0.931			0.952	Pk Hr Factor	0.957	0.927			0.965
7 - 9 Volume	580	735	0	0	1315	4 - 6 Volume	1526	1395	0	0	2921
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	16:45	16:00			16:45
7 - 9 Pk Volume	328	414	0	0	742	4 - 6 Pk Volume	796	721	0	0	1513
Pk Hr Factor	0.837	0.941	0.000	0.000	0.937	Pk Hr Factor	0.957	0.901	0.000	0.000	0.965

VOLUME

Coast Highway btwn Stanley St & Eucalyptus St

Day: Wednesday
Date: 8/7/2013City: Oceanside
Project #: CA13_4290_005

DAILY TOTALS					NB	SB	EB	WB	Total		
					9,554	9,122	0	0	18,676		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	22	25			47	12:00	187	212			399
00:15	16	32			48	12:15	163	170			333
00:30	9	18			27	12:30	155	177			332
00:45	5	52	14	89	19	12:45	194	699	147	706	341
01:00	15	15			30	13:00	156	163			319
01:15	7	6			13	13:15	159	172			331
01:30	10	10			20	13:30	188	177			365
01:45	6	38	6	37	12	13:45	181	684	158	670	339
02:00	2	9			11	14:00	175	173			348
02:15	8	3			11	14:15	180	182			362
02:30	6	11			17	14:30	178	163			341
02:45	2	18	0	23	2	14:45	166	699	177	695	343
03:00	1	2			3	15:00	177	164			341
03:15	7	5			12	15:15	183	192			375
03:30	5	5			10	15:30	191	177			368
03:45	7	20	2	14	9	15:45	181	732	183	716	364
04:00	3	7			10	16:00	193	162			355
04:15	10	3			13	16:15	196	175			371
04:30	6	3			13	16:30	228	186			414
04:45	12	31	12	29	24	16:45	189	806	221	744	410
05:00	19	16			35	17:00	188	188			376
05:15	20	19			39	17:15	201	174			375
05:30	21	22			43	17:30	226	165			391
05:45	20	80	30	87	50	17:45	219	834	167	694	386
06:00	34	21			55	18:00	190	188			378
06:15	51	43			94	18:15	206	168			374
06:30	45	65			110	18:30	181	152			333
06:45	66	196	79	208	145	18:45	199	776	159	667	358
07:00	61	64			125	19:00	171	134			305
07:15	65	82			147	19:15	140	125			265
07:30	53	87			140	19:30	143	118			261
07:45	88	267	79	312	167	19:45	144	598	134	511	278
08:00	75	98			173	20:00	138	110			248
08:15	100	105			205	20:15	136	97			233
08:30	81	84			165	20:30	94	115			209
08:45	98	354	91	378	189	20:45	105	473	81	403	186
09:00	92	112			204	21:00	90	89			179
09:15	95	106			201	21:15	81	101			182
09:30	103	119			222	21:30	64	66			130
09:45	123	413	115	452	238	21:45	61	296	80	336	141
10:00	124	101			225	22:00	56	45			101
10:15	118	123			241	22:15	60	29			89
10:30	143	149			292	22:30	45	34			79
10:45	158	543	121	494	279	22:45	34	195	29	137	63
11:00	152	142			294	23:00	27	39			66
11:15	155	127			282	23:15	32	30			62
11:30	144	159			303	23:30	28	23			51
11:45	187	638	171	599	358	23:45	25	112	29	121	54
TOTALS	2650	2722			5372	TOTALS	6904	6400			13304
SPLIT %	49.3%	50.7%			28.8%	SPLIT %	51.9%	48.1%			71.2%

DAILY TOTALS					NB	SB	EB	WB	Total
					9,554	9,122	0	0	18,676
AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	17:30	16:15	16:30
AM Pk Volume	692	730			1422	PM Pk Volume	841	770	1575
Pk Hr Factor	0.925	0.861			0.891	Pk Hr Factor	0.930	0.871	0.951
7 - 9 Volume	621	690	0	0	1311	4 - 6 Volume	1640	1438	3078
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	17:00	16:15	16:30
7 - 9 Pk Volume	354	378	0	0	732	4 - 6 Pk Volume	834	770	1575
Pk Hr Factor	0.885	0.900	0.000	0.000	0.893	Pk Hr Factor	0.923	0.871	0.951

VOLUME

Coast Highway btwn Sprinter RR Tracks & Morse St

Day: Tuesday
Date: 8/6/2013City: Oceanside
Project #: CA13_4290_006

DAILY TOTALS					NB	SB	EB	WB	Total		
					9,429	9,670	0	0	19,099		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	11	18			29	12:00	176	179			355
00:15	14	21			35	12:15	175	147			322
00:30	14	11			25	12:30	170	180			350
00:45	7	46	12	62	19	12:45	171	692	173	679	344
01:00	8	10			18	13:00	182	185			367
01:15	10	3			13	13:15	193	190			383
01:30	9	10			19	13:30	187	171			358
01:45	7	34	16	39	23	13:45	169	731	175	721	344
02:00	5	7			12	14:00	175	202			377
02:15	8	5			13	14:15	167	169			336
02:30	2	4			6	14:30	167	168			335
02:45	4	19	3	19	7	14:45	190	699	167	706	357
03:00	4	1			5	15:00	176	172			348
03:15	9	6			15	15:15	187	195			382
03:30	5	5			10	15:30	191	219			410
03:45	7	25	7	19	14	15:45	197	751	186	772	383
04:00	8	3			11	16:00	205	186			391
04:15	7	4			11	16:15	198	196			394
04:30	2	9			11	16:30	190	173			363
04:45	10	27	16	32	26	16:45	179	772	213	768	392
05:00	12	14			26	17:00	205	190			395
05:15	12	20			32	17:15	182	174			356
05:30	19	17			36	17:30	223	190			413
05:45	18	61	25	76	43	17:45	203	813	176	730	379
06:00	27	47			74	18:00	174	192			366
06:15	34	44			78	18:15	176	163			339
06:30	45	72			117	18:30	176	180			356
06:45	52	158	63	226	115	18:45	149	675	142	677	291
07:00	49	77			126	19:00	169	147			316
07:15	67	82			149	19:15	152	170			322
07:30	57	118			175	19:30	138	123			261
07:45	68	241	125	402	193	19:45	133	592	136	576	269
08:00	68	105			173	20:00	122	133			255
08:15	91	116			207	20:15	113	110			223
08:30	93	116			209	20:30	92	75			167
08:45	118	370	112	449	230	20:45	78	405	76	394	154
09:00	99	95			194	21:00	86	69			155
09:15	113	129			242	21:15	94	96			190
09:30	132	144			276	21:30	81	71			152
09:45	127	471	130	498	257	21:45	57	318	56	292	113
10:00	111	118			229	22:00	47	48			95
10:15	135	136			271	22:15	43	42			85
10:30	149	173			322	22:30	48	40			88
10:45	164	559	165	592	329	22:45	34	172	39	169	73
11:00	161	149			310	23:00	29	38			67
11:15	173	158			331	23:15	34	30			64
11:30	171	168			339	23:30	25	26			51
11:45	185	690	176	651	361	23:45	20	108	27	121	47
TOTALS	2701	3065			5766	TOTALS	6728	6605			13333
SPLIT %	46.8%	53.2%			30.2%	SPLIT %	50.5%	49.5%			69.8%

DAILY TOTALS					NB	SB	EB	WB	Total
					9,429	9,670	0	0	19,099
AM Peak Hour	11:30	11:45			11:45	PM Peak Hour	17:00	15:30	15:30
AM Pk Volume	707	682			1388	PM Pk Volume	813	787	1578
Pk Hr Factor	0.955	0.947			0.961	Pk Hr Factor	0.911	0.898	0.962
7 - 9 Volume	611	851	0	0	1462	4 - 6 Volume	1585	1498	3083
7 - 9 Peak Hour	08:00	07:30			08:00	4 - 6 Peak Hour	17:00	16:15	16:45
7 - 9 Pk Volume	370	464	0	0	819	4 - 6 Pk Volume	813	772	1556
Pk Hr Factor	0.784	0.928	0.000	0.000	0.890	Pk Hr Factor	0.911	0.906	0.942

VOLUME

Coast Highway btwn Sprinter RR Tracks & Morse St

Day: Wednesday
Date: 8/7/2013

City: Oceanside
Project #: CA13_4290_006

DAILY TOTALS					NB	SB	EB	WB	Total
					9,492	9,512	0	0	19,004

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	17	29			46	12:00	152	211			363
00:15	10	23			33	12:15	155	185			340
00:30	7	20			27	12:30	162	175			337
00:45	3	37	17	89	20	12:45	168	637	164	735	332
01:00	11	9			20	13:00	168	169			337
01:15	11	7			18	13:15	168	163			331
01:30	9	12			21	13:30	174	168			342
01:45	1	32	9	37	10	13:45	155	665	162	662	317
02:00	2	4			6	14:00	172	180			352
02:15	2	4			6	14:15	188	176			364
02:30	5	11			16	14:30	170	167			337
02:45	2	11	1	20	3	14:45	163	693	167	690	330
03:00	4	3			7	15:00	181	194			375
03:15	6	6			12	15:15	202	180			382
03:30	5	4			9	15:30	179	168			347
03:45	6	21	2	15	8	15:45	176	738	184	726	360
04:00	3	6			9	16:00	214	190			404
04:15	3	6			9	16:15	196	185			381
04:30	4	13			17	16:30	226	181			407
04:45	10	20	12	37	22	16:45	226	862	207	763	433
05:00	15	17			32	17:00	199	185			384
05:15	18	21			39	17:15	215	184			399
05:30	22	26			48	17:30	207	209			416
05:45	21	76	31	95	52	17:45	250	871	184	762	434
06:00	31	36			67	18:00	202	194			396
06:15	44	46			90	18:15	214	169			383
06:30	48	58			106	18:30	184	163			347
06:45	57	180	87	227	144	18:45	174	774	157	683	331
07:00	57	77			134	19:00	170	139			309
07:15	68	92			160	19:15	160	120			280
07:30	50	99			149	19:30	167	126			293
07:45	80	255	105	373	185	19:45	142	639	120	505	262
08:00	84	93			177	20:00	134	118			252
08:15	107	102			209	20:15	131	89			220
08:30	94	109			203	20:30	86	102			188
08:45	85	370	99	403	184	20:45	96	447	77	386	173
09:00	100	115			215	21:00	92	83			175
09:15	106	106			212	21:15	88	110			198
09:30	106	145			251	21:30	68	71			139
09:45	125	437	142	508	267	21:45	57	305	93	357	150
10:00	123	127			250	22:00	47	48			95
10:15	114	132			246	22:15	56	29			85
10:30	126	139			265	22:30	47	32			79
10:45	147	510	159	557	306	22:45	38	188	30	139	68
11:00	168	150			318	23:00	23	39			62
11:15	145	146			291	23:15	25	26			51
11:30	147	168			315	23:30	23	19			42
11:45	170	630	172	636	342	23:45	23	94	23	107	46
TOTALS	2579	2997			5576	TOTALS	6913	6515			13428
SPLIT %	46.3%	53.7%			29.3%	SPLIT %	51.5%	48.5%			70.7%

DAILY TOTALS					NB	SB	EB	WB	Total
					9,492	9,512	0	0	19,004

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	17:15	16:45			17:15
AM Pk Volume	639	743			1382	PM Pk Volume	874	785			1645
Pk Hr Factor	0.940	0.880			0.952	Pk Hr Factor	0.874	0.939			0.948
7 - 9 Volume	625	776	0	0	1401	4 - 6 Volume	1733	1525	0	0	3258
7 - 9 Peak Hour	08:00	07:45			07:45	4 - 6 Peak Hour	17:00	16:45			17:00
7 - 9 Pk Volume	370	409	0	0	774	4 - 6 Pk Volume	871	785	0	0	1633
Pk Hr Factor	0.864	0.938	0.000	0.000	0.926	Pk Hr Factor	0.871	0.939	0.000	0.000	0.941

VOLUME

Coast Highway btwn Whaley St & Cassidy St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_007

DAILY TOTALS					NB	SB	EB	WB	Total
					8,185	8,733	0	0	16,918

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	14	15			29	12:00	149	159			308
00:15	11	23			34	12:15	159	144			303
00:30	15	13			28	12:30	153	156			309
00:45	7	47	13	64	20 111	12:45	142	603	148	607	290 1210
01:00	4	8			12	13:00	168	162			330
01:15	8	4			12	13:15	178	172			350
01:30	11	7			18	13:30	154	174			328
01:45	5	28	17	36	22 64	13:45	155	655	168	676	323 1331
02:00	5	8			13	14:00	164	194			358
02:15	8	3			11	14:15	135	171			306
02:30	2	3			5	14:30	159	144			303
02:45	1	16	2	16	3 32	14:45	157	615	139	648	296 1263
03:00	4	1			5	15:00	153	154			307
03:15	9	4			13	15:15	177	165			342
03:30	3	4			7	15:30	166	188			354
03:45	4	20	5	14	9 34	15:45	147	643	163	670	310 1313
04:00	7	3			10	16:00	176	172			348
04:15	6	4			10	16:15	170	165			335
04:30	3	8			11	16:30	161	166			327
04:45	8	24	16	31	24 55	16:45	160	667	185	688	345 1355
05:00	7	16			23	17:00	186	184			370
05:15	7	25			32	17:15	152	142			294
05:30	16	18			34	17:30	174	165			339
05:45	19	49	33	92	52 141	17:45	178	690	163	654	341 1344
06:00	24	45			69	18:00	155	153			308
06:15	24	46			70	18:15	164	156			320
06:30	47	71			118	18:30	138	165			303
06:45	43	138	60	222	103 360	18:45	133	590	117	591	250 1181
07:00	38	75			113	19:00	118	125			243
07:15	56	86			142	19:15	140	149			289
07:30	55	103			158	19:30	116	102			218
07:45	61	210	108	372	169 582	19:45	128	502	134	510	262 1012
08:00	66	105			171	20:00	105	108			213
08:15	74	99			173	20:15	98	88			186
08:30	80	107			187	20:30	76	75			151
08:45	104	324	103	414	207 738	20:45	70	349	67	338	137 687
09:00	94	93			187	21:00	68	60			128
09:15	108	110			218	21:15	82	89			171
09:30	97	126			223	21:30	69	62			131
09:45	108	407	128	457	236 864	21:45	49	268	49	260	98 528
10:00	89	103			192	22:00	48	44			92
10:15	119	124			243	22:15	28	40			68
10:30	137	136			273	22:30	44	35			79
10:45	140	485	175	538	315 1023	22:45	27	147	40	159	67 306
11:00	141	122			263	23:00	30	37			67
11:15	148	148			296	23:15	29	21			50
11:30	161	144			305	23:30	21	21			42
11:45	161	611	163	577	324 1188	23:45	17	97	20	99	37 196
TOTALS	2359	2833			5192	TOTALS	5826	5900			11726
SPLIT %	45.4%	54.6%			30.7%	SPLIT %	49.7%	50.3%			69.3%

DAILY TOTALS					NB	SB	EB	WB	Total
					8,185	8,733	0	0	16,918

AM Peak Hour	11:30	11:45			11:45	PM Peak Hour	17:00	13:15			16:15
AM Pk Volume	630	622			1244	PM Pk Volume	690	708			1377
Pk Hr Factor	0.978	0.954			0.960	Pk Hr Factor	0.927	0.912			0.930
7 - 9 Volume	534	786	0	0	1320	4 - 6 Volume	1357	1342	0	0	2699
7 - 9 Peak Hour	08:00	07:45			08:00	4 - 6 Peak Hour	17:00	16:15			16:15
7 - 9 Pk Volume	324	419	0	0	738	4 - 6 Pk Volume	690	700	0	0	1377
Pk Hr Factor	0.779	0.970	0.000	0.000	0.891	Pk Hr Factor	0.927	0.946	0.000	0.000	0.930

VOLUME

Coast Highway btwn Whaley St & Cassidy St

Day: Wednesday
Date: 8/7/2013

City: Oceanside
Project #: CA13_4290_007

DAILY TOTALS					NB	SB	EB	WB	Total
					8,465	8,438	0	0	16,903

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	16	24			40	12:00	136	181			317
00:15	9	23			32	12:15	150	137			287
00:30	8	18			26	12:30	142	150			292
00:45	6	39	13	78	117	12:45	147	575	156	624	1199
01:00	9	12			21	13:00	171	161			332
01:15	10	5			15	13:15	152	157			309
01:30	7	12			19	13:30	142	157			299
01:45	1	27	10	39	66	13:45	157	622	141	616	1238
02:00	1	4			5	14:00	160	161			321
02:15	2	4			6	14:15	169	179			348
02:30	5	10			15	14:30	156	138			294
02:45	2	10	1	19	29	14:45	167	652	157	635	1287
03:00	5	4			9	15:00	163	134			297
03:15	1	3			4	15:15	184	144			328
03:30	5	6			11	15:30	166	137			303
03:45	5	16	3	16	32	15:45	154	667	158	573	1240
04:00	4	5			9	16:00	199	176			375
04:15	2	6			8	16:15	175	159			334
04:30	4	12			16	16:30	188	163			351
04:45	7	17	11	34	51	16:45	196	758	169	667	1425
05:00	9	22			31	17:00	188	177			365
05:15	17	20			37	17:15	191	155			346
05:30	14	31			45	17:30	195	164			359
05:45	19	59	31	104	163	17:45	215	789	178	674	1463
06:00	28	39			67	18:00	182	162			344
06:15	33	48			81	18:15	168	151			319
06:30	46	59			105	18:30	163	139			302
06:45	49	156	84	230	386	18:45	162	675	141	593	1268
07:00	42	76			118	19:00	149	110			259
07:15	62	99			161	19:15	138	102			240
07:30	58	92			150	19:30	144	106			250
07:45	71	233	90	357	590	19:45	128	559	112	430	989
08:00	76	79			155	20:00	113	104			217
08:15	91	84			175	20:15	106	84			190
08:30	70	99			169	20:30	72	92			164
08:45	71	308	77	339	647	20:45	84	375	60	340	715
09:00	90	91			181	21:00	90	74			164
09:15	99	94			193	21:15	73	94			167
09:30	91	119			210	21:30	57	60			117
09:45	118	398	118	422	820	21:45	51	271	81	309	580
10:00	100	112			212	22:00	39	49			88
10:15	111	122			233	22:15	52	28			80
10:30	111	121			232	22:30	36	27			63
10:45	145	467	139	494	961	22:45	34	161	25	129	290
11:00	144	159			303	23:00	21	34			55
11:15	137	136			273	23:15	21	27			48
11:30	122	152			274	23:30	18	17			35
11:45	147	550	170	617	1167	23:45	21	81	21	99	180
TOTALS	2280	2749			5029	TOTALS	6185	5689			11874
SPLIT %	45.3%	54.7%			29.8%	SPLIT %	52.1%	47.9%			70.2%

DAILY TOTALS					NB	SB	EB	WB	Total
					8,465	8,438	0	0	16,903

AM Peak Hour	11:45	11:30			11:45	PM Peak Hour	17:00	17:00	17:00
AM Pk Volume	575	640			1213	PM Pk Volume	789	674	1463
Pk Hr Factor	0.958	0.884			0.957	Pk Hr Factor	0.917	0.947	0.931
7 - 9 Volume	541	696	0	0	1237	4 - 6 Volume	1547	1341	2888
7 - 9 Peak Hour	07:45	07:15			07:45	4 - 6 Peak Hour	17:00	17:00	17:00
7 - 9 Pk Volume	308	360	0	0	660	4 - 6 Pk Volume	789	674	1463
Pk Hr Factor	0.846	0.909	0.000	0.000	0.943	Pk Hr Factor	0.917	0.947	0.931

Prepared by NDS/ATD

VOLUME

Coast Highway btwn Kelly St & Vista Way

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_008

DAILY TOTALS						NB	SB	EB	WB	Total	
						9,510	8,906	0	0	18,416	
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	14	11			25	12:00	183	162			345
00:15	14	24			38	12:15	193	145			338
00:30	12	17			29	12:30	196	180			376
00:45	7	47	12	64	19 111	12:45	127	699	146	633	273 1332
01:00	8	10			18	13:00	203	165			368
01:15	8	4			12	13:15	192	184			376
01:30	9	10			19	13:30	181	175			356
01:45	7	32	15	39	22 71	13:45	171	747	176	700	347 1447
02:00	8	8			16	14:00	189	200			389
02:15	8	5			13	14:15	144	166			310
02:30	6	4			10	14:30	172	165			337
02:45	3	25	2	19	5 44	14:45	184	689	156	687	340 1376
03:00	6	3			9	15:00	189	176			365
03:15	9	2			11	15:15	183	159			342
03:30	3	2			5	15:30	176	188			364
03:45	1	19	7	14	8 33	15:45	186	734	159	682	345 1416
04:00	9	2			11	16:00	191	162			353
04:15	5	5			10	16:15	201	163			364
04:30	6	10			16	16:30	221	172			393
04:45	8	28	15	32	23 60	16:45	219	832	166	663	385 1495
05:00	5	17			22	17:00	235	187			422
05:15	9	27			36	17:15	193	162			355
05:30	15	26			41	17:30	236	156			392
05:45	21	50	36	106	57 156	17:45	208	872	149	654	357 1526
06:00	27	44			71	18:00	194	154			348
06:15	30	50			80	18:15	189	147			336
06:30	52	69			121	18:30	155	172			327
06:45	50	159	65	228	115 387	18:45	149	687	120	593	269 1280
07:00	60	78			138	19:00	175	122			297
07:15	58	88			146	19:15	151	146			297
07:30	72	107			179	19:30	123	80			203
07:45	81	271	102	375	183 646	19:45	130	579	121	469	251 1048
08:00	94	104			198	20:00	110	119			229
08:15	83	107			190	20:15	108	94			202
08:30	96	108			204	20:30	85	78			163
08:45	115	388	107	426	222 814	20:45	74	377	76	367	150 744
09:00	106	99			205	21:00	66	60			126
09:15	119	119			238	21:15	75	89			164
09:30	120	128			248	21:30	64	65			129
09:45	136	481	128	474	264 955	21:45	53	258	50	264	103 522
10:00	121	116			237	22:00	50	45			95
10:15	125	144			269	22:15	38	42			80
10:30	179	138			317	22:30	42	45			87
10:45	161	586	145	543	306 1129	22:45	28	158	36	168	64 326
11:00	177	140			317	23:00	36	29			65
11:15	161	146			307	23:15	26	28			54
11:30	181	166			347	23:30	20	20			40
11:45	167	686	150	602	317 1288	23:45	24	106	27	104	51 210
TOTALS	2772	2922			5694	TOTALS	6738	5984			12722
SPLIT %	48.7%	51.3%			30.9%	SPLIT %	53.0%	47.0%			69.1%

DAILY TOTALS						NB	SB	EB	WB	Total	
						9,510	8,906	0	0	18,416	
AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	16:45	13:15		16:15	
AM Pk Volume	739	637			1376	PM Pk Volume	883	735		1564	
Pk Hr Factor	0.943	0.885			0.915	Pk Hr Factor	0.935	0.919		0.927	
7 - 9 Volume	659	801	0	0	1460	4 - 6 Volume	1704	1317	0	0	3021
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	16:45	16:15			16:15
7 - 9 Pk Volume	388	426	0	0	814	4 - 6 Pk Volume	883	688	0	0	1564
Pk Hr Factor	0.843	0.986	0.000	0.000	0.917	Pk Hr Factor	0.935	0.920	0.000	0.000	0.927

VOLUME

Coast Highway btwn Kelly St & Vista Way

Day: Wednesday
Date: 8/7/2013

City: Oceanside
Project #: CA13_4290_008

DAILY TOTALS					NB	SB	EB	WB	Total
					9,540	8,768	0	0	18,308

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	17	19			36	12:00	134	178			312
00:15	10	25			35	12:15	174	148			322
00:30	11	19			30	12:30	170	176			346
00:45	10	48	18	81	28 129	12:45	176	654	150	652	326 1306
01:00	9	14			23	13:00	205	166			371
01:15	9	4			13	13:15	164	165			329
01:30	10	10			20	13:30	173	178			351
01:45	5	33	13	41	18 74	13:45	173	715	149	658	322 1373
02:00	2	5			7	14:00	192	171			363
02:15	5	4			9	14:15	182	185			367
02:30	6	10			16	14:30	159	159			318
02:45	3	16	5	24	8 40	14:45	175	708	173	688	348 1396
03:00	4	2			6	15:00	197	171			368
03:15	4	4			8	15:15	195	160			355
03:30	5	5			10	15:30	183	175			358
03:45	4	17	1	12	5 29	15:45	183	758	157	663	340 1421
04:00	4	6			10	16:00	223	155			378
04:15	4	10			14	16:15	204	152			356
04:30	6	11			17	16:30	187	156			343
04:45	8	22	12	39	20 61	16:45	230	844	171	634	401 1478
05:00	10	21			31	17:00	201	194			395
05:15	14	19			33	17:15	244	160			404
05:30	16	33			49	17:30	215	172			387
05:45	18	58	36	109	54 167	17:45	249	909	156	682	405 1591
06:00	30	49			79	18:00	215	166			381
06:15	45	57			102	18:15	193	146			339
06:30	56	66			122	18:30	177	136			313
06:45	63	194	91	263	154 457	18:45	177	762	129	577	306 1339
07:00	46	81			127	19:00	162	117			279
07:15	65	106			171	19:15	153	114			267
07:30	68	119			187	19:30	152	102			254
07:45	88	267	85	391	173 658	19:45	135	602	105	438	240 1040
08:00	95	83			178	20:00	124	100			224
08:15	95	97			192	20:15	112	88			200
08:30	82	110			192	20:30	86	96			182
08:45	92	364	84	374	176 738	20:45	89	411	59	343	148 754
09:00	116	105			221	21:00	89	68			157
09:15	108	112			220	21:15	75	90			165
09:30	123	127			250	21:30	65	63			128
09:45	143	490	103	447	246 937	21:45	59	288	73	294	132 582
10:00	119	120			239	22:00	48	53			101
10:15	107	134			241	22:15	61	31			92
10:30	117	115			232	22:30	42	24			66
10:45	155	498	136	505	291 1003	22:45	36	187	26	134	62 321
11:00	136	157			293	23:00	29	32			61
11:15	147	164			311	23:15	24	27			51
11:30	136	162			298	23:30	23	14			37
11:45	175	594	146	629	321 1223	23:45	25	101	17	90	42 191
TOTALS	2601	2915			5516	TOTALS	6939	5853			12792
SPLIT %	47.2%	52.8%			30.1%	SPLIT %	54.2%	45.8%			69.9%

DAILY TOTALS					NB	SB	EB	WB	Total
					9,540	8,768	0	0	18,308

AM Peak Hour	11:45	11:15			11:45	PM Peak Hour	17:15	16:45			17:00
AM Pk Volume	653	650			1301	PM Pk Volume	923	697			1591
Pk Hr Factor	0.933	0.913			0.940	Pk Hr Factor	0.927	0.898			0.982
7 - 9 Volume	631	765	0	0	1396	4 - 6 Volume	1753	1316	0	0	3069
7 - 9 Peak Hour	08:00	07:15			08:00	4 - 6 Peak Hour	17:00	16:45			17:00
7 - 9 Pk Volume	364	393	0	0	738	4 - 6 Pk Volume	909	697	0	0	1591
Pk Hr Factor	0.958	0.826	0.000	0.000	0.961	Pk Hr Factor	0.913	0.898	0.000	0.000	0.982

VOLUME

Coast Highway btwn Vista Way & Eaton St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_009

DAILY TOTALS					NB	SB	EB	WB	Total
					8,137	8,525	0	0	16,662

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	11	5			16	12:00	139	140			279
00:15	10	7			17	12:15	141	144			285
00:30	10	8			18	12:30	136	175			311
00:45	6	37	11	31	17	12:45	138	554	155	614	293
01:00	9	4			13	13:00	162	172			334
01:15	11	4			15	13:15	138	173			311
01:30	14	7			21	13:30	142	158			300
01:45	13	47	12	27	25	13:45	127	569	188	691	315
02:00	5	5			10	14:00	148	151			299
02:15	6	2			8	14:15	146	151			297
02:30	2	1			3	14:30	170	169			339
02:45	3	16	2	10	5	14:45	177	641	146	617	323
03:00	4	1			5	15:00	173	163			336
03:15	5	1			6	15:15	176	132			308
03:30	2	2			4	15:30	187	164			351
03:45	5	16	2	6	7	15:45	176	712	143	602	319
04:00	1	3			4	16:00	183	154			337
04:15	3	4			7	16:15	169	145			314
04:30	3	8			11	16:30	204	166			370
04:45	3	10	9	24	12	16:45	201	757	149	614	350
05:00	4	22			26	17:00	219	138			357
05:15	8	22			30	17:15	182	143			325
05:30	12	25			37	17:30	231	142			373
05:45	17	41	54	123	71	17:45	187	819	127	550	314
06:00	19	43			62	18:00	159	118			277
06:15	23	73			96	18:15	163	134			297
06:30	36	109			145	18:30	144	124			268
06:45	33	111	99	324	132	18:45	139	605	110	486	249
07:00	51	116			167	19:00	125	103			228
07:15	45	158			203	19:15	113	137			250
07:30	52	147			199	19:30	140	65			205
07:45	75	223	142	563	217	19:45	112	490	97	402	209
08:00	72	159			231	20:00	108	76			184
08:15	54	131			185	20:15	96	69			165
08:30	68	124			192	20:30	90	57			147
08:45	82	276	145	559	227	20:45	95	389	58	260	153
09:00	79	112			191	21:00	55	41			96
09:15	105	120			225	21:15	58	58			116
09:30	87	108			195	21:30	58	43			101
09:45	99	370	129	469	228	21:45	44	215	33	175	77
10:00	98	133			231	22:00	43	33			76
10:15	111	131			242	22:15	26	32			58
10:30	145	146			291	22:30	42	20			62
10:45	130	484	141	551	271	22:45	25	136	24	109	49
11:00	135	146			281	23:00	28	20			48
11:15	117	162			279	23:15	21	17			38
11:30	147	184			331	23:30	23	14			37
11:45	127	526	164	656	291	23:45	21	93	11	62	32
TOTALS	2157	3343			5500	TOTALS	5980	5182			11162
SPLIT %	39.2%	60.8%			33.0%	SPLIT %	53.6%	46.4%			67.0%

DAILY TOTALS					NB	SB	EB	WB	Total
					8,137	8,525	0	0	16,662

AM Peak Hour	11:30	11:00			11:30	PM Peak Hour	16:45	13:00			16:45
AM Pk Volume	554	656			1186	PM Pk Volume	833	691			1405
Pk Hr Factor	0.942	0.891			0.896	Pk Hr Factor	0.902	0.919			0.942
7 - 9 Volume	499	1122	0	0	1621	4 - 6 Volume	1576	1164	0	0	2740
7 - 9 Peak Hour	08:00	07:15			07:15	4 - 6 Peak Hour	16:45	16:00			16:45
7 - 9 Pk Volume	276	606	0	0	850	4 - 6 Pk Volume	833	614	0	0	1405
Pk Hr Factor	0.841	0.953	0.000	0.000	0.920	Pk Hr Factor	0.902	0.925	0.000	0.000	0.942

VOLUME

Coast Highway btwn Vista Way & Eaton St

Day: Wednesday
Date: 8/7/2013City: Oceanside
Project #: CA13_4290_009

DAILY TOTALS					NB	SB	EB	WB	Total		
					8,608	8,359	0	0	16,967		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	16	10			26	12:00	144	184			328
00:15	12	14			26	12:15	144	177			321
00:30	13	8			21	12:30	129	169			298
00:45	7	48	7	39	14	12:45	147	564	175	705	322
01:00	7	9			16	13:00	162	155			317
01:15	6	1			7	13:15	136	160			296
01:30	11	3			14	13:30	169	149			318
01:45	11	35	4	17	15	13:45	150	617	165	629	315
02:00	3	3			6	14:00	150	147			297
02:15	7	2			9	14:15	161	163			324
02:30	3	1			4	14:30	151	174			325
02:45	2	15	3	9	5	14:45	165	627	141	625	306
03:00	2	1			3	15:00	164	154			318
03:15	1	4			5	15:15	196	138			334
03:30	5	2			7	15:30	192	136			328
03:45	3	11	0	7	3	15:45	184	736	146	574	330
04:00	4	3			7	16:00	198	171			369
04:15	0	9			9	16:15	163	139			302
04:30	5	1			6	16:30	229	167			396
04:45	4	13	14	27	18	16:45	246	836	169	646	415
05:00	3	26			29	17:00	218	166			384
05:15	11	18			29	17:15	231	158			389
05:30	17	25			42	17:30	216	175			391
05:45	18	49	57	126	75	17:45	244	909	149	648	393
06:00	22	49			71	18:00	191	136			327
06:15	29	84			113	18:15	164	138			302
06:30	39	104			143	18:30	165	116			281
06:45	38	128	107	344	145	18:45	158	678	115	505	273
07:00	48	113			161	19:00	160	110			270
07:15	64	119			183	19:15	152	108			260
07:30	61	122			183	19:30	147	92			239
07:45	79	252	131	485	210	19:45	148	607	94	404	242
08:00	59	112			171	20:00	131	82			213
08:15	90	118			208	20:15	114	59			173
08:30	60	96			156	20:30	81	55			136
08:45	90	299	96	422	186	20:45	83	409	42	238	125
09:00	97	115			212	21:00	80	47			127
09:15	91	106			197	21:15	69	56			125
09:30	100	113			213	21:30	58	36			94
09:45	114	402	131	465	245	21:45	45	252	46	185	91
10:00	88	123			211	22:00	52	45			97
10:15	100	118			218	22:15	50	21			71
10:30	94	119			213	22:30	24	20			44
10:45	126	408	130	490	256	22:45	26	152	17	103	43
11:00	110	139			249	23:00	27	25			52
11:15	133	137			270	23:15	11	17			28
11:30	122	159			281	23:30	17	9			26
11:45	129	494	167	602	296	23:45	12	67	13	64	25
TOTALS	2154	3033			5187	TOTALS	6454	5326			11780
SPLIT %	41.5%	58.5%			30.6%	SPLIT %	54.8%	45.2%			69.4%

DAILY TOTALS					NB	SB	EB	WB	Total		
					8,608	8,359	0	0	16,967		
AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	16:30	12:00			16:30
AM Pk Volume	546	697			1243	PM Pk Volume	924	705			1584
Pk Hr Factor	0.948	0.947			0.947	Pk Hr Factor	0.939	0.958			0.954
7 - 9 Volume	551	907	0	0	1458	4 - 6 Volume	1745	1294	0	0	3039
7 - 9 Peak Hour	08:00	07:00			07:30	4 - 6 Peak Hour	16:30	16:45			16:30
7 - 9 Pk Volume	299	485	0	0	772	4 - 6 Pk Volume	924	668	0	0	1584
Pk Hr Factor	0.831	0.926	0.000	0.000	0.919	Pk Hr Factor	0.939	0.954	0.000	0.000	0.954

SPEED

Pacific St btwn Surfrider Way & Civic Center Dr

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_010

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	3	12	5	4	0	0	0	0	0	0	0	0	0	24
01:00	1	2	5	5	1	0	0	0	0	0	0	0	0	14
02:00	0	0	3	1	0	0	0	0	0	0	0	0	0	4
03:00	0	1	7	1	0	0	0	0	0	0	0	0	0	9
04:00	0	4	4	3	0	0	0	0	0	0	0	0	0	11
05:00	0	9	15	10	3	0	0	0	0	0	0	0	0	37
06:00	3	14	42	25	7	0	0	0	0	0	0	0	0	91
07:00	7	24	62	36	8	0	0	0	0	0	0	0	0	137
08:00	16	52	90	24	3	0	0	0	0	0	0	0	0	185
09:00	15	80	104	37	1	2	0	0	0	0	0	0	0	239
10:00	21	94	109	34	3	0	0	0	0	0	0	0	0	261
11:00	27	111	156	35	3	0	0	0	0	0	0	0	0	332
12:00 PM	32	152	164	36	3	2	0	0	0	0	0	0	0	389
13:00	25	185	171	32	6	0	0	0	0	0	0	0	0	419
14:00	44	156	128	26	1	0	0	0	0	0	0	0	0	355
15:00	32	127	145	36	1	0	0	0	0	0	0	0	0	341
16:00	43	151	145	17	5	1	0	0	0	0	0	0	0	362
17:00	40	135	153	23	6	0	0	0	0	0	0	0	0	357
18:00	50	150	104	15	2	0	0	0	0	0	0	0	0	321
19:00	96	128	53	8	2	0	0	0	0	0	0	0	0	287
20:00	33	94	60	15	1	0	0	0	0	0	0	0	0	203
21:00	20	54	38	19	4	1	0	0	0	0	0	0	0	136
22:00	8	23	40	14	2	0	0	0	0	0	0	0	0	87
23:00	1	13	18	6	0	0	0	0	0	0	0	0	0	38
Totals	517	1771	1821	462	62	6								4639
% of Totals	11%	38%	39%	10%	1%	0%								100%

AM Volumes	93	403	602	215	29	2	0	0	0	0	0	0	0	1344			
% AM	2%	9%	13%	5%	1%	0%								29%			
AM Peak Hour	11:00	11:00	11:00	09:00	07:00	09:00								11:00			
Volume	27	111	156	37	8	2								332			
PM Volumes	424	1368	1219	247	33	4	0	0	0	0	0	0	0	3295			
% PM	9%	29%	26%	5%	1%	0%								71%			
PM Peak Hour	19:00	13:00	13:00	12:00	13:00	12:00								13:00			
Volume	96	185	171	36	6	2								419			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		322			7%	808			17%	719			15%	2790			60%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Pacific St	Summary	16	20	20	25	28	4639

SPEED

Pacific St btwn Surfrider Way & Civic Center Dr

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_010

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	3	5	7	4	1	0	0	0	0	0	0	0	0	20
01:00	1	7	12	1	0	0	0	0	0	0	0	0	0	21
02:00	2	3	5	2	0	0	0	0	0	0	0	0	0	12
03:00	1	0	1	2	0	0	0	0	0	0	0	0	0	4
04:00	2	6	8	3	1	0	0	0	0	0	0	0	0	20
05:00	0	5	13	10	4	0	0	0	0	0	0	0	0	32
06:00	2	14	30	26	5	0	0	0	0	0	0	0	0	77
07:00	5	34	49	20	5	1	0	0	0	0	0	0	0	114
08:00	18	46	87	30	4	0	0	0	0	0	0	0	0	185
09:00	15	92	97	27	1	0	0	0	0	0	0	0	0	232
10:00	39	86	103	24	3	1	0	0	0	0	0	0	0	256
11:00	83	171	98	9	2	0	0	0	0	0	0	0	0	363
12:00 PM	28	158	151	31	2	1	0	0	0	0	0	0	0	371
13:00	44	160	141	19	4	2	0	0	0	0	0	0	0	370
14:00	53	156	111	18	3	0	0	0	0	0	0	0	0	341
15:00	42	130	125	33	1	0	0	0	0	0	0	0	0	331
16:00	27	121	165	42	7	2	0	0	0	0	0	0	0	364
17:00	20	92	163	48	7	0	0	0	0	0	0	0	0	330
18:00	49	160	101	18	1	0	0	0	0	0	0	0	0	329
19:00	85	137	90	13	0	0	0	0	0	0	0	0	0	325
20:00	47	91	63	9	1	0	0	0	0	0	0	0	0	211
21:00	19	63	43	15	1	0	0	0	0	0	0	0	0	141
22:00	12	32	39	5	0	0	0	0	0	0	0	0	0	88
23:00	4	9	27	10	1	0	0	0	0	0	0	0	0	51
Totals	601	1778	1729	419	54	7								4588
% of Totals	13%	39%	38%	9%	1%	0%								100%

AM Volumes	171	469	510	158	26	2	0	0	0	0	0	0	0	1336			
% AM	4%	10%	11%	3%	1%	0%								29%			
AM Peak Hour	11:00	11:00	10:00	08:00	06:00	07:00								11:00			
Volume	83	171	103	30	5	1								363			
PM Volumes	430	1309	1219	261	28	5	0	0	0	0	0	0	0	3252			
% PM	9%	29%	27%	6%	1%	0%								71%			
PM Peak Hour	19:00	13:00	16:00	17:00	16:00	13:00								12:00			
Volume	85	160	165	48	7	2								371			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		299			7%	741			16%	694			15%	2854			62%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Pacific St	Summary	15	20	20	24	28	4588

SPEED

Pacific St btwn Seagaze Dr & Michigan Ave

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_011

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	2	7	10	9	1	1	0	0	0	0	0	0	0	30
01:00	0	0	6	3	1	0	0	0	0	0	0	0	0	10
02:00	0	2	2	3	0	0	1	1	0	0	0	0	0	9
03:00	1	1	3	2	0	0	0	0	0	0	0	0	0	7
04:00	0	1	10	4	2	0	2	0	0	0	0	0	0	19
05:00	0	3	19	24	6	0	0	0	0	0	0	0	0	52
06:00	1	16	54	44	14	3	0	0	0	0	0	0	0	132
07:00	3	24	94	51	6	0	1	0	0	0	0	0	0	179
08:00	8	46	93	55	10	0	0	0	0	0	0	0	0	212
09:00	11	71	115	42	7	0	0	0	0	0	0	0	0	246
10:00	8	70	138	52	6	0	0	0	0	0	0	0	0	274
11:00	15	117	185	45	9	0	0	0	0	0	0	0	0	371
12:00 PM	19	105	169	76	5	1	0	0	0	0	0	0	0	375
13:00	14	121	176	48	8	0	1	0	0	0	0	0	0	368
14:00	26	105	180	51	5	0	0	0	0	0	0	0	0	367
15:00	15	124	212	75	4	1	0	0	0	0	0	0	0	431
16:00	22	117	202	79	9	1	0	0	0	0	0	0	0	430
17:00	37	165	190	53	5	0	0	0	0	0	0	0	0	450
18:00	10	88	176	88	5	0	1	0	0	0	0	0	0	368
19:00	14	97	136	40	1	2	0	0	0	0	0	0	0	290
20:00	11	65	100	38	8	0	2	1	0	0	0	0	0	225
21:00	3	38	71	42	4	0	0	0	0	0	0	0	0	158
22:00	4	19	66	23	5	0	0	0	0	0	0	0	0	117
23:00	3	8	20	18	4	0	0	0	0	0	0	0	0	53
Totals	227	1410	2427	965	125	9	8	2						5173
% of Totals	4%	27%	47%	19%	2%	0%	0%	0%						100%

AM Volumes	49	358	729	334	62	4	4	1	0	0	0	0	0	1541			
% AM	1%	7%	14%	6%	1%	0%	0%	0%						30%			
AM Peak Hour	11:00	11:00	11:00	08:00	06:00	06:00	04:00	02:00						11:00			
Volume	15	117	185	55	14	3	2	1						371			
PM Volumes	178	1052	1698	631	63	5	4	1	0	0	0	0	0	3632			
% PM	3%	20%	33%	12%	1%	0%	0%	0%						70%			
PM Peak Hour	17:00	17:00	15:00	18:00	16:00	19:00	20:00	20:00						17:00			
Volume	37	165	212	88	9	2	2	1						450			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		391			8%	743			14%	880			17%	3159			61%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Pacific St	Summary	17	22	22	27	29	5173

SPEED

Pacific St btwn Seagaze Dr & Michigan Ave

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_011

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	2	5	12	11	4	0	0	0	0	0	0	0	0	34
01:00	4	2	6	4	5	0	0	0	0	0	0	0	0	21
02:00	0	3	6	4	1	0	0	0	0	0	0	0	0	14
03:00	0	3	2	5	0	1	0	0	0	0	0	0	0	11
04:00	0	0	9	9	2	1	0	0	0	0	0	0	0	21
05:00	1	6	16	29	5	3	0	0	0	0	0	0	0	60
06:00	0	15	47	58	19	0	1	0	0	0	0	0	0	140
07:00	5	24	84	43	20	3	0	0	0	0	0	0	0	179
08:00	15	48	77	55	11	0	0	0	0	0	0	0	0	206
09:00	4	62	116	50	10	1	0	0	0	0	0	0	0	243
10:00	10	72	156	59	8	0	0	0	0	0	0	0	0	305
11:00	14	95	156	57	3	0	0	0	0	0	0	0	0	325
12:00 PM	9	139	188	57	4	1	0	0	0	0	0	0	0	398
13:00	21	123	168	52	6	1	0	0	0	0	0	0	0	371
14:00	19	127	150	64	5	0	0	0	0	0	0	0	0	365
15:00	18	96	190	69	9	0	0	0	0	0	0	0	0	382
16:00	17	156	212	67	5	0	0	0	0	0	0	0	0	457
17:00	15	102	216	70	10	1	0	0	0	0	0	0	0	414
18:00	11	98	166	80	12	2	1	0	0	0	0	0	0	370
19:00	18	109	163	45	1	1	0	0	0	0	0	0	0	337
20:00	9	41	99	30	3	1	1	0	0	0	0	0	0	184
21:00	10	38	60	34	9	1	0	0	0	0	0	0	0	152
22:00	4	22	33	16	4	0	1	0	0	0	0	0	0	80
23:00	9	9	30	15	1	0	0	0	0	0	0	0	0	64
Totals	215	1395	2362	983	157	17	4							5133
% of Totals	4%	27%	46%	19%	3%	0%	0%							100%

AM Volumes	55	335	687	384	88	9	1	0	0	0	0	0	0	1559			
% AM	1%	7%	13%	7%	2%	0%	0%							30%			
AM Peak Hour	08:00	11:00	10:00	10:00	07:00	05:00	06:00							11:00			
Volume	15	95	156	59	20	3	1							325			
PM Volumes	160	1060	1675	599	69	8	3	0	0	0	0	0	0	3574			
% PM	3%	21%	33%	12%	1%	0%	0%							70%			
PM Peak Hour	13:00	16:00	17:00	18:00	18:00	18:00	18:00							16:00			
Volume	21	156	216	80	12	2	1							457			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		385			8%	769			15%	871			17%	3108			61%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Pacific St	Summary	17	22	22	27	30	5133

SPEED

Pacific St btwn Wisconsin Ave & Oceanside Blvd

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_012

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	6	3	4	0	0	0	0	0	0	0	0	0	14
01:00	0	0	7	3	1	1	0	0	0	0	0	0	0	12
02:00	1	0	2	0	2	1	1	0	0	0	0	0	0	7
03:00	2	2	2	1	2	0	0	0	0	0	0	0	0	9
04:00	2	2	3	4	3	2	0	0	0	0	0	0	0	16
05:00	0	4	9	10	5	2	0	0	0	0	0	0	0	30
06:00	0	8	29	37	17	1	0	0	0	0	0	0	0	92
07:00	0	10	48	61	17	3	1	0	0	0	0	0	0	140
08:00	0	33	62	75	20	2	0	0	0	0	0	0	0	192
09:00	11	40	102	68	12	0	0	0	0	0	0	0	0	233
10:00	11	47	87	83	22	1	0	0	0	0	0	0	0	251
11:00	14	75	123	67	10	3	0	0	0	0	0	0	0	292
12:00 PM	18	76	143	62	15	4	0	0	0	0	0	0	0	318
13:00	27	75	129	65	8	1	1	0	0	0	0	0	0	306
14:00	9	81	117	57	9	3	0	0	0	0	0	0	0	276
15:00	29	80	148	69	8	0	0	0	0	0	0	0	0	334
16:00	17	97	145	64	11	0	0	0	0	0	0	0	0	334
17:00	13	63	141	66	10	3	0	0	0	0	0	0	0	296
18:00	13	73	160	70	11	3	0	0	0	0	0	0	0	330
19:00	5	58	107	57	13	0	0	0	0	0	0	0	0	240
20:00	8	23	68	49	5	1	2	0	0	0	0	0	0	156
21:00	5	13	39	29	13	2	0	0	0	0	0	0	0	101
22:00	0	3	24	13	8	1	0	0	0	0	0	0	0	49
23:00	4	5	8	12	5	1	0	0	0	0	0	0	0	35
Totals	190	874	1706	1026	227	35	5							4063
% of Totals	5%	22%	42%	25%	6%	1%	0%							100%

AM Volumes	42	227	477	413	111	16	2	0	0	0	0	0	0	1288			
% AM	1%	6%	12%	10%	3%	0%	0%							32%			
AM Peak Hour	11:00	11:00	11:00	10:00	10:00	07:00	02:00							11:00			
Volume	14	75	123	83	22	3	1							292			
PM Volumes	148	647	1229	613	116	19	3	0	0	0	0	0	0	2775			
% PM	4%	16%	30%	15%	3%	0%	0%							68%			
PM Peak Hour	15:00	16:00	18:00	18:00	12:00	12:00	20:00							15:00			
Volume	29	97	160	70	15	4	2							334			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		332			8%	624			15%	630			16%	2477			61%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Pacific St	Summary	17	23	23	28	31	4063

SPEED

Pacific St btwn Wisconsin Ave & Oceanside Blvd

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_011

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	3	1	1	6	0	1	0	0	0	0	0	0	0	12
01:00	1	2	5	2	3	1	1	0	0	0	0	0	0	15
02:00	1	4	5	4	1	0	0	0	0	0	0	0	0	15
03:00	1	2	3	2	0	1	0	0	0	0	0	0	0	9
04:00	1	2	2	5	1	0	0	0	0	0	0	0	0	11
05:00	0	2	9	15	4	2	0	0	0	0	0	0	0	32
06:00	4	6	13	42	9	5	0	0	0	0	0	0	0	79
07:00	4	10	50	55	23	3	1	0	0	0	0	0	0	146
08:00	6	25	64	53	23	1	0	0	0	0	0	0	0	172
09:00	9	36	110	62	9	3	0	0	0	0	0	0	0	229
10:00	9	43	109	77	12	2	0	0	0	0	0	0	0	252
11:00	13	67	126	62	16	1	0	0	0	0	0	0	0	285
12:00 PM	29	64	140	80	15	2	0	0	0	0	0	0	0	330
13:00	20	90	144	60	9	2	0	0	0	0	0	0	0	325
14:00	23	115	106	58	8	1	0	0	0	0	0	0	0	311
15:00	16	93	120	80	22	2	0	0	0	0	0	0	0	333
16:00	20	74	164	98	24	1	1	0	0	0	0	0	0	382
17:00	6	64	157	106	17	0	2	0	0	0	0	0	0	352
18:00	17	79	109	86	12	1	2	0	0	0	0	0	0	306
19:00	14	47	96	68	13	2	0	0	0	0	0	0	0	240
20:00	6	13	50	45	12	1	0	0	0	0	0	0	0	127
21:00	2	16	40	25	11	2	1	0	0	0	0	0	0	97
22:00	3	9	16	9	7	2	2	0	0	0	0	0	0	48
23:00	4	17	15	9	7	0	0	0	0	0	0	0	0	52
Totals	212	881	1654	1109	258	36	10							4160
% of Totals	5%	21%	40%	27%	6%	1%	0%							100%

AM Volumes	52	200	497	385	101	20	2	0	0	0	0	0	0	1257			
% AM	1%	5%	12%	9%	2%	0%	0%							30%			
AM Peak Hour	11:00	11:00	11:00	10:00	07:00	06:00	01:00							11:00			
Volume	13	67	126	77	23	5	1							285			
PM Volumes	160	681	1157	724	157	16	8	0	0	0	0	0	0	2903			
% PM	4%	16%	28%	17%	4%	0%	0%							70%			
PM Peak Hour	12:00	14:00	16:00	17:00	16:00	12:00	17:00							16:00			
Volume	29	115	164	106	24	2	2							382			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		318			8%	655			16%	734			18%	2453			59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Pacific St	Summary	17	23	23	29	32	4160

SPEED

Pacific St btwn Oceanside Blvd & Cassidy St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_013

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	2	0	8	1	0	0	0	0	0	0	0	0	11
01:00	0	0	4	6	2	0	0	0	0	0	0	0	0	12
02:00	0	0	1	1	3	1	0	0	0	0	0	0	0	6
03:00	2	0	0	2	1	0	0	0	0	0	0	0	0	5
04:00	0	0	2	3	1	1	0	0	0	0	0	0	0	7
05:00	2	2	11	6	5	0	0	0	0	0	0	0	0	26
06:00	7	19	32	19	4	1	0	0	0	0	0	0	0	82
07:00	9	29	56	25	3	2	0	0	0	0	0	0	0	124
08:00	7	36	69	50	6	0	0	0	0	0	0	0	0	168
09:00	13	48	100	42	6	2	0	0	0	0	0	0	0	211
10:00	29	74	98	30	1	0	0	0	0	0	0	0	0	232
11:00	48	94	92	18	3	0	0	0	0	0	0	0	0	255
12:00 PM	86	117	86	12	3	0	0	0	0	0	0	0	0	304
13:00	84	131	55	19	0	0	0	0	0	0	0	0	0	289
14:00	58	144	81	16	3	0	0	0	0	0	0	0	0	302
15:00	53	137	81	9	1	0	0	0	0	0	0	0	0	281
16:00	50	143	91	32	3	0	0	0	0	0	0	0	0	319
17:00	37	87	142	35	4	1	0	0	0	0	0	0	0	306
18:00	27	75	102	34	6	2	0	0	0	0	0	0	0	246
19:00	20	71	86	26	5	0	0	0	0	0	0	0	0	208
20:00	3	20	38	31	9	1	0	0	0	0	0	0	0	102
21:00	2	17	43	26	4	1	0	0	0	0	0	0	0	93
22:00	2	2	25	11	3	0	0	0	0	0	0	0	0	43
23:00	1	3	7	8	4	0	0	0	0	0	0	0	0	23
Totals	540	1251	1302	469	81	12								3655
% of Totals	15%	34%	36%	13%	2%	0%								100%

AM Volumes	117	304	465	210	36	7	0	0	0	0	0	0	0	1139			
% AM	3%	8%	13%	6%	1%	0%								31%			
AM Peak Hour	11:00	11:00	09:00	08:00	08:00	07:00								11:00			
Volume	48	94	100	50	6	2								255			
PM Volumes	423	947	837	259	45	5	0	0	0	0	0	0	0	2516			
% PM	12%	26%	23%	7%	1%	0%								69%			
PM Peak Hour	12:00	14:00	17:00	17:00	20:00	18:00								16:00			
Volume	86	144	142	35	9	2								319			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		292			8%	593			16%	625			17%	2145			59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Pacific St	Summary	15	20	20	25	29	3655

SPEED

Pacific St btwn Oceanside Blvd & Cassidy St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_013

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	3	4	4	3	0	0	0	0	0	0	0	0	15
01:00	2	0	2	3	1	0	0	0	0	0	0	0	0	8
02:00	0	0	3	2	1	0	0	0	0	0	0	0	0	6
03:00	2	3	3	1	0	0	0	0	0	0	0	0	0	9
04:00	0	1	4	6	1	0	0	0	0	0	0	0	0	12
05:00	0	1	10	10	4	0	0	0	0	0	0	0	0	25
06:00	5	15	19	32	10	1	0	0	0	0	0	0	0	82
07:00	5	17	59	38	13	1	0	0	0	0	0	0	0	133
08:00	4	40	61	28	4	0	0	0	0	0	0	0	0	137
09:00	7	72	75	27	4	0	0	0	0	0	0	0	0	185
10:00	21	93	93	28	3	1	0	0	0	0	0	0	0	239
11:00	63	88	75	11	2	1	0	0	0	0	0	0	0	240
12:00 PM	52	148	74	10	1	0	0	0	0	0	0	0	0	285
13:00	72	115	88	19	2	0	0	0	0	0	0	0	0	296
14:00	73	141	87	14	1	0	0	0	0	0	0	0	0	316
15:00	48	101	96	25	3	0	0	0	0	0	0	0	0	273
16:00	39	147	117	30	3	2	0	0	0	0	0	0	0	338
17:00	30	112	132	23	8	2	0	0	0	0	0	0	0	307
18:00	11	52	110	51	8	1	0	0	0	0	0	0	0	233
19:00	20	71	73	34	7	1	0	0	0	0	0	0	0	206
20:00	6	25	47	31	3	2	0	0	0	0	0	0	0	114
21:00	4	7	31	23	10	0	0	0	0	0	0	0	0	75
22:00	1	13	21	13	3	3	0	0	0	0	0	0	0	54
23:00	0	2	13	12	2	0	0	0	0	0	0	0	0	29
Totals	466	1267	1297	475	97	15								3617
% of Totals	13%	35%	36%	13%	3%	0%								100%

AM Volumes	110	333	408	190	46	4	0	0	0	0	0	0	0	1091			
% AM	3%	9%	11%	5%	1%	0%								30%			
AM Peak Hour	11:00	10:00	10:00	07:00	07:00	06:00								11:00			
Volume	63	93	93	38	13	1								240			
PM Volumes	356	934	889	285	51	11	0	0	0	0	0	0	0	2526			
% PM	10%	26%	25%	8%	1%	0%								70%			
PM Peak Hour	14:00	12:00	17:00	18:00	21:00	22:00								16:00			
Volume	73	148	132	51	10	3								338			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		270			7%	581			16%	645			18%	2121			59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Pacific St	Summary	15	20	20	25	29	3617

SPEED

Surfrider Way btwn Cleveland St & Tremont St

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_014

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	9	14	10	1	0	0	0	0	0	0	0	0	35
01:00	2	5	9	5	0	0	0	0	0	0	0	0	0	21
02:00	1	1	4	3	0	1	0	0	0	0	0	0	0	10
03:00	1	2	5	2	0	0	0	0	0	0	0	0	0	10
04:00	0	0	2	6	0	0	0	0	0	0	0	0	0	8
05:00	2	7	22	18	2	1	0	0	0	0	0	0	0	52
06:00	6	22	63	33	2	0	0	0	0	0	0	0	0	126
07:00	16	34	111	47	6	3	0	0	0	0	0	0	0	217
08:00	28	69	141	84	8	0	0	0	0	0	0	0	0	330
09:00	5	64	154	79	6	1	0	0	0	0	0	0	0	309
10:00	29	91	174	60	6	1	0	0	0	0	0	0	0	361
11:00	17	94	206	66	9	0	0	0	0	0	0	0	0	392
12:00 PM	18	116	181	72	10	0	0	0	0	0	0	0	0	397
13:00	22	130	205	65	6	0	0	0	0	0	0	0	0	428
14:00	17	136	210	62	10	1	0	0	0	0	0	0	0	436
15:00	31	115	235	79	7	0	0	0	0	0	0	0	0	467
16:00	16	103	232	84	10	0	0	0	0	0	0	0	0	445
17:00	27	122	198	67	6	2	0	0	0	0	0	0	0	422
18:00	25	152	168	45	9	0	0	0	0	0	0	0	0	399
19:00	30	127	134	55	4	1	0	0	0	0	0	0	0	351
20:00	7	65	114	48	11	0	0	0	0	0	0	0	0	245
21:00	7	33	103	29	3	1	0	0	0	0	0	0	0	176
22:00	3	23	58	25	2	0	0	0	0	0	0	0	0	111
23:00	2	13	26	14	1	0	0	0	0	0	0	0	0	56
Totals	313	1533	2769	1058	119	12								5804
% of Totals	5%	26%	48%	18%	2%	0%								100%

AM Volumes	108	398	905	413	40	7	0	0	0	0	0	0	0	1871			
% AM	2%	7%	16%	7%	1%	0%								32%			
AM Peak Hour	10:00	11:00	11:00	08:00	11:00	07:00								11:00			
Volume	29	94	206	84	9	3								392			
PM Volumes	205	1135	1864	645	79	5	0	0	0	0	0	0	0	3933			
% PM	4%	20%	32%	11%	1%	0%								68%			
PM Peak Hour	15:00	18:00	15:00	16:00	20:00	17:00								15:00			
Volume	31	152	235	84	11	2								467			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		547			9%	825			14%	867			15%	3565			61%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Surfrider Way	Summary	17	22	22	27	29	5804

SPEED

Surfrider Way btwn Cleveland St & Tremont St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_014

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	2	8	14	4	1	0	0	0	0	0	0	0	0	29
01:00	1	5	11	4	0	0	0	0	0	0	0	0	0	21
02:00	0	5	9	4	1	0	0	0	0	0	0	0	0	19
03:00	0	1	2	1	0	0	0	0	0	0	0	0	0	4
04:00	1	4	10	10	1	0	0	0	0	0	0	0	0	26
05:00	1	8	20	23	2	0	0	0	0	0	0	0	0	54
06:00	8	23	68	44	4	1	0	0	0	0	0	0	0	148
07:00	3	22	98	53	14	0	0	0	0	0	0	0	0	190
08:00	9	49	144	82	7	1	0	0	0	0	0	0	0	292
09:00	15	70	149	71	9	0	0	0	0	0	0	0	0	314
10:00	15	73	174	73	5	1	0	0	0	0	0	0	0	341
11:00	16	88	170	86	5	0	0	0	0	0	0	0	0	365
12:00 PM	14	110	203	86	6	1	0	0	0	0	0	0	0	420
13:00	9	78	189	100	10	0	0	0	0	0	0	0	0	386
14:00	13	107	196	76	4	1	0	0	0	0	0	0	0	397
15:00	16	101	227	72	8	0	0	0	0	0	0	0	0	424
16:00	20	137	210	80	5	1	0	0	0	0	0	0	0	453
17:00	25	106	204	84	8	1	0	0	0	0	0	0	0	428
18:00	24	115	185	66	5	0	0	0	0	0	0	0	0	395
19:00	8	97	170	57	5	0	0	0	0	0	0	0	0	337
20:00	12	62	151	65	8	0	0	0	0	0	0	0	0	298
21:00	6	50	112	50	4	0	0	0	0	0	0	0	0	222
22:00	2	26	66	30	5	2	0	0	0	0	0	0	0	131
23:00	1	9	36	21	3	0	0	0	0	0	0	0	0	70
Totals	221	1354	2818	1242	120	9								5764
% of Totals	4%	23%	49%	22%	2%	0%								100%

AM Volumes	71	356	869	455	49	3	0	0	0	0	0	0	0	1803			
% AM	1%	6%	15%	8%	1%	0%								31%			
AM Peak Hour	11:00	11:00	10:00	11:00	07:00	06:00								11:00			
Volume	16	88	174	86	14	1								365			
PM Volumes	150	998	1949	787	71	6	0	0	0	0	0	0	0	3961			
% PM	3%	17%	34%	14%	1%	0%								69%			
PM Peak Hour	17:00	16:00	15:00	13:00	13:00	22:00								16:00			
Volume	25	137	227	100	10	2								453			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		482			8%	806			14%	881			15%	3595			62%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Surfrider Way	Summary	17	22	22	27	29	5764

SPEED

Mission Ave btwn Cleveland St & Tremont St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_015

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	13	45	26	0	0	0	0	0	0	0	0	0	0	84
01:00	3	21	12	2	0	0	0	0	0	0	0	0	0	38
02:00	2	8	6	0	1	0	0	0	0	0	0	0	0	17
03:00	2	7	6	0	0	0	0	0	0	0	0	0	0	15
04:00	1	14	19	3	0	0	0	0	0	0	0	0	0	37
05:00	10	36	54	7	1	0	0	0	0	0	0	0	0	108
06:00	20	89	140	24	1	0	0	0	0	0	0	0	0	274
07:00	25	105	104	12	1	0	0	0	0	0	0	0	0	247
08:00	31	147	131	7	1	0	0	0	0	0	0	0	0	317
09:00	52	214	126	12	1	0	0	0	0	0	0	0	0	405
10:00	67	257	105	13	0	0	0	0	0	0	0	0	0	442
11:00	110	303	122	3	0	0	0	0	0	0	0	0	0	538
12:00 PM	127	333	128	4	1	0	0	0	0	0	0	0	0	593
13:00	129	362	122	9	0	0	0	0	0	0	0	0	0	622
14:00	131	344	132	4	2	0	0	0	0	0	0	0	0	613
15:00	153	366	129	6	0	0	0	0	0	0	0	0	0	654
16:00	152	407	131	2	0	0	0	0	0	0	0	0	0	692
17:00	153	401	148	6	1	0	0	0	0	0	0	0	0	709
18:00	206	373	101	5	2	0	0	0	0	0	0	0	0	687
19:00	264	353	79	5	1	0	0	0	0	0	0	0	0	702
20:00	125	328	93	3	0	0	0	0	0	0	0	0	0	549
21:00	113	296	81	2	0	0	0	0	0	0	0	0	0	492
22:00	40	227	91	3	0	0	0	0	0	0	0	0	0	361
23:00	29	113	61	5	0	0	0	0	0	0	0	0	0	208
Totals	1958	5149	2147	137	13									9404
% of Totals	21%	55%	23%	1%	0%									100%

AM Volumes	336	1246	851	83	6	0	0	0	0	0	0	0	0	2522			
% AM	4%	13%	9%	1%	0%									27%			
AM Peak Hour	11:00	11:00	06:00	06:00	02:00									11:00			
Volume	110	303	140	24	1									538			
PM Volumes	1622	3903	1296	54	7	0	0	0	0	0	0	0	0	6882			
% PM	17%	42%	14%	1%	0%									73%			
PM Peak Hour	19:00	16:00	17:00	13:00	14:00									17:00			
Volume	264	407	148	9	2									709			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		564			6%	1215			13%	1401			15%	6224			66%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Mission Ave	Summary	12	18	17	22	24	9404

SPEED

Mission Ave btwn Cleveland St & Tremont St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_015

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	18	92	28	4	0	0	0	0	0	0	0	0	0	142
01:00	3	30	12	0	0	0	0	0	0	0	0	0	0	45
02:00	0	15	8	0	0	0	0	0	0	0	0	0	0	23
03:00	2	11	7	0	0	0	0	0	0	0	0	0	0	20
04:00	1	11	17	6	0	0	0	0	0	0	0	0	0	35
05:00	7	43	51	10	1	0	0	0	0	0	0	0	0	112
06:00	13	107	157	23	2	0	0	0	0	0	0	0	0	302
07:00	21	111	95	9	1	0	0	0	0	0	0	0	0	237
08:00	37	173	98	10	0	0	0	0	0	0	0	0	0	318
09:00	39	217	123	13	0	0	0	0	0	0	0	0	0	392
10:00	63	267	121	7	0	0	0	0	0	0	0	0	0	458
11:00	75	300	151	16	0	0	0	0	0	0	0	0	0	542
12:00 PM	100	344	123	8	2	0	0	0	0	0	0	0	0	577
13:00	115	334	153	9	0	0	0	0	0	0	0	0	0	611
14:00	98	348	152	12	0	0	0	0	0	0	0	0	0	610
15:00	112	334	142	4	0	0	0	0	0	0	0	0	0	592
16:00	138	378	139	4	0	0	0	0	0	0	0	0	0	659
17:00	144	403	144	19	0	0	0	0	0	0	0	0	0	710
18:00	174	413	119	8	0	0	0	0	0	0	0	0	0	714
19:00	196	383	96	3	0	0	0	0	0	0	0	0	0	678
20:00	170	326	75	2	0	0	0	0	0	0	0	0	0	573
21:00	121	285	77	5	0	0	0	0	0	0	0	0	0	488
22:00	42	149	80	2	1	0	0	0	0	0	0	0	0	274
23:00	25	144	60	4	0	0	0	0	0	0	0	0	0	233
Totals	1714	5218	2228	178	7									9345
% of Totals	18%	56%	24%	2%	0%									100%

AM Volumes	279	1377	868	98	4	0	0	0	0	0	0	0	0	2626			
% AM	3%	15%	9%	1%	0%									28%			
AM Peak Hour	11:00	11:00	06:00	06:00	06:00									11:00			
Volume	75	300	157	23	2									542			
PM Volumes	1435	3841	1360	80	3	0	0	0	0	0	0	0	0	6719			
% PM	15%	41%	15%	1%	0%									72%			
PM Peak Hour	19:00	18:00	13:00	17:00	12:00									18:00			
Volume	196	413	153	19	2									714			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		555			6%	1188			13%	1369			15%	6233			67%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Mission Ave	Summary	13	18	18	22	24	9345

SPEED

Mission Ave btwn Freeman St & Ditmar St

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_016

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	2	14	32	49	22	4	0	0	0	0	0	0	123
01:00	0	0	4	10	22	12	5	0	0	0	0	0	0	53
02:00	0	2	2	13	8	3	1	0	0	0	0	0	0	29
03:00	0	1	2	7	18	5	0	1	0	0	0	0	0	34
04:00	0	0	9	11	34	31	12	3	0	0	0	0	0	100
05:00	0	2	13	38	83	67	22	4	1	0	0	0	0	230
06:00	1	5	53	141	164	76	22	3	0	0	0	0	0	465
07:00	2	22	79	118	120	61	13	1	0	0	0	0	0	416
08:00	14	45	137	182	104	23	2	0	0	0	0	0	0	507
09:00	30	78	174	191	81	15	4	1	0	0	0	0	0	574
10:00	20	77	204	238	109	31	2	0	0	0	0	0	0	681
11:00	40	154	262	199	81	13	0	0	0	0	0	0	0	749
12:00 PM	48	173	291	184	79	12	3	0	0	0	0	0	0	790
13:00	34	187	302	209	78	7	0	0	0	0	0	0	0	817
14:00	54	164	290	187	60	8	3	0	0	0	0	0	0	766
15:00	28	129	314	246	95	23	2	0	0	0	0	0	0	837
16:00	48	149	321	247	115	23	1	0	0	0	0	0	0	904
17:00	43	177	285	276	123	18	3	0	1	0	0	0	0	926
18:00	76	153	254	227	105	22	1	0	0	0	0	0	0	838
19:00	13	110	266	274	117	35	3	0	0	0	0	0	0	818
20:00	13	30	120	252	179	37	5	0	0	0	0	0	0	636
21:00	6	30	115	230	173	54	5	0	0	0	0	0	0	613
22:00	1	8	40	133	173	60	10	2	0	0	0	0	0	427
23:00	4	6	21	61	88	48	12	1	0	0	0	0	0	241
Totals	475	1704	3572	3706	2258	706	135	16	2					12574
% of Totals	4%	14%	28%	29%	18%	6%	1%	0%	0%					100%

AM Volumes	107	388	953	1180	873	359	87	13	1	0	0	0	0	3961			
% AM	1%	3%	8%	9%	7%	3%	1%	0%	0%					32%			
AM Peak Hour	11:00	11:00	11:00	10:00	06:00	06:00	05:00	05:00	05:00					11:00			
Volume	40	154	262	238	164	76	22	4	1					749			
PM Volumes	368	1316	2619	2526	1385	347	48	3	1	0	0	0	0	8613			
% PM	3%	10%	21%	20%	11%	3%	0%	0%	0%					68%			
PM Peak Hour	18:00	13:00	16:00	17:00	20:00	22:00	23:00	22:00	17:00					17:00			
Volume	76	187	321	276	179	60	12	2	1					926			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		923			7%	1607			13%	1830			15%	8214			65%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Mission Ave	Summary	19	26	26	33	37	12574

SPEED

Mission Ave btwn Freeman St & Ditmar St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_016

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	2	2	10	58	72	34	4	0	0	0	0	0	0	182
01:00	1	0	3	13	19	13	1	1	0	0	0	0	0	51
02:00	0	1	6	9	11	5	3	1	1	0	0	0	0	37
03:00	1	0	0	11	8	7	5	0	0	0	0	0	0	32
04:00	0	0	4	19	36	19	4	1	1	0	0	0	0	84
05:00	0	2	10	41	73	54	29	3	0	0	0	0	0	212
06:00	0	3	33	111	177	125	19	4	0	0	0	0	0	472
07:00	5	19	60	136	157	73	18	1	0	0	0	0	0	469
08:00	8	32	124	165	110	29	7	2	0	0	0	0	0	477
09:00	17	59	136	196	115	37	6	0	0	0	0	0	0	566
10:00	32	82	197	214	114	21	3	1	0	0	0	0	0	664
11:00	40	139	292	204	95	18	3	0	0	0	0	0	0	791
12:00 PM	37	162	274	201	87	17	1	0	0	0	0	0	0	779
13:00	29	96	172	149	74	5	2	0	0	0	0	0	0	527
14:00	52	146	290	182	85	28	1	0	0	0	0	0	0	784
15:00	41	152	266	207	96	20	2	0	0	0	0	0	0	784
16:00	57	152	318	248	107	23	2	0	0	0	0	0	0	907
17:00	42	185	294	245	106	18	4	1	0	0	0	0	0	895
18:00	63	167	248	222	102	21	1	1	0	0	0	0	0	825
19:00	29	123	282	226	101	20	1	1	0	0	0	0	0	783
20:00	14	37	157	255	155	40	3	0	0	0	0	0	0	661
21:00	3	37	118	243	161	52	6	1	0	0	0	0	0	621
22:00	3	7	29	120	155	63	10	2	0	0	0	0	0	389
23:00	0	5	23	100	109	60	14	2	0	0	0	0	0	313
Totals	476	1608	3346	3575	2325	802	149	22	2					12305
% of Totals	4%	13%	27%	29%	19%	7%	1%	0%	0%					100%

AM Volumes	106	339	875	1177	987	435	102	14	2	0	0	0	0	4037			
% AM	1%	3%	7%	10%	8%	4%	1%	0%	0%					33%			
AM Peak Hour	11:00	11:00	11:00	10:00	06:00	06:00	05:00	06:00	02:00					11:00			
Volume	40	139	292	214	177	125	29	4	1					791			
PM Volumes	370	1269	2471	2398	1338	367	47	8	0	0	0	0	0	8268			
% PM	3%	10%	20%	19%	11%	3%	0%	0%						67%			
PM Peak Hour	18:00	17:00	16:00	20:00	21:00	22:00	23:00	22:00						16:00			
Volume	63	185	318	255	161	63	14	2						907			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		946			8%	1306			11%	1802			15%	8251			67%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Mission Ave	Summary	19	26	26	33	37	12305

SPEED

Seagaze St btwn Ditmar St & Nevada St

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_017

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	8	4	0	0	0	0	0	0	0	0	0	12
01:00	1	0	1	3	0	0	0	0	0	0	0	0	0	5
02:00	0	0	1	2	0	0	0	0	0	0	0	0	0	3
03:00	0	0	1	1	1	0	0	0	0	0	0	0	0	3
04:00	0	1	3	0	0	0	0	0	0	0	0	0	0	4
05:00	1	1	2	2	0	0	0	0	0	0	0	0	0	6
06:00	3	1	13	7	0	1	0	0	0	0	0	0	0	25
07:00	2	12	24	16	3	0	0	0	0	0	0	0	0	57
08:00	3	10	42	16	2	1	0	0	0	0	0	0	0	74
09:00	4	24	52	34	3	0	0	0	0	0	0	0	0	117
10:00	6	25	65	33	5	0	0	0	0	0	0	0	0	134
11:00	3	20	75	47	5	0	0	0	0	0	0	0	0	150
12:00 PM	4	25	85	44	4	1	0	0	0	0	0	0	0	163
13:00	7	30	80	35	2	0	0	0	0	0	0	0	0	154
14:00	9	39	61	39	4	0	0	0	0	0	0	0	0	152
15:00	8	45	87	49	5	0	0	0	0	0	0	0	0	194
16:00	21	56	112	57	5	1	0	0	0	0	0	0	0	252
17:00	8	35	98	61	11	1	0	0	0	0	0	0	0	214
18:00	16	40	92	60	11	0	0	0	0	0	0	0	0	219
19:00	1	19	55	38	5	0	0	0	0	0	0	0	0	118
20:00	3	18	46	27	5	0	0	0	0	0	0	0	0	99
21:00	0	10	43	30	3	1	0	0	0	0	0	0	0	87
22:00	0	3	16	16	3	0	0	0	0	0	0	0	0	38
23:00	0	1	14	9	4	0	0	0	0	0	0	0	0	28
Totals	100	415	1076	630	81	6								2308
% of Totals	4%	18%	47%	27%	4%	0%								100%

AM Volumes	23	94	287	165	19	2	0	0	0	0	0	0	0	590			
% AM	1%	4%	12%	7%	1%	0%								26%			
AM Peak Hour	10:00	10:00	11:00	11:00	10:00	06:00								11:00			
Volume	6	25	75	47	5	1								150			
PM Volumes	77	321	789	465	62	4	0	0	0	0	0	0	0	1718			
% PM	3%	14%	34%	20%	3%	0%								74%			
PM Peak Hour	16:00	16:00	16:00	17:00	17:00	12:00								16:00			
Volume	21	56	112	61	11	1								252			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		131			6%	317			14%	466			20%	1394			60%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Seagaze St	Summary	18	23	23	28	30	2308

SPEED

Seagaze St btwn Ditmar St & Nevada St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_017

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	2	7	13	0	0	0	0	0	0	0	0	0	22
01:00	0	3	2	1	1	0	0	0	0	0	0	0	0	7
02:00	0	0	2	2	0	0	0	0	0	0	0	0	0	4
03:00	0	0	2	3	0	0	0	0	0	0	0	0	0	5
04:00	0	1	3	1	1	0	0	0	0	0	0	0	0	6
05:00	0	2	7	4	0	0	0	0	0	0	0	0	0	13
06:00	1	6	3	7	0	0	0	0	0	0	0	0	0	17
07:00	1	14	27	13	4	0	0	0	0	0	0	0	0	59
08:00	8	20	34	14	5	0	0	0	0	0	0	0	0	81
09:00	5	28	36	20	3	0	0	0	0	0	0	0	0	92
10:00	5	47	53	13	3	0	0	0	0	0	0	0	0	121
11:00	7	23	61	37	5	0	0	0	0	0	0	0	0	133
12:00 PM	8	36	67	42	3	0	0	0	0	0	0	0	0	156
13:00	6	25	61	47	5	0	0	0	0	0	0	0	0	144
14:00	4	39	53	33	9	1	0	0	0	0	0	0	0	139
15:00	6	33	75	59	7	1	0	0	0	0	0	0	0	181
16:00	9	57	105	71	6	0	0	0	0	0	0	0	0	248
17:00	3	41	92	70	6	0	0	0	0	0	0	0	0	212
18:00	10	44	77	57	4	0	0	0	0	0	0	0	0	192
19:00	1	43	67	40	5	0	0	0	0	0	0	0	0	156
20:00	2	15	37	27	4	0	0	0	0	0	0	0	0	85
21:00	1	14	33	29	2	0	0	0	0	0	0	0	0	79
22:00	0	3	20	17	1	0	0	0	0	0	0	0	0	41
23:00	1	5	14	11	1	0	0	0	0	0	0	0	0	32
Totals	78	501	938	631	75	2								2225
% of Totals	4%	23%	42%	28%	3%	0%								100%

AM Volumes	27	146	237	128	22	0	0	0	0	0	0	0	0	560			
% AM	1%	7%	11%	6%	1%									25%			
AM Peak Hour	08:00	10:00	11:00	11:00	08:00									11:00			
Volume	8	47	61	37	5									133			
PM Volumes	51	355	701	503	53	2	0	0	0	0	0	0	0	1665			
% PM	2%	16%	32%	23%	2%	0%								75%			
PM Peak Hour	18:00	16:00	16:00	16:00	14:00	14:00								16:00			
Volume	10	57	105	71	9	1								248			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		140			6%	300			13%	460			21%	1325			60%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Seagaze St	Summary	18	23	23	28	30	2225

SPEED

Cleveland St btwn Civic St & Pier View St

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_018

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	7	8	3	1	0	0	0	0	0	0	0	0	20
01:00	1	3	5	0	0	0	0	0	0	0	0	0	0	9
02:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
03:00	1	0	2	0	0	0	0	0	0	0	0	0	0	3
04:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
05:00	2	1	0	1	0	0	0	0	0	0	0	0	0	4
06:00	8	8	9	9	1	0	0	0	0	0	0	0	0	35
07:00	4	13	16	4	0	0	0	0	0	0	0	0	0	37
08:00	7	25	14	7	0	0	0	0	0	0	0	0	0	53
09:00	14	35	22	8	0	0	0	0	0	0	0	0	0	79
10:00	24	43	22	5	1	0	0	0	0	0	0	0	0	95
11:00	24	40	26	3	1	0	0	0	0	0	0	0	0	94
12:00 PM	28	41	32	7	0	0	0	0	0	0	0	0	0	108
13:00	36	69	26	7	1	0	0	0	0	0	0	0	0	139
14:00	33	44	21	5	5	0	0	0	0	0	0	0	0	108
15:00	17	46	26	7	1	0	0	0	0	0	0	0	0	97
16:00	24	61	28	11	2	1	0	0	0	0	0	0	0	127
17:00	23	53	42	12	4	0	0	0	0	0	0	0	0	134
18:00	30	71	28	8	1	0	0	0	0	0	0	0	0	138
19:00	41	56	18	6	2	0	0	0	0	0	0	0	0	123
20:00	24	55	12	10	0	0	0	0	0	0	0	0	0	101
21:00	13	25	19	6	1	0	0	0	0	0	0	0	0	64
22:00	2	16	16	4	0	0	0	0	0	0	0	0	0	38
23:00	4	10	10	3	0	0	0	0	0	0	0	0	0	27
Totals	361	723	405	127	21	1								1638
% of Totals	22%	44%	25%	8%	1%	0%								100%

AM Volumes	86	176	127	41	4	0	0	0	0	0	0	0	0	434			
% AM	5%	11%	8%	3%	0%									26%			
AM Peak Hour	10:00	10:00	11:00	06:00										10:00			
Volume	24	43	26	9	1									95			
PM Volumes	275	547	278	86	17	1	0	0	0	0	0	0	0	1204			
% PM	17%	33%	17%	5%	1%	0%								74%			
PM Peak Hour	19:00	18:00	17:00	17:00	14:00	16:00								13:00			
Volume	41	71	42	12	5	1								139			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		90			5%	247			15%	261			16%	1040			63%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Cleveland St	Summary	12	18	18	24	28	1638

SPEED

Cleveland St btwn Civic St & Pier View St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_018

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	7	8	1	0	0	0	0	0	0	0	0	0	17
01:00	2	4	2	0	0	0	0	0	0	0	0	0	0	8
02:00	2	4	2	2	0	0	0	0	0	0	0	0	0	10
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	1	1	2	0	0	0	0	0	0	0	0	0	4
05:00	1	2	2	2	0	0	0	0	0	0	0	0	0	7
06:00	3	12	5	5	0	0	0	0	0	0	0	0	0	25
07:00	4	12	14	4	1	0	0	0	0	0	0	0	0	35
08:00	9	22	20	4	2	0	0	0	0	0	0	0	0	57
09:00	20	29	25	5	1	0	0	0	0	0	0	0	0	80
10:00	15	41	27	7	2	0	0	0	0	0	0	0	0	92
11:00	22	44	22	8	1	0	0	0	0	0	0	0	0	97
12:00 PM	19	43	28	10	3	0	0	0	0	0	0	0	0	103
13:00	24	48	32	9	3	0	0	0	0	0	0	0	0	116
14:00	27	43	43	13	4	0	0	0	0	0	0	0	0	130
15:00	15	39	48	10	2	0	0	0	0	0	0	0	0	114
16:00	20	59	24	19	1	0	0	0	0	0	0	0	0	123
17:00	21	45	38	21	4	0	0	0	0	0	0	0	0	129
18:00	30	62	36	14	3	0	0	0	0	0	0	0	0	145
19:00	26	63	32	11	2	0	0	0	0	0	0	0	0	134
20:00	29	49	17	10	1	0	0	0	0	0	0	0	0	106
21:00	10	26	20	4	0	0	0	0	0	0	0	0	0	60
22:00	3	11	14	3	0	0	0	0	0	0	0	0	0	31
23:00	0	8	10	3	0	0	0	0	0	0	0	0	0	21
Totals	303	675	471	167	30									1646
% of Totals	18%	41%	29%	10%	2%									100%

AM Volumes	79	179	129	40	7	0	0	0	0	0	0	0	0	434			
% AM	5%	11%	8%	2%	0%									26%			
AM Peak Hour	11:00	11:00	10:00	11:00	08:00									11:00			
Volume	22	44	27	8	2									97			
PM Volumes	224	496	342	127	23	0	0	0	0	0	0	0	0	1212			
% PM	14%	30%	21%	8%	1%									74%			
PM Peak Hour	18:00	19:00	15:00	17:00	14:00									18:00			
Volume	30	63	48	21	4									145			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		92			6%	219			13%	252			15%	1083			66%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Cleveland St	Summary	13	19	19	24	28	1646

SPEED

Tremont St btwn Missouri Ave & Washington Ave

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_019

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	2	0	1	3	1	0	0	0	0	0	0	0	0	7
01:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	3	1	0	0	0	0	0	0	0	0	4
05:00	0	2	1	4	2	0	2	0	0	0	0	0	0	11
06:00	2	1	8	3	0	0	0	0	0	0	0	0	0	14
07:00	2	7	16	10	1	1	0	0	0	0	0	0	0	37
08:00	3	5	12	16	4	1	0	0	0	0	0	0	0	41
09:00	0	7	21	19	4	1	0	0	0	0	0	0	0	52
10:00	2	7	28	26	8	4	0	0	0	0	0	0	0	75
11:00	3	8	21	16	7	0	0	0	0	0	0	0	0	55
12:00 PM	2	9	29	25	7	3	0	0	0	0	0	0	0	75
13:00	4	4	20	25	12	1	0	0	0	0	0	0	0	66
14:00	7	14	24	34	6	0	0	0	0	0	0	0	0	85
15:00	4	18	36	28	12	1	1	0	0	0	0	0	0	100
16:00	5	12	36	44	13	3	1	0	0	0	0	0	0	114
17:00	0	8	38	41	15	1	0	1	0	0	0	0	0	104
18:00	2	20	27	35	10	1	0	0	0	0	0	0	0	95
19:00	5	9	19	16	10	2	0	0	0	0	0	0	0	61
20:00	1	6	12	13	6	3	1	0	0	0	0	0	0	42
21:00	0	5	7	6	4	1	0	0	0	0	0	0	0	23
22:00	0	5	4	2	1	0	0	0	0	0	0	0	0	12
23:00	0	1	2	4	0	0	0	0	0	0	0	0	0	7
Totals	44	149	363	375	124	23	5	1						1084
% of Totals	4%	14%	33%	35%	11%	2%	0%	0%						100%

AM Volumes	14	38	109	102	28	7	2	0	0	0	0	0	0	300			
% AM	1%	4%	10%	9%	3%	1%	0%							28%			
AM Peak Hour	08:00	11:00	10:00	10:00	10:00	10:00	05:00							10:00			
Volume	3	8	28	26	8	4	2							75			
PM Volumes	30	111	254	273	96	16	3	1	0	0	0	0	0	784			
% PM	3%	10%	23%	25%	9%	1%	0%	0%						72%			
PM Peak Hour	14:00	18:00	17:00	16:00	17:00	12:00	15:00	17:00						16:00			
Volume	7	20	38	44	15	3	1	1						114			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		78			7%	141			13%	218			20%	647			60%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Tremont St	Summary	19	25	25	30	34	1084

SPEED

Tremont St btwn Missouri Ave & Washington Ave

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_019

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	2	7	2	0	0	0	0	0	0	0	0	0	12
01:00	0	0	2	1	1	0	0	0	0	0	0	0	0	4
02:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:00	0	0	2	2	1	0	0	0	0	0	0	0	0	5
05:00	0	1	0	5	1	0	0	0	0	0	0	0	0	7
06:00	1	2	11	10	4	0	0	0	0	0	0	0	0	28
07:00	0	5	3	7	4	2	0	0	0	0	0	0	0	21
08:00	1	3	6	12	4	4	0	0	0	0	0	0	0	26
09:00	1	12	21	13	3	0	0	0	0	0	0	0	0	50
10:00	4	9	18	25	11	1	0	0	0	0	0	0	0	68
11:00	5	8	21	18	12	1	1	0	0	0	0	0	0	66
12:00 PM	1	11	11	42	12	2	0	0	0	0	0	0	0	79
13:00	6	18	20	29	4	3	1	0	0	0	0	0	0	81
14:00	2	8	18	29	17	3	0	0	0	0	0	0	0	77
15:00	4	13	26	23	9	1	0	0	0	0	0	0	0	76
16:00	2	15	31	43	26	3	0	0	0	0	0	0	0	120
17:00	0	6	38	36	12	4	0	0	0	0	0	0	0	96
18:00	8	11	32	36	17	2	1	0	0	0	0	0	0	107
19:00	3	13	20	22	6	0	0	0	0	0	0	0	0	64
20:00	2	2	22	15	3	0	0	0	0	0	0	0	0	44
21:00	1	5	14	11	2	0	0	0	0	0	0	0	0	33
22:00	0	5	5	6	0	0	0	0	0	0	0	0	0	16
23:00	0	2	4	6	1	0	0	0	0	0	0	0	0	13
Totals	42	152	332	394	151	22	3							1096
% of Totals	4%	14%	30%	36%	14%	2%	0%							100%

AM Volumes	13	43	91	96	42	4	1	0	0	0	0	0	0	290			
% AM	1%	4%	8%	9%	4%	0%	0%							26%			
AM Peak Hour	11:00	09:00	09:00	10:00	11:00	07:00	11:00							10:00			
Volume	5	12	21	25	12	2	1							68			
PM Volumes	29	109	241	298	109	18	2	0	0	0	0	0	0	806			
% PM	3%	10%	22%	27%	10%	2%	0%							74%			
PM Peak Hour	18:00	13:00	17:00	16:00	16:00	17:00	13:00							16:00			
Volume	8	18	38	43	26	4	1							120			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		47			4%	160			15%	216			20%	673			61%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Tremont St	Summary	19	25	25	30	34	1096

SPEED

Tremont St btwn West St & Eucalyptus St

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_020

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	3	2	0	0	0	0	0	0	0	0	0	5
01:00	0	0	1	0	2	0	0	0	0	0	0	0	0	3
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	1	1	0	0	0	0	0	0	0	3
04:00	0	0	0	3	2	0	0	0	0	0	0	0	0	5
05:00	1	0	0	4	1	2	1	0	0	0	0	0	0	9
06:00	0	2	5	5	2	2	1	1	0	0	0	0	0	18
07:00	1	4	14	16	13	3	0	0	0	0	0	0	0	51
08:00	1	1	3	25	10	1	1	0	0	0	0	0	0	42
09:00	1	6	25	25	12	4	1	0	0	0	0	0	0	74
10:00	3	6	21	25	8	11	3	0	0	0	0	0	0	77
11:00	4	7	17	22	12	7	1	0	2	0	0	0	0	72
12:00 PM	2	5	34	33	19	4	0	0	0	0	0	0	0	97
13:00	4	4	30	25	17	6	1	1	0	0	0	0	0	88
14:00	6	3	29	28	21	5	0	0	1	0	0	0	0	93
15:00	0	7	22	41	25	4	1	0	0	0	0	0	0	100
16:00	4	19	26	56	37	6	4	0	0	0	0	0	0	152
17:00	2	6	23	33	18	5	2	0	0	0	0	0	0	89
18:00	1	9	22	26	13	1	0	0	0	0	0	0	0	72
19:00	3	5	19	27	5	1	0	0	0	0	0	0	0	60
20:00	5	4	11	16	5	2	2	0	0	0	0	0	0	45
21:00	1	3	12	21	5	0	0	0	0	0	0	0	0	42
22:00	0	7	5	3	2	2	0	0	0	0	0	0	0	19
23:00	0	1	3	1	1	1	1	0	0	0	0	0	0	8
Totals	39	100	325	438	231	68	19	2	3					1225
% of Totals	3%	8%	27%	36%	19%	6%	2%	0%	0%					100%

AM Volumes	11	27	89	128	63	31	8	1	2	0	0	0	0	360			
% AM	1%	2%	7%	10%	5%	3%	1%	0%	0%					29%			
AM Peak Hour	11:00	11:00	09:00	08:00	07:00	10:00	10:00	06:00	11:00					10:00			
Volume	4	7	25	25	13	11	3	1	2					77			
PM Volumes	28	73	236	310	168	37	11	1	1	0	0	0	0	865			
% PM	2%	6%	19%	25%	14%	3%	1%	0%	0%					71%			
PM Peak Hour	14:00	16:00	12:00	16:00	16:00	13:00	16:00	13:00	14:00					16:00			
Volume	6	19	34	56	37	6	4	1	1					152			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		93			8%	185			15%	241			20%	706			58%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Tremont St	Summary	21	27	27	33	37	1225

SPEED

Tremont St btwn West St & Eucalyptus St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_020

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	4	4	3	2	1	0	0	0	0	0	0	14
01:00	0	1	2	2	1	0	1	0	0	0	0	0	0	7
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	1	1	0	0	0	0	0	0	0	3
04:00	0	1	0	2	0	0	0	0	0	0	0	0	0	3
05:00	0	2	1	3	2	2	0	0	0	0	0	0	0	10
06:00	0	3	7	9	4	1	1	0	0	0	0	0	0	25
07:00	0	4	5	15	8	2	1	0	0	0	0	0	0	35
08:00	0	5	14	19	15	6	1	0	0	0	0	0	0	60
09:00	2	5	14	15	19	3	0	0	0	0	0	0	0	58
10:00	0	1	18	17	9	10	0	1	0	0	0	0	0	56
11:00	1	12	19	24	6	3	0	1	0	0	0	0	0	66
12:00 PM	2	7	11	25	11	4	1	0	0	0	0	0	0	61
13:00	3	9	19	24	17	6	2	0	0	0	0	0	0	80
14:00	2	8	12	28	20	9	0	0	0	0	0	0	0	79
15:00	0	6	18	33	28	8	2	0	0	0	0	0	0	95
16:00	3	8	27	31	22	11	0	0	0	0	0	0	0	102
17:00	1	3	26	39	25	10	2	1	0	0	0	0	0	107
18:00	3	3	16	39	30	5	4	1	0	0	0	0	0	101
19:00	8	6	18	20	11	3	2	0	0	0	0	0	0	68
20:00	3	5	17	12	4	1	1	0	0	0	0	0	0	43
21:00	1	3	6	17	5	0	1	0	0	0	0	0	0	33
22:00	2	2	7	1	7	1	0	0	1	0	0	0	0	21
23:00	0	3	1	5	3	1	0	0	0	0	0	0	0	13
Totals	31	98	262	384	251	89	20	4	1					1140
% of Totals	3%	9%	23%	34%	22%	8%	2%	0%	0%					100%

AM Volumes	3	35	84	110	68	30	5	2	0	0	0	0	0	337			
% AM	0%	3%	7%	10%	6%	3%	0%	0%						30%			
AM Peak Hour	09:00	11:00	11:00	11:00	09:00	10:00	10:00							11:00			
Volume	2	12	19	24	19	10	1	1						66			
PM Volumes	28	63	178	274	183	59	15	2	1	0	0	0	0	803			
% PM	2%	6%	16%	24%	16%	5%	1%	0%	0%					70%			
PM Peak Hour	19:00	13:00	16:00	17:00	18:00	16:00	18:00	17:00	22:00					17:00			
Volume	8	9	27	39	30	11	4	1	1					107			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		95			8%	141			12%	209			18%	695			61%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Tremont St	Summary	21	27	27	34	38	1140

SPEED

Tremont St btwn Cassidy St & Kelly St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_021

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	1	1	2	0	0	0	0	0	0	0	0	0	5
01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	1	0	1	1	0	0	0	0	0	0	0	0	0	3
05:00	1	2	1	1	1	0	0	0	0	0	0	0	0	6
06:00	2	1	4	1	0	0	0	0	0	0	0	0	0	8
07:00	1	4	11	5	3	0	0	0	0	0	0	0	0	24
08:00	2	6	14	11	0	0	0	0	0	0	0	0	0	33
09:00	4	4	19	9	2	0	0	0	0	0	0	0	0	38
10:00	1	5	16	5	3	0	0	0	0	0	0	0	0	30
11:00	1	6	11	7	0	0	0	0	0	0	0	0	0	25
12:00 PM	5	8	19	22	3	0	0	0	0	0	0	0	0	57
13:00	3	18	24	8	0	0	0	0	0	0	0	0	0	53
14:00	8	11	18	13	2	0	0	0	0	0	0	0	0	52
15:00	3	18	18	14	2	0	0	0	0	0	0	0	0	55
16:00	6	6	23	16	0	0	0	0	0	0	0	0	0	51
17:00	3	9	22	8	3	1	0	0	0	0	0	0	0	46
18:00	1	20	15	9	1	0	0	0	0	0	0	0	0	46
19:00	2	10	16	6	1	0	0	0	0	0	0	0	0	35
20:00	3	5	10	3	0	0	0	0	0	0	0	0	0	21
21:00	0	4	3	6	1	0	0	0	0	0	0	0	0	14
22:00	3	4	3	0	0	0	0	0	0	0	0	0	0	10
23:00	0	4	3	0	0	0	0	0	0	0	0	0	0	7
Totals	52	147	253	147	23	1								623
% of Totals	8%	24%	41%	24%	4%	0%								100%

AM Volumes	15	30	79	42	10	0	0	0	0	0	0	0	0	176			
% AM	2%	5%	13%	7%	2%									28%			
AM Peak Hour	09:00	08:00	09:00	08:00	07:00									09:00			
Volume	4	6	19	11	3									38			
PM Volumes	37	117	174	105	13	1	0	0	0	0	0	0	0	447			
% PM	6%	19%	28%	17%	2%	0%								72%			
PM Peak Hour	14:00	18:00	13:00	12:00	12:00	17:00								12:00			
Volume	8	20	24	22	3	1								57			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		57			9%	110			18%	97			16%	359			58%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Tremont St	Summary	16	22	22	28	30	623

SPEED

Tremont St btwn Cassidy St & Kelly St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_021

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	0	4
01:00	0	0	0	2	0	0	0	0	0	0	0	0	0	2
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
04:00	0	0	2	2	0	0	0	0	0	0	0	0	0	4
05:00	1	1	3	0	0	0	0	0	0	0	0	0	0	5
06:00	0	3	4	3	0	0	0	0	0	0	0	0	0	10
07:00	0	8	11	6	2	0	0	0	0	0	0	0	0	27
08:00	2	9	7	8	1	0	0	0	0	0	0	0	0	27
09:00	6	7	11	6	1	0	0	0	0	0	0	0	0	31
10:00	1	9	20	7	0	0	0	0	0	0	0	0	0	37
11:00	1	3	13	19	1	0	0	0	0	0	0	0	0	37
12:00 PM	3	9	13	19	2	0	0	0	0	0	0	0	0	46
13:00	4	9	15	11	0	0	0	0	0	0	0	0	0	39
14:00	5	7	14	17	3	0	0	0	0	0	0	0	0	46
15:00	0	11	22	11	2	0	0	0	0	0	0	0	0	46
16:00	4	9	25	14	4	0	0	0	0	0	0	0	0	56
17:00	6	8	21	9	0	0	0	0	0	0	0	0	0	44
18:00	1	9	18	12	1	0	0	0	0	0	0	0	0	41
19:00	2	19	12	3	0	0	0	0	0	0	0	0	0	36
20:00	2	7	8	0	1	0	0	0	0	0	0	0	0	18
21:00	1	1	6	3	1	1	0	0	0	0	0	0	0	13
22:00	2	1	9	3	1	0	0	0	0	0	0	0	0	16
23:00	1	4	3	2	1	0	0	0	0	0	0	0	0	11
Totals	42	136	239	158	22	1								598
% of Totals	7%	23%	40%	26%	4%	0%								100%

AM Volumes	11	42	73	54	6	0	0	0	0	0	0	0	0	186		
% AM	2%	7%	12%	9%	1%									31%		
AM Peak Hour	09:00	08:00	10:00	11:00	07:00									10:00		
Volume	6	9	20	19	2									37		
PM Volumes	31	94	166	104	16	1	0	0	0	0	0	0	0	412		
% PM	5%	16%	28%	17%	3%	0%								69%		
PM Peak Hour	17:00	19:00	16:00	12:00	16:00	21:00								16:00		
Volume	6	19	25	19	4	1								56		
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes			
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔	
		54			9%	85			14%	100			17%	359		

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Tremont St	Summary	17	23	22	28	30	598

SPEED

Freeman St btwn Missouri Ave & Washington St

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_022

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	1	0	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	1	4	1	0	0	0	0	0	0	0	0	0	0	6
06:00	2	1	3	0	0	0	0	0	0	0	0	0	0	6
07:00	1	7	7	2	0	0	0	0	0	0	0	0	0	17
08:00	3	2	11	0	0	0	0	0	0	0	0	0	0	16
09:00	2	9	13	5	0	0	0	0	0	0	0	0	0	29
10:00	4	9	15	8	0	0	0	0	0	0	0	0	0	36
11:00	4	9	15	14	3	0	0	0	0	0	0	0	0	45
12:00 PM	1	11	19	19	3	0	0	0	0	0	0	0	0	53
13:00	6	17	15	20	1	0	0	0	0	0	0	0	0	59
14:00	6	10	17	10	0	0	0	0	0	0	0	0	0	43
15:00	9	6	21	9	1	0	0	0	0	0	0	0	0	46
16:00	4	7	13	9	2	0	0	0	0	0	0	0	0	35
17:00	4	9	16	8	0	0	0	0	0	0	0	0	0	37
18:00	8	11	14	2	0	0	0	0	0	0	0	0	0	35
19:00	5	11	15	7	1	0	0	0	0	0	0	0	0	39
20:00	4	10	7	4	0	0	0	0	0	0	0	0	0	25
21:00	5	5	7	1	0	0	0	0	0	0	0	0	0	18
22:00	5	6	1	1	0	0	0	0	0	0	0	0	0	13
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Totals	76	147	214	119	11									567
% of Totals	13%	26%	38%	21%	2%									100%

AM Volumes	19	41	69	29	3	0	0	0	0	0	0	0	0	161
% AM	3%	7%	12%	5%	1%									28%
AM Peak Hour	10:00	09:00	10:00	11:00	11:00									11:00
Volume	4	9	15	14	3									45
PM Volumes	57	106	145	90	8	0	0	0	0	0	0	0	0	406
% PM	10%	19%	26%	16%	1%									72%
PM Peak Hour	15:00	13:00	15:00	13:00	12:00									13:00
Volume	9	17	21	20	3									59
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds	Volume			%	Volume		%	Volume		%	Volume		%	
	33	↔	6%	112	↔	20%	72	↔	13%	350	↔	62%		

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Freeman St	Summary	15	21	21	27	29	567

SPEED

Freeman St btwn Missouri Ave & Washington St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_022

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	2
01:00	1	2	2	2	0	0	0	0	0	0	0	0	0	7
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	4	3	0	0	0	0	0	0	0	0	0	0	7
06:00	2	2	3	0	0	0	0	0	0	0	0	0	0	7
07:00	1	5	3	8	0	0	0	0	0	0	0	0	0	17
08:00	0	8	8	2	0	0	0	0	0	0	0	0	0	18
09:00	2	3	12	2	1	0	0	0	0	0	0	0	0	20
10:00	5	9	16	3	1	0	0	0	0	0	0	0	0	34
11:00	8	7	17	10	2	0	0	0	0	0	0	0	0	44
12:00 PM	5	15	22	3	0	0	0	0	0	0	0	0	0	45
13:00	4	9	20	5	0	0	0	0	0	0	0	0	0	38
14:00	9	12	22	11	0	0	0	0	0	0	0	0	0	54
15:00	10	10	19	13	4	0	0	0	0	0	0	0	0	56
16:00	1	7	18	6	0	0	0	0	0	0	0	0	0	32
17:00	2	14	23	13	1	0	0	0	0	0	0	0	0	53
18:00	8	8	12	5	0	0	0	0	0	0	0	0	0	33
19:00	3	8	6	3	0	0	0	0	0	0	0	0	0	20
20:00	3	6	5	3	0	0	0	0	0	0	0	0	0	17
21:00	10	4	3	0	0	0	0	0	0	0	0	0	0	17
22:00	2	1	2	1	0	0	0	0	0	0	0	0	0	6
23:00	0	1	2	0	1	0	0	0	0	0	0	0	0	4
Totals	77	138	219	91	10									535
% of Totals	14%	26%	41%	17%	2%									100%

AM Volumes	20	43	65	28	4	0	0	0	0	0	0	0	0	160			
% AM	4%	8%	12%	5%	1%									30%			
AM Peak Hour	11:00	10:00	11:00	11:00	11:00									11:00			
Volume	8	9	17	10	2									44			
PM Volumes	57	95	154	63	6	0	0	0	0	0	0	0	0	375			
% PM	11%	18%	29%	12%	1%									70%			
PM Peak Hour	15:00	12:00	17:00	15:00	15:00									15:00			
Volume	10	15	23	13	4									56			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		35			7%	83			16%	85			16%	332			62%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Freeman St	Summary	15	21	20	26	29	535

SPEED

Freeman St btwn Whaley St & Washington Ave

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_023

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	2	3	0	0	0	0	0	0	0	0	0	0	0	5
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
06:00	0	3	4	3	0	0	0	0	0	0	0	0	0	10
07:00	3	4	9	4	0	0	0	0	0	0	0	0	0	20
08:00	2	7	16	4	2	0	0	0	0	0	0	0	0	31
09:00	3	6	10	5	1	1	0	0	0	0	0	0	0	26
10:00	9	13	12	4	0	0	0	0	0	0	0	0	0	38
11:00	8	20	22	4	1	0	0	0	0	0	0	0	0	55
12:00 PM	5	19	13	9	0	0	0	0	0	0	0	0	0	46
13:00	4	22	24	15	2	0	0	0	0	0	0	0	0	67
14:00	4	22	23	6	0	0	0	0	0	0	0	0	0	55
15:00	6	15	27	1	0	0	0	0	0	0	0	0	0	49
16:00	1	14	19	8	3	0	0	0	0	0	0	0	0	45
17:00	5	15	12	6	3	1	0	0	0	0	0	0	0	42
18:00	1	6	9	3	0	0	0	0	0	0	0	0	0	19
19:00	5	12	9	2	1	0	0	0	0	0	0	0	0	29
20:00	3	13	3	2	1	0	0	0	0	0	0	0	0	22
21:00	0	1	3	0	2	0	0	0	0	0	0	0	0	6
22:00	2	1	1	2	1	0	0	0	0	0	0	0	0	7
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Totals	64	199	217	78	17	2								577
% of Totals	11%	34%	38%	14%	3%	0%								100%

AM Volumes	28	58	74	24	4	1	0	0	0	0	0	0	0	189
% AM	5%	10%	13%	4%	1%	0%								33%
AM Peak Hour	10:00	11:00	11:00	09:00	08:00	09:00								11:00
Volume	9	20	22	5	2	1								55
PM Volumes	36	141	143	54	13	1	0	0	0	0	0	0	0	388
% PM	6%	24%	25%	9%	2%	0%								67%
PM Peak Hour	15:00	13:00	15:00	13:00	16:00	17:00								13:00
Volume	6	22	27	15	3	1								67
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds	Volume					Volume			Volume			Volume		
	51	↔				113	↔		87	↔		326	↔	
							20%			15%			56%	

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Freeman St	Summary	16	21	20	26	29	577

SPEED

Freeman St btwn Whaley St & Washington Ave

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_023

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
05:00	4	0	1	0	0	0	0	0	0	0	0	0	0	5
06:00	2	1	3	4	0	0	0	0	0	0	0	0	0	10
07:00	1	5	1	8	3	1	0	0	0	0	0	0	0	19
08:00	5	8	6	4	0	0	0	0	0	0	0	0	0	23
09:00	3	18	15	5	0	0	0	0	0	0	0	0	0	41
10:00	7	20	12	4	1	0	0	0	0	0	0	0	0	44
11:00	5	19	15	8	1	0	0	0	0	0	0	0	0	48
12:00 PM	3	16	14	6	2	0	0	0	0	0	0	0	0	41
13:00	2	18	22	14	3	0	0	0	0	0	0	0	0	59
14:00	6	20	14	4	1	0	0	0	0	0	0	0	0	45
15:00	7	16	17	8	1	0	0	0	0	0	0	0	0	49
16:00	3	19	21	4	0	0	0	0	0	0	0	0	0	47
17:00	2	12	8	9	1	1	0	0	0	0	0	0	0	33
18:00	4	8	10	5	1	0	0	0	0	0	0	0	0	28
19:00	2	10	5	6	0	0	0	0	0	0	0	0	0	23
20:00	0	8	6	2	0	0	0	0	0	0	0	0	0	16
21:00	0	2	2	4	0	0	0	0	0	0	0	0	0	8
22:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Totals	57	205	173	95	14	2								546
% of Totals	10%	38%	32%	17%	3%	0%								100%

AM Volumes	28	73	54	33	5	1	0	0	0	0	0	0	0	194			
% AM	5%	13%	10%	6%	1%	0%								36%			
AM Peak Hour	10:00	10:00	09:00	07:00	07:00	07:00								11:00			
Volume	7	20	15	8	3	1								48			
PM Volumes	29	132	119	62	9	1	0	0	0	0	0	0	0	352			
% PM	5%	24%	22%	11%	2%	0%								64%			
PM Peak Hour	15:00	14:00	13:00	13:00	13:00	17:00								13:00			
Volume	7	20	22	14	3	1								59			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		42			8%	100			18%	80			15%	324			59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Freeman St	Summary	16	20	20	27	29	546

SPEED

Ditmar St btwn Michigan Ave & Missouri Ave

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_024

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	2	1	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:00	0	0	3	0	0	0	0	0	0	0	0	0	0	3
03:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
04:00	0	3	2	1	0	0	0	0	0	0	0	0	0	6
05:00	1	5	2	2	0	0	0	0	0	0	0	0	0	10
06:00	1	6	6	1	0	0	0	0	0	0	0	0	0	14
07:00	1	4	15	4	0	0	0	0	0	0	0	0	0	24
08:00	4	4	16	8	0	0	0	0	0	0	0	0	0	32
09:00	2	6	13	11	0	1	0	0	0	0	0	0	0	33
10:00	0	10	16	4	4	0	0	0	0	0	0	0	0	34
11:00	8	15	25	8	1	0	0	0	0	0	0	0	0	57
12:00 PM	0	14	28	6	0	0	0	0	0	0	0	0	0	48
13:00	3	14	24	13	0	0	0	0	0	0	0	0	0	54
14:00	4	13	26	7	0	0	0	0	0	0	0	0	0	50
15:00	3	13	31	23	1	0	0	0	0	0	0	0	0	71
16:00	1	13	46	12	0	0	0	0	0	0	0	0	0	72
17:00	6	12	31	13	1	0	0	0	0	0	0	0	0	63
18:00	4	13	31	15	1	0	0	0	0	0	0	0	0	64
19:00	4	11	22	3	0	0	1	0	0	0	0	0	0	41
20:00	3	9	17	4	0	0	0	0	0	0	0	0	0	33
21:00	1	4	12	1	0	0	0	0	0	0	0	0	0	18
22:00	3	5	5	2	0	0	0	0	0	0	0	0	0	15
23:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
Totals	49	176	376	140	8	1	1							751
% of Totals	7%	23%	50%	19%	1%	0%	0%							100%

AM Volumes	17	54	102	41	5	1	0	0	0	0	0	0	0	220			
% AM	2%	7%	14%	5%	1%	0%								29%			
AM Peak Hour	11:00	11:00	11:00	09:00	10:00	09:00								11:00			
Volume	8	15	25	11	4	1								57			
PM Volumes	32	122	274	99	3	0	1	0	0	0	0	0	0	531			
% PM	4%	16%	36%	13%	0%		0%							71%			
PM Peak Hour	17:00	12:00	16:00	15:00	15:00		19:00							16:00			
Volume	6	14	46	23	1		1							72			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		56			7%	102			14%	135			18%	458			61%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Ditmar St	Summary	17	22	22	26	29	751

SPEED

Ditmar St btwn Michigan Ave & Missouri Ave

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_024

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	2	3	2	1	0	0	0	0	0	0	0	0	0	8
01:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	1	1	1	1	0	0	0	0	0	0	0	0	3
05:00	1	3	4	3	0	0	0	0	0	0	0	0	0	11
06:00	1	4	7	1	0	0	0	0	0	0	0	0	0	13
07:00	1	4	10	2	1	0	0	0	0	0	0	0	0	18
08:00	2	9	12	4	0	0	0	0	0	0	0	0	0	27
09:00	4	11	18	6	0	0	0	0	0	0	0	0	0	39
10:00	2	8	16	6	0	0	0	0	0	0	0	0	0	32
11:00	3	10	29	16	0	0	0	0	0	0	0	0	0	58
12:00 PM	5	9	44	7	2	0	0	0	0	0	0	0	0	67
13:00	10	9	19	6	1	0	0	0	0	0	0	0	0	45
14:00	3	18	23	10	0	0	0	0	0	0	0	0	0	54
15:00	2	15	35	16	1	0	0	0	0	0	0	0	0	69
16:00	2	11	25	20	0	0	0	0	0	0	0	0	0	58
17:00	0	9	31	9	0	0	0	0	0	0	0	0	0	49
18:00	4	24	32	13	0	0	0	0	0	0	0	0	0	73
19:00	6	18	23	4	1	0	0	0	0	0	0	0	0	52
20:00	2	7	11	2	1	0	0	0	0	0	0	0	0	23
21:00	3	8	10	5	1	0	0	0	0	0	0	0	0	27
22:00	1	3	6	4	0	0	0	0	0	0	0	0	0	14
23:00	0	2	3	0	0	0	0	0	0	0	0	0	0	5
Totals	55	188	362	136	8									749
% of Totals	7%	25%	48%	18%	1%									100%

AM Volumes	17	55	100	40	1	0	0	0	0	0	0	0	0	213			
% AM	2%	7%	13%	5%	0%									28%			
AM Peak Hour	09:00	09:00	11:00	11:00	07:00									11:00			
Volume	4	11	29	16	1									58			
PM Volumes	38	133	262	96	7	0	0	0	0	0	0	0	0	536			
% PM	5%	18%	35%	13%	1%									72%			
PM Peak Hour	13:00	18:00	12:00	16:00	12:00									18:00			
Volume	10	24	44	20	2									73			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		45			6%	112			15%	107			14%	485			65%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Ditmar St	Summary	16	22	21	26	29	749

SPEED

Ditmar St btwn Stanley St & Eucalyptus St

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_025

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	14	5	3	0	0	0	0	0	0	0	22
01:00	0	0	2	5	0	0	0	0	0	0	0	0	0	7
02:00	0	0	1	3	2	0	0	0	0	0	0	0	0	6
03:00	0	0	2	1	4	0	0	0	0	0	0	0	0	7
04:00	0	0	3	5	2	2	0	1	0	0	0	0	0	13
05:00	0	1	3	11	6	6	1	0	0	0	0	0	0	28
06:00	0	1	11	27	18	8	1	0	0	0	0	0	0	66
07:00	1	4	8	38	34	14	5	0	0	0	0	0	0	104
08:00	0	3	22	50	40	11	1	1	0	0	0	0	0	128
09:00	3	2	12	46	46	13	1	0	0	0	0	0	0	123
10:00	2	3	19	51	41	5	2	0	0	0	0	0	0	123
11:00	0	5	25	69	66	14	2	0	0	0	0	0	0	181
12:00 PM	0	2	34	69	53	10	3	0	0	0	0	0	0	171
13:00	1	2	19	59	45	13	2	1	0	0	0	0	0	142
14:00	3	5	19	63	49	14	5	0	0	0	0	0	0	158
15:00	1	3	19	71	54	17	2	0	0	0	0	0	0	167
16:00	1	3	26	81	64	21	8	1	1	0	0	0	0	206
17:00	2	1	26	66	73	18	3	0	0	0	0	0	0	189
18:00	1	7	23	70	45	18	1	1	0	0	0	0	0	166
19:00	0	6	20	78	36	11	1	0	1	0	0	0	0	153
20:00	1	4	24	45	14	5	1	0	0	0	0	0	0	94
21:00	0	5	18	24	27	6	1	0	0	0	0	0	0	81
22:00	1	1	9	24	11	2	0	0	0	0	0	0	0	48
23:00	0	2	3	7	7	1	1	0	0	0	0	0	0	21
Totals	17	60	348	977	742	212	41	5	2					2404
% of Totals	1%	2%	14%	41%	31%	9%	2%	0%	0%					100%

AM Volumes	6	19	108	320	264	76	13	2	0	0	0	0	0	808			
% AM	0%	1%	4%	13%	11%	3%	1%	0%						34%			
AM Peak Hour	09:00	11:00	11:00	11:00	11:00	07:00	07:00	04:00						11:00			
Volume	3	5	25	69	66	14	5	1						181			
PM Volumes	11	41	240	657	478	136	28	3	2	0	0	0	0	1596			
% PM	0%	2%	10%	27%	20%	6%	1%	0%	0%					66%			
PM Peak Hour	14:00	18:00	12:00	16:00	17:00	16:00	16:00	13:00	16:00					16:00			
Volume	3	7	34	81	73	21	8	1	1					206			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		232			10%	313			13%	395			16%	1464			61%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Ditmar St	Summary	24	29	29	34	38	2404

SPEED

Ditmar St btwn Stanley St & Eucalyptus St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_025

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	1	7	5	2	0	0	0	0	0	0	0	15
01:00	0	0	1	2	5	0	0	0	0	0	0	0	0	8
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	3	1	0	0	0	0	0	0	0	0	4
04:00	0	0	0	5	4	2	0	1	0	0	0	0	0	12
05:00	0	1	6	9	16	6	0	0	0	0	0	0	0	38
06:00	0	4	7	18	25	4	2	0	0	0	0	0	0	60
07:00	0	1	18	37	37	15	1	0	0	0	0	0	0	109
08:00	1	2	20	64	42	15	1	0	0	0	0	0	0	145
09:00	1	4	20	56	46	12	1	0	0	0	0	0	0	140
10:00	1	3	18	67	43	14	2	0	0	0	0	0	0	148
11:00	0	4	28	78	57	16	1	0	0	0	0	0	0	184
12:00 PM	2	2	18	56	64	14	4	0	0	0	0	0	0	160
13:00	1	5	23	61	60	13	5	0	0	0	0	0	0	168
14:00	1	2	21	59	45	16	4	1	0	0	0	0	0	149
15:00	0	2	26	79	68	12	1	1	0	0	0	0	0	189
16:00	1	9	34	89	66	12	2	0	0	0	0	0	0	213
17:00	1	5	35	82	52	16	0	0	0	0	0	0	0	191
18:00	2	10	28	86	46	14	3	1	0	0	0	0	0	190
19:00	2	5	23	69	37	7	2	0	0	0	0	0	0	145
20:00	1	3	22	32	31	8	0	0	0	0	0	0	0	97
21:00	0	0	14	45	25	4	0	0	0	0	0	0	0	88
22:00	0	3	6	11	16	6	0	0	0	0	0	0	0	42
23:00	0	0	4	7	13	2	0	0	0	0	0	0	0	26
Totals	14	65	373	1022	805	210	29	4						2522
% of Totals	1%	3%	15%	41%	32%	8%	1%	0%						100%

AM Volumes	3	19	119	346	282	86	8	1	0	0	0	0	0	864			
% AM	0%	1%	5%	14%	11%	3%	0%	0%						34%			
AM Peak Hour	08:00	06:00	11:00	11:00	11:00	11:00	06:00	04:00						11:00			
Volume	1	4	28	78	57	16	2	1						184			
PM Volumes	11	46	254	676	523	124	21	3	0	0	0	0	0	1658			
% PM	0%	2%	10%	27%	21%	5%	1%	0%						66%			
PM Peak Hour	12:00	18:00	17:00	16:00	15:00	14:00	13:00	14:00						16:00			
Volume	2	10	35	89	68	16	5	1						213			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		254			10%	328			13%	404			16%	1536			61%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Ditmar St	Summary	24	29	29	34	38	2522

SPEED

Ditmar St btwn Whaley St & Cassidy St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_026

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	1	3	0	0	0	0	0	0	0	0	0	0	4
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
06:00	1	0	2	3	2	0	0	0	0	0	0	0	0	8
07:00	0	2	6	3	2	0	0	0	0	0	0	0	0	13
08:00	0	1	7	7	7	3	2	0	0	0	0	0	0	20
09:00	3	3	12	15	0	0	0	0	0	0	0	0	0	33
10:00	3	5	14	6	0	0	0	0	0	0	0	0	0	28
11:00	1	6	11	12	3	1	0	0	0	0	0	0	0	34
12:00 PM	3	6	15	7	0	0	0	0	0	0	0	0	0	31
13:00	1	5	12	7	2	1	1	0	0	0	0	0	0	29
14:00	1	3	3	15	6	3	2	0	0	0	0	0	0	33
15:00	2	1	2	7	11	12	1	2	0	0	0	0	0	38
16:00	3	1	3	7	14	9	5	4	0	0	0	0	0	46
17:00	1	2	7	10	7	9	3	0	0	0	0	0	0	39
18:00	1	2	5	17	12	4	3	1	0	0	0	0	0	45
19:00	0	1	5	7	6	4	0	0	0	0	0	0	0	23
20:00	2	6	4	5	4	1	0	0	0	0	0	0	0	22
21:00	0	2	5	4	0	0	0	0	0	0	0	0	0	11
22:00	0	1	7	1	2	0	0	0	0	0	0	0	0	11
23:00	3	2	1	0	0	0	0	0	0	0	0	0	0	6
Totals	25	53	127	134	74	46	15	7						481
% of Totals	5%	11%	26%	28%	15%	10%	3%	1%						100%

AM Volumes	8	21	58	47	10	3	0	0	0	0	0	0	0	147			
% AM	2%	4%	12%	10%	2%	1%								31%			
AM Peak Hour	09:00	11:00	10:00	09:00	08:00	08:00								11:00			
Volume	3	6	14	15	3	2								34			
PM Volumes	17	32	69	87	64	43	15	7	0	0	0	0	0	334			
% PM	4%	7%	14%	18%	13%	9%	3%	1%						69%			
PM Peak Hour	12:00	12:00	12:00	18:00	16:00	15:00	16:00	16:00						16:00			
Volume	3	6	15	17	14	12	5	4						46			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		33			7%	60			12%	85			18%	303			63%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Ditmar St	Summary	19	26	27	35	40	481

SPEED

Ditmar St btwn Whaley St & Cassidy St

Day: Wednesday
Date: 8/7/2013

City: Oceanside
Project #: CA13_4290_026

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	2
01:00	1	3	3	0	0	0	0	0	0	0	0	0	0	7
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	2	0	3	1	0	0	0	0	0	0	0	0	6
06:00	1	1	5	2	4	0	0	0	0	0	0	0	0	13
07:00	2	2	6	5	2	0	0	0	0	0	0	0	0	17
08:00	3	6	10	4	1	0	0	0	0	0	0	0	0	24
09:00	1	4	8	8	1	0	0	0	0	0	0	0	0	22
10:00	4	7	19	6	1	0	0	0	0	0	0	0	0	37
11:00	1	10	13	3	2	0	0	0	0	0	0	0	0	29
12:00 PM	1	6	12	11	3	0	0	0	0	0	0	0	0	33
13:00	2	5	13	6	1	0	0	0	0	0	0	0	0	27
14:00	2	5	10	13	3	0	0	0	0	0	0	0	0	33
15:00	0	9	19	13	4	0	0	0	0	0	0	0	0	45
16:00	1	5	12	12	8	11	4	1	0	0	0	0	0	54
17:00	2	5	10	15	20	5	3	0	0	0	0	0	0	60
18:00	0	0	4	19	7	5	0	0	0	0	0	0	0	35
19:00	2	3	6	10	6	2	1	0	0	0	0	0	0	30
20:00	0	2	4	7	4	3	0	0	0	0	0	0	0	20
21:00	0	0	2	4	3	0	0	0	0	0	0	0	0	9
22:00	0	1	0	4	4	3	0	0	0	0	0	0	0	12
23:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Totals	24	78	157	148	76	29	8	1						521
% of Totals	5%	15%	30%	28%	15%	6%	2%	0%						100%

AM Volumes	14	37	65	33	12	0	0	0	0	0	0	0	0	161			
% AM	3%	7%	12%	6%	2%									31%			
AM Peak Hour	10:00	11:00	10:00	09:00	06:00									10:00			
Volume	4	10	19	8	4									37			
PM Volumes	10	41	92	115	64	29	8	1	0	0	0	0	0	360			
% PM	2%	8%	18%	22%	12%	6%	2%	0%						69%			
PM Peak Hour	13:00	15:00	15:00	18:00	17:00	16:00	16:00	16:00						17:00			
Volume	2	9	19	19	20	11	4	1						60			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		41			8%	60			12%	114			22%	306			59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Ditmar St	Summary	18	25	25	32	37	521

SPEED

Wisconsin Ave btwn Cleveland & Tremont St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_027

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	5	6	9	12	2	0	0	0	0	0	0	0	35
01:00	0	1	3	5	4	2	0	0	0	0	0	0	0	15
02:00	0	1	2	3	3	1	2	0	0	0	0	0	0	12
03:00	0	0	3	5	2	0	1	0	0	0	0	0	0	11
04:00	0	2	6	5	5	4	1	0	0	0	0	0	0	23
05:00	0	1	6	10	6	3	0	0	0	0	0	0	0	26
06:00	1	9	25	44	30	10	2	0	0	0	0	0	0	121
07:00	3	11	36	60	36	9	0	0	0	0	0	0	0	155
08:00	8	13	56	86	39	8	2	0	0	0	0	0	0	212
09:00	6	25	87	91	32	9	1	0	0	0	0	0	0	251
10:00	10	40	97	107	38	8	0	1	0	0	0	0	0	301
11:00	14	48	105	115	36	9	1	0	0	0	0	0	0	328
12:00 PM	6	32	90	136	58	8	1	0	0	0	0	0	0	331
13:00	13	43	131	123	39	4	1	0	0	0	0	0	0	354
14:00	8	30	117	138	34	6	0	0	0	0	0	0	0	333
15:00	9	56	119	126	44	4	1	0	0	0	0	0	0	359
16:00	12	35	119	144	68	13	3	1	0	0	0	0	0	395
17:00	2	46	131	134	40	11	1	1	0	0	0	0	0	366
18:00	10	47	130	120	45	7	2	0	0	0	0	0	0	361
19:00	3	34	118	110	32	4	1	0	0	0	0	0	0	302
20:00	3	19	73	90	28	2	1	0	0	0	0	0	0	216
21:00	3	18	43	57	22	7	0	0	0	0	0	0	0	150
22:00	0	5	28	33	18	4	1	0	0	0	0	0	0	89
23:00	1	5	14	24	13	2	0	0	0	0	0	0	0	59
Totals	113	526	1545	1775	684	137	22	3						4805
% of Totals	2%	11%	32%	37%	14%	3%	0%	0%						100%

AM Volumes	43	156	432	540	243	65	10	1	0	0	0	0	0	1490			
% AM	1%	3%	9%	11%	5%	1%	0%	0%						31%			
AM Peak Hour	11:00	11:00	11:00	11:00	08:00	06:00	02:00	10:00						11:00			
Volume	14	48	105	115	39	10	2	1						328			
PM Volumes	70	370	1113	1235	441	72	12	2	0	0	0	0	0	3315			
% PM	1%	8%	23%	26%	9%	1%	0%	0%						69%			
PM Peak Hour	13:00	15:00	13:00	16:00	16:00	16:00	16:00	16:00						16:00			
Volume	13	56	131	144	68	13	3	1						395			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		367			8%	685			14%	761			16%	2992			62%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Wisconsin Ave	Summary	20	26	25	31	34	4805

SPEED

Wisconsin Ave btwn Cleveland & Tremont St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_027

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	2	7	6	9	1	0	0	0	0	0	0	0	25
01:00	1	3	3	5	3	3	0	0	0	0	0	0	0	18
02:00	0	0	0	8	2	0	0	0	0	0	0	0	0	10
03:00	0	1	3	3	2	0	0	0	0	0	0	0	0	9
04:00	0	0	3	4	10	3	1	0	0	0	0	0	0	21
05:00	0	1	15	17	10	2	0	0	0	0	0	0	0	45
06:00	1	5	22	49	31	6	1	0	0	0	0	0	0	115
07:00	3	20	48	63	36	4	2	0	0	0	0	0	0	176
08:00	1	25	57	78	39	5	0	0	0	0	0	0	0	205
09:00	1	28	60	95	25	9	1	1	0	0	0	0	0	220
10:00	6	26	96	112	40	8	1	0	0	0	0	0	0	289
11:00	4	29	111	103	28	9	0	0	0	0	0	0	0	284
12:00 PM	12	31	129	119	52	6	3	0	0	0	0	0	0	352
13:00	5	38	114	118	40	5	1	0	0	0	0	0	0	321
14:00	5	29	94	122	51	10	2	0	0	0	0	0	0	313
15:00	8	40	96	128	36	9	1	0	0	0	0	0	0	318
16:00	2	42	135	126	55	9	1	0	0	0	0	0	0	370
17:00	4	36	132	157	62	2	2	0	0	0	0	0	0	395
18:00	3	31	114	122	41	9	1	0	0	0	0	0	0	321
19:00	9	46	104	98	29	8	0	0	0	0	0	0	0	294
20:00	4	36	67	74	26	6	1	0	0	0	0	0	0	214
21:00	0	24	49	64	31	5	1	0	0	0	0	0	0	174
22:00	4	6	24	39	21	3	1	0	0	0	0	0	0	98
23:00	1	0	12	21	16	3	2	0	0	0	0	0	0	55
Totals	74	499	1495	1731	695	125	22	1						4642
% of Totals	2%	11%	32%	37%	15%	3%	0%	0%						100%

AM Volumes	17	140	425	543	235	50	6	1	0	0	0	0	0	1417			
% AM	0%	3%	9%	12%	5%	1%	0%	0%						31%			
AM Peak Hour	10:00	11:00	11:00	10:00	10:00	09:00	07:00	09:00						10:00			
Volume	6	29	111	112	40	9	2	1						289			
PM Volumes	57	359	1070	1188	460	75	16	0	0	0	0	0	0	3225			
% PM	1%	8%	23%	26%	10%	2%	0%							69%			
PM Peak Hour	12:00	19:00	16:00	17:00	17:00	14:00	12:00							17:00			
Volume	12	46	135	157	62	10	3							395			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		381			8%	673			14%	765			16%	2823			61%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Wisconsin Ave	Summary	20	26	26	31	34	4642

SPEED

Wisconsin Ave btwn Freeman St & Ditmar St

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_028

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	4	8	1	1	0	0	0	0	0	0	0	14
01:00	1	2	1	3	0	1	0	0	0	0	0	0	0	8
02:00	0	0	3	1	0	0	0	0	0	0	0	0	0	4
03:00	0	0	2	0	1	0	0	0	0	0	0	0	0	3
04:00	0	1	3	1	1	0	0	0	0	0	0	0	0	6
05:00	0	6	5	8	6	0	1	0	0	0	0	0	0	26
06:00	2	10	16	23	10	2	0	0	0	0	0	0	0	63
07:00	1	7	39	29	8	1	0	0	0	0	0	0	0	85
08:00	2	20	52	41	14	3	0	0	0	0	0	0	0	132
09:00	0	9	37	52	25	1	0	0	0	0	0	0	0	124
10:00	3	19	34	36	16	1	0	0	0	0	0	0	0	109
11:00	4	8	61	60	21	0	0	0	0	0	0	0	0	154
12:00 PM	1	15	56	46	24	0	0	0	0	0	0	0	0	142
13:00	5	13	48	52	15	1	1	0	0	0	0	0	0	135
14:00	2	7	59	62	25	1	0	0	0	0	0	0	0	156
15:00	3	9	64	61	23	5	0	0	0	0	0	0	0	165
16:00	1	12	66	85	35	5	0	0	0	0	0	0	0	204
17:00	2	12	88	82	18	0	0	0	0	0	0	0	0	202
18:00	1	13	45	64	30	2	2	0	0	0	0	0	0	157
19:00	1	10	55	46	15	0	0	0	0	0	0	0	0	127
20:00	1	11	34	42	13	1	0	0	0	0	0	0	0	102
21:00	0	3	35	32	8	1	0	0	0	0	0	0	0	79
22:00	0	5	13	18	5	1	0	0	0	0	0	0	0	42
23:00	0	1	11	6	3	0	0	0	0	0	0	0	0	21
Totals	30	193	831	858	317	27	4							2260
% of Totals	1%	9%	37%	38%	14%	1%	0%							100%

AM Volumes	13	82	257	262	103	10	1	0	0	0	0	0	0	728			
% AM	1%	4%	11%	12%	5%	0%	0%							32%			
AM Peak Hour	11:00	08:00	11:00	11:00	09:00	08:00	05:00							11:00			
Volume	4	20	61	60	25	3	1							154			
PM Volumes	17	111	574	596	214	17	3	0	0	0	0	0	0	1532			
% PM	1%	5%	25%	26%	9%	1%	0%							68%			
PM Peak Hour	13:00	12:00	17:00	16:00	16:00	15:00	18:00							16:00			
Volume	5	15	88	85	35	5	2							204			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		217			10%	277			12%	406			18%	1360			60%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Wisconsin Ave	Summary	21	25	25	30	34	2260

SPEED

Wisconsin Ave btwn Freeman St & Ditmar St

Day: Wednesday
Date: 8/7/2013

City: Oceanside
Project #: CA13_4290_028

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	1	9	3	1	0	0	0	0	0	0	0	0	14
01:00	0	0	4	3	3	0	0	0	0	0	0	0	0	10
02:00	0	0	1	3	1	1	0	0	0	0	0	0	0	6
03:00	0	0	1	2	1	0	0	0	0	0	0	0	0	4
04:00	0	1	2	3	0	0	0	0	0	0	0	0	0	6
05:00	0	4	7	10	6	0	0	0	0	0	0	0	0	27
06:00	0	4	12	20	12	2	1	0	0	0	0	0	0	51
07:00	4	5	28	32	16	0	0	0	0	0	0	0	0	85
08:00	6	36	50	35	4	2	0	0	0	0	0	0	0	133
09:00	7	34	36	26	4	0	0	0	0	0	0	0	0	107
10:00	24	45	45	15	4	1	0	0	0	0	0	0	0	134
11:00	24	50	55	24	4	0	0	0	0	0	0	0	0	157
12:00 PM	19	39	66	28	6	0	0	0	0	0	0	0	0	158
13:00	13	54	67	23	5	0	0	0	0	0	0	0	0	162
14:00	10	27	62	43	11	2	0	0	0	0	0	0	0	155
15:00	8	11	63	65	17	5	1	0	0	0	0	0	0	170
16:00	0	13	76	88	30	5	1	0	0	0	0	0	0	213
17:00	1	17	70	88	19	3	0	0	0	0	0	0	0	198
18:00	1	13	60	68	16	6	0	0	0	0	0	0	0	164
19:00	1	12	57	47	14	3	0	0	0	0	0	0	0	134
20:00	1	5	28	42	6	1	1	0	0	0	0	0	0	84
21:00	0	2	22	40	12	1	0	0	0	0	0	0	0	77
22:00	0	7	14	18	5	4	2	0	0	0	0	0	0	50
23:00	0	3	8	5	3	0	0	0	0	0	0	0	0	19
Totals	119	383	843	731	200	36	6							2318
% of Totals	5%	17%	36%	32%	9%	2%	0%							100%

AM Volumes	65	180	250	176	56	6	1	0	0	0	0	0	0	734			
% AM	3%	8%	11%	8%	2%	0%	0%							32%			
AM Peak Hour	10:00	11:00	11:00	08:00	07:00	06:00	06:00							11:00			
Volume	24	50	55	35	16	2	1							157			
PM Volumes	54	203	593	555	144	30	5	0	0	0	0	0	0	1584			
% PM	2%	9%	26%	24%	6%	1%	0%							68%			
PM Peak Hour	12:00	13:00	16:00	16:00	16:00	18:00	22:00							16:00			
Volume	19	54	76	88	30	6	2							213			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		218			9%	320			14%	411			18%	1369			59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Wisconsin Ave	Summary	18	24	24	29	33	2318

SPEED

Oceanside Blvd btwn Cleveland & Tremont St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_029

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	4	5	11	1	1	1	0	0	0	0	0	0	24
01:00	1	1	2	8	9	1	0	0	0	0	0	0	0	22
02:00	2	3	3	7	5	1	0	0	0	0	0	0	0	21
03:00	0	0	1	5	7	0	0	0	0	0	0	0	0	13
04:00	0	1	4	1	3	2	0	1	0	0	0	0	0	12
05:00	1	3	11	13	11	3	0	0	0	0	0	0	0	42
06:00	2	11	27	43	19	2	0	0	0	0	0	0	0	104
07:00	1	11	61	78	29	7	0	0	0	0	0	0	0	187
08:00	3	20	65	87	35	8	0	0	0	0	0	0	0	218
09:00	9	35	90	100	31	6	1	0	0	0	0	0	0	272
10:00	7	37	101	71	31	8	1	0	0	0	0	0	0	256
11:00	8	45	96	106	24	3	0	0	0	0	0	0	0	282
12:00 PM	5	38	111	100	36	5	0	0	0	0	0	0	0	295
13:00	8	51	130	106	30	5	1	0	0	0	0	0	0	331
14:00	6	23	113	100	26	5	2	1	0	0	0	0	0	276
15:00	5	41	134	102	35	7	1	0	0	0	0	0	0	325
16:00	10	39	140	111	46	5	0	1	0	0	0	0	0	352
17:00	5	51	113	104	33	3	0	0	0	0	0	0	0	309
18:00	13	34	109	104	57	9	3	0	0	0	0	0	0	329
19:00	2	32	92	125	46	5	0	0	0	0	0	0	0	302
20:00	6	24	69	70	19	2	0	0	0	0	0	0	0	190
21:00	2	10	42	67	17	6	0	0	0	0	0	0	0	144
22:00	0	9	29	29	22	8	0	0	0	0	0	0	0	97
23:00	0	2	15	21	15	4	1	0	0	0	0	0	0	58
Totals	97	525	1563	1569	587	106	11	3						4461
% of Totals	2%	12%	35%	35%	13%	2%	0%	0%						100%

AM Volumes	35	171	466	530	205	42	3	1	0	0	0	0	0	1453		
% AM	1%	4%	10%	12%	5%	1%	0%	0%						33%		
AM Peak Hour	09:00	11:00	10:00	11:00	08:00	08:00	04:00							11:00		
Volume	9	45	101	106	35	8	1	1						282		
PM Volumes	62	354	1097	1039	382	64	8	2	0	0	0	0	0	3008		
% PM	1%	8%	25%	23%	9%	1%	0%	0%						67%		
PM Peak Hour	18:00	13:00	16:00	19:00	18:00	18:00	18:00	14:00						16:00		
Volume	13	51	140	125	57	9	3	1						352		
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes				
All Speeds		Volume	←→		%	Volume	←→		%	Volume	←→		%	Volume	←→	
		405			9%	626			14%	661			15%	2769		

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Oceanside Blvd	Summary	20	25	25	30	34	4461

SPEED

Oceanside Blvd btwn Cleveland & Tremont St

Day: Wednesday
Date: 8/7/2013

City: Oceanside
Project #: CA13_4290_029

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	4	8	11	7	1	0	0	0	0	0	0	0	32
01:00	0	2	3	7	6	1	0	0	0	0	0	0	0	19
02:00	0	1	2	8	3	0	0	0	0	0	0	0	0	14
03:00	2	0	1	4	4	1	0	0	0	0	0	0	0	12
04:00	0	4	3	6	2	3	1	0	0	0	0	0	0	19
05:00	1	3	8	22	9	3	0	0	0	0	0	0	0	46
06:00	3	5	35	63	28	3	0	0	0	0	0	0	0	137
07:00	5	19	49	68	38	10	1	0	0	0	0	0	0	190
08:00	1	19	77	73	31	2	3	0	0	0	0	0	0	206
09:00	8	30	86	77	27	6	0	0	0	0	0	0	0	234
10:00	10	35	86	101	42	4	0	0	0	0	0	0	0	278
11:00	2	36	110	103	31	1	0	0	0	0	0	0	0	283
12:00 PM	5	29	112	102	26	7	0	0	0	0	0	0	0	281
13:00	3	41	113	103	38	4	1	0	0	0	0	0	0	303
14:00	7	45	110	106	34	5	3	0	0	0	0	0	0	310
15:00	14	40	119	107	33	3	0	1	0	0	0	0	0	317
16:00	9	44	113	131	29	3	3	1	0	0	0	0	0	333
17:00	13	56	123	116	36	5	0	0	0	0	0	0	0	349
18:00	3	36	120	103	49	10	0	0	0	0	0	0	0	321
19:00	8	33	75	106	39	10	0	1	0	0	0	0	0	272
20:00	6	24	52	96	27	9	1	0	0	0	0	0	0	215
21:00	3	16	53	66	22	3	2	0	0	0	0	0	0	165
22:00	3	10	26	38	16	3	0	0	0	0	0	0	0	96
23:00	1	5	20	25	11	2	0	0	0	0	0	0	0	64
Totals	108	537	1504	1642	588	99	15	3						4496
% of Totals	2%	12%	33%	37%	13%	2%	0%	0%						100%

AM Volumes	33	158	468	543	228	35	5	0	0	0	0	0	0	1470			
% AM	1%	4%	10%	12%	5%	1%	0%							33%			
AM Peak Hour	10:00	11:00	11:00	11:00	10:00	07:00	08:00							11:00			
Volume	10	36	110	103	42	10	3							283			
PM Volumes	75	379	1036	1099	360	64	10	3	0	0	0	0	0	3026			
% PM	2%	8%	23%	24%	8%	1%	0%	0%						67%			
PM Peak Hour	15:00	17:00	17:00	16:00	18:00	18:00	14:00	15:00						17:00			
Volume	14	56	123	131	49	10	3	1						349			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	←→		%	Volume	←→		%	Volume	←→		%	Volume	←→		%
		396			9%	584			13%	682			15%	2834			63%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Oceanside Blvd	Summary	20	25	25	30	34	4496

SPEED

Oceanside Blvd btwn Coast Hwy & Ditmar St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_030

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	2	19	25	26	7	2	0	0	0	0	0	0	82
01:00	0	2	6	18	23	2	1	0	0	0	0	0	0	52
02:00	0	0	5	17	5	3	0	0	0	0	0	0	0	30
03:00	0	1	15	17	9	1	0	0	0	0	0	0	0	43
04:00	2	2	25	20	15	10	2	1	0	0	0	0	0	77
05:00	1	7	44	45	44	15	5	1	0	0	0	0	0	162
06:00	0	9	79	141	74	52	4	1	0	0	0	0	0	360
07:00	0	8	126	206	167	73	9	0	0	0	0	0	0	589
08:00	6	21	129	260	161	69	14	1	0	0	0	0	0	661
09:00	2	18	185	305	164	89	10	1	0	0	0	0	0	774
10:00	5	26	214	349	205	67	14	2	0	0	0	0	0	882
11:00	11	46	286	406	176	45	7	0	0	0	0	0	0	977
12:00 PM	7	46	302	376	196	61	15	1	0	0	0	0	0	1004
13:00	5	38	232	399	227	63	8	0	0	0	0	0	0	972
14:00	2	33	254	403	205	73	10	1	0	0	0	0	0	981
15:00	11	64	324	404	232	70	17	2	0	0	0	0	0	1124
16:00	11	45	280	479	254	81	11	1	0	0	0	0	0	1162
17:00	5	34	279	448	221	84	14	1	0	0	0	0	0	1086
18:00	4	51	252	463	224	68	15	0	0	0	0	0	0	1077
19:00	1	18	200	343	172	81	16	0	0	0	0	0	0	831
20:00	0	20	174	214	136	54	11	0	0	0	0	0	0	609
21:00	1	8	113	170	108	40	8	0	0	0	0	0	0	448
22:00	2	7	82	104	85	41	4	2	0	0	0	0	0	327
23:00	0	11	41	65	42	29	4	1	0	0	0	0	0	193
Totals	77	517	3666	5677	3171	1178	201	16						14503
% of Totals	1%	4%	25%	39%	22%	8%	1%	0%						100%

AM Volumes	28	142	1133	1809	1069	433	68	7	0	0	0	0	0	4689			
% AM	0%	1%	8%	12%	7%	3%	0%	0%						32%			
AM Peak Hour	11:00	11:00	11:00	11:00	10:00	09:00	08:00	10:00						11:00			
Volume	11	46	286	406	205	89	14	2						977			
PM Volumes	49	375	2533	3868	2102	745	133	9	0	0	0	0	0	9814			
% PM	0%	3%	17%	27%	14%	5%	1%	0%						68%			
PM Peak Hour	15:00	15:00	15:00	16:00	16:00	17:00	15:00	15:00						16:00			
Volume	11	64	324	479	254	84	17	2						1162			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	←→		%	Volume	←→		%	Volume	←→		%	Volume	←→		%
		1250			9%	1976			14%	2248			16%	9029			62%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Oceanside Blvd	Summary	22	28	28	34	38	14503

SPEED

Oceanside Blvd btwn Coast Hwy & Ditmar St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_030

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	2	23	31	21	14	1	1	0	0	0	0	0	93
01:00	0	2	18	17	14	7	4	1	0	0	0	0	0	63
02:00	0	1	7	8	7	2	0	0	0	0	0	0	0	25
03:00	0	2	12	11	11	2	1	2	0	0	0	0	0	41
04:00	0	4	20	22	17	12	3	0	0	0	0	0	0	78
05:00	1	10	43	54	32	20	5	1	0	0	0	0	0	166
06:00	5	13	83	125	84	57	12	2	0	0	0	0	0	381
07:00	4	21	132	176	150	64	22	2	0	0	0	0	0	571
08:00	7	27	183	232	157	54	18	1	0	0	0	0	0	679
09:00	5	39	205	253	166	103	11	2	0	0	0	0	0	784
10:00	4	44	242	302	192	88	12	0	0	0	0	0	0	884
11:00	8	60	294	321	170	91	9	1	0	0	0	0	0	954
12:00 PM	7	41	265	389	203	71	18	2	0	0	0	0	0	996
13:00	9	42	266	402	223	68	8	0	0	0	0	0	0	1018
14:00	2	38	248	365	214	84	13	1	0	0	0	0	0	965
15:00	5	51	260	362	243	76	14	0	0	0	0	0	0	1011
16:00	8	40	254	471	238	73	13	2	0	0	0	0	0	1099
17:00	9	37	289	461	262	86	18	1	0	0	0	0	0	1163
18:00	5	37	262	423	234	62	10	1	0	0	0	0	0	1034
19:00	2	19	210	342	188	53	11	2	0	0	0	0	0	827
20:00	3	36	159	242	160	57	11	0	0	0	0	0	0	668
21:00	6	19	117	184	104	37	6	0	0	0	0	0	0	473
22:00	3	7	64	91	83	31	9	2	0	0	0	0	0	290
23:00	0	7	40	59	57	35	4	0	0	0	0	0	0	202
Totals	93	599	3696	5343	3230	1247	233	24						14465
% of Totals	1%	4%	26%	37%	22%	9%	2%	0%						100%

AM Volumes	34	225	1262	1552	1021	514	98	13	0	0	0	0	0	4719
% AM	0%	2%	9%	11%	7%	4%	1%	0%						33%
AM Peak Hour	11:00	11:00	11:00	11:00	10:00	09:00	07:00	03:00						11:00
Volume	8	60	294	321	192	103	22	2						954
PM Volumes	59	374	2434	3791	2209	733	135	11	0	0	0	0	0	9746
% PM	0%	3%	17%	26%	15%	5%	1%	0%						67%
PM Peak Hour	13:00	15:00	17:00	16:00	17:00	17:00	12:00	12:00						17:00
Volume	9	51	289	471	262	86	18	2						1163
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	↔		%	Volume	↔		%	Volume	↔		%
			1250			9%	2014			14%	2262			16%
											8939			62%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Oceanside Blvd	Summary	22	28	28	34	38	14465

SPEED

Broadway St btwn Cassidy St & Kelly St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_031

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	2	2	2	0	0	0	0	0	0	0	0	0	7
01:00	1	2	2	1	0	0	0	0	0	0	0	0	0	6
02:00	1	0	1	0	0	0	0	0	0	0	0	0	0	2
03:00	1	0	2	0	0	0	0	0	0	0	0	0	0	3
04:00	0	2	6	0	0	0	0	0	0	0	0	0	0	8
05:00	1	3	3	1	0	0	0	0	0	0	0	0	0	8
06:00	5	11	22	3	1	0	0	0	0	0	0	0	0	42
07:00	4	26	46	11	0	0	0	0	0	0	0	0	0	87
08:00	5	33	43	8	0	0	0	0	0	0	0	0	0	89
09:00	5	29	43	12	1	0	0	0	0	0	0	0	0	90
10:00	4	47	52	11	0	0	0	0	0	0	0	0	0	114
11:00	6	39	63	12	0	0	0	0	0	0	0	0	0	120
12:00 PM	9	56	66	19	0	0	0	0	0	0	0	0	0	150
13:00	8	47	74	13	0	0	0	0	0	0	0	0	0	142
14:00	13	65	55	13	1	0	0	0	0	0	0	0	0	147
15:00	10	42	78	19	0	0	0	0	0	0	0	0	0	149
16:00	9	55	78	14	1	0	0	0	0	0	0	0	0	157
17:00	17	36	75	8	3	1	0	0	0	0	0	0	0	140
18:00	12	52	59	13	1	0	0	0	0	0	0	0	0	137
19:00	7	42	37	11	2	0	0	0	0	0	0	0	0	99
20:00	9	14	38	4	2	1	0	0	0	0	0	0	0	68
21:00	4	16	26	9	0	0	0	0	0	0	0	0	0	55
22:00	2	4	9	3	0	0	0	0	0	0	0	0	0	18
23:00	4	8	5	0	0	0	0	0	0	0	0	0	0	17
Totals	138	631	885	187	12	2								1855
% of Totals	7%	34%	48%	10%	1%	0%								100%

AM Volumes	34	194	285	61	2	0	0	0	0	0	0	0	0	576			
% AM	2%	10%	15%	3%	0%									31%			
AM Peak Hour	11:00	10:00	11:00	09:00	06:00									11:00			
Volume	6	47	63	12	1									120			
PM Volumes	104	437	600	126	10	2	0	0	0	0	0	0	0	1279			
% PM	6%	24%	32%	7%	1%	0%								69%			
PM Peak Hour	17:00	14:00	15:00	12:00	17:00	17:00								16:00			
Volume	17	65	78	19	3	1								157			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		176			9%	292			16%	297			16%	1090			59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Broadway St	Summary	16	21	20	25	28	1855

SPEED

Broadway St btwn Cassidy St & Kelly St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_031

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	2	0	6	2	0	0	0	0	0	0	0	0	0	10
01:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
02:00	0	0	5	1	0	0	0	0	0	0	0	0	0	6
03:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
04:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
05:00	1	5	8	3	0	0	0	0	0	0	0	0	0	17
06:00	2	12	18	7	1	0	0	0	0	0	0	0	0	40
07:00	3	24	40	9	1	0	0	0	0	0	0	0	0	77
08:00	4	34	45	11	0	0	0	0	0	0	0	0	0	94
09:00	3	43	43	11	0	0	0	0	0	0	0	0	0	100
10:00	7	34	53	10	0	0	0	0	0	0	0	0	0	104
11:00	8	41	47	9	1	0	0	0	0	0	0	0	0	106
12:00 PM	10	41	63	15	0	0	0	0	0	0	0	0	0	129
13:00	6	50	72	15	1	0	0	0	0	0	0	0	0	144
14:00	18	66	60	16	2	0	0	0	0	0	0	0	0	162
15:00	13	48	85	20	5	0	0	0	0	0	0	0	0	171
16:00	13	67	56	21	2	0	0	0	0	0	0	0	0	159
17:00	17	61	71	20	1	0	0	0	0	0	0	0	0	170
18:00	9	55	69	9	1	0	0	0	0	0	0	0	0	143
19:00	16	46	45	7	2	0	0	0	0	0	0	0	0	116
20:00	10	27	27	6	0	0	0	0	0	0	0	0	0	70
21:00	3	11	21	2	1	0	0	0	0	0	0	0	0	38
22:00	5	9	9	2	0	0	0	0	0	0	0	0	0	25
23:00	3	6	7	2	0	0	0	0	0	0	0	0	0	18
Totals	153	686	855	199	18									1911
% of Totals	8%	36%	45%	10%	1%									100%

AM Volumes	30	199	270	64	3	0	0	0	0	0	0	0	0	566			
% AM	2%	10%	14%	3%	0%									30%			
AM Peak Hour	11:00	09:00	10:00	08:00	06:00									11:00			
Volume	8	43	53	11	1									106			
PM Volumes	123	487	585	135	15	0	0	0	0	0	0	0	0	1345			
% PM	6%	25%	31%	7%	1%									70%			
PM Peak Hour	14:00	16:00	15:00	16:00	15:00									15:00			
Volume	18	67	85	21	5									171			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		171			9%	273			14%	329			17%	1138			60%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Broadway St	Summary	16	21	20	25	28	1911

SPEED

Morse St btwn Coast Hwy & Freeman St

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_032

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	3	3	1	0	0	0	0	0	0	0	0	0	8
01:00	0	1	6	2	0	0	0	0	0	0	0	0	0	9
02:00	1	1	8	2	0	0	0	0	0	0	0	0	0	12
03:00	1	2	2	0	0	0	0	0	0	0	0	0	0	5
04:00	0	0	3	2	0	0	0	0	0	0	0	0	0	5
05:00	1	4	13	4	0	0	0	0	0	0	0	0	0	22
06:00	1	5	17	9	0	0	0	0	0	0	0	0	0	32
07:00	3	21	47	7	0	0	0	0	0	0	0	0	0	78
08:00	6	27	64	13	3	0	0	0	0	0	0	0	0	113
09:00	7	26	55	24	0	0	0	0	0	0	0	0	0	112
10:00	12	26	91	19	3	2	0	0	0	0	0	0	0	153
11:00	11	68	74	19	4	2	0	0	0	0	0	0	0	178
12:00 PM	7	45	109	17	1	0	0	0	0	0	0	0	0	179
13:00	16	59	119	24	1	0	0	0	0	0	0	0	0	219
14:00	11	65	109	28	1	0	0	0	0	0	0	0	0	214
15:00	5	61	104	26	2	0	1	0	0	0	0	0	0	199
16:00	14	74	136	41	1	0	0	0	0	0	0	0	0	266
17:00	11	42	119	51	2	0	0	0	0	0	0	0	0	225
18:00	8	57	124	40	0	0	0	0	0	0	0	0	0	229
19:00	6	42	99	30	3	2	0	0	0	0	0	0	0	182
20:00	3	35	56	33	3	0	0	0	0	0	0	0	0	130
21:00	4	22	40	14	3	0	0	0	0	0	0	0	0	83
22:00	0	11	21	6	1	0	0	0	0	0	0	0	0	39
23:00	0	2	16	3	0	0	0	0	0	0	0	0	0	21
Totals	129	699	1435	415	28	6	1							2713
% of Totals	5%	26%	53%	15%	1%	0%	0%							100%

AM Volumes	44	184	383	102	10	4	0	0	0	0	0	0	0	727			
% AM	2%	7%	14%	4%	0%	0%								27%			
AM Peak Hour	10:00	11:00	10:00	09:00	11:00	10:00								11:00			
Volume	12	68	91	24	4	2								178			
PM Volumes	85	515	1052	313	18	2	1	0	0	0	0	0	0	1986			
% PM	3%	19%	39%	12%	1%	0%	0%							73%			
PM Peak Hour	13:00	16:00	16:00	17:00	19:00	19:00	15:00							16:00			
Volume	16	74	136	51	3	2	1							266			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		191			7%	398			15%	491			18%	1633			60%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Morse St	Summary	17	22	22	26	29	2713

SPEED

Morse St btwn Coast Hwy & Freeman St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_032

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	1	2	9	3	0	0	0	0	0	0	0	0	0	15
01:00	0	1	3	1	0	0	0	0	0	0	0	0	0	5
02:00	0	2	3	1	0	0	0	0	0	0	0	0	0	6
03:00	0	2	4	1	0	0	0	0	0	0	0	0	0	7
04:00	0	1	3	0	0	0	0	0	0	0	0	0	0	4
05:00	1	6	9	1	0	0	0	0	0	0	0	0	0	17
06:00	2	15	26	7	0	0	0	0	0	0	0	0	0	50
07:00	4	28	36	9	0	0	0	0	0	0	0	0	0	77
08:00	10	35	59	17	0	0	0	0	0	0	0	0	0	121
09:00	13	47	55	10	0	0	0	0	0	0	0	0	0	125
10:00	7	37	73	16	0	0	0	0	0	0	0	0	0	133
11:00	10	42	79	23	3	0	0	0	0	0	0	0	0	157
12:00 PM	11	33	85	28	3	1	0	0	0	0	0	0	0	161
13:00	8	42	78	18	2	0	0	0	0	0	0	0	0	148
14:00	11	40	82	14	2	0	0	0	0	0	0	0	0	149
15:00	8	55	104	34	2	0	0	0	0	0	0	0	0	203
16:00	16	52	128	41	2	0	0	0	0	0	0	0	0	239
17:00	5	54	131	42	1	0	0	0	0	0	0	0	0	233
18:00	10	56	123	40	0	1	0	0	0	0	0	0	0	230
19:00	4	37	106	29	0	0	0	0	0	0	0	0	0	176
20:00	1	23	65	28	0	0	0	0	0	0	0	0	0	117
21:00	2	14	34	20	1	0	0	0	0	0	0	0	0	71
22:00	0	4	28	3	2	0	0	0	0	0	0	0	0	37
23:00	0	4	10	3	0	0	0	0	0	0	0	0	0	17
Totals	124	632	1333	389	18	2								2498
% of Totals	5%	25%	53%	16%	1%	0%								100%

AM Volumes	48	218	359	89	3	0	0	0	0	0	0	0	0	717			
% AM	2%	9%	14%	4%	0%									29%			
AM Peak Hour	09:00	09:00	11:00	11:00	11:00									11:00			
Volume	13	47	79	23	3									157			
PM Volumes	76	414	974	300	15	2	0	0	0	0	0	0	0	1781			
% PM	3%	17%	39%	12%	1%	0%								71%			
PM Peak Hour	16:00	18:00	17:00	17:00	12:00	12:00								16:00			
Volume	16	56	131	42	3	1								239			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		198			8%	309			12%	472			19%	1519			61%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Morse St	Summary	17	22	21	25	29	2498

SPEED

Cassidy St btwn Broadway St & Tremont St

Day: Tuesday

Date: 8/6/2013

City: Oceanside

Project #: CA13_4290_033

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	2	5	11	10	2	0	0	0	0	0	0	0	0	30
01:00	0	2	12	2	1	0	0	0	0	0	0	0	0	17
02:00	1	3	3	4	1	1	0	0	0	0	0	0	0	13
03:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
04:00	2	4	4	5	3	1	0	0	0	0	0	0	0	19
05:00	3	6	22	13	4	0	0	0	0	0	0	0	0	48
06:00	3	11	34	47	10	2	1	0	0	0	0	0	0	108
07:00	7	21	69	54	21	3	0	0	0	0	0	0	0	175
08:00	3	30	76	78	26	8	0	1	0	0	0	0	0	222
09:00	10	28	94	94	21	0	1	0	0	0	0	0	0	248
10:00	1	31	95	84	22	1	0	0	0	0	0	0	0	234
11:00	6	35	131	88	25	1	0	0	0	0	0	0	0	286
12:00 PM	8	45	158	116	22	0	0	0	0	0	0	0	0	349
13:00	4	72	153	89	22	2	1	0	0	0	0	0	0	343
14:00	6	54	160	113	28	1	1	0	0	0	0	0	0	363
15:00	13	57	144	123	28	0	0	0	0	0	0	0	0	365
16:00	4	55	162	115	21	3	0	0	0	0	0	0	0	360
17:00	9	40	136	148	31	2	1	0	0	0	0	0	0	367
18:00	7	54	149	130	22	0	0	0	0	0	0	0	0	362
19:00	4	50	113	77	7	1	0	0	0	0	0	0	0	252
20:00	5	34	82	36	11	1	0	0	0	0	0	0	0	169
21:00	1	8	55	45	9	1	0	0	0	0	0	0	0	119
22:00	2	21	32	20	5	0	1	0	0	0	0	0	0	81
23:00	0	5	24	23	3	0	0	0	0	0	0	0	0	55
Totals	101	674	1921	1514	345	28	6	1						4590
% of Totals	2%	15%	42%	33%	8%	1%	0%	0%						100%

AM Volumes	38	179	553	479	136	17	2	1	0	0	0	0	0	1405			
% AM	1%	4%	12%	10%	3%	0%	0%	0%						31%			
AM Peak Hour	09:00	11:00	11:00	09:00	08:00	08:00	06:00	08:00						11:00			
Volume	10	35	131	94	26	8	1	1						286			
PM Volumes	63	495	1368	1035	209	11	4	0	0	0	0	0	0	3185			
% PM	1%	11%	30%	23%	5%	0%	0%							69%			
PM Peak Hour	15:00	13:00	16:00	17:00	17:00	16:00	13:00							17:00			
Volume	13	72	162	148	31	3	1							367			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		397			9%	692			15%	727			16%	2774			60%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Cassidy St	Summary	19	24	24	29	32	4590

SPEED

Cassidy St btwn Broadway St & Tremont St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_033

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	5	10	3	3	0	0	0	0	0	0	0	0	21
01:00	0	2	2	7	1	1	0	0	0	0	0	0	0	13
02:00	0	1	0	4	1	0	0	0	0	0	0	0	0	6
03:00	1	2	1	1	1	0	0	0	0	0	0	0	0	6
04:00	0	8	2	6	3	1	0	0	0	0	0	0	0	20
05:00	2	4	11	23	3	1	0	0	0	0	0	0	0	44
06:00	3	21	31	50	14	3	0	0	0	0	0	0	0	122
07:00	3	12	49	67	29	1	0	0	0	0	0	0	0	161
08:00	3	25	60	82	24	2	1	0	0	0	0	0	0	197
09:00	2	33	95	78	14	1	0	0	0	0	0	0	0	223
10:00	4	40	125	92	22	1	0	0	0	0	0	0	0	284
11:00	4	40	120	101	29	3	0	0	0	0	0	0	0	297
12:00 PM	0	37	121	123	29	3	0	0	0	0	0	0	0	313
13:00	4	66	137	86	36	6	0	0	0	0	0	0	0	335
14:00	8	43	163	104	24	5	0	0	0	0	0	0	0	347
15:00	2	45	145	133	23	2	0	0	0	0	0	0	0	350
16:00	8	59	158	131	23	2	1	0	0	0	0	0	0	382
17:00	3	65	160	130	22	1	0	0	0	0	0	0	0	381
18:00	8	68	127	97	24	3	1	0	0	0	0	0	0	328
19:00	4	43	128	87	10	2	0	0	0	0	0	0	0	274
20:00	8	27	69	50	7	1	0	0	0	0	0	0	0	162
21:00	3	21	61	44	4	1	0	0	0	0	0	0	0	134
22:00	3	14	43	19	7	1	0	0	0	0	0	0	0	87
23:00	1	10	36	21	5	0	0	0	0	0	0	0	0	73
Totals	74	691	1854	1539	358	41	3							4560
% of Totals	2%	15%	41%	34%	8%	1%	0%							100%

AM Volumes	22	193	506	514	144	14	1	0	0	0	0	0	0	1394			
% AM	0%	4%	11%	11%	3%	0%	0%							31%			
AM Peak Hour	10:00	10:00	10:00	11:00	07:00	06:00	08:00							11:00			
Volume	4	40	125	101	29	3	1							297			
PM Volumes	52	498	1348	1025	214	27	2	0	0	0	0	0	0	3166			
% PM	1%	11%	30%	22%	5%	1%	0%							69%			
PM Peak Hour	14:00	18:00	14:00	15:00	13:00	13:00	16:00							16:00			
Volume	8	68	163	133	36	6	1							382			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		358			8%	648			14%	763			17%	2791			61%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Cassidy St	Summary	19	24	24	29	32	4560

SPEED

Cassidy St btwn Alvarado St & Ditmar St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_034

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	9	9	0	0	0	0	0	0	0	0	0	0	18
01:00	0	2	6	3	0	0	0	0	0	0	0	0	0	11
02:00	1	4	3	2	0	0	0	0	0	0	0	0	0	10
03:00	0	2	2	2	0	0	0	0	0	0	0	0	0	6
04:00	1	4	13	5	0	0	0	0	0	0	0	0	0	23
05:00	0	16	16	5	0	0	0	0	0	0	0	0	0	37
06:00	13	60	38	7	0	1	0	0	0	0	0	0	0	119
07:00	13	94	88	13	1	0	0	0	0	0	0	0	0	209
08:00	35	93	101	23	2	0	0	0	0	0	0	0	0	254
09:00	55	115	101	24	3	0	0	0	0	0	0	0	0	298
10:00	29	140	94	30	3	0	0	0	0	0	0	0	0	296
11:00	28	165	122	20	1	0	0	0	0	0	0	0	0	336
12:00 PM	35	146	107	21	0	0	0	0	0	0	0	0	0	309
13:00	27	143	126	19	2	0	0	0	0	0	0	0	0	317
14:00	21	158	100	17	0	0	0	0	0	0	0	0	0	296
15:00	57	155	114	22	0	0	0	0	0	0	0	0	0	348
16:00	47	152	131	20	1	0	0	0	0	0	0	0	0	351
17:00	53	154	128	33	2	0	0	0	0	0	0	0	0	370
18:00	30	155	117	24	4	1	0	0	0	0	0	0	0	331
19:00	28	132	71	16	0	1	0	0	0	0	0	0	0	248
20:00	5	47	82	24	0	0	0	0	0	0	0	0	0	158
21:00	3	33	70	24	1	0	0	0	0	0	0	0	0	131
22:00	3	28	31	9	1	0	0	0	0	0	0	0	0	72
23:00	1	19	21	4	0	0	0	0	0	0	0	0	0	45
Totals	485	2026	1691	367	21	3								4593
% of Totals	11%	44%	37%	8%	0%	0%								100%

AM Volumes	175	704	593	134	10	1	0	0	0	0	0	0	0	1617			
% AM	4%	15%	13%	3%	0%	0%								35%			
AM Peak Hour	09:00	11:00	11:00	10:00	09:00	06:00								11:00			
Volume	55	165	122	30	3	1								336			
PM Volumes	310	1322	1098	233	11	2	0	0	0	0	0	0	0	2976			
% PM	7%	29%	24%	5%	0%	0%								65%			
PM Peak Hour	15:00	14:00	16:00	17:00	18:00	18:00								17:00			
Volume	57	158	131	33	4	1								370			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		463			10%	626			14%	721			16%	2783			61%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Cassidy St	Summary	16	19	19	24	27	4593

SPEED

Cassidy St btwn Alvarado St & Ditmar St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_034

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	4	11	6	1	0	0	0	0	0	0	0	0	22
01:00	1	9	10	1	1	0	0	0	0	0	0	0	0	22
02:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
03:00	1	0	4	0	1	0	0	0	0	0	0	0	0	6
04:00	0	6	10	3	1	0	0	0	0	0	0	0	0	20
05:00	1	21	22	9	0	0	0	0	0	0	0	0	0	53
06:00	6	50	55	13	0	0	0	0	0	0	0	0	0	124
07:00	15	92	85	29	2	1	0	0	0	0	0	0	0	224
08:00	13	110	95	19	0	0	0	0	0	0	0	0	0	237
09:00	28	141	85	23	0	0	0	0	0	0	0	0	0	277
10:00	44	149	85	18	1	0	0	0	0	0	0	0	0	297
11:00	28	168	87	33	2	0	0	0	0	0	0	0	0	318
12:00 PM	31	159	97	37	0	0	0	0	0	0	0	0	0	324
13:00	30	148	133	22	3	0	0	0	0	0	0	0	0	336
14:00	29	142	98	32	5	0	0	0	0	0	0	0	0	306
15:00	63	158	112	18	1	0	0	0	0	0	0	0	0	352
16:00	44	138	144	37	2	0	0	0	0	0	0	0	0	365
17:00	56	166	150	33	5	0	0	0	0	0	0	0	0	410
18:00	34	161	116	23	1	2	0	0	0	0	0	0	0	337
19:00	31	131	94	19	2	0	0	0	0	0	0	0	0	277
20:00	20	77	67	19	1	0	0	0	0	0	0	0	0	184
21:00	6	47	53	16	1	0	0	0	0	0	0	0	0	123
22:00	8	26	23	10	1	0	0	0	0	0	0	0	0	68
23:00	8	17	28	2	0	0	0	0	0	0	0	0	0	55
Totals	497	2121	1666	422	31	3								4740
% of Totals	10%	45%	35%	9%	1%	0%								100%

AM Volumes	137	751	551	154	9	1	0	0	0	0	0	0	0	1603			
% AM	3%	16%	12%	3%	0%	0%								34%			
AM Peak Hour	10:00	11:00	08:00	11:00	07:00	07:00								11:00			
Volume	44	168	95	33	2	1								318			
PM Volumes	360	1370	1115	268	22	2	0	0	0	0	0	0	0	3137			
% PM	8%	29%	24%	6%	0%	0%								66%			
PM Peak Hour	15:00	17:00	17:00	12:00	14:00	18:00								17:00			
Volume	63	166	150	37	5	2								410			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		461			10%	660			14%	775			16%	2844			60%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Cassidy St	Summary	16	19	19	24	28	4740

SPEED

Vista Way btwn Tremont St & Coast Hwy

Day: Tuesday
Date: 8/20/2013

City: Oceanside
Project #: CA13_4290_035

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	5	1	4	0	0	0	0	0	0	0	0	0	10
01:00	1	0	3	1	1	0	0	0	0	0	0	0	0	6
02:00	1	1	1	0	1	0	0	0	0	0	0	0	0	4
03:00	1	3	1	0	0	0	0	0	0	0	0	0	0	5
04:00	3	2	2	2	2	1	0	0	0	0	0	0	0	12
05:00	4	12	3	2	0	0	0	0	0	0	0	0	0	21
06:00	8	25	16	7	0	0	0	0	0	0	0	0	0	56
07:00	21	45	36	11	2	0	0	0	0	0	0	0	0	115
08:00	23	43	33	15	2	1	0	0	0	0	0	0	0	117
09:00	16	44	38	20	6	0	0	0	0	0	0	0	0	124
10:00	33	43	41	26	9	0	0	0	0	0	0	0	0	152
11:00	23	39	41	18	6	2	0	0	0	0	0	0	0	129
12:00 PM	24	41	48	25	3	0	0	0	0	0	0	0	0	141
13:00	29	42	39	30	6	0	0	0	0	0	0	0	0	146
14:00	17	50	60	25	4	0	0	0	0	0	0	0	0	156
15:00	19	57	43	23	6	0	0	0	0	0	0	0	0	148
16:00	13	61	69	30	6	1	0	0	0	0	0	0	0	180
17:00	35	61	67	24	8	1	0	0	0	0	0	0	0	196
18:00	29	63	46	24	1	0	0	0	0	0	0	0	0	163
19:00	9	53	41	22	5	0	0	0	0	0	0	0	0	130
20:00	5	40	25	12	3	0	0	0	0	0	0	0	0	85
21:00	6	10	20	9	2	0	0	0	0	0	0	0	0	47
22:00	6	15	11	6	0	1	0	0	0	0	0	0	0	39
23:00	7	11	4	3	1	0	0	0	0	0	0	0	0	26
Totals	333	766	689	339	74	7								2208
% of Totals	15%	35%	31%	15%	3%	0%								100%

AM Volumes	134	262	216	106	29	4	0	0	0	0	0	0	0	751			
% AM	6%	12%	10%	5%	1%	0%								34%			
AM Peak Hour	10:00	07:00	10:00	10:00	10:00	11:00								10:00			
Volume	33	45	41	26	9	2								152			
PM Volumes	199	504	473	233	45	3	0	0	0	0	0	0	0	1457			
% PM	9%	23%	21%	11%	2%	0%								66%			
PM Peak Hour	17:00	18:00	16:00	13:00	17:00	16:00								17:00			
Volume	35	63	69	30	8	1								196			
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6			Off Peak Volumes				
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		232			11%	287			13%	376			17%	1313			59%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Vista Way	Summary	15	20	20	26	30	2208

SPEED

Vista Way btwn Tremont St & Coast Hwy

Day: Wednesday
Date: 8/21/2013

City: Oceanside
Project #: CA13_4290_035

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	2	4	6	0	0	0	0	0	0	0	0	0	0	12
01:00	0	0	6	2	0	0	0	0	0	0	0	0	0	8
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	1	1	1	0	0	0	0	0	0	0	0	0	3
04:00	2	4	2	2	1	0	0	0	0	0	0	0	0	11
05:00	3	11	9	2	2	0	0	0	0	0	0	0	0	27
06:00	5	26	20	7	1	0	0	0	0	0	0	0	0	59
07:00	24	44	38	17	7	1	0	0	0	0	0	0	0	131
08:00	21	49	44	16	5	0	0	0	0	0	0	0	0	135
09:00	21	34	57	20	2	0	0	0	0	0	0	0	0	134
10:00	22	39	43	16	2	1	0	0	0	0	0	0	0	123
11:00	21	43	40	21	4	0	0	0	0	0	0	0	0	129
12:00 PM	25	33	50	22	5	0	0	0	0	0	0	0	0	135
13:00	16	43	53	26	3	1	0	0	0	0	0	0	0	142
14:00	19	30	65	22	4	1	0	0	0	0	0	0	0	141
15:00	20	39	43	27	6	4	0	0	0	0	0	0	0	139
16:00	20	53	50	21	9	2	0	0	0	0	0	0	0	155
17:00	35	61	54	32	11	0	0	0	0	0	0	0	0	193
18:00	21	41	55	29	7	0	0	0	0	0	0	0	0	153
19:00	17	41	51	14	3	0	0	0	0	0	0	0	0	126
20:00	15	18	24	16	1	1	0	0	0	0	0	0	0	75
21:00	11	20	28	13	0	0	0	0	0	0	0	0	0	72
22:00	3	14	19	10	1	0	0	0	0	0	0	0	0	47
23:00	4	9	9	2	0	0	0	0	0	0	0	0	0	24
Totals	327	657	767	339	74	11								2175
% of Totals	15%	30%	35%	16%	3%	1%								100%

AM Volumes	121	255	266	105	24	2	0	0	0	0	0	0	0	773			
% AM	6%	12%	12%	5%	1%	0%								36%			
AM Peak Hour	07:00	08:00	09:00	11:00	07:00	07:00								08:00			
Volume	24	49	57	21	7	1								135			
PM Volumes	206	402	501	234	50	9	0	0	0	0	0	0	0	1402			
% PM	9%	18%	23%	11%	2%	0%								64%			
PM Peak Hour	17:00	17:00	14:00	17:00	17:00	15:00								17:00			
Volume	35	61	65	32	11	4								193			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		266			12%	277			13%	348			16%	1284			59%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Vista Way	Summary	15	21	20	26	30	2175

SPEED

Vista Way btwn Alvarado St & Ditmar St

Day: Tuesday
Date: 8/6/2013

City: Oceanside
Project #: CA13_4290_036

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	4	18	46	17	3	1	0	0	0	0	0	89
01:00	0	3	3	9	18	8	4	1	0	0	0	0	0	46
02:00	0	0	4	5	16	6	1	0	0	0	0	0	0	32
03:00	0	0	0	10	7	8	0	1	0	0	0	0	0	26
04:00	0	0	2	18	29	18	6	2	1	0	0	0	0	76
05:00	0	3	4	26	99	40	16	1	2	0	0	0	0	191
06:00	1	4	8	115	252	90	11	1	2	0	0	0	0	484
07:00	1	1	13	213	380	147	12	2	1	0	0	0	0	770
08:00	0	9	37	277	410	111	7	1	0	0	0	0	0	852
09:00	0	3	21	290	427	107	9	0	0	0	0	0	0	857
10:00	0	7	61	421	447	74	6	0	0	0	0	0	0	1016
11:00	0	3	80	445	518	105	5	0	0	0	0	0	0	1156
12:00 PM	0	4	81	559	477	74	4	3	0	0	0	0	0	1202
13:00	0	5	83	510	488	98	6	0	0	0	0	0	0	1190
14:00	1	3	94	471	464	99	7	0	0	0	0	0	0	1139
15:00	0	0	55	451	570	134	9	1	0	0	0	0	0	1220
16:00	1	11	56	478	589	120	13	0	0	0	0	0	0	1268
17:00	0	0	49	472	571	139	16	0	0	0	0	0	0	1247
18:00	0	5	43	391	526	131	6	0	0	0	0	0	0	1102
19:00	0	2	58	323	386	103	9	0	0	0	0	0	0	881
20:00	1	4	43	224	309	112	13	0	0	0	0	0	0	706
21:00	1	3	9	145	211	78	11	1	1	0	0	0	0	460
22:00	0	0	8	57	151	50	7	0	0	0	0	0	0	273
23:00	0	1	6	34	95	44	12	2	0	0	0	0	0	194
Totals	6	71	822	5962	7486	1913	193	17	7					16477
% of Totals	0%	0%	5%	36%	45%	12%	1%	0%	0%					100%

AM Volumes	2	33	237	1847	2649	731	80	10	6	0	0	0	0	5595			
% AM	0%	0%	1%	11%	16%	4%	0%	0%	0%					34%			
AM Peak Hour	06:00	08:00	11:00	11:00	11:00	07:00	05:00	04:00	05:00					11:00			
Volume	1	9	80	445	518	147	16	2	2					1156			
PM Volumes	4	38	585	4115	4837	1182	113	7	1	0	0	0	0	10882			
% PM	0%	0%	4%	25%	29%	7%	1%	0%	0%					66%			
PM Peak Hour	14:00	16:00	14:00	12:00	16:00	17:00	17:00	12:00	21:00					16:00			
Volume	1	11	94	559	589	139	16	3	1					1268			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		1622			10%	2392			15%	2515			15%	9948			60%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Vista Way	Summary	26	31	31	35	38	16477

SPEED

Vista Way btwn Alvarado St & Ditmar St

Day: Wednesday

Date: 8/7/2013

City: Oceanside

Project #: CA13_4290_036

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	3	4	34	50	32	2	3	0	0	0	0	0	128
01:00	0	0	5	14	22	10	3	2	0	0	0	0	0	56
02:00	0	1	5	9	19	7	2	1	0	0	0	0	0	44
03:00	0	0	0	7	7	9	3	1	0	0	0	0	0	27
04:00	0	1	3	14	28	14	6	1	0	0	0	0	0	67
05:00	1	1	5	34	93	47	17	5	0	0	0	0	0	203
06:00	0	1	9	115	260	111	23	1	0	0	0	0	0	520
07:00	1	1	29	233	360	108	12	2	1	0	0	0	0	747
08:00	2	12	58	241	338	91	6	4	0	0	0	0	0	752
09:00	0	2	37	333	441	70	3	0	0	0	0	0	0	886
10:00	0	4	70	382	379	82	6	0	0	0	0	0	0	923
11:00	1	4	45	446	470	97	5	1	0	0	0	0	0	1069
12:00 PM	0	5	95	488	510	101	11	0	0	0	0	0	0	1210
13:00	0	1	46	460	509	125	7	0	0	0	0	0	0	1148
14:00	0	4	51	396	558	118	5	1	0	0	0	0	0	1133
15:00	0	8	56	470	538	125	5	0	0	0	0	0	0	1202
16:00	0	7	53	461	583	146	7	1	0	0	0	0	0	1258
17:00	2	11	81	383	650	154	13	1	0	0	0	0	0	1295
18:00	1	6	37	360	578	147	17	1	0	0	0	0	0	1147
19:00	1	2	32	300	469	137	8	1	0	0	0	0	0	950
20:00	0	1	29	221	324	90	13	0	0	0	0	0	0	678
21:00	0	1	13	140	276	108	8	0	0	0	0	0	0	546
22:00	0	0	2	78	132	63	11	3	0	0	0	0	0	289
23:00	0	3	3	34	68	37	6	0	0	0	0	0	0	151
Totals	9	79	768	5653	7662	2029	199	29	1					16429
% of Totals	0%	0%	5%	34%	47%	12%	1%	0%	0%					100%

AM Volumes	5	30	270	1862	2467	678	88	21	1	0	0	0	0	5422			
% AM	0%	0%	2%	11%	15%	4%	1%	0%	0%					33%			
AM Peak Hour	08:00	08:00	10:00	11:00	11:00	06:00	06:00	05:00	07:00					11:00			
Volume	2	12	70	446	470	111	23	5	1					1069			
PM Volumes	4	49	498	3791	5195	1351	111	8	0	0	0	0	0	11007			
% PM	0%	0%	3%	23%	32%	8%	1%	0%						67%			
PM Peak Hour	17:00	17:00	12:00	12:00	17:00	17:00	18:00	22:00						17:00			
Volume	2	11	95	488	650	154	17	3						1295			
Directional Peak Periods		AM 7-9				NOON 12-2			PM 4-6			Off Peak Volumes					
All Speeds		Volume	↔		%	Volume	↔		%	Volume	↔		%	Volume	↔		%
		1499			9%	2358			14%	2553			16%	10019			61%

Street Name	Direction	Percentiles					ADT
		15th	50th	Average	85th	95th	
Vista Way	Summary	26	31	31	35	39	16429

COAST HIGHWAY PARKING STUDY

Location: Coast Hwy
City: Oceanside

Day: Thursday
Date: 8/8/2013

TIME	Harbor Dr to Monterey Dr		Monterey Dr to Costa Pacifica Way		Costa Pacifica Way to Neptune Way	
	E 2hr 9a-6p (except Sundays & holidays)	W No posted Restrictions	E NP Anytime	W No Posted Restrictions (On bridge, clear not to park)	E No Parking	W No posted Restrictions
Spaces	17	0		32	18	28
7:00 AM	0	0	0	0	0	2
8:00 AM	1	0	0	0	0	2
9:00 AM	1	0	0	0	0	1
10:00 AM	1	0	0	0	0	3
11:00 AM	1	0	0	0	0	2
12:00 PM	1	0	0	0	0	3
1:00 PM	1	0	0	0	0	3
2:00 PM	5	0	0	0	0	2
3:00 PM	2	0	0	0	0	1
4:00 PM	1	0	0	0	0	1
5:00 PM	2	0	0	0	0	4
6:00 PM	0	0	0	0	0	3
7:00 PM	0	0	0	0	0	4

TIME	Neptune Way to Windward Way		Windward Way to Surfrider		Surfrider to Sportfisher Dr	
	E Red Zone	W Red Zone	E No Parking 5a-6a daily	W Red Zone	E No Parking 5a-6a daily	W No Posted Restrictions
Spaces			3	0	4	4
7:00 AM	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0
2:00 PM	1	0	1	0	2	0
3:00 PM	0	0	0	0	0	0
4:00 PM	0	0	0	0	3	0
5:00 PM	0	0	0	0	2	1
6:00 PM	0	0	0	0	3	2
7:00 PM	0	0	0	0	4	4

TIME	Sportsfisher Dr to Civic Center Dr			W No Parking 5a-6a daily	Civic Center Dr to Pierview Way	
	E White 5 Min	W Yellow Loading	E 2hr 9a-6p (except Sundays & holidays) / NP 5a-6a daily		E 2hr 9a-6p (except Sundays & holidays)	W 2hr 9a-6p (except Sundays & holidays)
Spaces	2	1	8	14	10	9
7:00 AM	0	0	6	0	5	3
8:00 AM	0	0	2	0	9	6
9:00 AM	0	0	2	0	10	8
10:00 AM	0	0	3	3	10	9
11:00 AM	0	0	3	8	10	8
12:00 PM	1	0	5	7	10	9
1:00 PM	0	0	4	2	10	9
2:00 PM	0	0	4	1	7	7
3:00 PM	0	0	6	3	4	7
4:00 PM	0	0	3	3	4	7
5:00 PM	0	0	3	9	9	9
6:00 PM	0	0	7	14	10	9
7:00 PM	0	0	8	14	9	9

TIME	Pier View Way to Mission Ave			Mission Ave to Seagaze Dr	
	E 2hr 9a-6p (except Sundays & holidays)	W White 5 Min	W 2hr 9a-6p (except Sundays & holidays)	E 2hr 9a-6p (except Sundays & holidays)	W 2hr 9a-6p (except Sundays & holidays) / NP 5a- 6a daily
Spaces	9	2	11	5	5
7:00 AM	4	1	1	2	0
8:00 AM	4	0	3	4	2
9:00 AM	9	0	7	5	5
10:00 AM	8	1	10	5	5
11:00 AM	8	1	9	5	5
12:00 PM	9	1	9	5	5
1:00 PM	9	0	11	5	5
2:00 PM	5	0	8	3	4
3:00 PM	4	1	4	2	2
4:00 PM	7	0	9	2	3
5:00 PM	9	0	11	1	5
6:00 PM	9	0	11	4	5
7:00 PM	9	0	11	4	4

COAST HIGHWAY PARKING STUDY

Location: Coast Hwy
City: Oceanside

Day: Thursday
Date: 8/8/2013

TIME	Seagaze Dr to Topeka St			Topeka St to Michigan A		Michigan Ave to Missouri Ave	
	E 2hr 9a-6p (except Sundays & holidays)	W White 5 Min	W 2hr 9a-6p (except Sundays & holidays)	E 2hr 9a-6p (except Sundays & holidays)	W 2hr 9a-6p (except Sundays & holidays)	E 2hr 9a-6p (except Sundays & holidays)	W 2hr 9a-6p (except Sundays & holidays)
Spaces	4	1	11	14	9	17	14
7:00 AM	0	0	1	1	0	0	0
8:00 AM	0	0	0	3	2	0	0
9:00 AM	1	1	0	1	4	0	1
10:00 AM	0	0	0	5	5	0	0
11:00 AM	0	0	3	4	4	0	0
12:00 PM	1	0	9	3	6	1	2
1:00 PM	0	0	10	3	3	0	2
2:00 PM	0	0	9	3	2	0	1
3:00 PM	1	0	7	4	2	2	5
4:00 PM	0	0	7	2	1	2	1
5:00 PM	0	0	5	6	2	3	1
6:00 PM	2	0	9	2	0	3	2
7:00 PM	2	0	9	1	0	2	3

TIME	Missouri Ave to Washington Ave		Washington Ave to Minnesota Ave		Minnesota Ave to Wisconsin Ave	
	E 2hr 9a-6p (except Sundays & holidays)	W 2hr 9a-6p (except Sundays & holidays)	E 2hr 9a-6p (except Sundays & holidays)	W 2hr 9a-6p (except Sundays & holidays)	E 2hr 9a-6p (except Sundays & holidays)	W 2hr 9a-6p (except Sundays & holidays)
Spaces	14	15	16	14	10	9
7:00 AM	0	0	1	0	0	0
8:00 AM	0	1	1	0	0	0
9:00 AM	3	0	4	0	4	0
10:00 AM	5	1	4	1	1	0
11:00 AM	0	3	5	1	1	0
12:00 PM	5	8	11	2	1	0
1:00 PM	1	6	10	1	1	0
2:00 PM	6	7	8	2	1	0
3:00 PM	1	2	10	0	0	0
4:00 PM	2	4	7	0	1	0
5:00 PM	0	3	6	0	1	0
6:00 PM	0	1	8	2	1	0
7:00 PM	2	4	14	2	3	0

TIME	Wisconsin Ave to Leonard Ave		Leonard Ave to West St		West St to Eucalyptus St		
	E 2hr 9a-6p (except Sundays & holidays)	W 2hr 9a-6p (except Sundays & holidays)	E 2hr 9a-6p (except Sundays & holidays)	W 2hr 9a-6p (except Sundays & holidays)	West St to Stanley St 2hr 9a-6p (except Sundays & holidays)	Stanley St to Eucalyptus 2hr 9a-6p (except Sundays & holidays)	W 2hr 9a-6p (except Sundays & holidays)
Spaces	7	15	8	9	10	12	19
7:00 AM	0	2	0	0	4	0	4
8:00 AM	1	2	0	2	4	0	4
9:00 AM	0	1	0	1	4	0	4
10:00 AM	2	2	0	4	4	0	4
11:00 AM	0	8	0	3	4	0	5
12:00 PM	0	8	0	4	4	1	3
1:00 PM	2	10	0	5	4	0	2
2:00 PM	2	10	0	4	4	0	2
3:00 PM	3	5	0	5	4	0	4
4:00 PM	3	9	0	6	4	0	4
5:00 PM	3	5	0	3	4	0	3
6:00 PM	4	7	0	4	4	0	6
7:00 PM	2	2	0	4	4	0	3

COAST HIGHWAY PARKING STUDY

Location: Coast Hwy
City: Oceanside

Day: Thursday
Date: 8/8/2013

TIME	Eucalyptus St to Oceanside Blvd		Oceanside Blvd to Godfrey St		Godfrey St to Morse St	
	E	W	E	W	E	W
	NP Anytime	No Posted Restrictions	NP Anytime	NP Anytime	No Posted Restrictions	NP Anytime
Spaces		17			7	
7:00 AM	0	2	0	0	1	0
8:00 AM	0	2	0	0	1	0
9:00 AM	0	2	0	0	1	0
10:00 AM	0	2	0	0	1	0
11:00 AM	0	5	0	0	1	0
12:00 PM	0	7	0	0	1	0
1:00 PM	0	5	0	0	1	0
2:00 PM	0	6	0	0	1	0
3:00 PM	0	4	0	0	1	0
4:00 PM	0	4	0	0	2	0
5:00 PM	0	3	0	0	1	0
6:00 PM	0	2	0	0	1	0
7:00 PM	0	2	0	0	1	0

TIME	Morse St to Whaley St		Whaley St to Cassidy St		
	E	W	E	Green Curb	W
	2hr 8a-5p (except Sundays & holidays)	2hr 8a-5p (except Sundays & holidays)	2hr 8a-5p (except Sundays & holidays)		2hr 8a-5p (except Sundays & holidays) / NP 5a-6a daily
Spaces	11	12	15	1	17
7:00 AM	0	0	0	0	0
8:00 AM	0	2	1	0	6
9:00 AM	0	3	1	0	7
10:00 AM	0	4	4	0	10
11:00 AM	0	4	3	0	13
12:00 PM	0	5	6	0	12
1:00 PM	8	5	8	0	9
2:00 PM	9	7	8	0	15
3:00 PM	1	4	7	0	15
4:00 PM	0	4	6	0	10
5:00 PM	1	4	4	0	3
6:00 PM	1	3	2	0	1
7:00 PM	0	3	3	0	0

TIME	Cassidy St to Kelly St		Kelly St to Vista Way		Vista Way to Eaton St	
	E	W	E	W	E	W
	2hr 8a-5p (except Sundays & holidays)	2hr 8a-5p (except Sundays & holidays)	2hr 8a-5p (except Sundays & holidays)	2hr 8a-5p (except Sundays & holidays)	NP Anytime	NP Anytime
Spaces	11	17	14	11		
7:00 AM	0	0	0	0	0	0
8:00 AM	2	1	2	0	0	0
9:00 AM	4	0	2	0	0	0
10:00 AM	8	1	2	0	0	0
11:00 AM	8	4	0	2	0	0
12:00 PM	6	4	3	0	0	0
1:00 PM	6	9	4	4	0	0
2:00 PM	8	15	5	2	0	0
3:00 PM	3	3	1	1	0	0
4:00 PM	5	2	1	1	0	0
5:00 PM	2	0	2	3	0	0
6:00 PM	0	10	1	2	0	0
7:00 PM	8	8	0	2	0	0



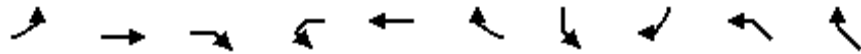
Appendix C

Existing Conditions Intersection Calculation Sheets (Synchro Analysis Sheets for AM and PM)

HCM Signalized Intersection Capacity Analysis

1: Harbor Dr & I-5 Ramps

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR
Lane Configurations										
Volume (vph)	85	78	51	71	290	486	89	66	156	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6	5.6	2.0	2.0	2.0	5.6	5.6	5.6	5.6
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.93	0.85	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1583	1770	3158	1441	1770	1583	1770	1583
Flt Permitted	0.35	1.00	1.00	0.70	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	648	1863	1583	1307	3158	1441	1770	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	85	55	77	315	528	97	72	170	116
RTOR Reduction (vph)	0	0	43	0	191	191	0	30	0	0
Lane Group Flow (vph)	92	85	12	77	388	73	97	42	170	116
Turn Type	Perm		Perm	Perm		Perm		Perm		Perm
Protected Phases		4			8		6!		2!	
Permitted Phases	4		4	8		8		6		2
Actuated Green, G (s)	11.5	11.5	11.5	15.1	15.1	15.1	31.6	31.6	31.6	31.6
Effective Green, g (s)	11.5	11.5	11.5	15.1	15.1	15.1	31.6	31.6	31.6	31.6
Actuated g/C Ratio	0.21	0.21	0.21	0.28	0.28	0.28	0.58	0.58	0.58	0.58
Clearance Time (s)	5.6	5.6	5.6	2.0	2.0	2.0	5.6	5.6	5.6	5.6
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)	137	395	335	363	878	401	1030	921	1030	921
v/s Ratio Prot		0.05			0.12		0.05		c0.10	
v/s Ratio Perm	c0.14		0.01	0.06		0.05		0.03		0.07
v/c Ratio	0.67	0.22	0.03	0.21	0.44	0.18	0.09	0.05	0.17	0.13
Uniform Delay, d1	19.7	17.7	17.0	15.0	16.1	14.9	5.0	4.9	5.2	5.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.7	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.3	0.3
Delay (s)	29.4	17.8	17.0	15.1	16.3	15.0	5.2	5.0	5.6	5.4
Level of Service	C	B	B	B	B	B	A	A	A	A
Approach Delay (s)		22.2			15.8		5.1		5.5	
Approach LOS		C			B		A		A	

Intersection Summary

HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	54.3	Sum of lost time (s)	11.2
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Driveway & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕	↕		↕	↕		↕	
Volume (vph)	0	0	2	325	0	239	1	113	369	76	105	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6		4.6	4.6	4.0		4.6	4.0		4.6	
Lane Util. Factor		1.00		0.95	0.95	1.00		0.95	1.00		0.95	
Frt		0.86		1.00	1.00	0.85		1.00	0.85		1.00	
Flt Protected		1.00		0.95	0.95	1.00		1.00	1.00		0.98	
Satd. Flow (prot)		1611		1681	1681	1583		3538	1583		3466	
Flt Permitted		1.00		0.95	0.95	1.00		1.00	1.00		0.98	
Satd. Flow (perm)		1611		1681	1681	1583		3538	1583		3466	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	2	353	0	260	1	123	401	83	114	0
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	176	177	260	0	124	401	0	197	0
Turn Type	Perm			Split		Free	Split		Free	Split		
Protected Phases		4		8	8		2	2		6	6	
Permitted Phases	4					Free			Free			
Actuated Green, G (s)		1.0		9.9	9.9	65.5		18.1	65.5		18.1	
Effective Green, g (s)		1.0		9.9	9.9	65.5		18.1	65.5		18.1	
Actuated g/C Ratio		0.02		0.15	0.15	1.00		0.28	1.00		0.28	
Clearance Time (s)		4.6		4.6	4.6			4.6			4.6	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		25		254	254	1583		978	1583		958	
v/s Ratio Prot		0.00		0.10	c0.11			0.04			0.06	
v/s Ratio Perm						0.16			c0.25			
v/c Ratio		0.00		0.69	0.70	0.16		0.13	0.25		0.21	
Uniform Delay, d1		31.8		26.4	26.4	0.0		17.8	0.0		18.2	
Progression Factor		1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.0		7.9	8.1	0.2		0.3	0.4		0.5	
Delay (s)		31.8		34.3	34.4	0.2		18.0	0.4		18.7	
Level of Service		C		C	C	A		B	A		B	
Approach Delay (s)		31.8			19.9			4.6			18.7	
Approach LOS		C			B			A			B	

Intersection Summary

HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	4.6
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

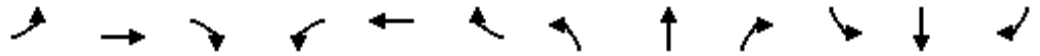
Description: SR-76 & Coast Hwy

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

3: Surfrider Way & Pacific St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	39	9	29	50	53	28	43	42	79	59	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	42	10	32	54	58	30	47	46	86	64	13






















Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	57	143	123	163
Volume Left (vph)	4	32	30	86
Volume Right (vph)	10	58	46	13
Hadj (s)	-0.05	-0.16	-0.14	0.09
Departure Headway (s)	4.7	4.5	4.4	4.6
Degree Utilization, x	0.07	0.18	0.15	0.21
Capacity (veh/h)	704	748	766	738
Control Delay (s)	8.1	8.5	8.2	8.8
Approach Delay (s)	8.1	8.5	8.2	8.8
Approach LOS	A	A	A	A

Intersection Summary			
Delay		8.5	
HCM Level of Service		A	
Intersection Capacity Utilization	35.7%		ICU Level of Service A
Analysis Period (min)		15	

HCM Signalized Intersection Capacity Analysis

4: Surfrider Way & Coast Hwy

4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	112	11	31	6	21	43	29	218	13	17	299	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0	2.0		2.0		2.0	4.2		4.6	2.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.92		1.00	0.99		1.00	0.97	
Flt Protected		0.96	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1782	1583		1702		1770	3510		1770	3445	
Flt Permitted		0.74	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1374	1583		1679		1770	3510		1770	3445	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	122	12	34	7	23	47	32	237	14	18	325	70
RTOR Reduction (vph)	0	0	25	0	35	0	0	6	0	0	16	0
Lane Group Flow (vph)	0	134	9	0	42	0	32	245	0	18	379	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		10.6	10.6		10.6		1.6	8.9		11.6	23.7	
Effective Green, g (s)		10.6	10.6		10.6		1.6	8.9		11.6	23.7	
Actuated g/C Ratio		0.25	0.25		0.25		0.04	0.21		0.28	0.57	
Clearance Time (s)		2.0	2.0		2.0		2.0	4.2		4.6	2.0	
Vehicle Extension (s)		7.0	7.0		7.0		3.0	3.0		3.0	7.0	
Lane Grp Cap (vph)		348	400		425		68	746		490	1949	
v/s Ratio Prot							c0.02	c0.07		0.01	c0.11	
v/s Ratio Perm		c0.10	0.01		0.02							
v/c Ratio		0.39	0.02		0.10		0.47	0.33		0.04	0.19	
Uniform Delay, d1		13.0	11.8		12.0		19.7	14.0		11.1	4.4	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.5	0.1		0.4		5.1	0.3		0.0	0.2	
Delay (s)		15.5	11.8		12.4		24.8	14.2		11.1	4.6	
Level of Service		B	B		B		C	B		B	A	
Approach Delay (s)		14.7			12.4			15.4			4.9	
Approach LOS		B			B			B			A	
Intersection Summary												
HCM Average Control Delay			10.4				HCM Level of Service			B		
HCM Volume to Capacity ratio			0.29									
Actuated Cycle Length (s)			41.9				Sum of lost time (s)			10.2		
Intersection Capacity Utilization			40.4%				ICU Level of Service			A		
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

5: Civic Center Dr & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Volume (vph)	9	7	6	18	10	18	5	210	22	52	250	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.6			4.6	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.93		1.00	0.90			0.99			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1770	1732		1770	1682			3486			3494	
Flt Permitted	0.74	1.00		0.75	1.00			0.95			0.85	
Satd. Flow (perm)	1373	1732		1393	1682			3300			3011	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	8	7	20	11	20	5	228	24	57	272	10
RTOR Reduction (vph)	0	3	0	0	9	0	0	17	0	0	5	0
Lane Group Flow (vph)	10	12	0	20	22	0	0	240	0	0	334	0
Turn Type	Perm		Perm		Perm		Perm		Perm		Perm	
Protected Phases	4		8		8		2		6		6	
Permitted Phases	4		8		2		6		6		6	
Actuated Green, G (s)	25.8	25.8		25.8	25.8			11.3			11.3	
Effective Green, g (s)	25.8	25.8		25.8	25.8			11.3			11.3	
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.25			0.25	
Clearance Time (s)	4.2	4.2		4.2	4.2			4.6			4.6	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			4.0			4.0	
Lane Grp Cap (vph)	772	974		783	945			812			741	
v/s Ratio Prot		0.01			0.01							
v/s Ratio Perm	0.01			c0.01				0.07			c0.11	
v/c Ratio	0.01	0.01		0.03	0.02			0.30			0.45	
Uniform Delay, d1	4.4	4.4		4.5	4.5			14.1			14.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.0		0.1	0.0			0.3			0.6	
Delay (s)	4.5	4.5		4.5	4.5			14.3			15.3	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)		4.5			4.5			14.3			15.3	
Approach LOS		A			A			B			B	

Intersection Summary

HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.16		
Actuated Cycle Length (s)	45.9	Sum of lost time (s)	8.8
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

6: Pier View Way & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	9	9	10	14	15	7	217	11	11	236	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		5.0	5.0			5.0			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frbp, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	0.99	1.00		0.99	1.00			1.00			1.00	
Frt	1.00	0.93		1.00	0.92			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1745	1704		1754	1695			3503			3485	
Flt Permitted	0.74	1.00		0.74	1.00			0.94			0.93	
Satd. Flow (perm)	1354	1704		1374	1695			3290			3264	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	10	10	11	15	16	8	236	12	12	257	20
RTOR Reduction (vph)	0	4	0	0	6	0	0	7	0	0	10	0
Lane Group Flow (vph)	7	16	0	11	25	0	0	249	0	0	279	0
Confl. Peds. (#/hr)	16		11	11		16	10		17	17		10
Confl. Bikes (#/hr)			2			2						1
Turn Type	Perm		Perm		Perm		Perm		Perm		Perm	
Protected Phases		4			8			2				6
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	31.8	31.8		31.0	31.0			9.4			9.9	
Effective Green, g (s)	31.8	31.8		31.0	31.0			9.4			9.9	
Actuated g/C Ratio	0.63	0.63		0.62	0.62			0.19			0.20	
Clearance Time (s)	4.2	4.2		5.0	5.0			5.0			4.5	
Vehicle Extension (s)	3.0	3.0		3.5	3.5			3.0			3.5	
Lane Grp Cap (vph)	854	1075		845	1043			614			641	
v/s Ratio Prot		0.01			c0.01							
v/s Ratio Perm	0.01			0.01				0.08				c0.09
v/c Ratio	0.01	0.02		0.01	0.02			0.41			0.43	
Uniform Delay, d1	3.4	3.5		3.8	3.8			18.0			17.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.0		0.0	0.0			0.4			0.6	
Delay (s)	3.5	3.5		3.8	3.8			18.5			18.4	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)		3.5			3.8			18.5			18.4	
Approach LOS		A			A			B			B	



















Intersection Summary

HCM Average Control Delay	16.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.12		
Actuated Cycle Length (s)	50.4	Sum of lost time (s)	9.5
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

7: Pier View Way & Horne St

4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	5	19	17	9	5	88	137	6	7	94	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	5	21	18	10	5	96	149	7	8	102	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)							330					
pX, platoon unblocked												
vC, conflicting volume	474	467	105	488	467	152	109				155	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	474	467	105	488	467	152	109				155	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	100	99	98	96	98	99	94				99	
cM capacity (veh/h)	463	459	949	450	459	894	1482				1425	
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1							
Volume Total	8	21	34	251	116							
Volume Left	2	0	18	96	8							
Volume Right	0	21	5	7	7							
cSH	460	949	492	1482	1425							
Volume to Capacity	0.02	0.02	0.07	0.06	0.01							
Queue Length 95th (ft)	1	2	5	5	0							
Control Delay (s)	13.0	8.9	12.8	3.2	0.5							
Lane LOS	B	A	B	A	A							
Approach Delay (s)	10.0		12.8	3.2	0.5							
Approach LOS	A		B									
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization			34.2%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 8: Mission Ave & Pacific St

4/23/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	80	46	74	56	27	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	87	50	80	61	29	71
Direction, Lane #	WB 1	WB 2	NB 1	SB 1		
Volume Total (vph)	87	50	141	100		
Volume Left (vph)	87	0	0	29		
Volume Right (vph)	0	50	61	0		
Hadj (s)	0.53	-0.67	-0.22	0.09		
Departure Headway (s)	5.6	4.4	4.1	4.5		
Degree Utilization, x	0.13	0.06	0.16	0.12		
Capacity (veh/h)	612	779	835	763		
Control Delay (s)	8.2	6.5	7.9	8.1		
Approach Delay (s)	7.6		7.9	8.1		
Approach LOS	A		A	A		
Intersection Summary						
Delay			7.9			
HCM Level of Service			A			
Intersection Capacity Utilization			26.7%		ICU Level of Service	A
Analysis Period (min)			15			

Existing Year 2013 No Project

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #9 Cleveland Street and Mission Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.093
Loss Time (sec): 0 Average Delay (sec/veh): 8.1
Optimal Cycle: 0 Level Of Service: A

Table with columns for Street Name (Cleveland Street, Mission Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign), Rights (Include), and Min. Green values.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each approach.

Saturation Flow Module table showing Adjusted, Lanes, and Final Sat values for each approach.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ values.

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

HCM Signalized Intersection Capacity Analysis

10: Mission Ave & Coast Hwy

4/23/2014

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↔↔	↗		↔↔			↔↔			↔↔			
Volume (vph)	11	98	23	95	149	49	14	172	74	26	194	15		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		5.0	5.0		5.0			5.0			5.0			
Lane Util. Factor		0.95	1.00		0.95			0.95			0.95			
Frbp, ped/bikes		1.00	0.98		1.00			0.99			1.00			
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00			
Frt		1.00	0.85		0.97			0.96			0.99			
Flt Protected		0.99	1.00		0.98			1.00			0.99			
Satd. Flow (prot)		3519	1546		3373			3355			3480			
Flt Permitted		0.92	1.00		0.83			0.93			0.89			
Satd. Flow (perm)		3269	1546		2838			3117			3100			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	12	107	25	103	162	53	15	187	80	28	211	16		
RTOR Reduction (vph)	0	0	9	0	13	0	0	65	0	0	8	0		
Lane Group Flow (vph)	0	119	16	0	305	0	0	217	0	0	247	0		
Confl. Peds. (#/hr)	10		11	11		10			11			16		
Confl. Bikes (#/hr)			1						2			2		
Turn Type	Perm		Perm	Perm			Perm			Perm				
Protected Phases		4			8			2			6			
Permitted Phases	4		4	8			2		6					
Actuated Green, G (s)		41.0	41.0		41.0			11.4			11.4			
Effective Green, g (s)		41.0	41.0		41.0			11.4			11.4			
Actuated g/C Ratio		0.66	0.66		0.66			0.18			0.18			
Clearance Time (s)		5.0	5.0		5.0			5.0			5.0			
Vehicle Extension (s)		3.0	3.0		3.0			4.0			4.0			
Lane Grp Cap (vph)		2148	1016		1865			569			566			
v/s Ratio Prot														
v/s Ratio Perm		0.04	0.01		0.11			0.07			0.08			
v/c Ratio		0.06	0.02		0.16			0.38			0.44			
Uniform Delay, d1		3.8	3.7		4.1			22.4			22.6			
Progression Factor		1.00	1.00		1.00			1.00			1.00			
Incremental Delay, d2		0.0	0.0		0.2			0.6			0.7			
Delay (s)		3.9	3.7		4.3			23.0			23.4			
Level of Service		A	A		A			C			C			
Approach Delay (s)		3.8			4.3			23.0			23.4			
Approach LOS		A			A			C			C			
Intersection Summary														
HCM Average Control Delay			14.4									HCM Level of Service	B	
HCM Volume to Capacity ratio			0.22											
Actuated Cycle Length (s)			62.4								10.0			
Intersection Capacity Utilization			53.6%										ICU Level of Service	A
Analysis Period (min)			15											
c	Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

11: Mission Ave & Horne St

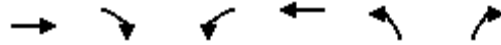
4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	258	2	50	462	194	3	14	109	132	10	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6		5.0	5.0	5.0		4.6	4.6	4.6	4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00	0.95	0.95	
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99	1.00	0.95	0.96	
Satd. Flow (prot)	1770	3535		1770	3539	1583		1847	1583	1681	1679	
Flt Permitted	0.47	1.00		0.58	1.00	1.00		0.94	1.00	0.75	0.77	
Satd. Flow (perm)	871	3535		1078	3539	1583		1759	1583	1320	1334	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	280	2	54	502	211	3	15	118	143	11	8
RTOR Reduction (vph)	0	1	0	0	0	122	0	0	89	0	4	0
Lane Group Flow (vph)	5	281	0	54	502	89	0	18	29	82	76	0
Turn Type	Perm			Perm			Perm	Perm		Perm	Perm	
Protected Phases		4			8			2				6
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	12.6	12.6		12.2	12.2	12.2		7.2	7.2	7.2	7.2	
Effective Green, g (s)	12.6	12.6		12.2	12.2	12.2		7.2	7.2	7.2	7.2	
Actuated g/C Ratio	0.43	0.43		0.42	0.42	0.42		0.25	0.25	0.25	0.25	
Clearance Time (s)	4.6	4.6		5.0	5.0	5.0		4.6	4.6	4.6	4.6	
Vehicle Extension (s)	4.0	4.0		3.5	3.5	3.5		4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	378	1536		454	1489	666		437	393	328	331	
v/s Ratio Prot		0.08		c0.14								
v/s Ratio Perm	0.01			0.05		0.06		0.01	0.02	c0.06	0.06	
v/c Ratio	0.01	0.18		0.12	0.34	0.13		0.04	0.07	0.25	0.23	
Uniform Delay, d1	4.7	5.0		5.1	5.7	5.2		8.3	8.3	8.7	8.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.0	0.1		0.1	0.2	0.1		0.1	0.1	0.5	0.5	
Delay (s)	4.7	5.1		5.3	5.8	5.3		8.3	8.5	9.3	9.2	
Level of Service	A	A		A	A	A		A	A	A	A	
Approach Delay (s)		5.1			5.6			8.4			9.2	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			6.2				HCM Level of Service			A		
HCM Volume to Capacity ratio			0.30									
Actuated Cycle Length (s)			29.0				Sum of lost time (s)			9.6		
Intersection Capacity Utilization			38.7%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

12: Seagaze Dr & Tremont St

4/23/2014



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Volume (veh/h)	35	12	44	60	11	17
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	13	48	65	12	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	248					
pX, platoon unblocked						
vC, conflicting volume			51		205	45
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			51		205	45
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		98	98
cM capacity (veh/h)			1555		759	1025

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	51	113	30
Volume Left	0	48	12
Volume Right	13	0	18
cSH	1700	1555	901
Volume to Capacity	0.03	0.03	0.03
Queue Length 95th (ft)	0	2	3
Control Delay (s)	0.0	3.3	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	3.3	9.1
Approach LOS			A

Intersection Summary			
Average Delay		3.3	
Intersection Capacity Utilization	22.3%		ICU Level of Service
Analysis Period (min)		15	A

HCM Signalized Intersection Capacity Analysis

13: Seagaze Dr & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	17	21	12	26	16	23	230	25	11	261	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2	4.2	4.2	4.6		4.2	4.6	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	0.98			1.00	0.97	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.92			1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1671			1834	1538	1770	3475		1770	3449	
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1671			1834	1538	1770	3475		1770	3449	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	18	23	13	28	17	25	250	27	12	284	42
RTOR Reduction (vph)	0	17	0	0	0	12	0	12	0	0	17	0
Lane Group Flow (vph)	17	24	0	0	41	5	25	265	0	12	309	0
Confl. Peds. (#/hr)	13		22	22		13			6			13
Confl. Bikes (#/hr)			1			3			3			2
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases	8											
Actuated Green, G (s)	18.0	18.0		18.0	18.0	4.0	10.5			3.8	10.3	
Effective Green, g (s)	18.0	18.0		18.0	18.0	4.0	10.5			3.8	10.3	
Actuated g/C Ratio	0.27	0.27		0.27	0.27	0.06	0.16			0.06	0.15	
Clearance Time (s)	4.2	4.2		4.2	4.2	4.2	4.6			4.2	4.6	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	4.0			3.0	4.0	
Lane Grp Cap (vph)	472	446		489	410	105	541			100	526	
v/s Ratio Prot	0.01	c0.01		c0.02		c0.01	0.08			0.01	c0.09	
v/s Ratio Perm	0.00											
v/c Ratio	0.04	0.05		0.08	0.01	0.24	0.49			0.12	0.59	
Uniform Delay, d1	18.3	18.4		18.6	18.2	30.3	26.1			30.3	26.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	0.1	0.2		0.3	0.0	5.3	1.0			2.4	2.0	
Delay (s)	18.5	18.6		18.9	18.3	35.6	27.0			32.7	28.6	
Level of Service	B	B		B	B	D	C			C	C	
Approach Delay (s)		18.6		18.7		27.7				28.8		
Approach LOS		B		B		C				C		

















Intersection Summary

HCM Average Control Delay	26.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.19		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	17.2
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

















14: Seagaze St & Freeman St

4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	42	7	6	37	3	3	10	6	1	7	16
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	46	8	7	40	3	3	11	7	1	8	17
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		255										
pX, platoon unblocked												
vC, conflicting volume	43			53			136	117	49	127	119	42
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	43			53			136	117	49	127	119	42
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	99	99	100	99	98
cM capacity (veh/h)	1565			1552			809	767	1019	827	765	1029
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	59	50	21	26								
Volume Left	5	7	3	1								
Volume Right	8	3	7	17								
cSH	1565	1552	840	926								
Volume to Capacity	0.00	0.00	0.02	0.03								
Queue Length 95th (ft)	0	0	2	2								
Control Delay (s)	0.7	1.0	9.4	9.0								
Lane LOS	A	A	A	A								
Approach Delay (s)	0.7	1.0	9.4	9.0								
Approach LOS			A	A								
Intersection Summary												
Average Delay			3.3									
Intersection Capacity Utilization			13.6%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 15: Seagaze St & Ditmar St

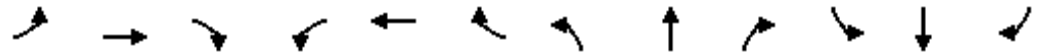
4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	17	27	3	10	32	2	1	14	2	4	15	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	29	3	11	35	2	1	15	2	4	16	24
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	51	48	18	45								
Volume Left (vph)	18	11	1	4								
Volume Right (vph)	3	2	2	24								
Hadj (s)	0.07	0.05	-0.02	-0.27								
Departure Headway (s)	4.1	4.1	4.1	3.9								
Degree Utilization, x	0.06	0.05	0.02	0.05								
Capacity (veh/h)	848	852	838	903								
Control Delay (s)	7.4	7.4	7.2	7.1								
Approach Delay (s)	7.4	7.4	7.2	7.1								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.3									
HCM Level of Service			A									
Intersection Capacity Utilization			14.3%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Seagaze St & Clementine St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	3	29	1	4	24	3	2	17	9	3	12	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	32	1	4	26	3	2	18	10	3	13	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	29			33			100	77	32	94	76	28
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	29			33			100	77	32	94	76	28
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	98	99	100	98	98
cM capacity (veh/h)	1584			1579			852	810	1042	862	811	1048

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	36	34	30	35
Volume Left	3	4	2	3
Volume Right	1	3	10	18
cSH	1584	1579	876	927
Volume to Capacity	0.00	0.00	0.03	0.04
Queue Length 95th (ft)	0	0	3	3
Control Delay (s)	0.7	1.0	9.3	9.0
Lane LOS	A	A	A	A
Approach Delay (s)	0.7	1.0	9.3	9.0
Approach LOS			A	A

Intersection Summary			
Average Delay		4.8	
Intersection Capacity Utilization	13.3%		ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

17: Missouri Ave & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	8	1	13	12	3	11	13	263	7	5	272	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	1	14	13	3	12	14	286	8	5	296	7
Pedestrians		7			7							1
Lane Width (ft)		12.0			12.0							12.0
Walking Speed (ft/s)		4.0			4.0							4.0
Percent Blockage		1			1							0
Right turn flare (veh)												
Median type								None				None
Median storage veh												
Upstream signal (ft)								1261				
pX, platoon unblocked												
vC, conflicting volume	503	646	158	498	645	155	309			300		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	503	646	158	498	645	155	309			300		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	98	97	99	99	99			100		
cM capacity (veh/h)	431	378	854	435	379	858	1241			1250		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	24	28	157	151	153	154						
Volume Left	9	13	14	0	5	0						
Volume Right	14	12	0	8	0	7						
cSH	604	538	1241	1700	1250	1700						
Volume to Capacity	0.04	0.05	0.01	0.09	0.00	0.09						
Queue Length 95th (ft)	3	4	1	0	0	0						
Control Delay (s)	11.2	12.1	0.8	0.0	0.3	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.2	12.1	0.4		0.2							
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			27.5%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

18: Washington Ave & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (veh/h)	4	1	7	3	0	3	5	278	8	2	290	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	1	8	3	0	3	5	302	9	2	315	5
Pedestrians		11			7						12	
Lane Width (ft)		12.0			12.0						12.0	
Walking Speed (ft/s)		4.0			4.0						4.0	
Percent Blockage		1			1						1	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								831				
pX, platoon unblocked												
vC, conflicting volume	510	662	171	494	660	174	332			318		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	510	662	171	494	660	174	332			318		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	99	100	100	100			100		
cM capacity (veh/h)	429	373	835	443	373	825	1213			1232		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	13	7	157	160	160	163
Volume Left	4	3	5	0	2	0
Volume Right	8	3	0	9	0	5
cSH	588	576	1213	1700	1232	1700
Volume to Capacity	0.02	0.01	0.00	0.09	0.00	0.10
Queue Length 95th (ft)	2	1	0	0	0	0
Control Delay (s)	11.3	11.3	0.3	0.0	0.1	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	11.3	11.3	0.2		0.1	
Approach LOS	B	B				

Intersection Summary

Average Delay	0.4
Intersection Capacity Utilization	25.2%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

19: Wisconsin Ave & Pacific St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	25	33	29	13	4	34	5	69	20	40	47	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	36	32	14	4	37	5	75	22	43	51	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	95	55	102	96
Volume Left (vph)	27	14	5	43
Volume Right (vph)	32	37	22	1
Hadj (s)	-0.11	-0.32	-0.08	0.12
Departure Headway (s)	4.3	4.1	4.3	4.5
Degree Utilization, x	0.11	0.06	0.12	0.12
Capacity (veh/h)	796	812	806	765
Control Delay (s)	7.9	7.4	7.8	8.1
Approach Delay (s)	7.9	7.4	7.8	8.1
Approach LOS	A	A	A	A

Intersection Summary			
Delay		7.8	
HCM Level of Service		A	
Intersection Capacity Utilization	24.9%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

20: Wisconsin Ave & Tremont St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	5	126	10	2	58	10	5	12	13	14	17	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	137	11	2	63	11	5	13	14	15	18	8
Pedestrians		1						7			14	
Lane Width (ft)		12.0						12.0			12.0	
Walking Speed (ft/s)		4.0						4.0			4.0	
Percent Blockage		0						1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					265							
pX, platoon unblocked												
vC, conflicting volume	88			155			251	253	149	261	253	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	88			155			251	253	149	261	253	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			99	98	98	98	97	99
cM capacity (veh/h)	1490			1417			665	636	892	651	636	964

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	153	76	33	41
Volume Left	5	2	5	15
Volume Right	11	11	14	8
cSH	1490	1417	733	685
Volume to Capacity	0.00	0.00	0.04	0.06
Queue Length 95th (ft)	0	0	3	5
Control Delay (s)	0.3	0.2	10.1	10.6
Lane LOS	A	A	B	B
Approach Delay (s)	0.3	0.2	10.1	10.6
Approach LOS			B	B

Intersection Summary

Average Delay		2.7		
Intersection Capacity Utilization		21.4%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Signalized Intersection Capacity Analysis

21: Wisconsin Ave & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	36	26	92	42	14	13	45	257	30	8	283	12	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.2	4.2			4.2		4.2	4.6		4.2	4.6		
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95		
Frt	1.00	0.88			0.97		1.00	0.98		1.00	0.99		
Flt Protected	0.95	1.00			0.97		0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1644			1762		1770	3483		1770	3518		
Flt Permitted	0.91	1.00			0.74		0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1693	1644			1342		1770	3483		1770	3518		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	39	28	100	46	15	14	49	279	33	9	308	13	
RTOR Reduction (vph)	0	88	0	0	11	0	0	8	0	0	3	0	
Lane Group Flow (vph)	39	40	0	0	64	0	49	304	0	9	318	0	
Turn Type	Perm		Perm				Prot		Prot				
Protected Phases	4		8				5		2		1		6
Permitted Phases	4		8										
Actuated Green, G (s)	4.4	4.4			4.4		2.3	17.7		0.9	16.3		
Effective Green, g (s)	4.4	4.4			4.4		2.3	17.7		0.9	16.3		
Actuated g/C Ratio	0.12	0.12			0.12		0.06	0.49		0.03	0.45		
Clearance Time (s)	4.2	4.2			4.2		4.2	4.6		4.2	4.6		
Vehicle Extension (s)	3.0	3.0			3.0		3.0	4.0		3.0	4.0		
Lane Grp Cap (vph)	207	201			164		113	1712		44	1593		
v/s Ratio Prot	0.02						c0.03		0.09		0.01		c0.09
v/s Ratio Perm	0.02						c0.05						
v/c Ratio	0.19	0.20			0.39		0.43	0.18		0.20	0.20		
Uniform Delay, d1	14.2	14.2			14.6		16.2	5.1		17.2	5.9		
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.4	0.5			1.6		2.7	0.1		2.3	0.1		
Delay (s)	14.6	14.7			16.1		18.9	5.2		19.5	6.0		
Level of Service	B	B			B		B	A		B	A		
Approach Delay (s)	14.7		16.1				7.0		6.4				
Approach LOS	B		B				A		A				

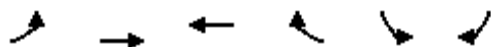
Intersection Summary

HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	36.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

22: Wisconsin Ave & Freeman St

4/23/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↗	↖		↘	
Volume (veh/h)	5	60	58	3	10	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	65	63	3	11	10
Pedestrians		1	1		8	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		266				
pX, platoon unblocked						
vC, conflicting volume	74				150	74
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	74				150	74
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	99
cM capacity (veh/h)	1515				833	981

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	71	66	21
Volume Left	5	0	11
Volume Right	0	3	10
cSH	1515	1700	897
Volume to Capacity	0.00	0.04	0.02
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.6	0.0	9.1
Lane LOS	A		A
Approach Delay (s)	0.6	0.0	9.1
Approach LOS			A

Intersection Summary			
Average Delay		1.5	
Intersection Capacity Utilization		17.6%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

23: Wisconsin Ave & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	4	56	5	12	53	7	3	4	8	22	1	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	61	5	13	58	8	3	4	9	24	1	3
Pedestrians		2									2	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		4.0									4.0	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		526										
pX, platoon unblocked												
vC, conflicting volume	67			66			166	166	64	173	164	65
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	67			66			166	166	64	173	164	65
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	99	99	97	100	100
cM capacity (veh/h)	1532			1535			786	718	1001	771	719	995

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	71	78	16	28
Volume Left	4	13	3	24
Volume Right	5	8	9	3
cSH	1532	1535	863	789
Volume to Capacity	0.00	0.01	0.02	0.04
Queue Length 95th (ft)	0	1	1	3
Control Delay (s)	0.5	1.3	9.3	9.7
Lane LOS	A	A	A	A
Approach Delay (s)	0.5	1.3	9.3	9.7
Approach LOS			A	A

Intersection Summary

Average Delay		2.9		
Intersection Capacity Utilization		19.7%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis

24: Wisconsin Ave & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	33	52	20	42	0	28	0	10	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	36	57	22	46	0	30	0	11	0	2	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	92	67	41	2
Volume Left (vph)	0	22	30	0
Volume Right (vph)	57	0	11	0
Hadj (s)	-0.33	0.10	0.02	0.03
Departure Headway (s)	3.7	4.2	4.3	4.3
Degree Utilization, x	0.10	0.08	0.05	0.00
Capacity (veh/h)	945	846	808	799
Control Delay (s)	7.1	7.5	7.5	7.3
Approach Delay (s)	7.1	7.5	7.5	7.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay		7.3	
HCM Level of Service		A	
Intersection Capacity Utilization	25.8%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 25: Oceanside Blvd & Pacific St

4/23/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	32	46	51	20	54	61
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	50	55	22	59	66
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	85	77	125			
Volume Left (vph)	35	0	59			
Volume Right (vph)	50	22	0			
Hadj (s)	-0.24	-0.14	0.13			
Departure Headway (s)	4.1	4.1	4.3			
Degree Utilization, x	0.10	0.09	0.15			
Capacity (veh/h)	834	851	818			
Control Delay (s)	7.5	7.5	8.0			
Approach Delay (s)	7.5	7.5	8.0			
Approach LOS	A	A	A			
Intersection Summary						
Delay			7.7			
HCM Level of Service			A			
Intersection Capacity Utilization			24.1%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

26: Oceanside Blvd & Tremont St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	4	132	1	6	106	22	6	7	11	22	11	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	143	1	7	115	24	7	8	12	24	12	5
Pedestrians		4			8			11			3	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					253							
pX, platoon unblocked	0.95						0.95	0.95		0.95	0.95	0.95
vC, conflicting volume	142			156			319	319	163	320	307	134
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	74			156			260	260	163	261	248	66
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			99	99	99	96	98	99
cM capacity (veh/h)	1449			1411			629	602	868	629	612	945

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	149	146	26	41
Volume Left	4	7	7	24
Volume Right	1	24	12	5
cSH	1449	1411	709	652
Volume to Capacity	0.00	0.00	0.04	0.06
Queue Length 95th (ft)	0	0	3	5
Control Delay (s)	0.2	0.4	10.3	10.9
Lane LOS	A	A	B	B
Approach Delay (s)	0.2	0.4	10.3	10.9
Approach LOS			B	B

Intersection Summary			
Average Delay		2.2	
Intersection Capacity Utilization	22.4%		ICU Level of Service
Analysis Period (min)		15	A

HCM Signalized Intersection Capacity Analysis

27: Oceanside Blvd & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↗		↖	↕↗	
Volume (vph)	15	97	52	113	98	109	27	216	60	119	274	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	5.0	5.0	5.0	4.2	5.0		4.2	5.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00	0.96	1.00	1.00	0.96	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.99	
Flt Protected		0.99	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1851	1526	1681	1761	1513	1770	3411		1770	3509	
Flt Permitted		0.99	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1851	1526	1681	1761	1513	1770	3411		1770	3509	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	105	57	123	107	118	29	235	65	129	298	12
RTOR Reduction (vph)	0	0	42	0	0	103	0	18	0	0	2	0
Lane Group Flow (vph)	0	121	15	111	119	15	29	282	0	129	308	0
Confl. Peds. (#/hr)	14		10	10		14			3			15
Confl. Bikes (#/hr)			4			5			3			3
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		10.9	10.9	12.5	12.5	12.5	4.3	46.2		11.6	53.5	
Effective Green, g (s)		10.9	10.9	12.5	12.5	12.5	4.3	46.2		11.6	53.5	
Actuated g/C Ratio		0.11	0.11	0.12	0.12	0.12	0.04	0.46		0.12	0.54	
Clearance Time (s)		4.6	4.6	5.0	5.0	5.0	4.2	5.0		4.2	5.0	
Vehicle Extension (s)		2.0	2.0	3.5	3.5	3.5	2.0	3.5		2.0	3.5	
Lane Grp Cap (vph)		202	166	210	220	189	76	1576		205	1877	
v/s Ratio Prot		c0.07		0.07	c0.07		0.02	c0.08		c0.07	0.09	
v/s Ratio Perm			0.01			0.01						
v/c Ratio		0.60	0.09	0.53	0.54	0.08	0.38	0.18		0.63	0.16	
Uniform Delay, d1		42.5	40.1	41.0	41.1	38.7	46.6	15.8		42.1	11.9	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.2	0.1	2.7	3.0	0.2	1.2	0.2		4.3	0.2	
Delay (s)		45.6	40.2	43.7	44.1	38.9	47.7	16.0		46.5	12.0	
Level of Service		D	D	D	D	D	D	B		D	B	
Approach Delay (s)		43.9			42.2			18.8			22.2	
Approach LOS		D			D			B			C	

Intersection Summary

HCM Average Control Delay	29.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.8
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

28: Oceanside Blvd & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	274	0	16	353	28	8	5	34	86	8	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.89			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.96	1.00
Satd. Flow (prot)	1770	3539		1764	3497			3094			1781	1549
Flt Permitted	0.56	1.00		0.57	1.00			0.89			0.83	1.00
Satd. Flow (perm)	1049	3539		1058	3497			2773			1548	1549
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	298	0	17	384	30	9	5	37	93	9	17
RTOR Reduction (vph)	0	0	0	0	7	0	0	29	0	0	0	13
Lane Group Flow (vph)	4	298	0	17	407	0	0	22	0	0	102	4
Confl. Peds. (#/hr)			11	11			30		1	1		30
Confl. Bikes (#/hr)			4			4						1
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		6			6
Actuated Green, G (s)	7.1	7.1		7.1	7.1			4.6			4.6	4.6
Effective Green, g (s)	7.1	7.1		7.1	7.1			4.6			4.6	4.6
Actuated g/C Ratio	0.33	0.33		0.33	0.33			0.22			0.22	0.22
Clearance Time (s)	4.5	4.5		4.5	4.5			5.0			5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			4.0			4.0	4.0
Lane Grp Cap (vph)	351	1185		354	1171			602			336	336
v/s Ratio Prot		0.08			c0.12							
v/s Ratio Perm	0.00			0.02				0.01			c0.07	0.00
v/c Ratio	0.01	0.25		0.05	0.35			0.04			0.30	0.01
Uniform Delay, d1	4.7	5.1		4.8	5.3			6.6			7.0	6.5
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	0.0	0.1		0.1	0.2			0.0			0.7	0.0
Delay (s)	4.7	5.2		4.8	5.5			6.6			7.7	6.5
Level of Service	A	A		A	A			A			A	A
Approach Delay (s)		5.2			5.5			6.6			7.5	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	5.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	21.2	Sum of lost time (s)	9.5
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

29: Morse St & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↔		↕	↕↔	
Volume (vph)	19	8	13	13	5	48	2	292	26	40	394	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6	4.6	4.2	4.9		4.2	4.9	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes		0.99			1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.96			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728			1794	1557	1770	3489		1770	3519	
Flt Permitted		1.00			1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1769			1860	1557	1770	3489		1770	3519	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	9	14	14	5	52	2	317	28	43	428	14
RTOR Reduction (vph)	0	13	0	0	0	48	0	5	0	0	2	0
Lane Group Flow (vph)	0	31	0	0	19	4	2	340	0	43	440	0
Confl. Peds. (#/hr)	10		4	4		10			3			4
Confl. Bikes (#/hr)			1						2			3
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Actuated Green, G (s)		2.6			2.6	2.6	0.9	17.8		1.1	18.0	
Effective Green, g (s)		2.6			2.6	2.6	0.9	17.8		1.1	18.0	
Actuated g/C Ratio		0.07			0.07	0.07	0.03	0.51		0.03	0.51	
Clearance Time (s)		4.6			4.6	4.6	4.2	4.9		4.2	4.9	
Vehicle Extension (s)		2.0			2.0	2.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		131			137	115	45	1764		55	1799	
v/s Ratio Prot							0.00	0.10		c0.02	c0.13	
v/s Ratio Perm		c0.02			0.01	0.00						
v/c Ratio		0.24			0.14	0.03	0.04	0.19		0.78	0.24	
Uniform Delay, d1		15.4			15.3	15.1	16.7	4.8		16.9	4.8	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3			0.2	0.0	0.4	0.1		50.5	0.1	
Delay (s)		15.7			15.4	15.2	17.1	4.8		67.4	4.9	
Level of Service		B			B	B	B	A		E	A	
Approach Delay (s)		15.7			15.2			4.9			10.4	
Approach LOS		B			B			A			B	

Intersection Summary

HCM Average Control Delay	9.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	35.2	Sum of lost time (s)	8.8
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

30: Morse St & Freeman St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	0	60	7	11	52	0	6	0	9	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	65	8	12	57	0	7	0	10	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		252										
pX, platoon unblocked												
vC, conflicting volume	57			73			149	149	69	159	153	57
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	57			73			149	149	69	159	153	57
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	100	100
cM capacity (veh/h)	1548			1527			814	736	994	794	733	1010

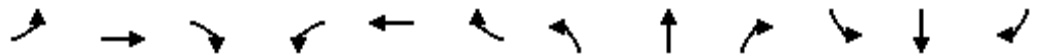
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	73	68	16	0
Volume Left	0	12	7	0
Volume Right	8	0	10	0
cSH	1548	1527	913	1700
Volume to Capacity	0.00	0.01	0.02	0.00
Queue Length 95th (ft)	0	1	1	0
Control Delay (s)	0.0	1.3	9.0	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	1.3	9.0	0.0
Approach LOS			A	A

Intersection Summary			
Average Delay		1.5	
Intersection Capacity Utilization	20.0%		ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

31: Morse St & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	1	28	4	1	20	1	7	0	3	1	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	30	4	1	22	1	8	0	3	1	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		643										
pX, platoon unblocked												
vC, conflicting volume	23			35			60	60	33	62	61	22
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23			35			60	60	33	62	61	22
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			99	100	100	100	100	100
cM capacity (veh/h)	1592			1577			933	830	1041	928	828	1055

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	36	24	11	2
Volume Left	1	1	8	1
Volume Right	4	1	3	1
cSH	1592	1577	963	988
Volume to Capacity	0.00	0.00	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.2	0.3	8.8	8.7
Lane LOS	A	A	A	A
Approach Delay (s)	0.2	0.3	8.8	8.7
Approach LOS			A	A

Intersection Summary			
Average Delay		1.8	
Intersection Capacity Utilization	13.3%		ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 32: Cassidy St & Pacific St

4/23/2014



















Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	16	54	6	16	67	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	59	7	17	73	7
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	76	24	79			
Volume Left (vph)	17	0	73			
Volume Right (vph)	59	17	0			
Hadj (s)	-0.38	-0.40	0.22			
Departure Headway (s)	3.7	3.7	4.3			
Degree Utilization, x	0.08	0.02	0.09			
Capacity (veh/h)	932	930	820			
Control Delay (s)	7.1	6.8	7.7			
Approach Delay (s)	7.1	6.8	7.7			
Approach LOS	A	A	A			
Intersection Summary						
Delay			7.3			
HCM Level of Service			A			
Intersection Capacity Utilization			21.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

33: Cassidy St & Broadway St

4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	101	45	8	67	2	34	5	8	9	6	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	110	49	9	73	2	37	5	9	10	7	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					576							
pX, platoon unblocked												
vC, conflicting volume	75			159			236	231	134	241	254	74
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	75			159			236	231	134	241	254	74
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			95	99	99	99	99	100
cM capacity (veh/h)	1524			1421			706	664	915	698	644	988
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	161	84	51	20								
Volume Left	2	9	37	10								
Volume Right	49	2	9	3								
cSH	1524	1421	729	713								
Volume to Capacity	0.00	0.01	0.07	0.03								
Queue Length 95th (ft)	0	0	6	2								
Control Delay (s)	0.1	0.8	10.3	10.2								
Lane LOS	A	A	B	B								
Approach Delay (s)	0.1	0.8	10.3	10.2								
Approach LOS			B	B								
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			19.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

34: Cassidy St & Tremont St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	0	116	7	5	72	10	2	3	14	4	4	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	126	8	5	78	11	2	3	15	4	4	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					249							
pX, platoon unblocked												
vC, conflicting volume	89			134			230	230	130	241	228	84
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	89			134			230	230	130	241	228	84
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	98	99	99	100
cM capacity (veh/h)	1506			1451			717	667	920	696	669	976

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	134	95	21	12
Volume Left	0	5	2	4
Volume Right	8	11	15	3
cSH	1506	1451	844	743
Volume to Capacity	0.00	0.00	0.02	0.02
Queue Length 95th (ft)	0	0	2	1
Control Delay (s)	0.0	0.5	9.4	9.9
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.5	9.4	9.9
Approach LOS			A	A

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization	18.6%		ICU Level of Service
Analysis Period (min)		15	

HCM Signalized Intersection Capacity Analysis

35: Cassidy St & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Volume (vph)	24	69	45	35	32	17	57	269	32	40	295	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			5.0		4.2	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.96			0.97		1.00	0.98		1.00	0.99	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1765			1776		1770	3482		1770	3520	
Flt Permitted		0.92			0.86		0.95	1.00		0.55	1.00	
Satd. Flow (perm)		1643			1560		1770	3482		1032	3520	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	75	49	38	35	18	62	292	35	43	321	12
RTOR Reduction (vph)	0	20	0	0	11	0	0	10	0	0	2	0
Lane Group Flow (vph)	0	130	0	0	80	0	62	317	0	43	331	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)		7.3			6.9		2.3	20.7		14.2	14.2	
Effective Green, g (s)		7.3			6.9		2.3	20.7		14.2	14.2	
Actuated g/C Ratio		0.19			0.18		0.06	0.55		0.38	0.38	
Clearance Time (s)		4.6			5.0		4.2	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.5		2.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		319			286		108	1917		390	1329	
v/s Ratio Prot							c0.04	0.09			c0.09	
v/s Ratio Perm		c0.08			0.05					0.04		
v/c Ratio		0.41			0.28		0.57	0.17		0.11	0.25	
Uniform Delay, d1		13.3			13.2		17.2	4.2		7.6	8.0	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8			0.6		4.5	0.0		0.1	0.1	
Delay (s)		14.1			13.9		21.7	4.2		7.7	8.1	
Level of Service		B			B		C	A		A	A	
Approach Delay (s)		14.1			13.9			7.0			8.1	
Approach LOS		B			B			A			A	

Intersection Summary

HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	37.6	Sum of lost time (s)	13.8
Intersection Capacity Utilization	38.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

36: Cassidy St & Freeman St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	6	136	5	6	77	5	2	6	5	4	5	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	148	5	7	84	5	2	7	5	4	5	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		280										
pX, platoon unblocked												
vC, conflicting volume	89			153			273	266	151	272	266	86
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	89			153			273	266	151	272	266	86
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	99	99	99	99	99
cM capacity (veh/h)	1506			1427			665	634	896	667	634	972

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	160	96	14	17
Volume Left	7	7	2	4
Volume Right	5	5	5	8
cSH	1506	1427	720	759
Volume to Capacity	0.00	0.00	0.02	0.02
Queue Length 95th (ft)	0	0	1	2
Control Delay (s)	0.3	0.5	10.1	9.9
Lane LOS	A	A	B	A
Approach Delay (s)	0.3	0.5	10.1	9.9
Approach LOS			B	A

Intersection Summary

Average Delay		1.5		
Intersection Capacity Utilization		19.1%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis

37: Cassidy St & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	152	5	3	93	1	4	8	7	5	4	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	165	5	3	101	1	4	9	8	5	4	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	173	105	21	13
Volume Left (vph)	2	3	4	5
Volume Right (vph)	5	1	8	3
Hadj (s)	0.02	0.03	-0.14	-0.03
Departure Headway (s)	4.1	4.2	4.4	4.5
Degree Utilization, x	0.20	0.12	0.03	0.02
Capacity (veh/h)	863	845	767	741
Control Delay (s)	8.1	7.8	7.5	7.6
Approach Delay (s)	8.1	7.8	7.5	7.6
Approach LOS	A	A	A	A

Intersection Summary			
Delay		7.9	
HCM Level of Service		A	
Intersection Capacity Utilization	19.1%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

38: Cassidy St & Stewart St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	173	4	21	79	12	4	33	88	93	6	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	188	4	23	86	13	4	36	96	101	7	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	198	122	136	113
Volume Left (vph)	5	23	4	101
Volume Right (vph)	4	13	96	5
Hadj (s)	0.03	0.01	-0.38	0.18
Departure Headway (s)	4.7	4.8	4.5	5.0
Degree Utilization, x	0.26	0.16	0.17	0.16
Capacity (veh/h)	719	702	747	660
Control Delay (s)	9.3	8.7	8.4	9.0
Approach Delay (s)	9.3	8.7	8.4	9.0
Approach LOS	A	A	A	A

Intersection Summary

Delay	8.9
HCM Level of Service	A
Intersection Capacity Utilization	38.9%
ICU Level of Service	A
Analysis Period (min)	15

Existing Year 2013 No Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #39 Broadway Street and Vista Way

Average Delay (sec/veh): 7.1 Worst Case Level Of Service: A[9.2]

Table with columns for Street Name (Broadway Street, Vista Way), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Yield Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 0, 0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various movement categories.

Critical Gap Module table with columns for Critical Gp and FollowUpTim across various movement categories.

Capacity Module table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap across various movement categories.

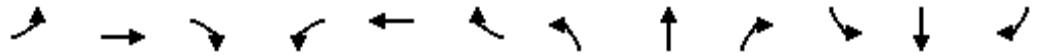
Level Of Service Module table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS across various movement categories.

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

HCM Signalized Intersection Capacity Analysis

40: Vista Way & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	81	26	218	33	185	19	163	104	157	230	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		4.9	4.2	4.2	5.0		4.2	5.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	1.00	0.97		1.00	1.00	1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85		1.00	0.85	1.00	0.94		1.00	1.00	
Flt Protected	0.95	1.00	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1533		1785	1583	1770	3287		1770	3529	
Flt Permitted	0.95	1.00	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1533		1785	1583	1770	3287		1770	3529	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	88	28	237	36	201	21	177	113	171	250	4
RTOR Reduction (vph)	0	0	26	0	0	167	0	89	0	0	1	0
Lane Group Flow (vph)	11	88	2	0	273	34	21	201	0	171	253	0
Confl. Peds. (#/hr)	7		2	2		7			5			8
Confl. Bikes (#/hr)						2			4			8
Turn Type	Split		Perm	Split		Over	Prot			Prot		
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	5.2	5.2	5.2		15.0	10.8	1.6	13.8		10.8	23.0	
Effective Green, g (s)	5.2	5.2	5.2		15.0	10.8	1.6	13.8		10.8	23.0	
Actuated g/C Ratio	0.08	0.08	0.08		0.23	0.17	0.03	0.22		0.17	0.36	
Clearance Time (s)	5.0	5.0	5.0		4.9	4.2	4.2	5.0		4.2	5.0	
Vehicle Extension (s)	0.5	0.5	0.5		3.0	2.0	2.0	3.0		2.0	3.0	
Lane Grp Cap (vph)	144	152	125		419	268	44	710		299	1270	
v/s Ratio Prot	0.01	c0.05			c0.15	0.02	0.01	c0.06		c0.10	0.07	
v/s Ratio Perm			0.00									
v/c Ratio	0.08	0.58	0.02		0.65	0.13	0.48	0.28		0.57	0.20	
Uniform Delay, d1	27.1	28.3	27.0		22.1	22.5	30.7	20.9		24.4	14.1	
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	3.3	0.0		3.6	0.1	3.0	0.2		1.6	0.1	
Delay (s)	27.2	31.6	27.0		25.7	22.6	33.7	21.1		26.1	14.2	
Level of Service	C	C	C		C	C	C	C		C	B	
Approach Delay (s)		30.2			24.4			22.0			19.0	
Approach LOS		C			C			C			B	

Intersection Summary

HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	63.9	Sum of lost time (s)	19.1
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

41: Vista Way & Freeman St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	3	300	1	3	447	18	0	0	5	10	0	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	326	1	3	486	20	0	0	5	11	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage (veh)					2							
Upstream signal (ft)		279										
pX, platoon unblocked				0.98			0.98	0.98	0.98	0.98	0.98	
vC, conflicting volume	505			327			847	845	327	841	836	496
vC1, stage 1 conf vol							333	333		502	502	
vC2, stage 2 conf vol							514	512		339	334	
vCu, unblocked vol	505			304			834	832	303	828	823	496
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	98	100	98
cM capacity (veh/h)	1059			1232			468	470	722	479	475	574

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	330	509	5	23
Volume Left	3	3	0	11
Volume Right	1	20	5	12
cSH	1059	1232	722	525
Volume to Capacity	0.00	0.00	0.01	0.04
Queue Length 95th (ft)	0	0	1	3
Control Delay (s)	0.1	0.1	10.0	12.2
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	0.1	10.0	12.2
Approach LOS			B	B

Intersection Summary

Average Delay		0.5		
Intersection Capacity Utilization		41.0%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis

42: Vista Way & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	4	315	2	6	496	10	2	1	13	12	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	342	2	7	539	11	2	1	14	13	1	7
Pedestrians		1						1				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		4.0						4.0				
Percent Blockage		0						0				
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage (veh)		2			2							
Upstream signal (ft)		687										
pX, platoon unblocked												
vC, conflicting volume	550			346			919	916	344	924	912	546
vC1, stage 1 conf vol							353	353		558	558	
vC2, stage 2 conf vol							566	563		367	354	
vCu, unblocked vol	550			346			919	916	344	924	912	546
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	98	97	100	99
cM capacity (veh/h)	1020			1212			438	444	698	441	447	537

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	349	557	17	21
Volume Left	4	7	2	13
Volume Right	2	11	14	7
cSH	1020	1212	629	468
Volume to Capacity	0.00	0.01	0.03	0.04
Queue Length 95th (ft)	0	0	2	3
Control Delay (s)	0.2	0.2	10.9	13.1
Lane LOS	A	A	B	B
Approach Delay (s)	0.2	0.2	10.9	13.1
Approach LOS			B	B

Intersection Summary

Average Delay	0.6
Intersection Capacity Utilization	40.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

43: Vista Way & Stewart St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕				↕
Volume (veh/h)	14	386	1	6	498	66	0	0	5	1	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	420	1	7	541	72	0	0	5	1	0	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage (veh)		2			2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	613			421			1016	1077	420	1046	1041	577
vC1, stage 1 conf vol							451	451		590	590	
vC2, stage 2 conf vol							565	626		456	451	
vCu, unblocked vol	613			421			1016	1077	420	1046	1041	577
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			100	100	99	100	100	98
cM capacity (veh/h)	966			1138			406	394	633	405	411	516

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	436	7	613	5	12
Volume Left	15	7	0	0	1
Volume Right	1	0	72	5	11
cSH	966	1138	1700	633	504
Volume to Capacity	0.02	0.01	0.36	0.01	0.02
Queue Length 95th (ft)	1	0	0	1	2
Control Delay (s)	0.5	8.2	0.0	10.7	12.3
Lane LOS	A	A		B	B
Approach Delay (s)	0.5	0.1		10.7	12.3
Approach LOS				B	B

Intersection Summary

Average Delay	0.4
Intersection Capacity Utilization	Err%
ICU Level of Service	H
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

44: Eaton St & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	33	5	0	5	14	222	4	7	502	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	36	5	0	5	15	241	4	8	546	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							TWTL			TWTL		
Median storage (veh)							2			2		
Upstream signal (ft)												621
pX, platoon unblocked	0.92	0.92	0.92	0.92	0.92		0.92					
vC, conflicting volume	720	840	548	871	840	123	551			246		
vC1, stage 1 conf vol	564	564		274	274							
vC2, stage 2 conf vol	157	276		597	566							
vCu, unblocked vol	656	786	471	819	786	123	474			246		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	93	99	100	99	98			99		
cM capacity (veh/h)	462	457	499	387	447	905	1003			1317		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	36	11	15	161	85	8	551
Volume Left	0	5	15	0	0	8	0
Volume Right	36	5	0	0	4	0	5
cSH	499	542	1003	1700	1700	1317	1700
Volume to Capacity	0.07	0.02	0.02	0.09	0.05	0.01	0.32
Queue Length 95th (ft)	6	2	1	0	0	0	0
Control Delay (s)	12.8	11.8	8.6	0.0	0.0	7.7	0.0
Lane LOS	B	B	A			A	
Approach Delay (s)	12.8	11.8	0.5			0.1	
Approach LOS	B	B					

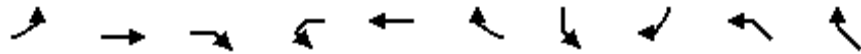
Intersection Summary

Average Delay	0.9
Intersection Capacity Utilization	43.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

1: Harbor Dr & I-5 Ramps

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR
Lane Configurations										
Volume (vph)	258	103	163	362	295	1429	160	74	209	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6	5.6	2.0	2.0	2.0	5.6	5.6	5.6	5.6
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.89	0.85	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1583	1770	3030	1441	1770	1583	1770	1583
Flt Permitted	0.18	1.00	1.00	0.68	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	339	1863	1583	1276	3030	1441	1770	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	280	112	177	393	321	1553	174	80	227	148
RTOR Reduction (vph)	0	0	72	0	194	194	0	59	0	0
Lane Group Flow (vph)	280	112	105	393	904	582	174	21	227	148
Turn Type	Perm		Perm	Perm		Perm		Perm		Perm
Protected Phases		4			8		6!		2!	
Permitted Phases	4		4	8		8		6		2
Actuated Green, G (s)	47.4	47.4	47.4	51.0	51.0	51.0	21.4	21.4	21.4	21.4
Effective Green, g (s)	47.4	47.4	47.4	51.0	51.0	51.0	21.4	21.4	21.4	21.4
Actuated g/C Ratio	0.59	0.59	0.59	0.64	0.64	0.64	0.27	0.27	0.27	0.27
Clearance Time (s)	5.6	5.6	5.6	2.0	2.0	2.0	5.6	5.6	5.6	5.6
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)	201	1104	938	813	1932	919	473	423	473	423
v/s Ratio Prot		0.06			0.30		0.10		c0.13	
v/s Ratio Perm	c0.83		0.07	0.31		0.40		0.01		0.09
v/c Ratio	1.39	0.10	0.11	0.48	0.47	0.63	0.37	0.05	0.48	0.35
Uniform Delay, d1	16.3	7.1	7.1	7.6	7.5	8.8	23.8	21.8	24.6	23.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	204.3	0.0	0.0	0.2	0.1	1.1	2.2	0.2	3.5	2.3
Delay (s)	220.6	7.1	7.1	7.8	7.6	9.9	26.0	22.0	28.1	26.0
Level of Service	F	A	A	A	A	A	C	C	C	C
Approach Delay (s)		112.2			8.4		24.7		27.2	
Approach LOS		F			A		C		C	

Intersection Summary

HCM Average Control Delay	28.7	HCM Level of Service	C
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		

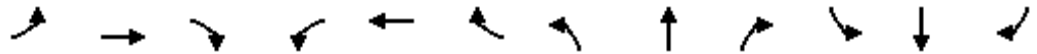
! Phase conflict between lane groups.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Driveway & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↖	↖		↕	↖		↕	
Volume (vph)	0	0	5	526	0	205	5	280	536	353	359	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6		4.6	4.6	4.0		4.6	4.0		4.6	
Lane Util. Factor		1.00		0.95	0.95	1.00		0.95	1.00		0.95	
Frt		0.86		1.00	1.00	0.85		1.00	0.85		1.00	
Flt Protected		1.00		0.95	0.95	1.00		1.00	1.00		0.98	
Satd. Flow (prot)		1611		1681	1681	1583		3536	1583		3452	
Flt Permitted		1.00		0.95	0.95	1.00		1.00	1.00		0.98	
Satd. Flow (perm)		1611		1681	1681	1583		3536	1583		3452	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	5	572	0	223	5	304	583	384	390	2
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	286	286	223	0	309	583	0	776	0
Turn Type	Perm			Split		Free	Split		Free	Split		
Protected Phases		4		8	8		2	2		6	6	
Permitted Phases	4					Free			Free			
Actuated Green, G (s)		1.0		10.4	10.4	66.0		18.1	66.0		18.1	
Effective Green, g (s)		1.0		10.4	10.4	66.0		18.1	66.0		18.1	
Actuated g/C Ratio		0.02		0.16	0.16	1.00		0.27	1.00		0.27	
Clearance Time (s)		4.6		4.6	4.6			4.6			4.6	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		24		265	265	1583		970	1583		947	
v/s Ratio Prot		0.00		c0.17	0.17			0.09			c0.22	
v/s Ratio Perm						0.14			c0.37			
v/c Ratio		0.00		1.08	1.08	0.14		0.32	0.37		0.82	
Uniform Delay, d1		32.0		27.8	27.8	0.0		19.0	0.0		22.4	
Progression Factor		1.00		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.1		78.0	78.0	0.2		0.9	0.7		7.9	
Delay (s)		32.1		105.8	105.8	0.2		19.9	0.7		30.3	
Level of Service		C		F	F	A		B	A		C	
Approach Delay (s)		32.1			76.2			7.3			30.3	
Approach LOS		C			E			A			C	

Intersection Summary

HCM Average Control Delay	36.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	66.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		

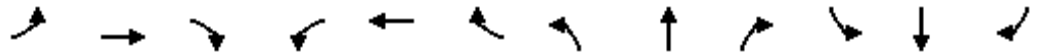
Description: SR-76 & Coast Hwy

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

3: Surfrider Way & Pacific St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	38	26	62	65	100	41	78	65	115	106	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	41	28	67	71	109	45	85	71	125	115	27
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	71	247	200	267								
Volume Left (vph)	1	67	45	125								
Volume Right (vph)	28	109	71	27								
Hadj (s)	-0.20	-0.18	-0.13	0.07								
Departure Headway (s)	5.3	5.0	5.0	5.1								
Degree Utilization, x	0.10	0.35	0.28	0.38								
Capacity (veh/h)	592	658	668	663								
Control Delay (s)	8.9	10.7	9.9	11.2								
Approach Delay (s)	8.9	10.7	9.9	11.2								
Approach LOS	A	B	A	B								
Intersection Summary												
Delay			10.5									
HCM Level of Service			B									
Intersection Capacity Utilization			52.2%	ICU Level of Service								A
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

4: Surfrider Way & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕↗		↗	↕↗	
Volume (vph)	162	50	68	11	44	27	48	554	17	43	560	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0	2.0		2.0		2.0	4.2		4.6	2.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.96		1.00	1.00		1.00	0.97	
Flt Protected		0.96	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1794	1583		1769		1770	3524		1770	3448	
Flt Permitted		0.79	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1474	1583		1720		1770	3524		1770	3448	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	176	54	74	12	48	29	52	602	18	47	609	127
RTOR Reduction (vph)	0	0	51	0	20	0	0	3	0	0	18	0
Lane Group Flow (vph)	0	230	23	0	69	0	52	617	0	47	718	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		17.6	17.6		17.6		5.4	17.3		10.2	26.9	
Effective Green, g (s)		17.6	17.6		17.6		5.4	17.3		10.2	26.9	
Actuated g/C Ratio		0.31	0.31		0.31		0.10	0.31		0.18	0.48	
Clearance Time (s)		2.0	2.0		2.0		2.0	4.2		4.6	2.0	
Vehicle Extension (s)		7.0	7.0		7.0		3.0	3.0		3.0	7.0	
Lane Grp Cap (vph)		464	498		542		171	1091		323	1659	
v/s Ratio Prot							c0.03	c0.18		0.03	c0.21	
v/s Ratio Perm		c0.16	0.01		0.04							
v/c Ratio		0.50	0.05		0.13		0.30	0.57		0.15	0.43	
Uniform Delay, d1		15.5	13.3		13.7		23.5	16.2		19.2	9.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.9	0.1		0.4		1.0	0.7		0.2	0.6	
Delay (s)		18.5	13.5		14.0		24.5	16.8		19.4	10.1	
Level of Service		B	B		B		C	B		B	B	
Approach Delay (s)		17.3			14.0			17.4			10.7	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	55.9	Sum of lost time (s)	10.2
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

5: Civic Center Dr & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	29	23	29	34	65	19	548	53	36	572	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.6			4.6	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.93		1.00	0.90			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1740		1770	1679			3488			3511	
Flt Permitted	0.69	1.00		0.72	1.00			0.92			0.89	
Satd. Flow (perm)	1280	1740		1341	1679			3224			3123	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	32	25	32	37	71	21	596	58	39	622	24
RTOR Reduction (vph)	0	12	0	0	35	0	0	13	0	0	5	0
Lane Group Flow (vph)	28	45	0	32	73	0	0	662	0	0	680	0
Turn Type	Perm		Perm		Perm		Perm		Perm		Perm	
Protected Phases	4		8		8		2		6		6	
Permitted Phases	4		8		2		6		6		6	
Actuated Green, G (s)	25.9	25.9		25.9	25.9			16.8			16.8	
Effective Green, g (s)	25.9	25.9		25.9	25.9			16.8			16.8	
Actuated g/C Ratio	0.50	0.50		0.50	0.50			0.33			0.33	
Clearance Time (s)	4.2	4.2		4.2	4.2			4.6			4.6	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			4.0			4.0	
Lane Grp Cap (vph)	644	875		674	844			1052			1019	
v/s Ratio Prot	0.03		c0.04		c0.04		0.21		0.21		c0.22	
v/s Ratio Perm	0.02		0.02		0.02		0.21		0.21		c0.22	
v/c Ratio	0.04	0.05		0.05	0.09			0.63			0.67	
Uniform Delay, d1	6.5	6.5		6.5	6.7			14.7			14.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.1		0.1	0.2			1.3			1.8	
Delay (s)	6.6	6.6		6.7	6.9			16.1			16.8	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)	6.6		6.8		6.8		16.1		16.1		16.8	
Approach LOS	A		A		A		B		B		B	

Intersection Summary

HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	51.5	Sum of lost time (s)	8.8
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

6: Pier View Way & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	30	42	18	30	51	32	531	42	23	531	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		5.0	5.0			5.0			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frbp, ped/bikes	1.00	0.99		1.00	0.98			1.00			1.00	
Flpb, ped/bikes	0.99	1.00		0.99	1.00			1.00			1.00	
Frt	1.00	0.91		1.00	0.91			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1746	1678		1754	1659			3485			3457	
Flt Permitted	0.70	1.00		0.71	1.00			0.88			0.92	
Satd. Flow (perm)	1286	1678		1303	1659			3072			3174	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	33	46	20	33	55	35	577	46	25	577	78
RTOR Reduction (vph)	0	22	0	0	27	0	0	10	0	0	19	0
Lane Group Flow (vph)	41	57	0	20	61	0	0	648	0	0	661	0
Confl. Peds. (#/hr)	16		11	11		16	10		17	17		10
Confl. Bikes (#/hr)			2			2						1
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	27.9	27.9		27.1	27.1			16.0			16.5	
Effective Green, g (s)	27.9	27.9		27.1	27.1			16.0			16.5	
Actuated g/C Ratio	0.53	0.53		0.51	0.51			0.30			0.31	
Clearance Time (s)	4.2	4.2		5.0	5.0			5.0			4.5	
Vehicle Extension (s)	3.0	3.0		3.5	3.5			3.0			3.5	
Lane Grp Cap (vph)	676	882		665	847			926			986	
v/s Ratio Prot		0.03			c0.04							
v/s Ratio Perm	0.03			0.02				c0.21			0.21	
v/c Ratio	0.06	0.06		0.03	0.07			0.70			0.67	
Uniform Delay, d1	6.2	6.2		6.5	6.6			16.4			15.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.2	0.1		0.1	0.2			2.3			1.9	
Delay (s)	6.3	6.3		6.5	6.8			18.7			17.8	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)		6.3			6.7			18.7			17.8	
Approach LOS		A			A			B			B	



















Intersection Summary

HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	53.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

7: Pier View Way & Horne St

4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	13	116	107	13	18	40	250	50	18	225	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	14	126	116	14	20	43	272	54	20	245	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								330				
pX, platoon unblocked												
vC, conflicting volume	702	702	250	808	680	299	255			326		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	702	702	250	808	680	299	255			326		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	96	84	50	96	97	97			98		
cM capacity (veh/h)	321	345	789	235	355	741	1310			1234		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1							
Volume Total	27	126	150	370	275							
Volume Left	13	0	116	43	20							
Volume Right	0	126	20	54	11							
cSH	333	789	267	1310	1234							
Volume to Capacity	0.08	0.16	0.56	0.03	0.02							
Queue Length 95th (ft)	7	14	79	3	1							
Control Delay (s)	16.8	10.4	34.5	1.2	0.7							
Lane LOS	C	B	D	A	A							
Approach Delay (s)	11.6		34.5	1.2	0.7							
Approach LOS	B		D									
Intersection Summary												
Average Delay			8.0									
Intersection Capacity Utilization			49.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Mission Ave & Pacific St

4/23/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	181	81	106	126	59	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	197	88	115	137	64	135
Direction, Lane #	WB 1	WB 2	NB 1	SB 1		
Volume Total (vph)	197	88	252	199		
Volume Left (vph)	197	0	0	64		
Volume Right (vph)	0	88	137	0		
Hadj (s)	0.53	-0.67	-0.29	0.10		
Departure Headway (s)	6.1	4.9	4.7	5.1		
Degree Utilization, x	0.34	0.12	0.33	0.28		
Capacity (veh/h)	554	684	732	665		
Control Delay (s)	11.0	7.4	9.9	10.1		
Approach Delay (s)	9.9		9.9	10.1		
Approach LOS	A		A	B		
Intersection Summary						
Delay			10.0			
HCM Level of Service			A			
Intersection Capacity Utilization			43.1%		ICU Level of Service	A
Analysis Period (min)			15			

Existing Year 2013 No Project

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #9 Cleveland Street and Mission Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.292
Loss Time (sec): 0 Average Delay (sec/veh): 10.6
Optimal Cycle: 0 Level Of Service: B

Table with columns for Street Name (Cleveland Street, Mission Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign), Rights (Include), and Lanes.

Table for Volume Module showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each approach.

Table for Saturation Flow Module showing Adjusted Lanes and Final Saturation values for each approach.

Table for Capacity Analysis Module showing Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ.

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

HCM Signalized Intersection Capacity Analysis

10: Mission Ave & Coast Hwy

4/23/2014

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕			↕↕			↕↕	
Volume (vph)	43	257	65	82	283	87	53	492	191	81	426	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0			5.0			5.0	
Lane Util. Factor		0.95	1.00		0.95			0.95			0.95	
Frbp, ped/bikes		1.00	0.98		1.00			0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.97			0.96			0.98	
Flt Protected		0.99	1.00		0.99			1.00			0.99	
Satd. Flow (prot)		3511	1544		3386			3367			3446	
Flt Permitted		0.84	1.00		0.82			0.86			0.67	
Satd. Flow (perm)		2982	1544		2816			2912			2333	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	279	71	89	308	95	58	535	208	88	463	66
RTOR Reduction (vph)	0	0	37	0	21	0	0	52	0	0	14	0
Lane Group Flow (vph)	0	326	34	0	471	0	0	749	0	0	603	0
Confl. Peds. (#/hr)	10		11	11		10			11			16
Confl. Bikes (#/hr)			1						2			2
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		6			
Actuated Green, G (s)		32.3	32.3		32.3			25.8			25.8	
Effective Green, g (s)		32.3	32.3		32.3			25.8			25.8	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		5.0	5.0		5.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			4.0			4.0	
Lane Grp Cap (vph)		1414	732		1336			1103			884	
v/s Ratio Prot												
v/s Ratio Perm		0.11	0.02		0.17			0.26			0.26	
v/c Ratio		0.23	0.05		0.35			0.68			0.68	
Uniform Delay, d1		10.6	9.6		11.3			17.7			17.7	
Progression Factor		1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2		0.4	0.1		0.7			1.8			2.4	
Delay (s)		10.9	9.7		12.0			19.5			20.1	
Level of Service		B	A		B			B			C	
Approach Delay (s)		10.7			12.0			19.5			20.1	
Approach LOS		B			B			B			C	
Intersection Summary												
HCM Average Control Delay			16.6								HCM Level of Service	B
HCM Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			68.1								Sum of lost time (s)	10.0
Intersection Capacity Utilization			84.4%								ICU Level of Service	E
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Mission Ave & Horne St

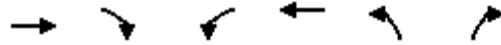
4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	662	3	142	638	268	5	44	231	365	51	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6		5.0	5.0	5.0		4.6	4.6	4.6	4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00	1.00	0.95	0.95	
Frt	1.00	1.00		1.00	1.00	0.85		1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00	0.95	0.97	
Satd. Flow (prot)	1770	3537		1770	3539	1583		1854	1583	1681	1684	
Flt Permitted	0.36	1.00		0.34	1.00	1.00		0.97	1.00	0.72	0.77	
Satd. Flow (perm)	667	3537		628	3539	1583		1809	1583	1278	1338	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	720	3	154	693	291	5	48	251	397	55	27
RTOR Reduction (vph)	0	1	0	0	0	152	0	0	127	0	4	0
Lane Group Flow (vph)	38	722	0	154	693	139	0	53	124	238	237	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases	4			8		8	2	2		6		
Permitted Phases	4			8		8	2	2	6			
Actuated Green, G (s)	25.3	25.3		24.9	24.9	24.9		17.8	17.8	17.8	17.8	
Effective Green, g (s)	25.3	25.3		24.9	24.9	24.9		17.8	17.8	17.8	17.8	
Actuated g/C Ratio	0.48	0.48		0.48	0.48	0.48		0.34	0.34	0.34	0.34	
Clearance Time (s)	4.6	4.6		5.0	5.0	5.0		4.6	4.6	4.6	4.6	
Vehicle Extension (s)	4.0	4.0		3.5	3.5	3.5		4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	323	1711		299	1685	754		616	539	435	455	
v/s Ratio Prot		0.20			0.20							
v/s Ratio Perm	0.06			c0.25		0.09		0.03	0.08	c0.19	0.18	
v/c Ratio	0.12	0.42		0.52	0.41	0.18		0.09	0.23	0.55	0.52	
Uniform Delay, d1	7.4	8.8		9.5	8.9	7.9		11.7	12.3	14.0	13.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	0.2		1.7	0.2	0.1		0.1	0.3	1.8	1.4	
Delay (s)	7.6	9.0		11.2	9.1	8.0		11.8	12.6	15.7	15.2	
Level of Service	A	A		B	A	A		B	B	B	B	
Approach Delay (s)		8.9			9.1			12.5			15.5	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM Average Control Delay			10.6				HCM Level of Service			B		
HCM Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			52.3				Sum of lost time (s)		9.6			
Intersection Capacity Utilization			57.0%				ICU Level of Service		B			
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Unsignalized Intersection Capacity Analysis

12: Seagaze Dr & Tremont St

4/23/2014



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↔	↔
Volume (veh/h)	177	32	50	126	50	63
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	192	35	54	137	54	68
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	248					
pX, platoon unblocked						
vC, conflicting volume			227	455		210
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			227	455		210
tC, single (s)			4.1	6.4		6.2
tC, 2 stage (s)						
tF (s)			2.2	3.5		3.3
p0 queue free %			96	90		92
cM capacity (veh/h)			1341	540		830

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	227	191	123
Volume Left	0	54	54
Volume Right	35	0	68
cSH	1700	1341	671
Volume to Capacity	0.13	0.04	0.18
Queue Length 95th (ft)	0	3	17
Control Delay (s)	0.0	2.5	11.6
Lane LOS		A	B
Approach Delay (s)	0.0	2.5	11.6
Approach LOS			B

Intersection Summary			
Average Delay			3.5
Intersection Capacity Utilization	37.3%		ICU Level of Service
Analysis Period (min)			15
A			

HCM Signalized Intersection Capacity Analysis

13: Seagaze Dr & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	108	67	39	57	28	58	636	54	32	479	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2	4.2	4.2	4.6		4.2	4.6	
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	0.98			1.00	0.97	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.94			1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1729			1826	1535	1770	3487		1770	3459	
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1729			1826	1535	1770	3487		1770	3459	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	117	73	42	62	30	63	691	59	35	521	67
RTOR Reduction (vph)	0	30	0	0	0	23	0	8	0	0	13	0
Lane Group Flow (vph)	76	160	0	0	104	7	63	742	0	35	575	0
Confl. Peds. (#/hr)	13		22	22		13			6			13
Confl. Bikes (#/hr)			1			3			3			2
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases							8					
Actuated Green, G (s)	18.0	18.0			18.0	18.0	4.0	17.2		3.8	17.0	
Effective Green, g (s)	18.0	18.0			18.0	18.0	4.0	17.2		3.8	17.0	
Actuated g/C Ratio	0.24	0.24			0.24	0.24	0.05	0.23		0.05	0.23	
Clearance Time (s)	4.2	4.2			4.2	4.2	4.2	4.6		4.2	4.6	
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	4.0		3.0	4.0	
Lane Grp Cap (vph)	429	419			443	372	95	808		91	792	
v/s Ratio Prot	0.04	c0.09			c0.06		c0.04	c0.21		0.02	0.17	
v/s Ratio Perm							0.00					
v/c Ratio	0.18	0.38			0.23	0.02	0.66	0.92		0.38	0.73	
Uniform Delay, d1	22.2	23.5			22.6	21.4	34.4	27.8		34.1	26.4	
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	2.6			1.2	0.1	31.0	15.4		11.9	3.6	
Delay (s)	23.1	26.1			23.8	21.5	65.4	43.2		45.9	30.0	
Level of Service	C	C			C	C	E	D		D	C	
Approach Delay (s)		25.3			23.3			44.9			30.9	
Approach LOS		C			C			D			C	

















Intersection Summary

HCM Average Control Delay	35.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	74.2	Sum of lost time (s)	12.6
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

14: Seagaze St & Freeman St

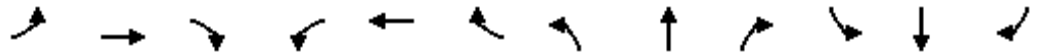
4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	148	14	19	96	5	12	8	11	3	18	38
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	161	15	21	104	5	13	9	12	3	20	41
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		255										
pX, platoon unblocked												
vC, conflicting volume	110			176			401	352	168	366	357	107
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	110			176			401	352	168	366	357	107
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			97	98	99	99	96	96
cM capacity (veh/h)	1480			1400			511	558	876	564	554	947
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	192	130	34	64								
Volume Left	16	21	13	3								
Volume Right	15	5	12	41								
cSH	1480	1400	615	757								
Volume to Capacity	0.01	0.01	0.05	0.08								
Queue Length 95th (ft)	1	1	4	7								
Control Delay (s)	0.7	1.3	11.2	10.2								
Lane LOS	A	A	B	B								
Approach Delay (s)	0.7	1.3	11.2	10.2								
Approach LOS			B	B								
Intersection Summary												
Average Delay			3.2									
Intersection Capacity Utilization			24.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

15: Seagaze St & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	26	120	16	22	99	17	2	20	13	11	42	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	130	17	24	108	18	2	22	14	12	46	28

















Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	176	150	38	86
Volume Left (vph)	28	24	2	12
Volume Right (vph)	17	18	14	28
Hadj (s)	0.01	-0.01	-0.18	-0.14
Departure Headway (s)	4.4	4.4	4.6	4.6
Degree Utilization, x	0.21	0.18	0.05	0.11
Capacity (veh/h)	795	783	724	729
Control Delay (s)	8.6	8.4	7.8	8.1
Approach Delay (s)	8.6	8.4	7.8	8.1
Approach LOS	A	A	A	A

Intersection Summary			
Delay		8.3	
HCM Level of Service		A	
Intersection Capacity Utilization	26.1%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

















16: Seagaze St & Clementine St

4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	159	4	6	54	4	0	7	7	12	24	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	173	4	7	59	4	0	8	8	13	26	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	63			177			300	268	175	278	268	61
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	63			177			300	268	175	278	268	61
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	99	99	98	96	98
cM capacity (veh/h)	1540			1399			614	631	868	657	631	1004
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	186	70	15	60								
Volume Left	9	7	0	13								
Volume Right	4	4	8	21								
cSH	1540	1399	731	731								
Volume to Capacity	0.01	0.00	0.02	0.08								
Queue Length 95th (ft)	0	0	2	7								
Control Delay (s)	0.4	0.7	10.0	10.4								
Lane LOS	A	A	B	B								
Approach Delay (s)	0.4	0.7	10.0	10.4								
Approach LOS			B	B								
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			26.8%		ICU Level of Service				A			
Analysis Period (min)			15									

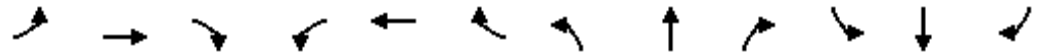
HCM Unsignalized Intersection Capacity Analysis
 17: Missouri Ave & Coast Hwy

4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	2	37	11	5	11	16	644	16	8	589	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	2	40	12	5	12	17	700	17	9	640	18
Pedestrians		7			7							1
Lane Width (ft)		12.0			12.0							12.0
Walking Speed (ft/s)		4.0			4.0							4.0
Percent Blockage		1			1							0
Right turn flare (veh)												
Median type								None				None
Median storage (veh)												
Upstream signal (ft)								1261				
pX, platoon unblocked												
vC, conflicting volume	1074	1433	336	1129	1434	367	666				724	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1074	1433	336	1129	1434	367	666				724	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	92	98	94	92	96	98	98				99	
cM capacity (veh/h)	159	128	656	142	127	626	914				869	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	54	29	367	367	329	339						
Volume Left	12	12	17	0	9	0						
Volume Right	40	12	0	17	0	18						
cSH	354	201	914	1700	869	1700						
Volume to Capacity	0.15	0.15	0.02	0.22	0.01	0.20						
Queue Length 95th (ft)	13	13	1	0	1	0						
Control Delay (s)	17.0	26.0	0.6	0.0	0.4	0.0						
Lane LOS	C	D	A		A							
Approach Delay (s)	17.0	26.0	0.3		0.2							
Approach LOS	C	D										
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			40.2%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 18: Washington Ave & Coast Hwy

4/23/2014



















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	4	0	20	10	0	9	13	665	14	18	604	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	0	22	11	0	10	14	723	15	20	657	18
Pedestrians		11			7						12	
Lane Width (ft)		12.0			12.0						12.0	
Walking Speed (ft/s)		4.0			4.0						4.0	
Percent Blockage		1			1						1	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								831				
pX, platoon unblocked												
vC, conflicting volume	1127	1489	348	1155	1491	388	686			745		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1127	1489	348	1155	1491	388	686			745		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	97	92	100	98	98			98		
cM capacity (veh/h)	147	116	642	140	116	601	895			854		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	26	21	376	377	348	347
Volume Left	4	11	14	0	20	0
Volume Right	22	10	0	15	0	18
cSH	412	220	895	1700	854	1700
Volume to Capacity	0.06	0.09	0.02	0.22	0.02	0.20
Queue Length 95th (ft)	5	8	1	0	2	0
Control Delay (s)	14.3	23.1	0.5	0.0	0.8	0.0
Lane LOS	B	C	A		A	
Approach Delay (s)	14.3	23.1	0.3		0.4	
Approach LOS	B	C				

Intersection Summary		
Average Delay		0.9
Intersection Capacity Utilization	43.6%	ICU Level of Service
Analysis Period (min)		15
		A

HCM Unsignalized Intersection Capacity Analysis
 19: Wisconsin Ave & Pacific St

4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	57	85	49	45	7	58	7	130	36	69	80	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	62	92	53	49	8	63	8	141	39	75	87	3
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	208	120	188	165								
Volume Left (vph)	62	49	8	75								
Volume Right (vph)	53	63	39	3								
Hadj (s)	-0.06	-0.20	-0.08	0.11								
Departure Headway (s)	4.9	4.9	4.9	5.1								
Degree Utilization, x	0.28	0.16	0.26	0.23								
Capacity (veh/h)	679	666	684	651								
Control Delay (s)	9.8	8.9	9.5	9.7								
Approach Delay (s)	9.8	8.9	9.5	9.7								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			9.5									
HCM Level of Service			A									
Intersection Capacity Utilization			40.1%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

20: Wisconsin Ave & Tremont St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	8	207	20	9	144	24	19	33	31	19	44	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	225	22	10	157	26	21	36	34	21	48	10
Pedestrians		1						7			14	
Lane Width (ft)		12.0						12.0			12.0	
Walking Speed (ft/s)		4.0						4.0			4.0	
Percent Blockage		0						1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					265							
pX, platoon unblocked												
vC, conflicting volume	197			254			484	476	243	508	474	185
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	197			254			484	476	243	508	474	185
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			95	92	96	95	90	99
cM capacity (veh/h)	1360			1304			436	472	791	414	474	847

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	255	192	90	78
Volume Left	9	10	21	21
Volume Right	22	26	34	10
cSH	1360	1304	544	482
Volume to Capacity	0.01	0.01	0.17	0.16
Queue Length 95th (ft)	0	1	15	14
Control Delay (s)	0.3	0.5	12.9	13.9
Lane LOS	A	A	B	B
Approach Delay (s)	0.3	0.5	12.9	13.9
Approach LOS			B	B

Intersection Summary

Average Delay		3.9	
Intersection Capacity Utilization	27.4%		ICU Level of Service
Analysis Period (min)		15	A

HCM Signalized Intersection Capacity Analysis

21: Wisconsin Ave & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	61	123	57	49	10	108	582	62	11	582	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2		4.2	4.6		4.2	4.6	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.90			0.99		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1676			1797		1770	3488		1770	3510	
Flt Permitted	0.75	1.00			0.75		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1398	1676			1377		1770	3488		1770	3510	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	66	134	62	53	11	117	633	67	12	633	37
RTOR Reduction (vph)	0	81	0	0	4	0	0	8	0	0	4	0
Lane Group Flow (vph)	75	119	0	0	122	0	117	692	0	12	666	0
Turn Type	Perm		Perm				Prot		Prot			
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	10.4	10.4			10.4		7.2	25.5		0.8	19.1	
Effective Green, g (s)	10.4	10.4			10.4		7.2	25.5		0.8	19.1	
Actuated g/C Ratio	0.21	0.21			0.21		0.14	0.51		0.02	0.38	
Clearance Time (s)	4.2	4.2			4.2		4.2	4.6		4.2	4.6	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	4.0		3.0	4.0	
Lane Grp Cap (vph)	293	351			288		256	1790		28	1349	
v/s Ratio Prot		0.07					c0.07	0.20		0.01	c0.19	
v/s Ratio Perm	0.05				c0.09							
v/c Ratio	0.26	0.34			0.42		0.46	0.39		0.43	0.49	
Uniform Delay, d1	16.4	16.7			17.1		19.5	7.3		24.2	11.6	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	0.6			1.0		1.3	0.2		10.2	0.4	
Delay (s)	16.9	17.3			18.1		20.8	7.5		34.4	12.0	
Level of Service	B	B			B		C	A		C	B	
Approach Delay (s)		17.2			18.1			9.4			12.4	
Approach LOS		B			B			A			B	

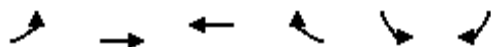
Intersection Summary

HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	49.7	Sum of lost time (s)	13.0
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

22: Wisconsin Ave & Freeman St

4/23/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	5	125	93	14	21	22
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	136	101	15	23	24
Pedestrians		1	1		8	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		266				
pX, platoon unblocked						
vC, conflicting volume	124				264	118
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	124				264	118
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	97
cM capacity (veh/h)	1453				716	927

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	141	116	47
Volume Left	5	0	23
Volume Right	0	15	24
cSH	1453	1700	811
Volume to Capacity	0.00	0.07	0.06
Queue Length 95th (ft)	0	0	5
Control Delay (s)	0.3	0.0	9.7
Lane LOS	A		A
Approach Delay (s)	0.3	0.0	9.7
Approach LOS			A

Intersection Summary			
Average Delay		1.6	
Intersection Capacity Utilization		21.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

23: Wisconsin Ave & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	14	129	2	1	86	18	1	1	2	27	0	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	140	2	1	93	20	1	1	2	29	0	21
Pedestrians		2									2	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		4.0									4.0	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		526										
pX, platoon unblocked												
vC, conflicting volume	115			142			300	289	141	282	280	107
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	115			142			300	289	141	282	280	107
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	96	100	98
cM capacity (veh/h)	1471			1440			631	613	907	660	620	944

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	158	114	4	50
Volume Left	15	1	1	29
Volume Right	2	20	2	21
cSH	1471	1440	738	754
Volume to Capacity	0.01	0.00	0.01	0.07
Queue Length 95th (ft)	1	0	0	5
Control Delay (s)	0.8	0.1	9.9	10.1
Lane LOS	A	A	A	B
Approach Delay (s)	0.8	0.1	9.9	10.1
Approach LOS			A	B

Intersection Summary

Average Delay	2.1
Intersection Capacity Utilization	27.2%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

24: Wisconsin Ave & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	79	79	23	57	1	47	1	32	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	86	86	25	62	1	51	1	35	0	1	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	173	88	87	1
Volume Left (vph)	1	25	51	0
Volume Right (vph)	86	1	35	0
Hadj (s)	-0.26	0.08	-0.09	0.03
Departure Headway (s)	3.9	4.4	4.4	4.6
Degree Utilization, x	0.19	0.11	0.11	0.00
Capacity (veh/h)	890	802	775	723
Control Delay (s)	7.9	7.9	7.9	7.6
Approach Delay (s)	7.9	7.9	7.9	7.6
Approach LOS	A	A	A	A

Intersection Summary			
Delay		7.9	
HCM Level of Service		A	
Intersection Capacity Utilization		37.1%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 25: Oceanside Blvd & Pacific St

4/23/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	43	90	111	63	65	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	47	98	121	68	71	117
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	145	189	188			
Volume Left (vph)	47	0	71			
Volume Right (vph)	98	68	0			
Hadj (s)	-0.31	-0.18	0.11			
Departure Headway (s)	4.4	4.3	4.6			
Degree Utilization, x	0.18	0.22	0.24			
Capacity (veh/h)	747	806	753			
Control Delay (s)	8.4	8.5	9.0			
Approach Delay (s)	8.4	8.5	9.0			
Approach LOS	A	A	A			
Intersection Summary						
Delay			8.7			
HCM Level of Service			A			
Intersection Capacity Utilization			36.9%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

26: Oceanside Blvd & Tremont St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	8	201	18	19	166	42	25	31	37	46	19	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	218	20	21	180	46	27	34	40	50	21	13
Pedestrians		4			8			11			3	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					253							
pX, platoon unblocked	0.91						0.91	0.91		0.91	0.91	0.91
vC, conflicting volume	229			249			529	527	247	558	514	210
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	106			249			434	433	247	467	418	85
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			94	93	95	87	96	99
cM capacity (veh/h)	1351			1305			444	455	779	399	463	883

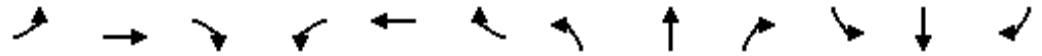
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	247	247	101	84
Volume Left	9	21	27	50
Volume Right	20	46	40	13
cSH	1351	1305	541	453
Volume to Capacity	0.01	0.02	0.19	0.18
Queue Length 95th (ft)	0	1	17	17
Control Delay (s)	0.3	0.8	13.2	14.7
Lane LOS	A	A	B	B
Approach Delay (s)	0.3	0.8	13.2	14.7
Approach LOS			B	B

Intersection Summary			
Average Delay		4.2	
Intersection Capacity Utilization		35.5%	ICU Level of Service
Analysis Period (min)		15	A

HCM Signalized Intersection Capacity Analysis

27: Oceanside Blvd & Coast Hwy

4/23/2014



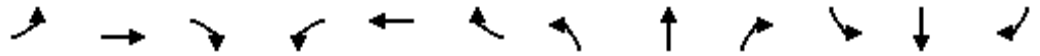
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↗		↖	↕↗	
Volume (vph)	40	160	60	263	155	235	63	618	169	242	525	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	5.0	5.0	5.0	4.2	5.0		4.2	5.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00	0.97	1.00	1.00	0.96	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.99	
Flt Protected		0.99	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1844	1529	1681	1746	1516	1770	3412		1770	3509	
Flt Permitted		0.99	1.00	0.95	0.99	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1844	1529	1681	1746	1516	1770	3412		1770	3509	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	174	65	286	168	255	68	672	184	263	571	23
RTOR Reduction (vph)	0	0	25	0	0	213	0	24	0	0	3	0
Lane Group Flow (vph)	0	217	40	223	231	42	68	832	0	263	591	0
Confl. Peds. (#/hr)	14		10	10		14			3			15
Confl. Bikes (#/hr)			4			5			3			3
Turn Type	Split		Perm	Split		Perm	Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)		15.1	15.1	16.6	16.6	16.6	6.5	32.6		16.9	43.0	
Effective Green, g (s)		15.1	15.1	16.6	16.6	16.6	6.5	32.6		16.9	43.0	
Actuated g/C Ratio		0.15	0.15	0.17	0.17	0.17	0.06	0.33		0.17	0.43	
Clearance Time (s)		4.6	4.6	5.0	5.0	5.0	4.2	5.0		4.2	5.0	
Vehicle Extension (s)		2.0	2.0	3.5	3.5	3.5	2.0	3.5		2.0	3.5	
Lane Grp Cap (vph)		278	231	279	290	252	115	1112		299	1509	
v/s Ratio Prot		c0.12		c0.13	0.13		0.04	c0.24		c0.15	0.17	
v/s Ratio Perm			0.03			0.03						
v/c Ratio		0.78	0.17	0.80	0.80	0.17	0.59	0.75		0.88	0.39	
Uniform Delay, d1		40.9	37.0	40.1	40.1	35.8	45.5	30.0		40.6	19.5	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		12.3	0.1	15.1	14.4	0.4	5.3	4.6		23.5	0.8	
Delay (s)		53.1	37.1	55.2	54.5	36.1	50.8	34.7		64.1	20.3	
Level of Service		D	D	E	D	D	D	C		E	C	
Approach Delay (s)		49.5			48.1			35.9			33.7	
Approach LOS		D			D			D			C	

Intersection Summary

HCM Average Control Delay	39.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.8
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 28: Oceanside Blvd & Ditmar St

4/23/2014



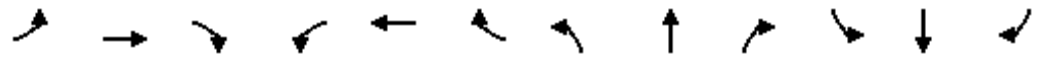
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕			↕			↖	↗
Volume (vph)	15	513	6	22	570	63	9	10	57	118	8	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.89			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.96	1.00
Satd. Flow (prot)	1770	3531		1764	3482			3091			1779	1542
Flt Permitted	0.39	1.00		0.44	1.00			0.91			0.68	1.00
Satd. Flow (perm)	727	3531		817	3482			2835			1261	1542
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	558	7	24	620	68	10	11	62	128	9	33
RTOR Reduction (vph)	0	1	0	0	9	0	0	46	0	0	0	24
Lane Group Flow (vph)	16	564	0	24	679	0	0	37	0	0	137	9
Confl. Peds. (#/hr)			11	11			30		1	1		30
Confl. Bikes (#/hr)			4			4						1
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	13.5	13.5		13.5	13.5			8.1			8.1	8.1
Effective Green, g (s)	13.5	13.5		13.5	13.5			8.1			8.1	8.1
Actuated g/C Ratio	0.43	0.43		0.43	0.43			0.26			0.26	0.26
Clearance Time (s)	4.5	4.5		4.5	4.5			5.0			5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			4.0			4.0	4.0
Lane Grp Cap (vph)	316	1533		355	1511			738			328	402
v/s Ratio Prot		0.16			c0.19							
v/s Ratio Perm	0.02			0.03				0.01			c0.11	0.01
v/c Ratio	0.05	0.37		0.07	0.45			0.05			0.42	0.02
Uniform Delay, d1	5.1	5.9		5.1	6.2			8.6			9.5	8.6
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	0.1	0.2		0.1	0.2			0.0			1.2	0.0
Delay (s)	5.2	6.1		5.2	6.4			8.7			10.7	8.6
Level of Service	A	A		A	A			A			B	A
Approach Delay (s)		6.1			6.4			8.7			10.3	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	6.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	31.1	Sum of lost time (s)	9.5
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 29: Morse St & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↕		↕	↕↕	
Volume (vph)	33	10	12	24	10	80	16	653	44	102	680	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6	4.6	4.2	4.9		4.2	4.9	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00			1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.97			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.97			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1743			1797	1555	1770	3500		1770	3526	
Flt Permitted		0.79			0.75	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1427			1401	1555	1770	3500		1770	3526	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	11	13	26	11	87	17	710	48	111	739	16
RTOR Reduction (vph)	0	11	0	0	0	76	0	5	0	0	1	0
Lane Group Flow (vph)	0	49	0	0	37	11	17	753	0	111	754	0
Confl. Peds. (#/hr)	10		4	4		10			3			4
Confl. Bikes (#/hr)			1						2			3
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Actuated Green, G (s)		5.6			5.6	5.6	0.9	19.4		6.9	25.4	
Effective Green, g (s)		5.6			5.6	5.6	0.9	19.4		6.9	25.4	
Actuated g/C Ratio		0.12			0.12	0.12	0.02	0.43		0.15	0.56	
Clearance Time (s)		4.6			4.6	4.6	4.2	4.9		4.2	4.9	
Vehicle Extension (s)		2.0			2.0	2.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		175			172	191	35	1489		268	1964	
v/s Ratio Prot							0.01	c0.22		c0.06	0.21	
v/s Ratio Perm		c0.03			0.03	0.01						
v/c Ratio		0.28			0.22	0.06	0.49	0.51		0.41	0.38	
Uniform Delay, d1		18.2			18.0	17.7	22.1	9.6		17.5	5.7	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3			0.2	0.0	10.2	0.3		1.0	0.1	
Delay (s)		18.5			18.2	17.7	32.4	9.9		18.6	5.8	
Level of Service		B			B	B	C	A		B	A	
Approach Delay (s)		18.5			17.9			10.4			7.4	
Approach LOS		B			B			B			A	

Intersection Summary		
HCM Average Control Delay	9.8	HCM Level of Service
HCM Volume to Capacity ratio	0.45	A
Actuated Cycle Length (s)	45.6	Sum of lost time (s)
Intersection Capacity Utilization	48.1%	13.7
Analysis Period (min)	15	ICU Level of Service
c Critical Lane Group		A

HCM Unsignalized Intersection Capacity Analysis

30: Morse St & Freeman St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	2	135	10	11	82	0	22	0	19	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	147	11	12	89	0	24	0	21	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		252										
pX, platoon unblocked												
vC, conflicting volume	89			158			270	270	152	290	275	89
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	89			158			270	270	152	290	275	89
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			96	100	98	100	100	100
cM capacity (veh/h)	1506			1422			678	630	894	642	626	969

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	160	101	45	0
Volume Left	2	12	24	0
Volume Right	11	0	21	0
cSH	1506	1422	763	1700
Volume to Capacity	0.00	0.01	0.06	0.00
Queue Length 95th (ft)	0	1	5	0
Control Delay (s)	0.1	1.0	10.0	0.0
Lane LOS	A	A	B	A
Approach Delay (s)	0.1	1.0	10.0	0.0
Approach LOS			B	A

Intersection Summary

Average Delay		1.8		
Intersection Capacity Utilization		21.1%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis

31: Morse St & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	0	75	16	0	29	0	16	1	5	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	82	17	0	32	0	17	1	5	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		643										
pX, platoon unblocked												
vC, conflicting volume	32			99			122	122	90	128	130	32
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	32			99			122	122	90	128	130	32
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	99	100	100	100
cM capacity (veh/h)	1581			1494			853	769	968	840	760	1042

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	99	32	24	0
Volume Left	0	0	17	0
Volume Right	17	0	5	0
cSH	1581	1494	872	1700
Volume to Capacity	0.00	0.00	0.03	0.00
Queue Length 95th (ft)	0	0	2	0
Control Delay (s)	0.0	0.0	9.2	0.0
Lane LOS			A	A
Approach Delay (s)	0.0	0.0	9.2	0.0
Approach LOS			A	A

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization	14.9%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 32: Cassidy St & Pacific St

















4/23/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	37	154	11	21	184	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	40	167	12	23	200	12
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	208	35	212			
Volume Left (vph)	40	0	200			
Volume Right (vph)	167	23	0			
Hadj (s)	-0.41	-0.36	0.22			
Departure Headway (s)	4.1	4.3	4.6			
Degree Utilization, x	0.24	0.04	0.27			
Capacity (veh/h)	830	790	742			
Control Delay (s)	8.3	7.4	9.3			
Approach Delay (s)	8.3	7.4	9.3			
Approach LOS	A	A	A			
Intersection Summary						
Delay			8.7			
HCM Level of Service			A			
Intersection Capacity Utilization			35.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 33: Cassidy St & Broadway St

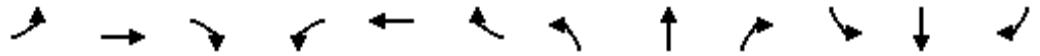
4/23/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	203	61	9	159	10	83	11	12	3	8	15
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	221	66	10	173	11	90	12	13	3	9	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					576							
pX, platoon unblocked												
vC, conflicting volume	184			287			485	470	254	484	498	178
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	184			287			485	470	254	484	498	178
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			81	98	98	99	98	98
cM capacity (veh/h)	1391			1275			472	485	785	472	468	865
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	293	193	115	28								
Volume Left	7	10	90	3								
Volume Right	66	11	13	16								
cSH	1391	1275	495	637								
Volume to Capacity	0.00	0.01	0.23	0.04								
Queue Length 95th (ft)	0	1	22	3								
Control Delay (s)	0.2	0.5	14.5	10.9								
Lane LOS	A	A	B	B								
Approach Delay (s)	0.2	0.5	14.5	10.9								
Approach LOS			B	B								
Intersection Summary												
Average Delay			3.4									
Intersection Capacity Utilization			35.6%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

34: Cassidy St & Tremont St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	3	208	5	15	173	26	3	7	14	12	3	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	226	5	16	188	28	3	8	15	13	3	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					249							
pX, platoon unblocked												
vC, conflicting volume	216			232			475	484	229	489	473	202
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	216			232			475	484	229	489	473	202
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	98	98	97	99	100
cM capacity (veh/h)	1353			1336			490	475	810	469	483	839

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	235	233	26	20
Volume Left	3	16	3	13
Volume Right	5	28	15	3
cSH	1353	1336	630	509
Volume to Capacity	0.00	0.01	0.04	0.04
Queue Length 95th (ft)	0	1	3	3
Control Delay (s)	0.1	0.6	11.0	12.4
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	0.6	11.0	12.4
Approach LOS			B	B

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization	30.1%		ICU Level of Service A
Analysis Period (min)		15	

HCM Signalized Intersection Capacity Analysis

35: Cassidy St & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (vph)	53	118	106	51	68	23	117	696	74	92	552	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			5.0		4.2	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.95			0.98		1.00	0.99		1.00	0.99	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750			1790		1770	3488		1770	3502	
Flt Permitted		0.91			0.80		0.95	1.00		0.34	1.00	
Satd. Flow (perm)		1610			1450		1770	3488		627	3502	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	128	115	55	74	25	127	757	80	100	600	45
RTOR Reduction (vph)	0	23	0	0	7	0	0	9	0	0	6	0
Lane Group Flow (vph)	0	278	0	0	147	0	127	828	0	100	639	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)		16.5			16.1		7.5	30.2		18.5	18.5	
Effective Green, g (s)		16.5			16.1		7.5	30.2		18.5	18.5	
Actuated g/C Ratio		0.29			0.29		0.13	0.54		0.33	0.33	
Clearance Time (s)		4.6			5.0		4.2	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.5		2.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		472			415		236	1871		206	1151	
v/s Ratio Prot							0.07	c0.24			c0.18	
v/s Ratio Perm		c0.17			0.10					0.16		
v/c Ratio		0.59			0.35		0.54	0.44		0.49	0.56	
Uniform Delay, d1		17.0			16.0		22.8	7.9		15.1	15.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.9			0.6		1.2	0.2		1.8	0.6	
Delay (s)		18.9			16.6		24.0	8.1		16.9	16.1	
Level of Service		B			B		C	A		B	B	
Approach Delay (s)		18.9			16.6			10.2			16.2	
Approach LOS		B			B			B			B	

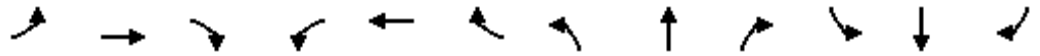
Intersection Summary

HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	56.3	Sum of lost time (s)	14.6
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

36: Cassidy St & Freeman St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	9	260	13	13	117	5	15	18	6	8	7	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	283	14	14	127	5	16	20	7	9	8	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		280										
pX, platoon unblocked												
vC, conflicting volume	133			297			481	470	290	484	474	130
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	133			297			481	470	290	484	474	130
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			97	96	99	98	98	99
cM capacity (veh/h)	1452			1265			478	483	749	468	480	920

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	307	147	42	26
Volume Left	10	14	16	9
Volume Right	14	5	7	10
cSH	1452	1265	508	579
Volume to Capacity	0.01	0.01	0.08	0.05
Queue Length 95th (ft)	1	1	7	4
Control Delay (s)	0.3	0.8	12.7	11.5
Lane LOS	A	A	B	B
Approach Delay (s)	0.3	0.8	12.7	11.5
Approach LOS			B	B

Intersection Summary			
Average Delay		2.0	
Intersection Capacity Utilization	26.4%		ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

37: Cassidy St & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	251	9	11	119	3	12	23	11	4	10	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	273	10	12	129	3	13	25	12	4	11	7

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	292	145	50	22
Volume Left (vph)	10	12	13	4
Volume Right (vph)	10	3	12	7
Hadj (s)	0.02	0.04	-0.06	-0.11
Departure Headway (s)	4.3	4.4	4.8	4.8
Degree Utilization, x	0.35	0.18	0.07	0.03
Capacity (veh/h)	828	782	677	668
Control Delay (s)	9.5	8.4	8.2	8.0
Approach Delay (s)	9.5	8.4	8.2	8.0
Approach LOS	A	A	A	A

Intersection Summary			
Delay		9.0	
HCM Level of Service		A	
Intersection Capacity Utilization	26.4%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

38: Cassidy St & Stewart St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	17	267	16	68	115	33	16	80	154	63	17	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	290	17	74	125	36	17	87	167	68	18	4

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	326	235	272	91
Volume Left (vph)	18	74	17	68
Volume Right (vph)	17	36	167	4
Hadj (s)	0.01	0.01	-0.32	0.16
Departure Headway (s)	5.3	5.5	5.3	6.1
Degree Utilization, x	0.48	0.36	0.40	0.15
Capacity (veh/h)	633	608	621	509
Control Delay (s)	13.2	11.5	11.7	10.2
Approach Delay (s)	13.2	11.5	11.7	10.2
Approach LOS	B	B	B	B

Intersection Summary

Delay	12.1
HCM Level of Service	B
Intersection Capacity Utilization	60.3%
ICU Level of Service	B
Analysis Period (min)	15

Existing Year 2013 No Project

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #39 Broadway Street and Vista Way

Average Delay (sec/veh): 6.6 Worst Case Level Of Service: A[9.6]

Table with columns for Street Name (Broadway Street, Vista Way), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Yield Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 0, 0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various movement categories.

Critical Gap Module table with columns for Critical Gp and FollowUpTim across various movement categories.

Capacity Module table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap across various movement categories.

Level Of Service Module table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS across various movement categories.

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

HCM Signalized Intersection Capacity Analysis

40: Vista Way & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	103	33	203	82	350	37	569	269	293	478	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		4.9	4.2	4.2	5.0		4.2	5.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	1.00	0.97		1.00	1.00	1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85		1.00	0.85	1.00	0.95		1.00	0.99	
Flt Protected	0.95	1.00	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1532		1799	1583	1770	3330		1770	3514	
Flt Permitted	0.95	1.00	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1532		1799	1583	1770	3330		1770	3514	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	112	36	221	89	380	40	618	292	318	520	20
RTOR Reduction (vph)	0	0	29	0	0	305	0	53	0	0	2	0
Lane Group Flow (vph)	16	112	7	0	310	75	40	857	0	318	538	0
Confl. Peds. (#/hr)	7		2	2		7			5			8
Confl. Bikes (#/hr)						2			4			8
Turn Type	Split		Perm	Split		Over	Prot			Prot		
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	7.2	7.2	7.2		18.8	18.0	3.3	27.5		18.0	42.2	
Effective Green, g (s)	7.2	7.2	7.2		18.8	18.0	3.3	27.5		18.0	42.2	
Actuated g/C Ratio	0.08	0.08	0.08		0.21	0.20	0.04	0.30		0.20	0.47	
Clearance Time (s)	5.0	5.0	5.0		4.9	4.2	4.2	5.0		4.2	5.0	
Vehicle Extension (s)	0.5	0.5	0.5		3.0	2.0	2.0	3.0		2.0	3.0	
Lane Grp Cap (vph)	141	148	122		373	315	64	1011		352	1637	
v/s Ratio Prot	0.01	c0.06			c0.17	0.05	0.02	c0.26		c0.18	0.15	
v/s Ratio Perm			0.00									
v/c Ratio	0.11	0.76	0.06		0.83	0.24	0.62	0.85		0.90	0.33	
Uniform Delay, d1	38.7	40.8	38.6		34.4	30.5	43.0	29.6		35.5	15.3	
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	17.6	0.1		14.5	0.1	12.9	6.7		24.9	0.1	
Delay (s)	38.9	58.4	38.7		48.9	30.7	55.9	36.3		60.4	15.4	
Level of Service	D	E	D		D	C	E	D		E	B	
Approach Delay (s)		52.2			38.9			37.1			32.1	
Approach LOS		D			D			D			C	

Intersection Summary

HCM Average Control Delay	36.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.6	Sum of lost time (s)	19.1
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

41: Vista Way & Freeman St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	5	618	6	8	594	28	4	0	8	13	3	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	672	7	9	646	30	4	0	9	14	3	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage (veh)					2							
Upstream signal (ft)		279										
pX, platoon unblocked				0.95			0.95	0.95	0.95	0.95	0.95	
vC, conflicting volume	676			678			1398	1379	675	1373	1367	661
vC1, stage 1 conf vol							686	686		678	678	
vC2, stage 2 conf vol							712	693		695	689	
vCu, unblocked vol	676			634			1393	1373	631	1366	1360	661
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			99	100	98	96	99	93
cM capacity (veh/h)	915			901			297	330	457	314	331	462

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	684	685	13	50
Volume Left	5	9	4	14
Volume Right	7	30	9	33
cSH	915	901	387	399
Volume to Capacity	0.01	0.01	0.03	0.13
Queue Length 95th (ft)	0	1	3	11
Control Delay (s)	0.2	0.3	14.6	15.3
Lane LOS	A	A	B	C
Approach Delay (s)	0.2	0.3	14.6	15.3
Approach LOS			B	C

Intersection Summary

Average Delay		0.9		
Intersection Capacity Utilization		48.2%	ICU Level of Service	A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis

42: Vista Way & Ditmar St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	5	730	5	12	718	33	1	1	19	13	1	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	793	5	13	780	36	1	1	21	14	1	9
Pedestrians		1						1				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		4.0						4.0				
Percent Blockage		0						0				
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage (veh)		2			2							
Upstream signal (ft)		687										
pX, platoon unblocked				0.98			0.98	0.98	0.98	0.98	0.98	
vC, conflicting volume	816			800			1643	1650	797	1653	1635	799
vC1, stage 1 conf vol							808	808		824	824	
vC2, stage 2 conf vol							835	842		828	811	
vCu, unblocked vol	816			786			1646	1654	783	1656	1638	799
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			100	100	95	94	100	98
cM capacity (veh/h)	811			816			255	277	386	247	277	385

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	804	829	23	24
Volume Left	5	13	1	14
Volume Right	5	36	21	9
cSH	811	816	370	285
Volume to Capacity	0.01	0.02	0.06	0.08
Queue Length 95th (ft)	1	1	5	7
Control Delay (s)	0.2	0.4	15.4	18.8
Lane LOS	A	A	C	C
Approach Delay (s)	0.2	0.4	15.4	18.8
Approach LOS			C	C

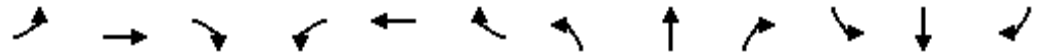
Intersection Summary

Average Delay	0.8
Intersection Capacity Utilization	61.5%
ICU Level of Service	B
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

43: Vista Way & Stewart St

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕				↕
Volume (veh/h)	8	722	0	9	743	205	0	0	5	3	0	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	785	0	10	808	223	0	0	5	3	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh		2			2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1030			785			1641	1852	785	1746	1741	919
vC1, stage 1 conf vol							802	802		939	939	
vC2, stage 2 conf vol							839	1050		808	802	
vCu, unblocked vol	1030			785			1641	1852	785	1746	1741	919
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			100	100	99	99	100	96
cM capacity (veh/h)	674			834			253	238	393	237	261	329

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	793	7	1034	5	15
Volume Left	9	7	3	0	3
Volume Right	0	0	223	5	12
cSH	674	834	834	393	304
Volume to Capacity	0.01	0.01	0.01	0.01	0.05
Queue Length 95th (ft)	1	1	1	1	4
Control Delay (s)	0.4	9.4	0.3	14.3	17.5
Lane LOS	A	A	A	B	C
Approach Delay (s)	0.4	0.4		14.3	17.5
Approach LOS				B	C

Intersection Summary

Average Delay	0.5
Intersection Capacity Utilization	Err%
ICU Level of Service	H
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

44: Eaton St & Coast Hwy

4/23/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	41	5	0	13	43	721	4	18	578	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	45	5	0	14	47	784	4	20	628	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							TWLT			TWLT		
Median storage (veh)							2			2		
Upstream signal (ft)												621
pX, platoon unblocked	0.87	0.87	0.87	0.87	0.87		0.87					
vC, conflicting volume	1169	1551	630	1591	1551	394	633			788		
vC1, stage 1 conf vol	670	670		879	879							
vC2, stage 2 conf vol	499	882		712	672							
vCu, unblocked vol	1118	1559	496	1605	1559	394	499			788		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	90	97	100	98	95			98		
cM capacity (veh/h)	327	268	450	211	267	605	920			827		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	45	20	47	522	266	13	639
Volume Left	0	5	47	0	0	13	7
Volume Right	45	14	0	0	4	0	4
cSH	450	398	920	1700	1700	827	827
Volume to Capacity	0.10	0.05	0.05	0.31	0.16	0.02	0.02
Queue Length 95th (ft)	8	4	4	0	0	2	2
Control Delay (s)	13.9	14.5	9.1	0.0	0.0	9.5	0.4
Lane LOS	B	B	A			A	A
Approach Delay (s)	13.9	14.5	0.5			0.6	
Approach LOS	B	B					

Intersection Summary

Average Delay	1.1
Intersection Capacity Utilization	45.7%
ICU Level of Service	A
Analysis Period (min)	15



Appendix D

Existing Conditions MMLoS Calculation Sheets (ARTPLAN Analysis Sheets for PM Peak Hour)

ARTPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	John Lieswyn	Arterial Name	Coast Highway	Study Period	Dir Hr Demand Vol
Date Prepared	4/6/2014 9:28:21 AM	From	Hwy 76 ramps	Modal Analysis	Multimodal
Agency	City of Oceanside	To	Morse St	Program	ARTPLAN 2012
Area Type	Other Urbanized	Peak Direction	Southbound	Version Date	12/12/2012
Arterial Class	2				
File Name	\\psf\Home\Documents\Projects\13-180 Oceanside Coast Highway\Oceanside base_v3.xap				
User Notes	Base Condition				

Arterial Data

K	0.09	PHF	1	Control Type	Pretimed
D	0.565	% Heavy Vehicles	2	Base Sat. Flow Rate	1950

Automobile Intersection Data

Cross Street	Cycle Length	Thru g/C	Arr. Type	INT # Dir.Lanes	% Left Turns	% Right Turns	Left Turn Lanes	Left Turn Phasing	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes
Surfrider	100	0.5	3	4	6	16	Yes	Protected	1	110	0.15	No
Civic Center	100	0.5	3	4	6	4	No	None	N/A	N/A	N/A	No
Pier View	100	0.5	3	4	4	12	No	None	N/A	N/A	N/A	No
Mission Ave	100	0.5	3	4	14	11	No	None	N/A	N/A	N/A	No
Seagaze Dr	100	0.5	3	4	6	11	Yes	Protected	1	94	0.15	No
Michigan Ave	100	0.5	3	4	1	3	No	None	N/A	N/A	N/A	No
Wisconsin Ave	100	0.5	3	4	2	5	Yes	Protected	1	94	0.15	No
Oceanside Blvd	100	0.5	3	4	3	3	Yes	Protected	1	94	0.15	No
Morse St	100	0.5	3	4	2	6	Yes	Protected	1	50	0.15	No

Automobile Segment Data

Segment #	Length	AADT	Hourly Vol.	SEG # Dir.Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
1 (to Surfrider)	815	7252	890	4	25	30	None	No	N/A
2 (to Civic Center)	680	7252	560	4	25	30	None	Yes	Low
3 (to Pier View)	380	7252	639	4	25	30	None	Yes	Medium
4 (to Mission Ave)	380	8442	591	4	25	30	None	Yes	Medium
5 (to Seagaze Dr)	380	8442	573	4	25	30	None	Yes	Medium
6 (to Michigan Ave)	906	7910	585	4	25	30	None	Yes	Medium
7 (to Wisconsin Ave)	1840	7910	637	4	25	30	None	Yes	Medium
8 (to Oceanside									

Blvd)	2114	9206	762	4	35	40	None	Yes	Low
9 (to Morse St)	2257	9429	848	4	35	40	None	No	N/A

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS			
1 (to Surfrider)	837	5500	0.304	15.02	B	0.33	16.08	D			
2 (to Civic Center)	560	4568	0.245	14.49	B	0.00	14.77	D			
3 (to Pier View)	639	4550	0.281	14.84	B	0.00	10.14	E			
4 (to Mission Ave)	591	4549	0.260	14.64	B	0.00	10.21	E			
5 (to Seagaze Dr)	539	5680	0.190	13.95	B	0.24	10.46	E			
6 (to Michigan Ave)	585	4574	0.256	14.60	B	0.00	16.69	D			
7 (to Wisconsin Ave)	624	5714	0.219	14.21	B	0.09	21.67	C			
8 (to Oceanside Blvd)	739	5908	0.250	14.49	B	0.16	27.84	B			
9 (to Morse St)	831	5704	0.291	14.89	B	0.22	28.40	A			
Arterial Length	1.9492	Weighted g/C	0.50	FFS Delay	170.22	Threshold Delay	0.00	Auto Speed	19.12	Auto LOS	C

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1000 veh/h/ln.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1					
2					
3					
4					
*					
Lanes	Hourly Volume In Both Directions				
2					
4					
6					
8					
*					
Lanes	Annual Average Daily Traffic				
2					
4					
6					
8					
*					

Multimodal Segment Data

Segment #	Outside Lane Width	Pave Cond	Pave Shldr / Bike Lane	Side Path	Side Path Separation	Side walk	Sidewalk Roadway Separation	Sidewalk Roadway Protective Barrier	Bus Freq	Passenger Load Factor	Amenities	Bus Stop Type
1 (to Surfrider)	Narrow	Typical	No	No	N/A	Yes	Adjacent	No	2	0.6	Fair	Typical
2 (to Civic Center)	11	Typical	No	No	N/A	Yes	Adjacent	No	2	0.6	Poor	None
3 (to Pier View)	11	Typical	No	No	N/A	Yes	Adjacent	No	2	0.6	Poor	Typical
4 (to Mission Ave)	11	Typical	No	No	N/A	Yes	Adjacent	No	2	0.6	Poor	Typical
5 (to Seagaze Dr)	11	Typical	No	No	N/A	Yes	Adjacent	No	2	0.6	Poor	None
6 (to Michigan Ave)	11	Typical	No	No	N/A	Yes	Adjacent	No	2	0.6	Poor	Typical
7 (to Wisconsin Ave)	11	Typical	No	No	N/A	Yes	Adjacent	No	2	0.6	Poor	Typical
8 (to Oceanside Blvd)	11	Typical	No	No	N/A	Yes	Adjacent	No	2	0.6	Good	Typical
9 (to Morse St)	Narrow	Typical	Yes	No	N/A	Yes	Adjacent	No	2	0.6	Poor	Typical

Pedestrian SubSegment Data

Segment #	% of Segment			Sidewalk			Separation			Barrier		
	1	2	3	1	2	3	1	2	3	1	2	3
1 (to Surfrider)	100			Yes			Adjacent				No	
2 (to Civic Center)	100			Yes			Adjacent				No	
3 (to Pier View)	100			Yes			Adjacent				No	
4 (to Mission Ave)	100			Yes			Adjacent				No	
5 (to Seagaze Dr)	100			Yes			Adjacent				No	
6 (to Michigan Ave)	100			Yes			Adjacent				No	
7 (to Wisconsin Ave)	100			Yes			Adjacent				No	
8 (to Oceanside Blvd)	100			Yes			Adjacent				No	
9 (to Morse St)	100			Yes			Adjacent				No	

Multimodal LOS

Link #	Bicycle Street		Bicycle Sidepath		Pedestrian			Bus			
	Score	LOS	Score	LOS	1	2	3	Score	LOS	Adj. Buses	LOS
1 (to Surfrider)	3.57	D	N/A	N/A				2.41	B	1.98	E
2 (to Civic Center)	2.62	B	N/A	N/A				1.77	A	2.07	D
3 (to Pier View)	2.98	C	N/A	N/A				1.41	A	1.45	E
4 (to Mission Ave)	2.94	C	N/A	N/A				1.38	A	1.45	E
5 (to Seagaze Dr)	2.92	C	N/A	N/A				1.37	A	1.45	E
6 (to Michigan Ave)	3.39	C	N/A	N/A				1.49	A	1.86	E
7 (to Wisconsin Ave)	3.51	D	N/A	N/A				1.57	A	2.07	D
8 (to Oceanside Blvd)	3.09	C	N/A	N/A				2.21	B	2.20	D
9 (to Morse St)	2.29	B	N/A	N/A				2.47	B	1.98	E

**Bicycle
LOS**

3.07	C
------	---

**Pedestrian
LOS**

2.06	B
------	---

**Bus
LOS**

1.97	E
------	---

MultiModal Service Volume Tables

Bicycle

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
*	0	0	0	0	0
Lanes	Hourly Volume In Both Directions				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A
Lanes	Annual Average Daily Traffic				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A

Pedestrian

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
*	0	0	0	0	0
Lanes	Hourly Volume In Both Directions				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A
Lanes	Annual Average Daily Traffic				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A

Bus

A	B	C	D	E
Buses Per Hour In Peak Direction				
Buses in Study Hour in Peak Direction (Daily)				

*** Service Volumes for the specific facility being analyzed, based on # of lanes from the intersection and segment data screens.**

**** Cannot be achieved based on input data provided.**

***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.

Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.

Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.



Appendix E

Existing Conditions Collision Data

Collision Data along Coast Highway between Monterey Drive and Eaton Street (October 2009 ~ September 2013)

NO.	LOCATION	MONTH	YEAR	TYPE	INVOLVED	PCF	INJ	FATAL
1	Coast Highway & Cassidy Street	April	2010	Side Swipe	Fixed Object	Driving on Sidewalk	0	0
2	Coast Highway & Cassidy Street	July	2012	Head On	Bicycle	Operating Bicycle on Wrong Side of Road	1	0
3	Coast Highway & Civic Center Drive	September	2010	Vehicle/ Pedestrian	Pedestrian	Driver Yield to Pedestrian in Crosswalk	1	0
4	Coast Highway & Civic Center Drive	July	2012	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
5	Coast Highway & Civic Center Drive	June	2013	Rear End	Parked Motor Vehicle	DUI: Alcohol / Drugs	1	0
6	Coast Highway & Civic Center Drive	August	2013	Side Swipe	Other Motor Vehicle	Unsafe Lane Change	0	0
7	Coast Highway & Costa Pacifica Way	December	2012	Rear End	Parked Motor Vehicle	DUI: Alcohol / Drugs	0	0
8	Coast Highway & Eaton Street	December	2011	Broadside	Bicycle	Unsafe Turn and/or No Turn Signal	1	0
9	Coast Highway & Eaton Street	August	2013	Head On	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	1	0
10	Coast Highway & Eucalyptus Street	May	2010	Hit Object	Fixed Object	DUI: Alcohol / Drugs	0	0
11	Coast Highway & Godfrey Street	June	2010	Vehicle/ Pedestrian	Pedestrian	Ped not in Crosswalk Yield to Vehicles	1	0
12	Coast Highway & Godfrey Street	September	2010	Broadside	Bicycle	Unsafe Turn and/or No Turn Signal	1	0
13	Coast Highway & Godfrey Street	November	2010	Broadside	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	0	0
14	Coast Highway & Godfrey Street	September	2011	Rear End	Parked Motor Vehicle	Unsafe Start on Highway	0	0
15	Coast Highway & Godfrey Street	August	2012	Broadside	Bicycle	Operating Bicycle on Wrong Side of Road	1	0
16	Coast Highway & Kelly Street	November	2009	Broadside	Other Motor Vehicle	Right-of-way : From Stop Intersection	2	0
17	Coast Highway & Kelly Street	November	2010	Hit Object	Fixed Object	Unsafe Speed	0	0
18	Coast Highway & Kelly Street	February	2011	Hit Object	Fixed Object	Right-of-Way: Entering Highway	1	0
19	Coast Highway & Kelly Street	May	2012	Hit Object	Fixed Object	Unsafe Speed	0	0
20	Coast Highway & Leonard Avenue	December	2009	Broadside	Bicycle	Operating Bicycle on Wrong Side of Road	0	0
21	Coast Highway & Michigan Avenue	May	2010	Broadside	Other Motor Vehicle	DUI: Alcohol / Drugs	1	0
22	Coast Highway & Michigan Avenue	January	2012	Other	Fixed Object	N/A	0	0
23	Coast Highway & Michigan Avenue	March	2012	Hit Object	Fixed Object	DUI: Alcohol / Drugs	1	0
24	Coast Highway & Michigan Avenue	January	2013	Broadside	Other Motor Vehicle	DUI: Alcohol / Drugs	0	0

NO.	LOCATION	MONTH	YEAR	TYPE	INVOLVED	PCF	INJ	FATAL
25	Coast Highway & Minnesota Avenue	April	2010	Side Swipe	Other Motor Vehicle	Unsafe Lane Change	0	0
26	Coast Highway & Mission Avenue	December	2009	Broadside	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	1	0
27	Coast Highway & Mission Avenue	July	2010	Rear End	Other Motor Vehicle	N/A	0	0
28	Coast Highway & Mission Avenue	March	2010	Side Swipe	Other Motor Vehicle	N/A	0	0
29	Coast Highway & Mission Avenue	September	2010	Head On	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	0	0
30	Coast Highway & Mission Avenue	September	2010	Vehicle/ Pedestrian	Pedestrian	Driver Yield to Pedestrian in Crosswalk	0	0
31	Coast Highway & Mission Avenue	March	2010	Side Swipe	Parked Motor Vehicle	Unsafe Opening of Vehicle Door	0	0
32	Coast Highway & Mission Avenue	May	2011	Broadside	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	1	0
33	Coast Highway & Mission Avenue	December	2011	Broadside	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	1	0
34	Coast Highway & Mission Avenue	May	2011	Vehicle/ Pedestrian	Pedestrian	Ped in Crosswalk: Stop/Delay Vehicles or Suddenly Leave Place of Safety	0	0
35	Coast Highway & Mission Avenue	March	2011	Broadside	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	0	0
36	Coast Highway & Mission Avenue	May	2011	Head On	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	0	0
37	Coast Highway & Mission Avenue	August	2011	Broadside	Bicycle	Signal Lights: Circular Red	0	0
38	Coast Highway & Mission Avenue	January	2011	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
39	Coast Highway & Mission Avenue	September	2011	Rear End	Other Motor Vehicle	Unsafe Start on Highway	0	0
40	Coast Highway & Mission Avenue	March	2012	Head On	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	1	0
41	Coast Highway & Mission Avenue	January	2012	Broadside	Other Motor Vehicle	Signal Lights: Circular Red	1	0
42	Coast Highway & Mission Avenue	July	2012	Head On	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	0	0
43	Coast Highway & Mission Avenue	August	2012	Side Swipe	Other Motor Vehicle	Right-Of-Way: Intersection- Left Driver Yield	0	0
44	Coast Highway & Mission Avenue	April	2012	Side Swipe	Other Motor Vehicle	Unsafe Turn and/or No Turn Signal	0	0
45	Coast Highway & Mission Avenue	April	2012	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
46	Coast Highway & Mission Avenue	March	2013	Broadside	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	1	0
47	Coast Highway & Mission Avenue	March	2013	Broadside	Other Motor Vehicle	DUI: Alcohol / Drugs	0	0
48	Coast Highway & Mission Avenue	August	2013	Rear End	Other Motor Vehicle	Following Too Closely	0	0

NO.	LOCATION	MONTH	YEAR	TYPE	INVOLVED	PCF	INJ	FATAL
49	Coast Highway & Mission Avenue	July	2013	Side Swipe	Other Motor Vehicle	N/A	0	0
50	Coast Highway & Mission Avenue	March	2013	Vehicle/ Pedestrian	Pedestrian	Driver Yield to Pedestrian in Crosswalk	0	0
51	Coast Highway & Missouri Avenue	February	2012	Broadside	Other Motor Vehicle	Vehicle Cross Double Solid Line	0	0
52	Coast Highway & Monterey Drive	February	2013	Hit Object	Fixed Object	Unsafe Turn and/or No Turn Signal	0	0
53	Coast Highway & Monterey Drive	February	2013	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
54	Coast Highway & Morse Street	October	2010	Broadside	Other Motor Vehicle	DUI: Alcohol / Drugs	1	0
55	Coast Highway & Morse Street	August	2010	Side Swipe	Parked Motor Vehicle	N/A	0	0
56	Coast Highway & Morse Street	January	2010	Head On	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	0	0
57	Coast Highway & Morse Street	February	2010	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
58	Coast Highway & Morse Street	August	2011	Broadside	Bicycle	Operating Bicycle on Wrong Side of Road	1	0
59	Coast Highway & Morse Street	November	2012	Rear End	Other Motor Vehicle	DUI: Alcohol / Drugs	0	0
60	Coast Highway & Morse Street	August	2013	Vehicle/ Pedestrian	Pedestrian	Signal Lights: Circular Red	0	0
61	Coast Highway & Neptune Way	December	2010	Side Swipe	Other Motor Vehicle	Vehicle Cross Double Solid Line	0	0
62	Coast Highway & Oceanside Boulevard	February	2010	Broadside	Bicycle	Operating Bicycle on Wrong Side of Road	0	0
63	Coast Highway & Oceanside Boulevard	May	2010	Other	Parked Motor Vehicle	N/A	0	0
64	Coast Highway & Oceanside Boulevard	January	2010	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
65	Coast Highway & Pierview Way	April	2010	Vehicle/ Pedestrian	Pedestrian	Driver Yield to Pedestrian in Crosswalk	1	0
66	Coast Highway & Pierview Way	August	2011	Vehicle/ Pedestrian	Pedestrian	Driver Yield to Pedestrian in Crosswalk	0	0
67	Coast Highway & Pierview Way	August	2013	Head On	Other Motor Vehicle	Unsafe Turn and/or No Turn Signal	1	0
68	Coast Highway & Pierview Way	June	2013	Rear End	Other Motor Vehicle	Following Too Closely	0	0
69	Coast Highway & Pierview Way	April	2013	Head On	Bicycle	N/A	0	0
70	Coast Highway & Seagaze Drive	April	2010	Rear End	Other Motor Vehicle	N/A	0	1
71	Coast Highway & Seagaze Drive	June	2011	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
72	Coast Highway &	June	2011	Rear End	Other Motor	Unsafe Speed	0	0

NO.	LOCATION	MONTH	YEAR	TYPE	INVOLVED	PCF	INJ	FATAL
	Seagaze Drive				Vehicle			
73	Coast Highway & Seagaze Drive	March	2012	Rear End	Other Motor Vehicle	Following Too Closely	0	0
74	Coast Highway & Seagaze Drive	January	2013	Vehicle/ Pedestrian	Pedestrian	Pedestrian Cross Against No Walk Sign/Signal	1	0
75	Coast Highway & SR-76	December	2009	Broadside	Other Motor Vehicle	DUI: Alcohol / Drugs	0	0
76	Coast Highway & SR-76	March	2010	Hit Object	Fixed Object	Unsafe Turn and/or No Turn Signal	0	0
77	Coast Highway & SR-76	August	2010	Side Swipe	Other Motor Vehicle	Unsafe Turn and/or No Turn Signal	0	0
78	Coast Highway & SR-76	January	2011	Broadside	Other Motor Vehicle	N/A	1	0
79	Coast Highway & SR-76	September	2011	Broadside	Other Motor Vehicle	Unsafe Speed	0	0
80	Coast Highway & SR-76	August	2011	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
81	Coast Highway & SR-76	September	2012	Hit Object	Fixed Object	Unsafe Lane Change	1	0
82	Coast Highway & Surfirder Way	December	2010	Rear End	Other Motor Vehicle	DUI: Alcohol / Drugs	0	0
83	Coast Highway & Surfirder Way	February	2010	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
84	Coast Highway & Surfirder Way	January	2011	Vehicle/ Pedestrian	Pedestrian	N/A	0	0
85	Coast Highway & Surfirder Way	June	2012	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
86	Coast Highway & Surfirder Way	September	2013	Rear End	Parked Motor Vehicle	N/A	0	0
87	Coast Highway & Surfirder Way	April	2013	Hit Object	Fixed Object	Unsafe Speed	0	0
88	Coast Highway & Vista Way	December	2009	Other	Non-Collision	Following Too Closely	0	0
89	Coast Highway & Vista Way	November	2010	Vehicle/ Pedestrian	Pedestrian	N/A	0	0
90	Coast Highway & Vista Way	October	2010	Rear End	Other Motor Vehicle	Unsafe Speed	0	0
91	Coast Highway & Vista Way	April	2011	Broadside	Other Motor Vehicle	Signal Lights: Circular Red	1	0
92	Coast Highway & Vista Way	March	2012	Head On	Fixed Object	DUI: Alcohol / Drugs	1	0
93	Coast Highway & Vista Way	September	2012	Broadside	Other Motor Vehicle	DUI: Alcohol / Drugs	0	0
94	Coast Highway & Vista Way	May	2012	Rear End	Other Motor Vehicle	DUI: Alcohol / Drugs	0	0
95	Coast Highway & Vista Way	December	2012	Broadside	Other Motor Vehicle	Right-of-Way: Entering Highway	0	0
96	Coast Highway & Vista Way	January	2012	Hit Object	Fixed Object	Unsafe Turn and/or No Turn Signal	0	0
97	Coast Highway & Vista Way	October	2012	Side Swipe	Other Motor Vehicle	Unsafe Turn and/or No Turn Signal	0	0

NO.	LOCATION	MONTH	YEAR	TYPE	INVOLVED	PCF	INJ	FATAL
98	Coast Highway & Vista Way	July	2013	Broadside	Other Motor Vehicle	N/A	1	0
99	Coast Highway & Vista Way	April	2013	Broadside	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	1	0
100	Coast Highway & Vista Way	June	2013	Hit Object	Fixed Object	DUI: Alcohol / Drugs	0	0
101	Coast Highway & Vista Way	February	2013	Rear End	Other Motor Vehicle	N/A	0	0
102	Coast Highway & Washington Street	January	2010	Head On	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	0	0
103	Coast Highway & Whaley Street	December	2011	Head On	Parked Motor Vehicle	DUI: Alcohol / Drugs	0	0
104	Coast Highway & Whaley Street	October	2011	Side Swipe	Bicycle	Unsafe Turn and/or No Turn Signal	0	0
105	Coast Highway & Whaley Street	February	2013	Rear End	Parked Motor Vehicle	DUI: Alcohol / Drugs	0	0
106	Coast Highway & Windward Way	May	2010	Side Swipe	Other Motor Vehicle	DUI: Alcohol / Drugs	0	0
107	Coast Highway & Windward Way	May	2012	Rear End	Other Motor Vehicle	Following Too Closely	0	0
108	Coast Highway & Wisconsin Street	September	2010	Side Swipe	Parked Motor Vehicle	Unsafe Speed	0	0
109	Coast Highway & Wisconsin Street	August	2013	Rear End	Other Motor Vehicle	Following Too Closely	0	0
110	Coast Highway & Wisconsin Street	March	2013	Head On	Other Motor Vehicle	Right-of-way : Making Left Or U-Turn	0	0
111	Coast Highway & Wisconsin Street	March	2013	Overtuned	Other Motor Vehicle	Signal Lights: Circular Red	0	0