PACIFICA HOUSING PROJECT

FINAL
Local Transportation Study

JUNE 2023

Prepared For

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Executive Summary

Project Description and Setting

The Proposed Project seeks to construct 164 multi-family residential townhomes on the old Pacifica Elementary School Site located at the southwest corner of the Monica Circle and Macario Drive intersection within the City of Oceanside. The property is bordered by single family dwelling units on all sides. The site is currently designated for elementary school land use.

The Proposed Project will be accessed primarily via the existing driveway which is the south leg of the three-legged intersection at Monica Circle and Macario Drive. The project driveway will function as a side-street stop-controlled intersection with full access. A secondary access point (emergency only) will be located at Malaga Drive. The anticipated opening year of the Proposed Project is 2025.

Per the City's Traffic Impact Analysis Guidelines, trip generation rates were derived from the SANDAG's (not so) Brief Guide to Vehicular Traffic Generation Rates for the San Diego Region (April 2002). **Table ES.1** displays the projected daily, as well as AM and PM peak hour, project trip generation.

Table ES.1 - Project Trip Generation

Land Use	Units	Trip Rate	ADT	AM Peak Hour					PM Peak Hour				
				%	Trips	Split	In	Out	%	Trips	Split	In	Out
Multi-Family (6-20 DU/acre)	164 DU	8/DU	1,312	8	105	2:8	21	84	10	132	7:3	92	40

Source: SANDAG (not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002)

Notes:
ADT = Average Daily Traffic
DU = Dwelling Unit

As shown, the Proposed Project is anticipated to generate 1,312 daily trips, including 105 trips (21-in/84-out) during the AM peak hour and 132 (92-in/40-out) trips during the PM peak hour.

The following four (4) roadway segments and five (5) intersections were included for analysis:

<u>Roadway Segments</u>

- Monica Circle, between Claire Drive and Macario Drive
- Macario Drive, between Monica Circle and Roja Drive
- Roja Drive, between Macario Drive and North Redondo Drive
- North Redondo Drive, between Roja Drive and North River Road

<u>Intersections</u>

1. Monica Circle & Claire Drive (Side-Street Stop-Controlled)
2. Roja Drive & Macario Drive (All-Way Stop-Controlled)
3. Roja Drive & North Redondo Drive (Side-Street Stop-Controlled)
4. Vandergrift Boulevard & North Redondo Drive/North River Road (Signal)
5. Monica Circle/Project Driveway & Macario Drive (Side-Street Stop-Controlled)

A VMT analysis was conducted to satisfy the requirements of CEQA. The VMT analysis is part of a separate document. The LOS analysis conducted as part of this study was used to evaluate any potential LOS impacts on the surrounding circulation network as a result of the Proposed Project. Per the City's Traffic Impact Analysis Guidelines, the City of Oceanside strives to ensure the goals, objectives, and policies adopted by the City are supported and implemented while monitoring the capacity for the roadway networks. Improvements should be identified for any study facilities that do not meet City LOS standards to increase performance to acceptable or pre-project conditions. A transportation impact in relation to LOS is considered a non-CEQA transportation impact based on the City's Traffic Guidelines.

LOS Impacts and Improvement Requirements

Improvement Requirements – Existing with Project Conditions

Roadway Segment Analysis

The roadway segments listed below are anticipated to operate above capacity[1] with implementation of the Proposed Project under Existing with Project Conditions:

- Macario Drive, between Monica Circle and Roja Drive
- Roja Drive, between Macario Drive and North Redondo Drive

It should be noted that the study roadway segments listed above are all local streets (non-Circulation Element roadways). Therefore, the determination of the need for roadway improvements shall be coordinated with City of Oceanside staff.

Given the buildout environment of these local streets and the relatively small amount of traffic that the Project will add to the surrounding transportation network, it is not anticipated that roadway improvements involving widening would be required. However, alternative improvements may be necessary such as traffic calming measures (i.e., speed cushions, speed feedback signs, etc.) and/or pedestrian or bicycle improvements such as high visibility crosswalks at nearby intersections.

Intersection Analysis

All study area intersections are projected to operate at acceptable LOS D or better under Existing with Project conditions. Therefore, no study intersections are anticipated to degrade in LOS to unacceptable levels with implementation of the Proposed Project and no improvements will be required.

[1] Above Capacity - Based upon the City's Circulation Element, Local Streets are designated with a daily volume threshold of 2,200 for LOS C. If the daily volume exceeds the 2,200 threshold, the roadway segment operates above capacity.

Improvement Requirements – Near-Term Year 2025 with Project Conditions

Roadway Segment Analysis

The roadway segments listed below are anticipated to operate above capacity[1] with implementation of the Proposed Project under Near-Term Year 2025 Base with Project Conditions:

- Macario Drive, between Monica Circle and Roja Drive
- Roja Drive, between Macario Drive and North Redondo Drive

It should be noted that the study roadway segments listed above are all local streets (non-Circulation Element roadways). Therefore, the determination of the need for roadway improvements shall be coordinated with City of Oceanside staff.

Given the buildout environment of these local streets and the relatively small amount of traffic that the Project will add to the surrounding transportation network, it is not anticipated that roadway improvements involving widening would be required. However, alternative improvements may be necessary such as traffic calming measures (i.e., speed cushions, speed feedback signs, etc.) and/or pedestrian or bicycle improvements such as high visibility crosswalks at nearby intersections.

Intersection Analysis

All study area intersections are projected to operate at acceptable LOS B or better under Near-Term Year 2025 Base with Project Conditions with exception to the following intersection:

4. Vandegrift Boulevard / N. River Road & N. Redondo Drive – LOS E during the AM peak hour and LOS F during the PM peak hour. The trips associated with the Proposed Project would increase delay at this intersection by 0.5 seconds in the AM peak hour and 1.5 seconds in the PM peak hour, which does not surpass the 2-second threshold for intersections operating at LOS E or F.

Based upon the criteria outlined in Section 2.5, the study intersection listed above is not anticipated to have an LOS impact with implementation of the Proposed Project and no improvements will be required.

Improvement Requirements – Horizon Year 2050 with Project Conditions

Roadway Segment Analysis

The roadway segments listed below are anticipated to operate above capacity[1] with implementation of the Proposed Project under Horizon Year 2050 with Project Conditions:

- Macario Drive, between Monica Circle and Roja Drive
- Roja Drive, between Macario Drive and North Redondo Drive

It should be noted that the study roadway segments listed above are all local streets (non-Circulation Element roadways). Therefore, the determination of the need for roadway improvements shall be coordinated with City of Oceanside staff.

Given the buildout environment of these local streets and the relatively small amount of traffic that the Project will add to the surrounding transportation network, it is not anticipated that roadway improvements involving widening would be required. However, alternative improvements may be

necessary such as traffic calming measures (i.e., speed cushions, speed feedback signs, etc.) and/or pedestrian or bicycle improvements such as high visibility crosswalks at nearby intersections.

Intersection Analysis

All study area intersections are projected to operate at acceptable LOS C or better under Horizon Year 2050 with Project Conditions with exception to the following intersection:

4. Vandegrift Boulevard / N. River Road & N. Redondo Drive – LOS E during the AM peak hour and LOS F during the PM peak hour. The trips associated with the Proposed Project would increase delay at this intersection by 1.5 seconds in the AM peak hour and 1.2 seconds in the PM peak hour, which does not surpass the 2-second threshold for intersections operating at LOS E or F.

Based upon the criteria outlined in Section 2.5, the study intersection listed above is not anticipated to have an LOS impact with implementation of the Proposed Project and no improvements will be required.

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1.0 Introduction

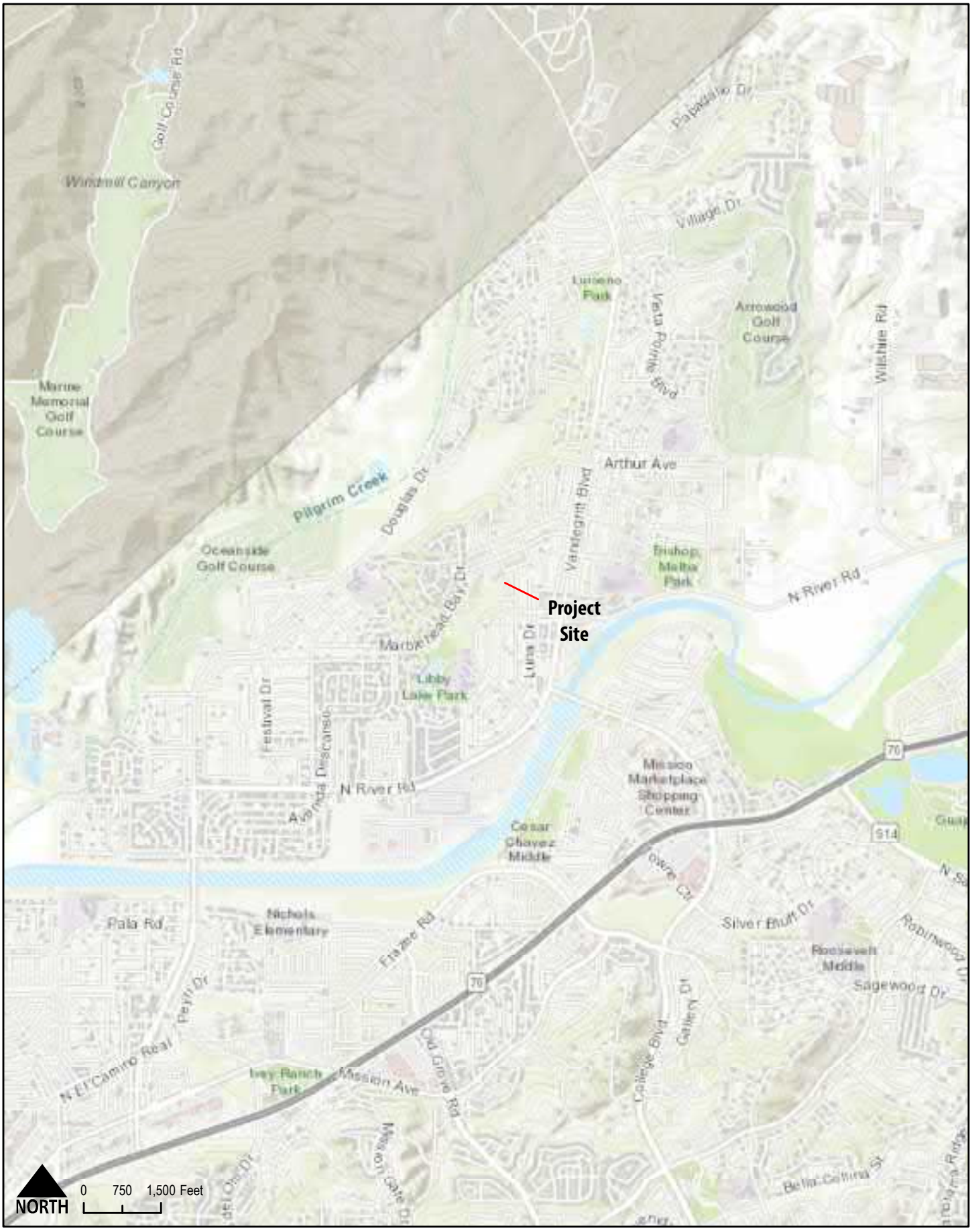
The purpose of this Local Transportation Study (LTS) is to identify and document any potential level of service (LOS) impacts associated with the Pacifica Housing project (the "Proposed Project"), and to recommend improvement requirements, as necessary.

1.1 Project Description

The Proposed Project seeks to construct 164 multi-family residential townhomes on the old Pacifica Elementary School Site located at the southwest corner of the Monica Circle and Macario Drive intersection within the City of Oceanside. The property is bordered by single family dwelling units on all sides. The site is currently designated for elementary school land use.

The Proposed Project will be accessed primarily via the existing driveway which is the south leg of the three-legged intersection at Monica Circle and Macario Drive. The project driveway will function as a side-street stop-controlled intersection with full access. A secondary access point (emergency only) will be located at Malaga Drive. The anticipated opening year of the Proposed Project is 2025. **Figure 1.1** displays the Proposed Project's regional location. **Figure 1.2** displays the site plan for the Proposed Project.

A VMT analysis was conducted to satisfy the requirements of CEQA. The VMT analysis is part of a separate document. The LOS analysis conducted as a part of this study was used to evaluate any potential LOS impacts on the surrounding circulation network as a result of the Proposed Project. Per the City's Traffic Impact Analysis Guidelines, the City of Oceanside strives to ensure the goals, objectives, and policies adopted by the City are supported and implemented while monitoring the capacity for the roadway networks. Improvements should be identified for any study facilities that do not meet City LOS standards to increase performance to acceptable or pre-project conditions.



Pacifica Housing Project
Local Transportation Study

Figure 1.1
Project Regional Location

Primary Community Entry
- Utilizes existing driveway
- No gate
- To be enhanced with decorative paving, landscaping and community signage

Existing Slope
- Provides approximately 30 feet of elevation difference between existing homes and new homes below.

Typical Three-Story Townhome Building
- 4 building types
- 2 elevation styles
- 3 floor plan variation
- Maximum height of 38.0 feet
- Oriented to provide front doors along streetscapes and paseos

Amenity Area A
- 10,126 SF
- Minimum dimension of 20 feet
- See Amenity Plan for details

Amenity Area B
- 21,143 SF
- Dog park and fire pits for community gathering (Please see Amenity Plan)

Central Paseo
- 6,121 SF
- Provides a central spine trail that connects amenity areas to promote walkability
- Enhanced with landscaping and special paving at crosswalks

Basin and Habitat Setback
- Stormwater basin for hydromodification and water quality treatment
- Habitat and planning setbacks to protect adjacent existing wetlands

Amenity Area C
- 10,502 SF
- Pickle Ball Courts, Barbecue area, open lawn for games and unstructured play (Please see Amenity Plan)

Secondary Access
- Emergency Vehicle Access Only
- Gated at the existing terminus of Malaga Drive

Project Summary

Property Size (Gross): 14.55 Acres

Developable Area (Net)[1]: 12.82 Acres

Development Pad Area: 10.23 Acres

No. of Units: 164 Three-Story Townhomes[2]
- (16) Plan 2532: 1210 SF, 2 bed., 2.5 baths, 2-car gar.
- (75) Plan 1633: 1497 SF, 3 bed., 2.5 baths, 2-car gar.
- (73) Plan 1636: 1791 SF, 4 bed., 2.5 baths, 2-car gar.

Density[3]: 12.8 du/ac

Proposed Setbacks:
- Front (To Monica/Macario Dr): 15' to building / 12' to patio
- Side (N and S Bndy): 74' Minimum
- Rear (E Bndy): 65' Minimum

Parking Required:
- Resident: 2 Spaces per Unit (1 covered)
- Guest Spaces: 1 + 20% of total units (34 spaces)

Parking Provided:
- Resident: Private 2-car garage per unit
- Guest Spaces[10]: 56 spaces

Open Space Required:
- Total: 300 SF per Unit x 164 = 49,200 SF
- Private Open Space minimum dimension of 5 feet
- At least 50% shall be Common = 24,600 SF
- At least two common area shall be 4,000 SF Min (or one at 8,000 SF Min); Minimum dimension of 20 feet

Open Space Provided:
- Total: 78,412 SF (478 SF per unit)
- Private OS (5' min): 24,500 SF
- Common Open Space (20' min; 8000 SF Min): 53,712 SF

Bldg Coverage: 3.21 AC. (22.1%)

Notes:
1. Excludes slopes surrounding the site in accordance with Section 3039 of the City of Oceanside Zoning Ordinance.
2. Type VB construction with NFPA 13D automatic sprinkler system.
3. Density based on Development Area.
4. Inclusionry housing requirement to be met through payment of in-lieu fee.
5. Existing General Plan/Zoning: CI/PS
6. Proposed General Plan: Medium Density B (10-15 du/ac)
7. Proposed Zoning: Planned Development
8. Coastal Zone: No
9. Assessor's Parcel Numbers: 157-070-42-00, 122-190-19-00, and 122-190-22-00
10. Guest Parking Spaces are 16' x 8.5' with 2' overhang; Includes 3 ADA Spaces that are 18' x 9'

North

0 50 100
1" = 50'

GPA22-00001/ZA22-00003/T22-00005/D22-00013

Conceptual Site Plan

MLC Holdings, Inc. | Meritage Homes

Pacifica Elementary
Oceanside, Ca

03.29.2023
P-1

1.2 Report Organization

Following this introductory chapter, this report is organized into the following chapters:

2. Analysis Methodology – This chapter reviews the methods utilized to evaluate any LOS impacts associated with the implementation of the Proposed Project, as required by the City of Oceanside Traffic Impact Analysis Guidelines.
3. Project Traffic - This chapter describes the Proposed Project's land uses and associated trip generation. Additional information such as trip distribution patterns and project trip assignment are also included in this chapter, which is used to determine the project study area.
4. Existing Conditions – This chapter describes and evaluates the existing transportation network. Vehicular operations within the study area are evaluated. LOS analysis results are also provided for Existing and Existing with Project vehicular traffic conditions. Additionally, the Proposed Project's access to transit as well as pedestrian and bicycle facilities are evaluated. Recommendations are offered to enhance the experience and safety for both pedestrians and bicyclists.
5. Near-Term Year 2025 Conditions – This chapter describes near-term developments anticipated to generate additional study area trips and establishes a near-term baseline against which traffic generated by the Proposed Project can be compared to at the project opening day, assumed to be Year 2025. LOS analysis results are also provided for Near-Term Year 2025 Base and Near-Term Year 2025 Base with Project vehicular traffic conditions.
6. Horizon Year 2050 Conditions – This chapter describes projected long-range conditions of the transportation network within the study area. Horizon Year 2050 scenario analysis is required per the City's Traffic Impact Analysis Guidelines. LOS analysis results are also provided for Horizon Year 2050 and Horizon Year 2050 with Project vehicular traffic conditions.
7. LOS Impacts and Improvement Requirements - This chapter identifies any substandard facilities and provides improvement requirements to improve substandard facilities to acceptable LOS or pre-project conditions.
8. Site Access & Circulation – This chapter addresses access to the Proposed Project site and discusses the functionality of the Proposed Project's internal circulation.

2.0 Analysis Methodology

This study was performed in accordance with the standards and requirements in the City of Oceanside Traffic Impact Analysis Guidelines (August 2020). All analysis assumptions were documented within a scoping agreement memorandum, provided in **Appendix A**, and approved by the City of Oceanside. The following sections describe the analysis methods outlined in the Traffic Impact Analysis Guidelines to describe how transportation related impacts are analyzed and identified in relation to LOS. A transportation impact in relation to LOS is considered a non-CEQA transportation impact based on the City's Traffic Guidelines.

2.1 Level of Service (LOS) Definition

Level of Service (LOS) is a quantitative measure describing operational conditions within a traffic stream, and the motorist's and/or passengers' perception of operations. A LOS definition generally describes these conditions in terms of such factors as delay, speed, travel time, freedom to maneuver, interruptions in traffic flow, queuing, comfort, and convenience. **Table 2.1** describes generalized definitions of the various LOS categories (A through F) as applied to roadway operations.

Table 2.1 - LOS Definitions

LOS Category	Definition of Operation
A	This LOS represents a completely free-flow condition, where the operation of vehicles is virtually unaffected by the presence of other vehicles and only constrained by the geometric features of the highway and by driver preferences.
B	This LOS represents a relatively free-flow condition, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.
C	At this LOS, the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles.
D	At this LOS, the ability to maneuver is notably restricted due to traffic congestion, and only minor disruptions can be absorbed without extensive queues forming and the service deteriorating.
E	This LOS represents operations at or near capacity. LOS E is an unstable level, with vehicles operating with minimum spacing for maintaining uniform flow. At LOS E, disruptions cannot be dissipated readily thus causing deterioration down to LOS F.
F	At this LOS, forced or breakdown of traffic flow occurs, although operations appear to be at capacity, queues form behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing brief periods of movement followed by stoppages.

Source: Highway Capacity Manual 6th Edition

2.2 Roadway Segment LOS Standards and Thresholds

Roadway segment LOS standards and thresholds provide the basis for analysis of arterial roadway segment performance. The analysis of roadway segment LOS is based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecast Average Daily Traffic (ADT) volumes. **Table 2.2** displays roadway segment capacity standards found in the City's Traffic Impact Analysis Guidelines. The actual capacity of a roadway facility varies according to its physical attributes.

Table 2.2 - Roadway Segment Daily Capacity and LOS Standards

Street Classification	LOS/ADT Thresholds				
	A	B	C	D	E
Expressway (6-lane)	< 30,000	< 42,000	< 60,000	**< 70,000**	< 80,000
Expressway (4-lane)	< 25,000	< 35,000	< 50,000	**< 55,000**	< 60,000
Prime Arterial (6-lane)	< 25,000	< 35,000	< 50,000	**< 55,000**	< 60,000
Major Arterial (6-lane)	< 20,000	< 28,000	< 40,000	**< 45,000**	< 50,000
Major Arterial (5-lane)	< 17,500	< 24,500	< 35,000	**< 40,000**	< 45,000
Major Arterial (4-lane)	< 15,000	< 21,000	< 30,000	**< 35,000**	< 40,000
Secondary Collector (4-lane w/ two-way left-turn lane)	< 10,000	< 14,000	< 20,000	**< 25,000**	< 30,000
Secondary Collector (4-lane w/out two-way left-turn lane with turn pockets)	< 9,000	< 13,000	< 18,000	**< 22,000**	< 25,000
Collector (2-lane commercial fronting)	< 5,000	< 7,000	< 10,000	**< 13,000**	< 15,000
Collector (2-lane residential streets in Circulation Element)	< 4,000	< 5,500	< 7,500	**< 9,000**	< 10,000
Local Street (residential streets NOT in the Circulation Element)			<2,200[1]		

Source: City of Oceanside Traffic Impact Analysis Guidelines (August 2020)

Note:
[1] City's Circulation Element (September 2012)
Bold number indicates the ADT thresholds for acceptable LOS.

These standards are generally used as long-range planning guidelines to determine the functional classification of roadways. The actual capacity of a roadway varies according to its physical attributes. Typically, the performance and LOS of a roadway segment is heavily influenced by the ability of its intersections to accommodate peak hour traffic volumes. For the purposes of this traffic analysis, LOS D or better is considered acceptable for circulation element roadway segments.

2.3 Peak Hour Intersection LOS Standards and Thresholds

This section presents the methodologies used to perform peak hour intersection capacity analyses at signalized and unsignalized intersections within the study area. The following assumptions were utilized in conducting all intersection LOS analyses:

- Peak Hour Factor (PHF) – Field-collected PHF for Existing and Near-Term Year 2025 Base Conditions. A PHF of 0.95 was assumed for Horizon Year 2050 analysis.
- Lane Utilization Factor – HCM 6th Edition defaults were used for all scenarios.
- Conflicting Pedestrians/Bicycles – Existing pedestrian and bicycle counts are utilized for all scenarios.
- Signal Timing – Based on existing signal timing plans (as of October 2022), provided in **Appendix B**.

2.3.1 Signalized Intersections

The analysis of signalized intersections utilized the operational analysis procedure as outlined in the Highway Capacity Manual (HCM) 6th Edition signalized (Chapter 19) intersection analysis methodology. This method defines LOS in terms of delay, or more specifically, average stopped delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time. This technique uses 1,900 vehicles per hour per lane (VPHPL) as the maximum saturation volume of an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e., percentage trucks) and shared lane movements (i.e., through and right-turn movements originating from the same lane). The LOS criteria used for the analysis of signalized intersections are described in **Table 2.3**, identifying the thresholds of control delays and the associated LOS. The computerized analysis of intersection operations was performed utilizing the Synchro Version 11 traffic analysis software by Trafficware Ltd.

Table 2.3 - Signalized Intersection LOS Operational Analysis Method

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

Source: Highway Capacity Manual 6th Edition

2.3.2 Unsignalized Intersections

Unsignalized intersections were analyzed using the Highway Capacity 6th Edition side-street stop (Chapter 20) and all-way stop (Chapter 21) intersection analysis methodology. The computerized analysis of intersection operations was performed utilizing the Synchro Version 11 traffic analysis software by Trafficware Ltd.

LOS was determined as follows:

- All-way stop intersections: Reported for the entire intersection as an average value
- Side-street stop intersections: Reported for the worst-case movement

The LOS criteria used for the analysis of unsignalized intersections are described in **Table 2.4**.

Table 2.4 - LOS Criteria for Stop-Controlled Unsignalized Intersections

Average Stopped Delay Per Vehicle (Seconds)	LOS
0 – 10	A
>10 – 15	B
>15 – 25	C
>25 – 35	D
>35 – 50	E
> 50	F

Source: Highway Capacity Manual 6th Edition

2.4 Determination of Project Study Area

Per the City's Traffic Impact Analysis Guidelines, the study area was defined using the following criteria:

- All signalized intersections and signalized project driveways where the project will add 50 or more peak hour (final cumulative) trips in either direction
- All unsignalized intersections and unsignalized project driveways where the project will add 50 or more peak hour (final cumulative) trips in either direction
- All freeway ramp intersections where the project will add 20 or more peak hour (final cumulative) trips in either direction

2.5 City of Oceanside LOS Standards

Per the City's Circulation Element, LOS D or better is considered acceptable for study roadway segments and intersections. The Traffic Impact Analysis Guidelines provides the following thresholds to determine if the Proposed Project is required to provide improvements for study area facilities:

- Implementation of the Proposed Project triggers a roadway segment operating at acceptable LOS to operate at unacceptable LOS or increases the V/C ratio for a study roadway segment that is already operating at unacceptable LOS by more than 0.02.
- Implementation of the Proposed Project triggers an intersection operating at acceptable LOS to operate at unacceptable LOS or increases the average delay for a study intersection that is already operating at unacceptable LOS by more than 2.0 seconds.

Improvements should be identified to increase performance to acceptable or pre-project conditions under each scenario. Improvements should be considered as follows on a case-by-case basis:

- Improvements should be consistent with the General Plan
- Improvements for transit, bike, and pedestrian facilities should be given priority in Transit Priority Areas or Smart Growth Opportunity Area as identified by SANDAG
- Projects in Transit Priority Areas or Smart Growth Opportunity Area as identified by SANDAG, that are consistent with the General Plan at the time of project application, should not be denied due to the inability to provide roadway improvements (i.e., existing right of way is constrained, etc.)

3.0 Project Traffic

This chapter describes the Proposed Project including the Proposed Project's trip generation, trip distribution patterns, and project trip assignment.

3.1 Project Trip Generation

Per the City's Traffic Impact Analysis Guidelines, trip generation rates were derived from the SANDAG's (not so) Brief Guide to Vehicular Traffic Generation Rates for the San Diego Region (April 2002). **Table 3.1** displays the projected daily, as well as AM and PM peak hour, project trip generation.

Table 3.1 - Project Trip Generation

Land Use	Units	Trip Rate	ADT	AM Peak Hour					PM Peak Hour				
				%	Trips	Split	In	Out	%	Trips	Split	In	Out
Multi-Family (6-20 DU/acre)	164 DU	8/DU	1,312	8	105	2:8	21	84	10	132	7:3	92	40

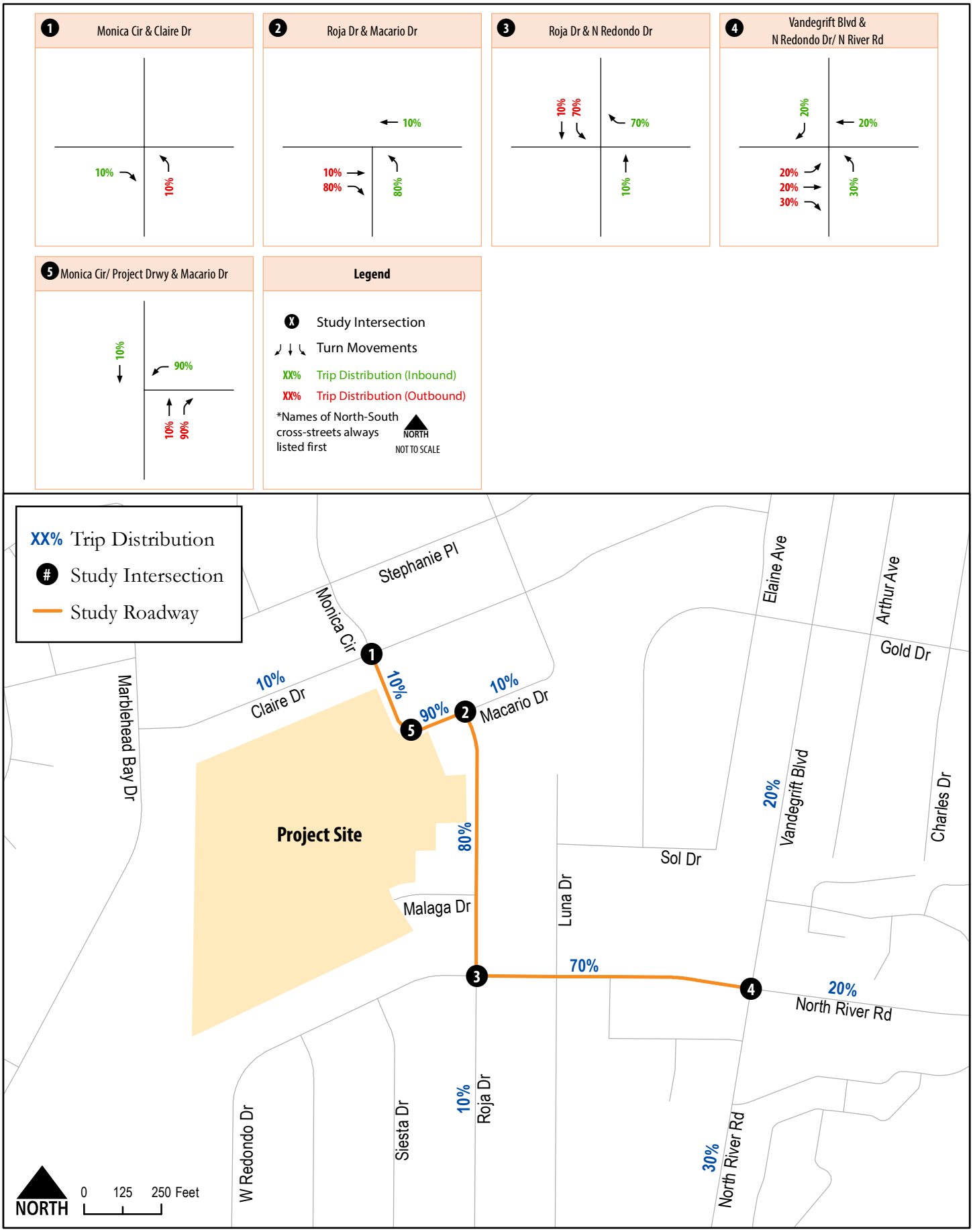
Source: SANDAG (not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002)

Notes:
ADT = Average Daily Traffic
DU = Dwelling Unit

As shown, the Proposed Project is anticipated to generate 1,312 daily trips, including 105 trips (21-in/84-out) during the AM peak hour and 132 (92-in/40-out) trips during the PM peak hour.

3.2 Project Trip Distribution and Assignment

The project trip distribution was manually developed based on the geographical location of the Project, as well as the characteristics of the proposed and surrounding land uses. **Figure 3.1** displays the regional trip distribution for the Proposed Project. Based upon the project trip distribution patterns, AM/PM peak hour project trips were assigned to the adjacent roadway network. **Figure 3.2** displays the Proposed Project's intersection trip assignment.



Pacifica Housing Project
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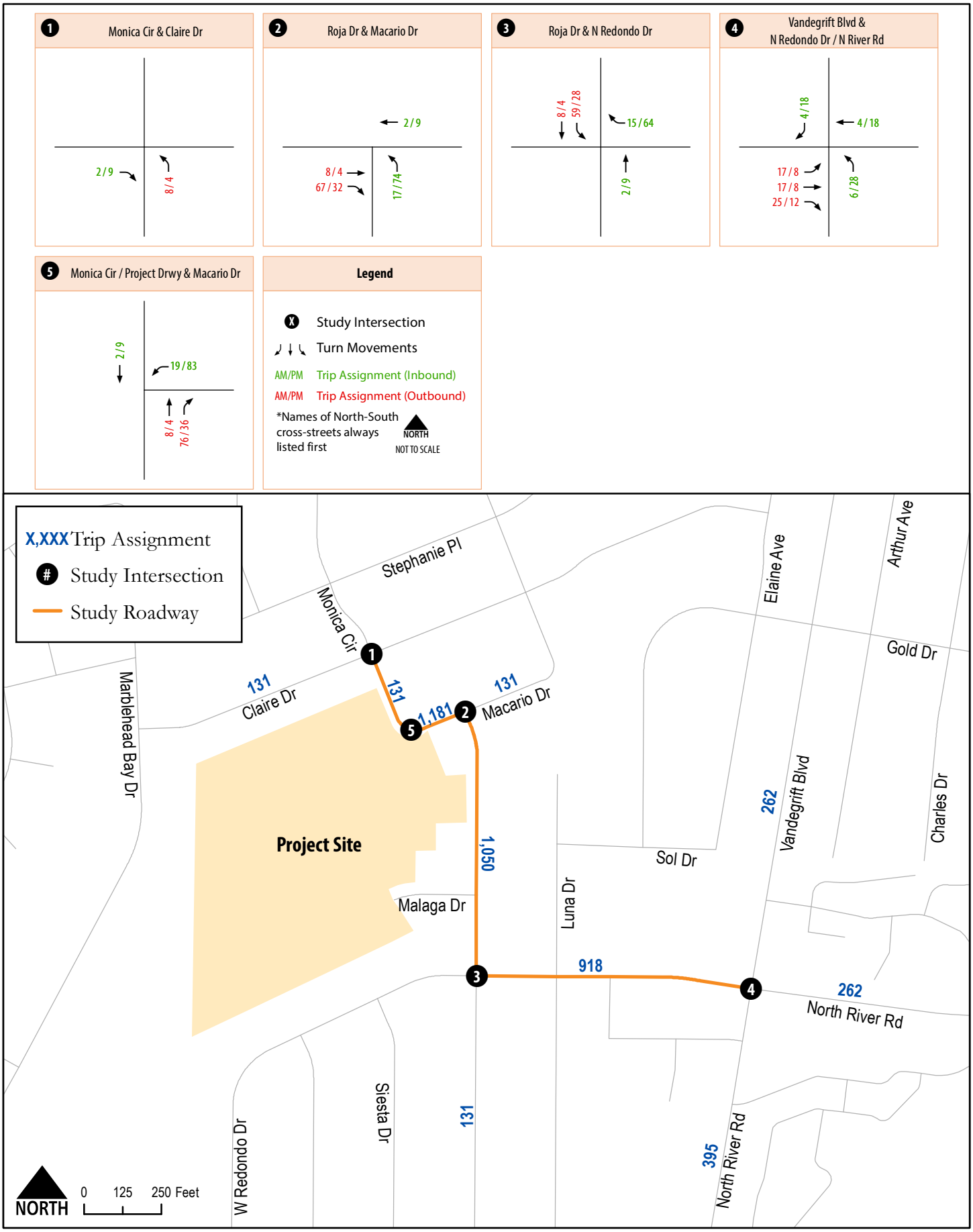
Figure 3.1
Project Trip Distribution



Pacifica Housing Project
Local Transportation Study

Figure 3.2
Project Trip Assignment

3.3 Project Study Area

Based on the criteria previously outlined in Chapter 2.4, the project trip assignment shown in Figure 3.2, and preliminary project scoping with City of Oceanside, the following four (4) roadway segments and five (5) intersections were included for analysis:

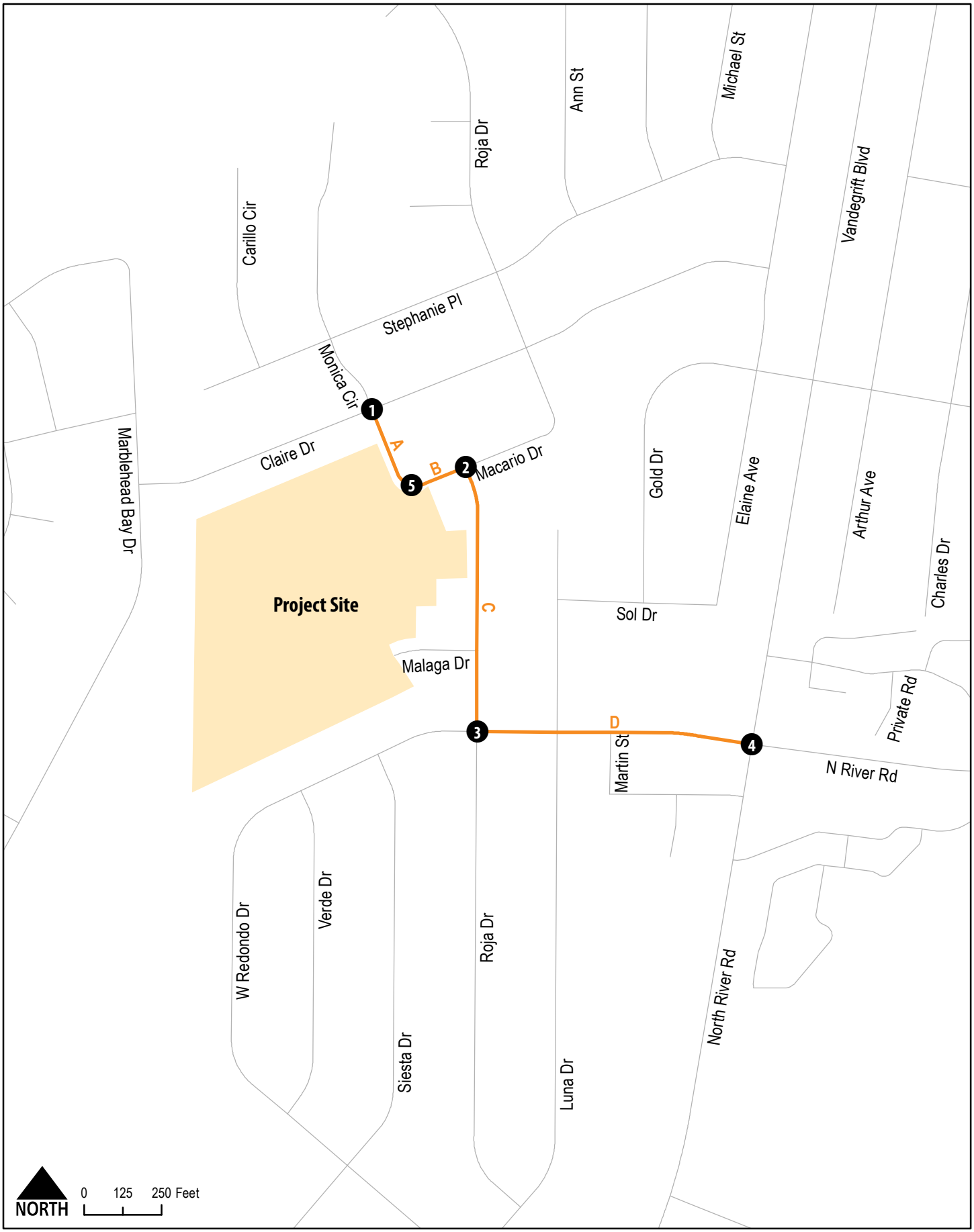
Roadway Segments

A. Monica Circle, between Claire Drive and Macario Drive
B. Macario Drive, between Monica Circle and Roja Drive
C. Roja Drive, between Macario Drive and North Redondo Drive
D. North Redondo Drive, between Roja Drive and North River Road

Intersections

1. Monica Circle & Claire Drive (Side-Street Stop-Controlled)
2. Roja Drive & Macario Drive (All-Way Stop-Controlled)
3. Roja Drive & North Redondo Drive (Side-Street Stop-Controlled)
4. Vandergrift Boulevard & North Redondo Drive/North River Road (Signal)
5. Monica Circle/Project Driveway & Macario Drive (Side-Street Stop-Controlled)

Figure 3.3 displays the overall project study area.



Pacifica Housing Project
Local Transportation Study

Figure 3.3
Project Study Area

4.0 Existing Conditions

This chapter provides a qualitative description of the transportation facilities located in the Proposed Project study area. An LOS analysis of the existing operations of the local transportation network facilities is also provided for study roadway segments and intersections.

4.1 Existing Transportation Network

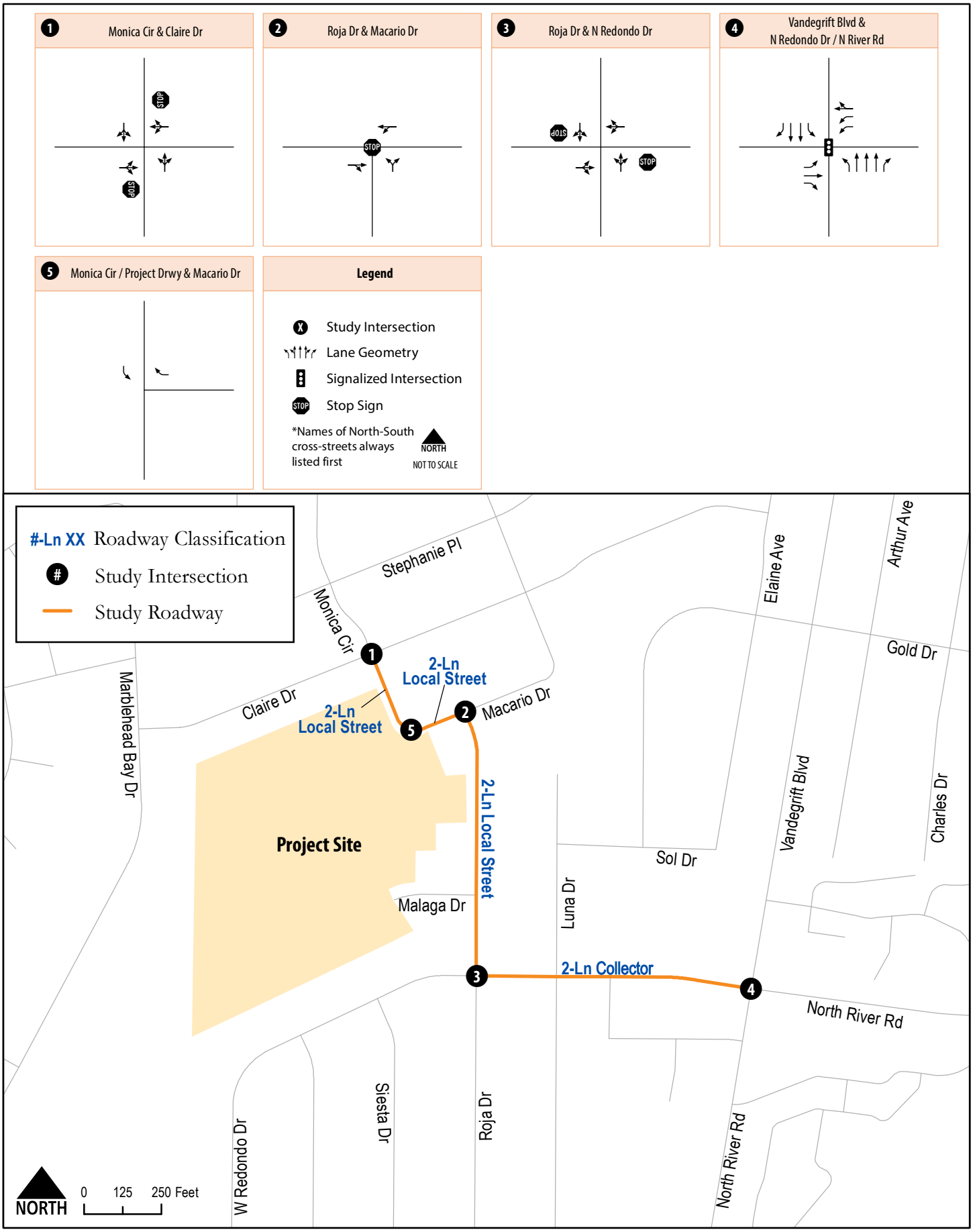
Access to the Proposed Project from the regional transportation network will be provided via California State Route 76 (SR-76) highway, North River Road, North Redondo Drive, Roja Drive, Monica Circle, and Macario Drive. These facilities will either provide a direct connection to Proposed Project, via project driveway, or will provide a critical link between the Proposed Project and the regional transportation network. **Table 4.1** summarizes the existing physical characteristics of roadways within the study area, while **Figure 4.1** displays the roadway classifications and study intersection geometrics under Existing Conditions.

Table 4.1 - Existing Transportation Network Characteristics

Roadway	From	To	Number of Lanes	Curb to Curb Distance	Median Type	Roadway Classification[1]	Sidewalk?	Bike lanes?	Transit Route	Posted Speed Limit
Monica Circle	Claire Drive	Macario Drive	1 NB/1 SB	35'	Undivided	Local Street	Both Sides	None	None	25 MPH
Macario Drive	Monica Circle	Roja Drive	1 EB/1 WB	39'	Undivided	Local Street	Both Sides	None	None	25 MPH
Roja Drive	Macario Drive	North Redondo Drive	1 NB/1 SB	36'	Undivided	Local Street	Both Sides	None	None	25 MPH
North Redondo Drive	Roja Drive	Vandegrift Boulevard/North River Road	1 EB/1 WB	47'	Undivided	Local Street	Both Sides	None	None	25 MPH
Vandegrift Boulevard	Gold Drive	North Redondo Drive	3 NB/2 SB	88'	Raised	Major Arterial	Both Sides	Class II	309 311 315	50 MPH
North River Road	North Redondo Drive	College Boulevard	3 NB/2 SB	82'	Raised	Major Arterial	Both Sides	Class II	303 309 313 315	45 MPH
North River Road	East of Vandegrift Boulevard		2 EB/2 WB	72'	Raised	Collector Road	Both Sides	Class II	303 309 311 313 315	45 MPH

Source: CR Associates (2023)

Note:
[1] Per the City's Circulation Element
Local Street = Residential streets NOT in the Circulation Element



Pacifica Housing Project
Local Transportation Study

Figure 4.1
Roadway Classification and Intersection Geometrics
Existing Conditions

4.2 Active Transportation

This section discusses the project site's active transportation modes.

4.2.1 Transit Access

The project site is within one half mile of the transit lines serviced by North County Transit District (NCTD) described below:

- Bus Route 303 – This bus route is serviced along North River Road in the northbound/southbound direction within the project study area. Nearest bus stop within a half mile are located at the San Luis Rey Transit Center. This bus route connects the Oceanside Transit Center, the San Luis Rey Transit Center, and the Vista Transit Center. The route operates at 15-minute headways on weekdays and weekends.
- Bus Route 309 – This bus route is serviced along Vandegrift Boulevard and North River Road in the northbound/southbound direction within the project study area. Nearest bus stops within a half mile are located at the Vandegrift Boulevard & Gold Drive intersection as wells as the San Luis Rey Transit Center. This bus route connects the San Luis Rey Transit Center, the El Camino Real Sprinter Station, the Plaza Camino Real Transit Center, and the Encinitas Station. The route operates at 30-minute headways throughout the week.
- Bus Route 311 – This bus route is serviced along Vandegrift Boulevard in the northbound/southbound direction within the project study area. Nearest bus stops within a half mile are located at the Vandegrift Boulevard & Gold Drive intersection as wells as the San Luis Rey Transit Center. This bus route connects the San Luis Rey Transit Center and the Rancho Del Oro Sprinter station. The route operates at 20 to 30-minute headways during morning peak hours and one-hour headways during evening peak hours Monday through Friday. This route does not operate on weekends.
- Bus Route 313 – This bus route is serviced along North River Road in the northbound/southbound direction within the project study area. Nearest bus stop within a half mile are located at the San Luis Rey Transit Center. This bus route connects the Oceanside Transit Center and the San Luis Rey Transit Center. The route operates on one-hour headways Monday through Friday and does not operate on the weekends.
- Bus Route 315 – This bus route is serviced along Vandegrift Boulevard and North River Road in the northbound/southbound direction within the project study area. Nearest bus stops within a half mile are located at the Vandegrift Boulevard & Gold Drive intersection as wells as the San Luis Rey Transit Center. This bus route connects the San Luis Rey Transit Center, the Plaza Camino Real Transit Center, and the Carlsbad Village Station. The route operates at 60-minute headways throughout the week.

Bus route schedules are provided in **Appendix C.** An inventory of amenities present at each stop within a half mile was collected. **Table 4.2** identifies the amenities provided at each transit stop.

Table 4.2 - Transit Amenities

Stop ID	Stop Name	Bench	Shelter	Bus Stop Sign	ADA Accessible Pad	Connection to Adjacent Sidewalk	Trash Receptacle	Lighting	Bicycle Parking	Transit Route Information	Shading Elements	Transit System Information
-	San Luis Rey Transit Center	●	●	●	●	●	●	●	●			
21592	Vandegrift Bl / Gold Dr (northbound)			●	●	●	●	●			●	
21114	Vandegrift Blvd / Gold Dr (southbound)	●		●	●	●	●	●				

Source: CR Associates (2023)

Based on the preliminary review of the Proposed Project's site plan, the Proposed Project would not conflict with existing or planned transit facilities and would not result in any impacts to transit facilities.

4.2.2 Bicycle

Under Existing conditions, Class II bicycle facilities exist along Vandegrift Boulevard and North River Road. Per the City of Oceanside Bicycle Master Plan (2017 Update), there are no planned bicycle facilities improvements within the project study area. Based on the preliminary review of the Proposed Project's site plan, the Proposed Project would not conflict with existing bicycle facilities and would not result in any impacts to bicyclist safety and accessibility.

4.2.3 Pedestrian

Sidewalks are present along both sides of the roadway for all roadways within a half mile walking distance from the project side. These existing pedestrian facilities are mostly surrounded with single family residential land uses with exception to the commercial land use fronting North Redondo Drive and Vandegrift Boulevard.

Sidewalks are proposed along the project frontage along Monica Circle and Macario Drive. Sidewalks are also proposed throughout the internal roadways providing direct access to the dwelling units as well as on-site amenities (pet station, play areas, picnic pavilion, benches, and gardens).

Based upon review of the project site plan, the following recommendations are provided:

- Curb ramps at the project driveways are recommended to be reconstructed, if needed, with detectable surface warning tactiles (yellow truncated domes) as well as meeting all ADA requirements
- Existing cross-walks or other pedestrian features along the project frontage should be maintained or improved to City standards
- To improve first/last-mile connection to the nearest transit stop, crosswalks (or high-visibility crosswalks) are recommended at the following intersection:
    - Vandegrift Boulevard and North Redondo Drive / North River Road – all legs

With implementation of the recommendation listed above, the overall pedestrian environment should be enhanced for both walkability and safety and would not result in any impacts to pedestrian facilities.

4.3 Existing Intersection Volumes

The study area intersections and roadway traffic counts were conducted on September 27, 2022, by Counts Unlimited, Inc. However, it is important to note that the daily traffic counts at two locations (Monica Circle from Claire Drive to Macario and Roja Drive from Macario Drive to North Redondo Drive) had to be collected on October 4, 2022 as the pneumatic tubes utilized for the traffic counts that were set up on September 27, 2022 had been tampered with and data was compromised. **Figure 4.2** displays both existing daily traffic volumes for study area roadway segments and the AM/PM peak hour turning movements for the study intersections. Traffic count worksheets are provided in **Appendix D**.

4.4 Existing Traffic Conditions

LOS analyses under Existing Conditions were conducted using the methodologies described in Chapter 2. Roadway segment and intersection LOS analysis results are discussed below.

4.4.1 Roadway Segment Analysis

Table 4.3 displays roadway segments and LOS analysis results for study roadway segments under Existing conditions.

Table 4.3 - Roadway Segment LOS Results – Existing Conditions

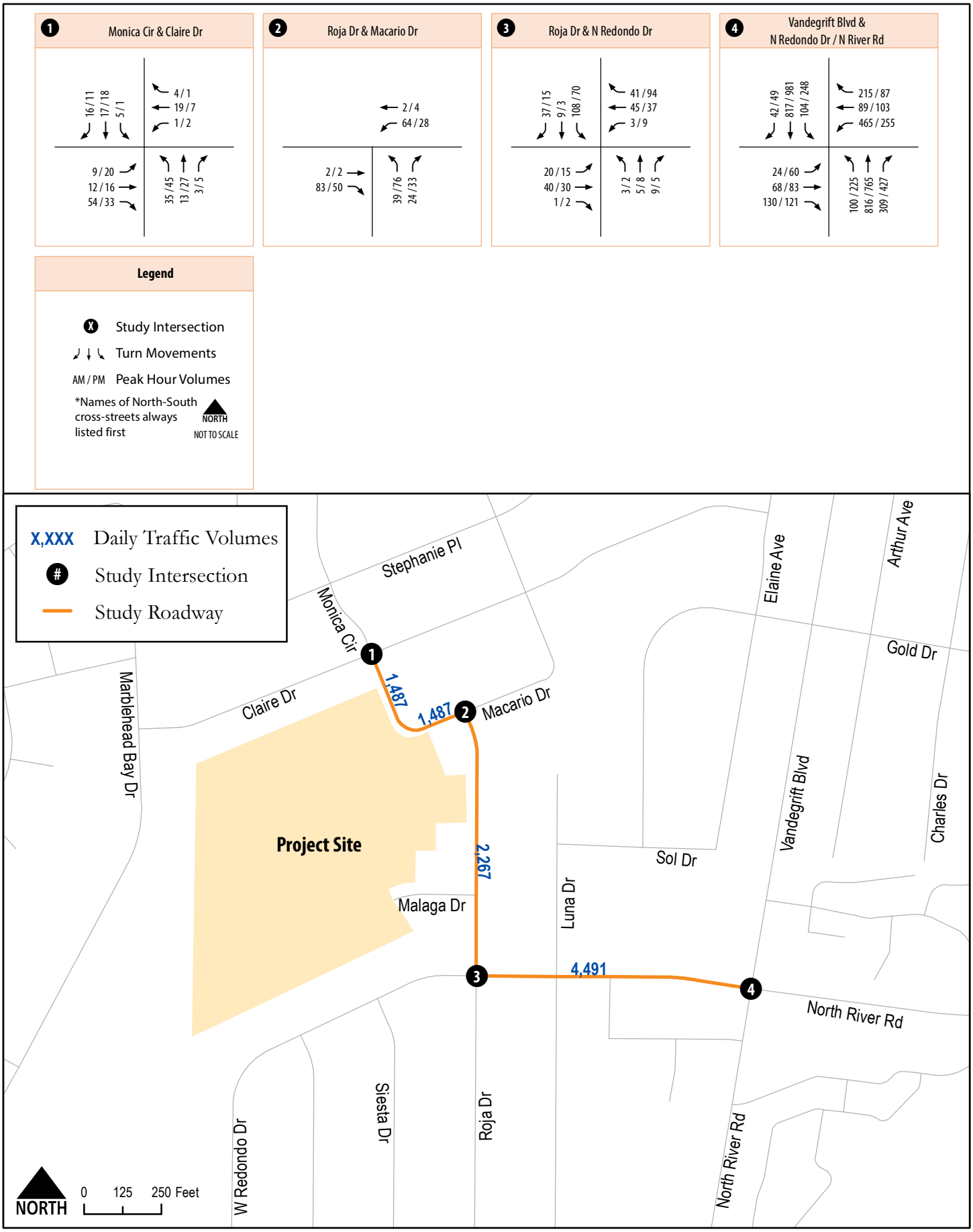
Roadway	Segment	Function Classification	LOS Threshold (LOS E)	LOS	Daily Volume	V/C
Monica Circle	Claire Drive to Macario Drive	Local Street (2-lane)	2,200	C	1,487	0.676
Macario Drive	Monica Circle to Roja Drive	Local Street (2-lane)	2,200	C	1,487	0.676
Roja Drive	Macario Drive to North Redondo Drive	Local Street (2-lane)	2,200	Above Capacity[1]	2,267	1.030
North Redondo Drive	Roja Drive to Vandergrift Boulevard	Collector[2] (2-lane)	7,500	B	4,491	0.599

Source: CR Associates (2023)

Note:
[1] Based upon the City's Circulation Element, the roadway is classified as a Local Street with a daily volume threshold of 2,200 for LOS C. If the daily volume exceeds the 2,200 threshold, the roadway segment operates above capacity.
[2] Functional classification based upon the curb-to-curb distance.
V/C = Volume/Capacity

As shown in Table 4.3, all study roadway segments currently operate at LOS C or better under Existing Conditions with the exception of the following roadway segment:

- Roja Drive, between Macario Drive and North Redondo Drive (Above Capacity)



Pacifica Housing Project
Local Transportation Study

Figure 4.2
Traffic Volumes
Existing Conditions

4.4.2 Intersection Analysis

Table 4.4 displays intersection LOS and average vehicle delay results for the key study area intersections under Existing Conditions. LOS calculation worksheets for Existing Conditions are provided in **Appendix E**.

Table 4.4 - Peak Hour Intersection LOS Results – Existing Conditions

#	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Monica Circle & Claire Drive	SSSC	10.0	B	10.1	B
2	Roja Drive & Macario Drive	AWSC	7.5	A	7.5	A
3	Roja Drive & N. Redondo Drive	SSSC	12.2	B	10.7	B
4	Vandegrift Boulevard / N. River Road & N. Redondo Drive	Signal	36.3	D	42.6	D

Source: CR Associates (2023)

Note:
SSSC = Side-Street Stop Controlled. For SSSC intersections, the delay shown is the worst delay experienced by any of the movements.
AWSC= All-Way Stop Controlled

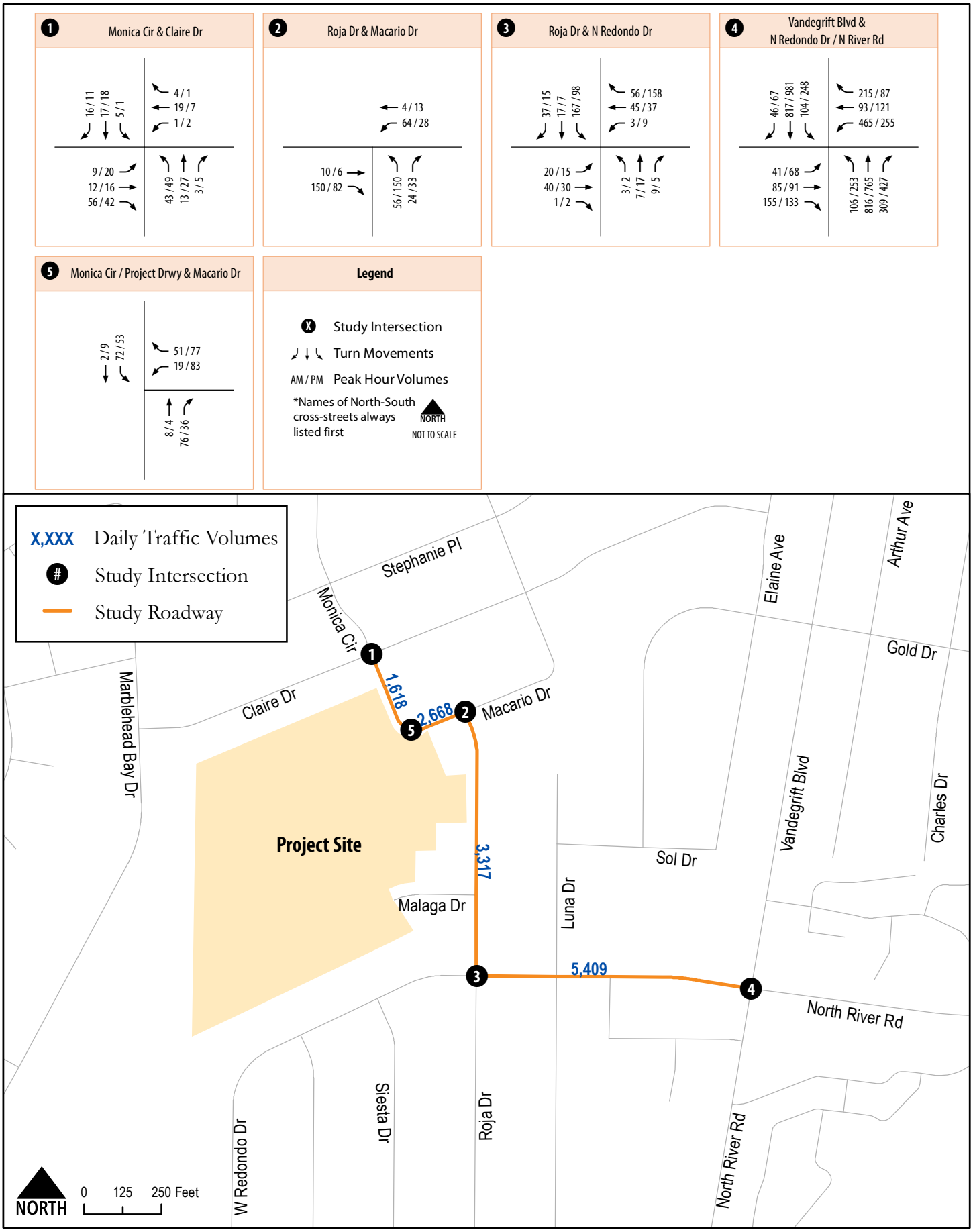
As shown in Table 4.4, all study area intersections currently operate at acceptable LOS D or better under Existing Conditions.

4.5 Existing with Project Roadway Network and Traffic Volumes

Intersection geometrics under the Existing with Project conditions were assumed to be identical to the Existing conditions geometrics with exception to the following project feature:

- Enhancement of existing driveway, on the south leg of the Monica Circle and Macario Drive intersection, with special paving, landscaping, and monumentation to announce entry to the project site. This project driveway will provide the only access point to the project site which will function as a side-street stop-controlled intersection with full access.

Peak hour intersection volumes for the Existing with Project conditions were derived by combining the Proposed Project trips (as previously shown in Figure 3.2) to the Existing traffic volumes (as previously shown in Figure 4.2). Peak hour intersection volumes for this scenario are displayed in **Figure 4.3**.



Pacifica Housing Project
Local Transportation Study

Figure 4.3
Traffic Volumes
Existing with Project Conditions

4.6 Existing with Project Traffic Conditions

LOS analyses under Existing with Project conditions were conducted using the methodologies described in Chapter 2. Roadway segment and intersection LOS analysis results are discussed below.

4.6.1 Roadway Segment Analysis

Table 4.5 displays roadway segments and LOS analysis results for study roadway segments under Existing with Project conditions.

As shown in Table 4.5, the following study roadway segments are projected to operate above capacity under Existing with Project conditions:

- Macario Drive, between Monica Circle and Roja Drive
- Roja Drive, between Macario Drive and North Redondo Drive

It should be noted that the study roadway segments listed above are all local streets (non-Circulation Element roadways). Therefore, the determination of the need for roadway improvements shall be coordinated with City of Oceanside staff.

4.6.2 Intersection Analysis

Table 4.6 displays intersection LOS and average vehicle delay results for the key study area intersections under Existing with Project Conditions. LOS calculation worksheets for Existing with Project conditions are provided in **Appendix F**.

As shown in Table 4.6, all study area intersections are projected to operate at acceptable LOS D or better under Existing with Project conditions. Therefore, no study intersections are anticipated to degrade in LOS to unacceptable levels with implementation of the Proposed Project and no improvements will be required.

Table 4.5 - Roadway Segment LOS Results – Existing with Project Conditions

Roadway	Segment	Function Classification	LOS Threshold (LOS E)	Existing			Existing + Project			ΔV/C	I?
				LOS	Daily Volume	V/C	LOS	Daily Volume	V/C		
Monica Circle	Claire Drive to Macario Drive	Local Street (2-lane)	2,200	C	1,487	0.676	C	1,618	0.735	0.059	N
Macario Drive	Monica Circle to Roja Drive	Local Street (2-lane)	2,200	C	1,487	0.676	Above Capacity[1]	2,668	1.213	0.537	N
Roja Drive	Macario Drive to North Redondo Drive	Local Street (2-lane)	2,200	Above Capacity[1]	2,267	1.030	Above Capacity[1]	3,317	1.508	0.478	N
North Redondo Drive	Roja Drive to Vandergrift Boulevard	Collector[2] (2-lane)	7,500	B	4,491	0.599	B	5,409	0.721	0.122	N

Source: CR Associates (2023)

Notes:
[1] Based upon the City's Circulation Element, the roadway is classified as a Local Street with a daily volume threshold of 2,200 for LOS C. If the daily volume exceeds the 2,200 threshold, the roadway segment operates above capacity.
[2] Functional classification based upon the curb-to-curb distance.
V/C = Volume/Capacity
I? = Improvement Required?

Table 4.6 - Peak Hour Intersection LOS Results – Existing with Project Conditions

#	Intersection	Control Type	Existing Conditions				Existing + Project							
			AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
			Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS	Δ	I?	Avg. Delay (sec.)	LOS	Δ	I?
1	Monica Circle & Claire Drive	SSSC	10.0	B	10.1	B	10.1	B	0.1	N	10.2	B	0.1	N
2	Roja Drive & Macario Drive	AWSC	7.5	A	7.5	A	7.8	A	0.3	N	8.3	A	0.8	N
3	Roja Drive & N. Redondo Drive	SSSC	12.2	B	10.7	B	14.4	B	2.2	N	11.7	B	1.0	N
4	Vandegrift Boulevard / N. River Road & N. Redondo Drive	Signal	36.3	D	42.6	D	37.3	D	1.0	N	43.9	D	1.3	N
5	Monica Circle / Project Driveway & Macario Drive	SSSC	Does not Exist				8.6	A	8.6	N	8.5	A	8.5	N

Source: CR Associates (2023)

Notes:
SSSC = Side-Street Stop Controlled. For SSSC intersections, the delay shown is the worst delay experienced by any of the movements.
AWSC = All-Way Stop Controlled
I? = Improvement Required?

5.0 Near-Term Year 2025 Conditions

This section provides an analysis of Near-Term Year 2025 Base traffic conditions both with and without the Proposed Project. The scenarios analyzed in this section include:

- Near-Term Year 2025 Base
- Near-Term Year 2025 Base with Project

The following section describes near-term developments anticipated to generate additional study area trips and establishes a near-term baseline against which traffic generated by the Proposed Project can be compared to at the project opening day, assumed to be Year 2025. The Near-Term Year 2025 Base scenario traffic volumes is the sum of existing traffic volumes and trips generated by cumulative projects with the study area.

5.1 Cumulative Project Traffic

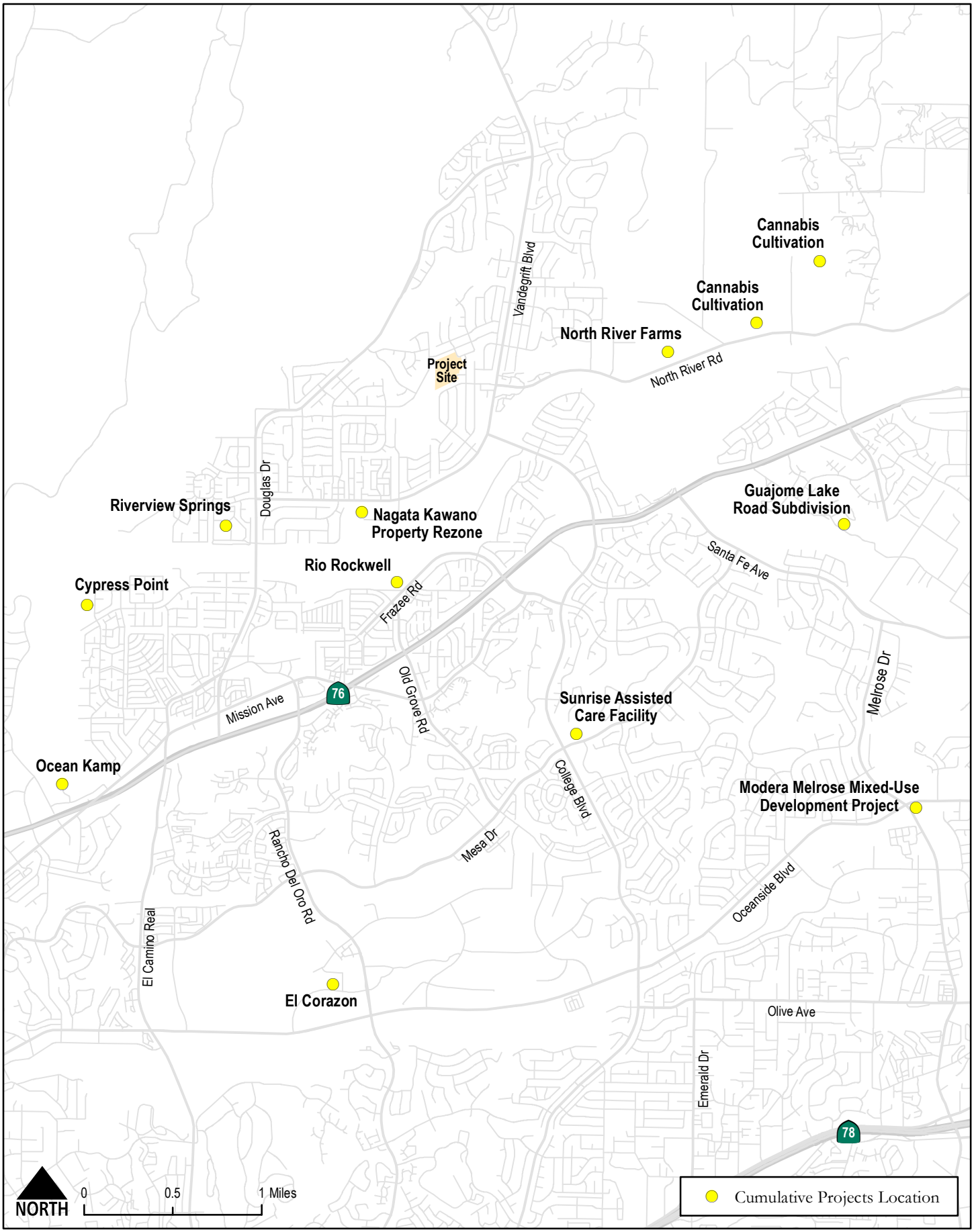
The following twelve (12) projects were identified by City of Oceanside staff as cumulative projects, since they are anticipated to contribute traffic within the project study area by the Proposed Project's opening year:

1. Riverview Springs (ZA16-00009) – This project is located at 4398 Rainier Way, Oceanside, CA 92058. This project proposes to construct an additional 47 dwelling units to the existing development.
2. Nagata Kawano Property Rezone (GPA13-00001 and GPA13-00004) – This project is located at 4617 and 4665 North River Rd, Oceanside, CA 92057. This project proposes to construct 400 multi-family residential dwelling units.
3. North River Farms (GPA16-00002) – This project is located along North River Road on parcels located on both the north and south side of the roadway between Stallion Drive and Wilshire Road. This project proposes to construct 689 dwelling units, a mix comprising of both multi-family and single family detached, as well as 25,000 square feet of commercial land use, 5,000 square feet of restaurant land use, a 30-acre farm, and a 100-room hotel. This project was approved with a maximum of 585 dwelling units, however, this LTS assumes 689 dwelling units to be consistent with the traffic study completed for North River Farms. Therefore, the analysis provided within this LTS is considered to be conservative.
4. Cannabis Cultivation (CUP19-00023) – This project is located the north side of North River Road approximately 715 feet east of Wilshire Road. This project proposes to develop a cannabis cultivation and nursery facility composed of four 22,000 square feet greenhouses on a 10.41-acre parcel.
5. Cannabis Cultivation (CUP19-00025) – This project is located at the northeast quadrant of the Sleeping Indian Road and North River Road intersection. This project proposes to develop a cannabis cultivation and nursery facility composed of twenty 22,000 square feet greenhouses on a 52.54-acre parcel.
6. El Corazon – This project is located at the northwest quadrant of the Rancho Del Oro Road and Oceanside Boulevard intersection. This project proposes to develop a variety of land uses in six separate phases which include the following: senior center (6.0 acres), hotel

(11.0 acres), village commercial (19.0 acres), green waste facility (16.0 acres), soccer facility (55.3 acres), softball complete (12.5 acres), baseball complex (15.7 acres), cultural/community center and library (6.0 acres), park and passive recreation areas (52.8 acres), recreation center (6.8 acres), park-recreation areas (12.8 acres), expansion of the park (19.7 acres), park expansion and public safety center (16.0 acres), interpretive areas, and passive trails.

7. Ocean Kamp Project (T19-00004) – This project is located along Foussat Street on parcels located on both the west and east side of the roadway between the San Luis Rey River and SR-76 highway. This project proposes to develop 700 multi-family residential dwelling units, a 300-room resort hotel, 126,000 square feet of retail and commercial uses, and a wave lagoon.
8. Modera Melrose Mixed-Use Development Project (D21-00011) - The project site is located at the southeast corner of Melrose Drive and West Bobier Drive in the east-central portion of the City of Oceanside. The project proposes to develop a mixed-use infill project which would include 323 multi-family residential units and ground-level commercial space on the 7.4-acre project site. The proposed residential development would include 33 affordable/very low-income rental units and 290 market rate rental units ranging from 666 square feet to 1,429 square feet.
9. Rio Rockwell (GPA18-00001) – This project site is located at the northeast corner of Old Grove Road and Frazee Road. The project proposes a rezone to allow for the construction of 78 new townhomes.
10. Cypress Point (T21-00001) – This project is located west of Los Arbolitos Boulevard, at the intersection of Aspen Street and Pala Road. The project proposes to develop 54 single-family homes on the 7.3-acre project site.
11. Guajome Lake Road Subdivision (T22-00004) – This project site is located at 2837 Guajome Lake Road. The project proposes 84 single-family homes on approximately 10.1 acres of the 16.7-acre project site.
12. Sunrise Assisted Care Facility (P20-00001) – This project site is located at 4700 Mesa Drive. The project proposes a 95 unit, 120 bed, 78,100 square foot senior living and memory care facility.

The traffic generated from the project listed above was included in the Near-Term Year 2025 Base scenario. **Figure 5.1** displays the location of the cumulative projects identified above.



Pacifica Housing Project
Local Transportation Study

Figure 5.1
Cumulative Projects Location

5.2 Cumulative Project Trip Generation

Table 5.1 displays the projected trip generation for the cumulative projects described above. Cumulative project traffic was assigned to the project study area as identified within their respective traffic studies provided by the City of Oceanside. Cumulative project traffic without completed traffic studies were assigned to the project study area utilizing the same methodology used for the Proposed project described in Chapter 3.0, consistent with the City's Traffic Impact Analysis Guidelines. Relevant excerpts from the source of information regarding the cumulative project are provided in Appendix G.

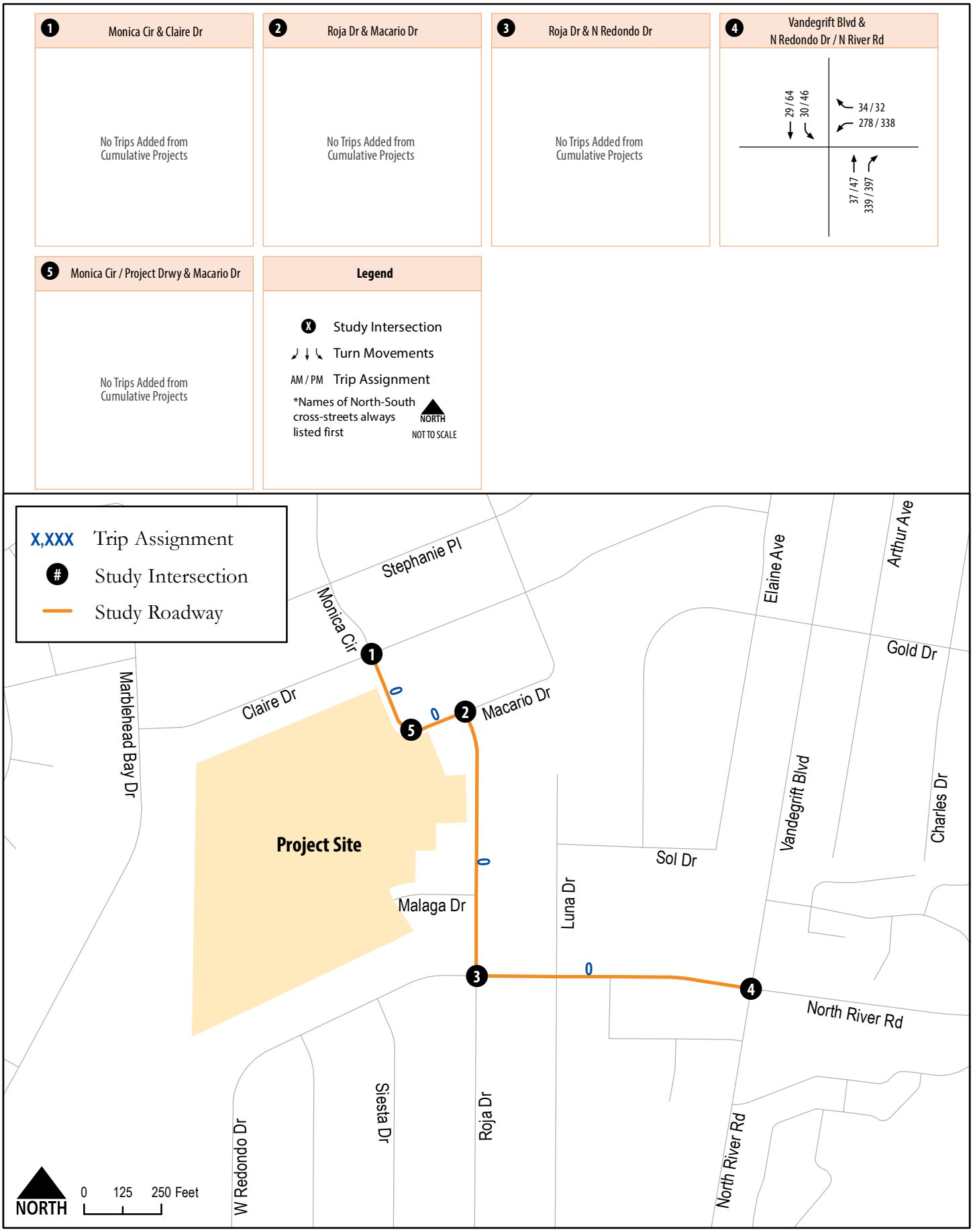
As shown, the cumulative projects are anticipated to generate 65,441 daily trips, including 3,641 trips during the AM peak hour and 6,386 trips during the PM peak hour that will be dispersed throughout the Oceanside community and beyond the Proposed Project's study area. Figure 5.2 displays the cumulative project trip assignment. It should be noted that all vehicle trips generated by the majority cumulative projects listed above are anticipated to only travel through the Vandegrift Boulevard and N. Redondo Drive study intersection (#4).

Table 5.1 - Cumulative Project Trip Generation

Cumulative Project	Land Use	Daily Trips	AM Peak Hour (In/Out)	PM Peak Hour (In/Out)
Riverview Springs (ZA16-00009)	Multi-Family	376	31 (6-in/25-out)	38 (27-in/11-out)
Nagata Property Rezone (GPA13-00004)[1]	Multi-Family	3,200	256 (51-in/205-out)	320 (224-in/96-out)
North River Farms (GPA16-00002[2]	Multi-Family Single Family Detached Commercial Restaurant Farm Hotel	7,921	562 (166-in/396-out)	777 (515-in/262-out)
Cannabis Cultivation (CUP19-00023)[3]	Cannabis Cultivation and Nursery Facility	586	304 (282-in/22-out)	282 (79-in/203-out)
Cannabis Cultivation (CUP19-00025)[3]	Cannabis Cultivation and Nursery Facility	117	61 (56-in/5-out)	56 (15-in/41-out)
El Corazon (Multiple Project #'s)[4]	Variety Land Uses	29,614	1,010 (592-in/418-out)	2,944 (1,483-in/ 1,461-out)
Ocean Kamp Project (T19-00004)[5]	Multi-Family Retail/Commercial Resort Hotel Wave Lagoon	19,040	1,057 (453-in/604-out)	1,532 (902-in/630-out)
Modera Melrose Mixed-Use Development Project[6]	Multi-Family Commercial	2,038	159 (33-in/126-out)	183 (127-in/56-out)
Rio Rockwell[7]	Multi-Family	932	75 (19-in/56-out)	93 (65-in/28-out)
Cypress Point[8]	Single Family Homes	540	42 (13-in/29-out)	53 (37-in/16-out)
Guajome Lake Road Subdivision[9]	Single Family Homes	830	66 (20-in/46-out)	83 (58-in/25-out)
Sunrise Assisted Care Facility[10]	Assisted Care Facility	247	18 (11-in/7-out)	25 (10-in/15-out)
Cumulative Total		**65,441**	**3,641 (1,702-in/ 1,939-out)**	**6,386 (3,542-in/ 2,844-out)**

Source: SANDAG (not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002

Notes:
[1] Trip generation obtained from the Tierra Norte Residential Development Plan DRAFT Local Transportation Study prepared by LOS Engineering, Inc. (January 19, 2022)
[2] Trip generation obtained from the North River Farms Transportation Impact Analysis prepared by LLG Engineers (November 8, 2018). This project was approved with a maximum of 585 dwelling units, however, this LTS assumes 689 dwelling units to be consistent with the traffic study completed by LLG Engineers. Therefore, the analysis provided within this LTS is considered to be conservative.
[3] Trip Generation based on ITE Trip Generation Manual, 11th Edition – Land Use Code 190 – Marijuana Cultivation and Processing Facility
[4] Trip generation obtained from the El Corazon Traffic Impact Analysis prepared by LLG Engineers (July 1, 2008)
[5] Trip generation obtained from the Ocean Kamp Project Local Transportation Study prepared by LLG Engineers (July 14, 2021)
[6] Trip generation obtained from the Modera Melrose Local Transportation Study prepared by LLG Engineers (April 8, 2022)
[7] Trip generation obtained from the Oceanside Rio Rockwell Project Traffic Impact Analysis prepared by LLG Engineers (June 5, 2020)
[8] Trip generation obtained from the Concordia Collection at Cypress Point Local Transportation Assessment prepared by LLG Engineers (May 2021)
[9] Trip generation obtained from the Guajome Lake 83 Lot Subdivision Local Transportation Assessment prepared by LOS Engineering, INC. (November 18, 2022)
[10] Trip generation obtained from the Sunrise of Oceanside Transportation Impact Study prepared by LLG Engineers (September 25, 2020)



Pacifica Housing Project
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Figure 5.2
Cumulative Project Trip Assignment

5.3 Near-Term Year 2025 Base Roadway Network and Traffic Volumes

Study area roadway and intersection geometrics under Near-Term Base conditions were assumed to be identical to the existing roadway geometrics, as shown in Figure 4.1. The Near-Term Base scenario traffic volumes were derived by adding the additional trips generated by the cumulative projects listed in Section 5.1 (Figure 5.2) to the existing traffic volumes (Figure 4.2). **Figure 5.3** displays the average daily roadway and peak hour intersection volumes for the study roadway segments and intersections under the Near-Term Base conditions.

5.4 Near-Term Year 2025 Base Traffic Conditions

LOS analyses under Near-Term Year 2025 Base Conditions were conducted using the methodologies described in Chapter 2. Roadway segment and intersection LOS analysis results are discussed below.

5.4.1 Roadway Segment Analysis

Table 5.2 displays roadway segments and LOS analysis results for study roadway segments under Near-Term Year 2025 Base conditions.

Table 5.2 - Roadway Segment LOS Results – Near-Term Year 2025 Base Conditions

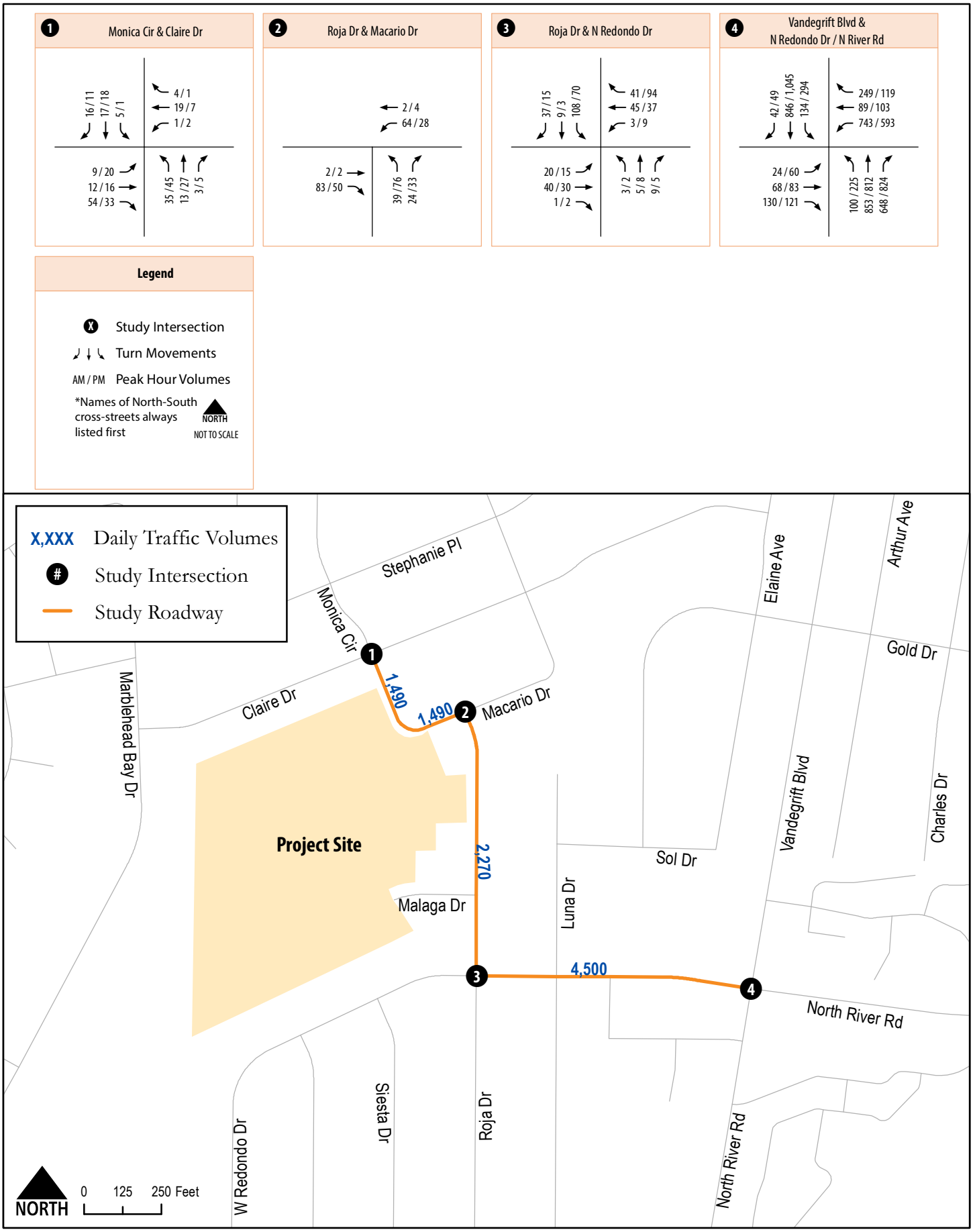
Roadway	Segment	Function Classification	LOS Threshold (LOS E)	LOS	Daily Volume	V/C
Monica Circle	Claire Drive to Macario Drive	Local Street (2-lane)	2,200	C	1,490	0.677
Macario Drive	Monica Circle to Roja Drive	Local Street (2-lane)	2,200	C	1,490	0.677
Roja Drive	Macario Drive to North Redondo Drive	Local Street (2-lane)	2,200	Above Capacity[1]	2,270	1.032
North Redondo Drive	Roja Drive to Vandergrift Boulevard	Collector[2] (2-lane)	7,500	B	4,500	0.600

Source: CR Associates (2023)

Note:
[1] Based upon the City's Circulation Element, the roadway is classified as a Local Street with a daily volume threshold of 2,200 for LOS C. If the daily volume exceeds the 2,200 threshold, the roadway segment operates above capacity.
[2] Functional classification based upon the curb-to-curb distance.
V/C = Volume/Capacity

As shown in Table 5.2, all study roadway segments are projected to operate at LOS C or better under Near-Term Year 2025 Conditions with the exception of the following roadway segment:

- Roja Drive, between Macario Drive and North Redondo Drive (Above Capacity)



Pacifica Housing Project
Local Transportation Study

Figure 5.3
Traffic Volumes
Near-Term Year 2025 Base Conditions

5.4.2 Intersection Analysis

Table 5.3 displays intersection LOS and average vehicle delay results for the key study area intersections under Near-Term Year 2025 Base Conditions. LOS calculation worksheets for Near-Term Year 2025 Base Conditions are provided in **Appendix H**.

Table 5.3 - Peak Hour Intersection LOS Results – Near-Term Year 2025 Base Conditions

#	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Monica Circle & Claire Drive	SSSC	10.0	B	10.1	B
2	Roja Drive & Macario Drive	AWSC	7.5	A	7.5	A
3	Roja Drive & N. Redondo Drive	SSSC	12.2	B	10.7	B
4	Vandegrift Boulevard / N. River Road & N. Redondo Drive	Signal	70.0	**E**	86.3	**F**

Source: CR Associates (2023)

Note:
SSSC = Side-Street Stop Controlled. For SSSC intersections, the delay shown is the worst delay experienced by any of the movements.
AWSC= All-Way Stop Controlled
Bold letter indicates substandard LOS

As shown in Table 5.3, all study area intersections are projected to operate at acceptable LOS B or better under Near-Term Year 2025 Base conditions with exception to the following intersection:

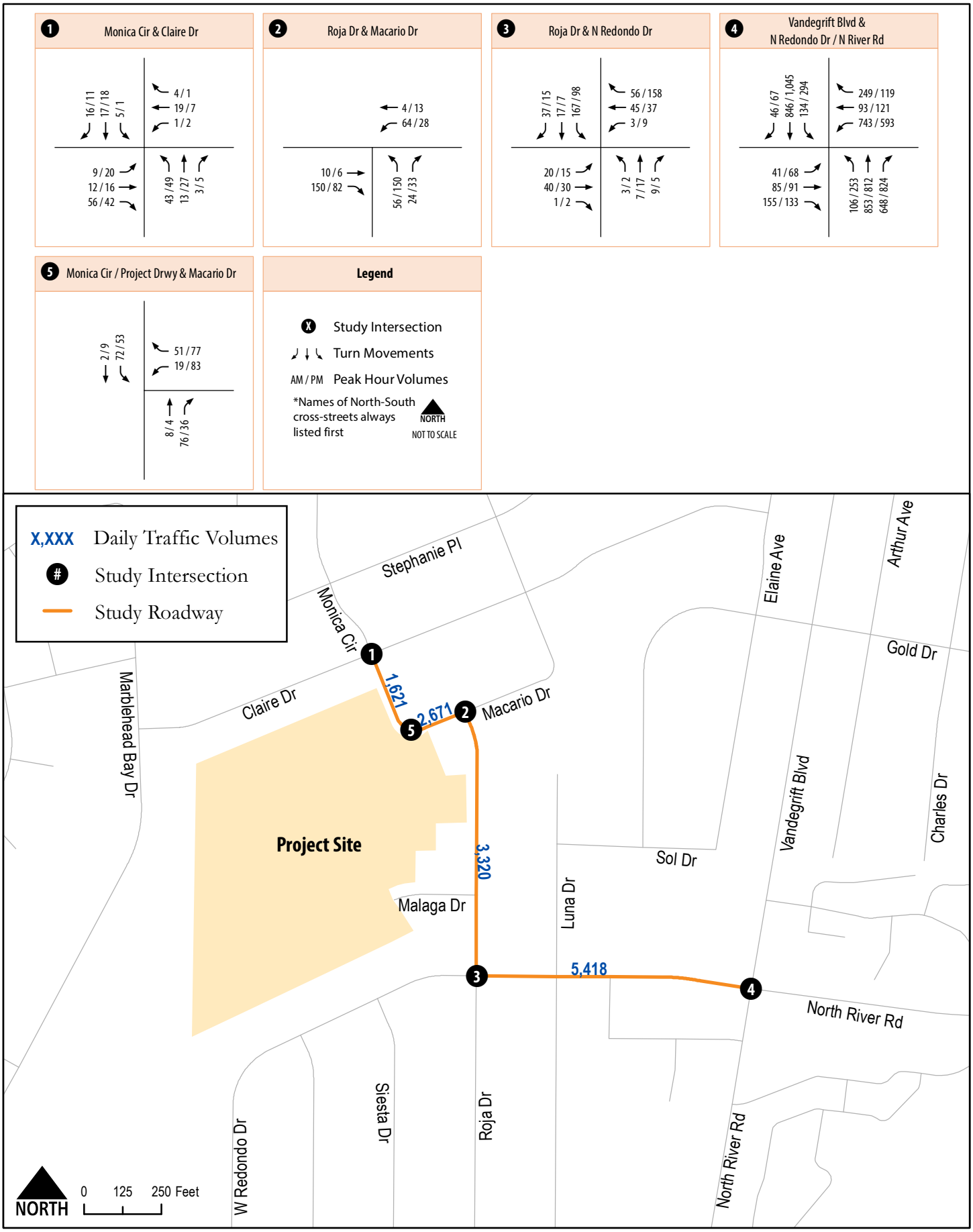
4. Vandegrift Boulevard / N. River Road & N. Redondo Drive – LOS E during the AM peak hour and LOS F during the PM peak hour

5.5 Near-Term Year 2025 Base with Project Roadway Network and Traffic Volumes

Intersection geometrics under the Near-Term Year 2025 Base with Project conditions were assumed to be identical to the Near-Term Year 2025 Base conditions geometrics with exception to the following project feature:

- Enhancement of existing driveway, on the south leg of the Monica Circle and Macario Drive intersection, with special paving, landscaping, and monumentation to announce entry to the project site. This project driveway will provide the only access point to the project site which will function as a side-street stop-controlled intersection with full access.

Peak hour intersection volumes for the Near-Term Year 2025 Base with Project conditions were derived by combining the Proposed Project trips (as previously shown in Figure 3.2) to the Near-Term Year 2025 Base traffic volumes (as previously shown in Figure 5.3). Peak hour intersection volumes for this scenario are displayed in **Figure 5.4**.



Pacifica Housing Project
Local Transportation Study

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Figure 5.4
Traffic Volumes
Near-Term Year 2025 Base with Project Conditions

5.6 Near-Term Year 2025 Base with Project Traffic Conditions

LOS analyses under Near-Term Year 2025 Base with Project conditions were conducted using the methodologies described in Chapter 2. Roadway segment and intersection LOS analysis results are discussed below.

5.6.1 Roadway Segment Analysis

Table 5.4 displays roadway segments and LOS analysis results for study roadway segments under Near-Term Year 2025 Base with Project conditions.

As shown in Table 5.4, the following study roadway segments are projected to operate above capacity under Near-Term Year 2025 Base with Project conditions:

- Macario Drive, between Monica Circle and Roja Drive
- Roja Drive, between Macario Drive and North Redondo Drive

It should be noted that the study roadway segments listed above are all local streets (non-Circulation Element roadways). Therefore, the determination of the need for roadway improvements shall be coordinated with City of Oceanside staff.

5.6.2 Intersection Analysis

Table 5.5 displays intersection LOS and average vehicle delay results for the key study area intersections under Near-Term Year 2025 Base with Project Conditions. LOS calculation worksheets for Near-Term Year 2025 Base with Project conditions are provided in Appendix I.

As shown in Table 5.5, all study area intersections are projected to operate at acceptable LOS B or better under Near-Term Year 2025 Base with Project Conditions with exception to the following intersection:

4. Vandegrift Boulevard / N. River Road & N. Redondo Drive – LOS E during the AM peak hour and LOS F during the PM peak hour. The trips associated with the Proposed Project would increase delay at this intersection by 0.5 seconds in the AM peak hour and 1.5 seconds in the PM peak hour, which does not surpass the 2-second threshold for intersections operating at LOS E or F.

Based upon the criteria outlined in Section 2.5, the study intersection listed above is not anticipated to have an LOS impact with implementation of the Proposed Project and no improvements will be required.

Table 5.4 - Roadway Segment LOS Results – Near-Term Year 2025 Base with Project Conditions

Roadway	Segment	Function Classification	LOS Threshold (LOS E)	Near-Term Year 2025			Near-Term Year 2025 + Project			ΔV/C	I?
				LOS	Daily Volume	V/C	LOS	Daily Volume	V/C		
Monica Circle	Claire Drive to Macario Drive	Local Street (2-lane)	2,200	C	1,490	0.677	C	1,621	0.737	0.060	N
Macario Drive	Monica Circle to Roja Drive	Local Street (2-lane)	2,200	C	1,490	0.677	Above Capacity[1]	2,671	1.214	0.537	N
Roja Drive	Macario Drive to North Redondo Drive	Local Street (2-lane)	2,200	Above Capacity[1]	2,270	1.032	Above Capacity[1]	3,320	1.509	0.477	N
North Redondo Drive	Roja Drive to Vandergrift Boulevard	Collector[2] (2-lane)	7,500	B	4,500	0.600	B	5,418	0.722	0.122	N

Source: CR Associates (2023)

Notes:
[1] Based upon the City's Circulation Element, the roadway is classified as a Local Street with a daily volume threshold of 2,200 for LOS C. If the daily volume exceeds the 2,200 threshold, the roadway segment operates above capacity.
[2] Functional classification based upon the curb-to-curb distance.
V/C = Volume/Capacity
I? = Improvement Required?

Table 5.5 - Peak Hour Intersection LOS Results – Near-Term Year 2025 Base with Project Conditions

#	Intersection	Control Type	Near-Term Year 2025				Near-Term Year 2025 + Project							
			AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
			Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS	Δ	I?	Avg. Delay (sec.)	LOS	Δ	I?
1	Monica Circle & Claire Drive	SSSC	10.0	B	10.1	B	10.1	B	0.1	N	10.2	B	0.1	N
2	Roja Drive & Macario Drive	AWSC	7.5	A	7.5	A	7.8	A	0.3	N	8.3	A	0.8	N
3	Roja Drive & N. Redondo Drive	SSSC	12.2	B	10.7	B	14.4	B	2.2	N	11.7	B	1.0	N
4	Vandegrift Boulevard / N. River Road & N. Redondo Drive	Signal	70.0	**E**	86.3	**F**	70.5	**E**	0.5	N	87.8	**F**	1.5	N
5	Monica Circle / Project Driveway & Macario Drive	SSSC	Does Not Exist				8.6	A	8.6	N	8.5	A	8.5	N

Source: CR Associates (2023)

Notes:
SSSC = Side-Street Stop Controlled. For SSSC intersections, the delay shown is the worst delay experienced by any of the movements.
AWSC = All-Way Stop Controlled
Bold letter indicates substandard LOS
I? = Improvement Required?

6.0 Horizon Year 2050 Conditions

This section provides an analysis of Horizon Year 2050 traffic conditions both with and without the Proposed Project. The scenarios analyzed in this section include:

- Horizon Year 2050
- Horizon Year 2050 with Project

As discussed in the introductory chapter, a Horizon Year 2050 scenario analysis is required per the City's Traffic Impact Analysis Guidelines. The following sections establish baseline conditions for projected long-range conditions of the transportation network within the study area against which traffic generated by the Proposed Project can be compared to.

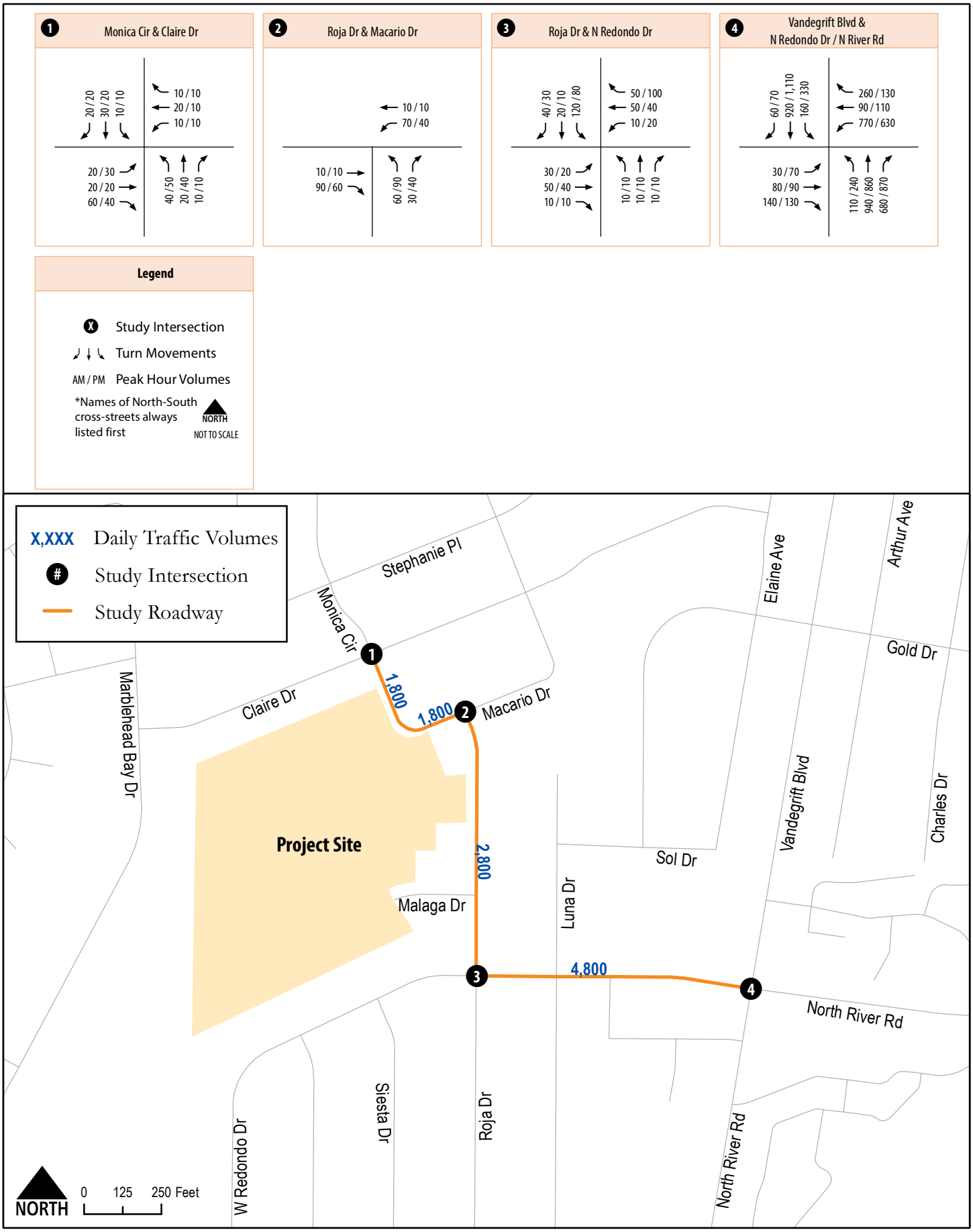
6.1 Horizon Year 2050 Roadway Network and Traffic Volumes

Intersection geometrics under Horizon Year 2050 Conditions were assumed to be identical to the Existing Conditions, as previously shown in Figure 4.1.

Forecasted Horizon Year 2050 ADT were developed by determining growth per year observed in the SANDAG Series 14 ABM2+/2021 RP model via the Transportation Forecast Information Center (TFIC) website and applying growth per year to existing counts for study roadway segments. The observed growth per year between Base Year 2016 and Horizon Year 2050 is 0.78%.

Horizon Year 2050 intersection peak hour turning movement volumes were developed by utilizing the National Cooperative Highway Research Program (NCHRP) Report 255 methodology for estimating intersection turning movements. This methodology describes the use of growth factors, based on the comparison of existing ADT and estimated Horizon Year 2050 ADT, which are applied to existing peak hour intersection approach and departure volumes. Manual adjustments were also made to ensure that traffic volumes among adjacent intersections were reasonably balanced.

Details on counts collected from TFIC and growth rates applied are provided in **Appendix J**. Roadway ADT and intersection peak hour volumes for this scenario are displayed in **Figure 6.1**.



Pacifica Housing Project
Local Transportation Study

Figure 6.1
Traffic Volumes
Horizon Year 2050 Conditions

6.2 Horizon Year 2050 Traffic Conditions

LOS analyses under Horizon Year 2050 Conditions were conducted using the methodologies described in Chapter 2. Study roadway segment and intersection LOS analysis results are discussed below.

6.2.1 Roadway Segment Analysis

Table 6.1 displays roadway segments and LOS analysis results for study roadway segments under Horizon Year 2050 conditions.

Table 6.1 - Roadway Segment LOS Results – Horizon Year 2050 Conditions

Roadway	Segment	Function Classification	LOS Threshold (LOS E)	LOS	Daily Volume	V/C
Monica Circle	Claire Drive to Macario Drive	Local Street (2-lane)	2,200	C	1,800	0.818
Macario Drive	Monica Circle to Roja Drive	Local Street (2-lane)	2,200	C	1,800	0.818
Roja Drive	Macario Drive to North Redondo Drive	Local Street (2-lane)	2,200	Above Capacity[1]	2,800	1.273
North Redondo Drive	Roja Drive to Vandergrift Boulevard	Collector[2] (2-lane)	7,500	B	4,800	0.640

Source: CR Associates (2023)

Note:
[1] Based upon the City's Circulation Element, the roadway is classified as a Local Street with a daily volume threshold of 2,200 for LOS C. If the daily volume exceeds the 2,200 threshold, the roadway segment operates above capacity.
[2] Functional classification based upon the curb-to-curb distance.
V/C = Volume/Capacity

As shown in Table 6.1, the following study roadway segment is projected to operate above capacity under Horizon Year 2050 Conditions:

- Roja Drive, between Macario Drive and North Redondo Drive

6.2.2 Intersection Analysis

Table 6.2 displays intersection LOS and average vehicle delay results for the key study area intersections under Horizon Year 2050 Conditions. LOS calculation worksheets for Horizon Year 2050 Conditions are provided in **Appendix K**.

Table 6.2 - Peak Hour Intersection LOS Results – Horizon Year 2050 Conditions

#	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Monica Circle & Claire Drive	SSSC	10.4	B	10.3	B
2	Roja Drive & Macario Drive	AWSC	7.8	A	7.8	A
3	Roja Drive & N. Redondo Drive	SSSC	14.6	B	11.6	B
4	Vandegrift Boulevard / N. River Road & N. Redondo Drive	Signal	57.8	**E**	91.2	**F**

Source: CR Associates (2023)

Note:
SSSC = Side-Street Stop Controlled. For SSSC intersections, the delay shown is the worst delay experienced by any of the movements.
AWSC= All-Way Stop Controlled
Bold letter indicates substandard LOS

As shown in Table 6.2, all study area intersections are projected to operate at acceptable LOS B or better under Near-Term Year 2025 Base conditions with exception to the following intersection:

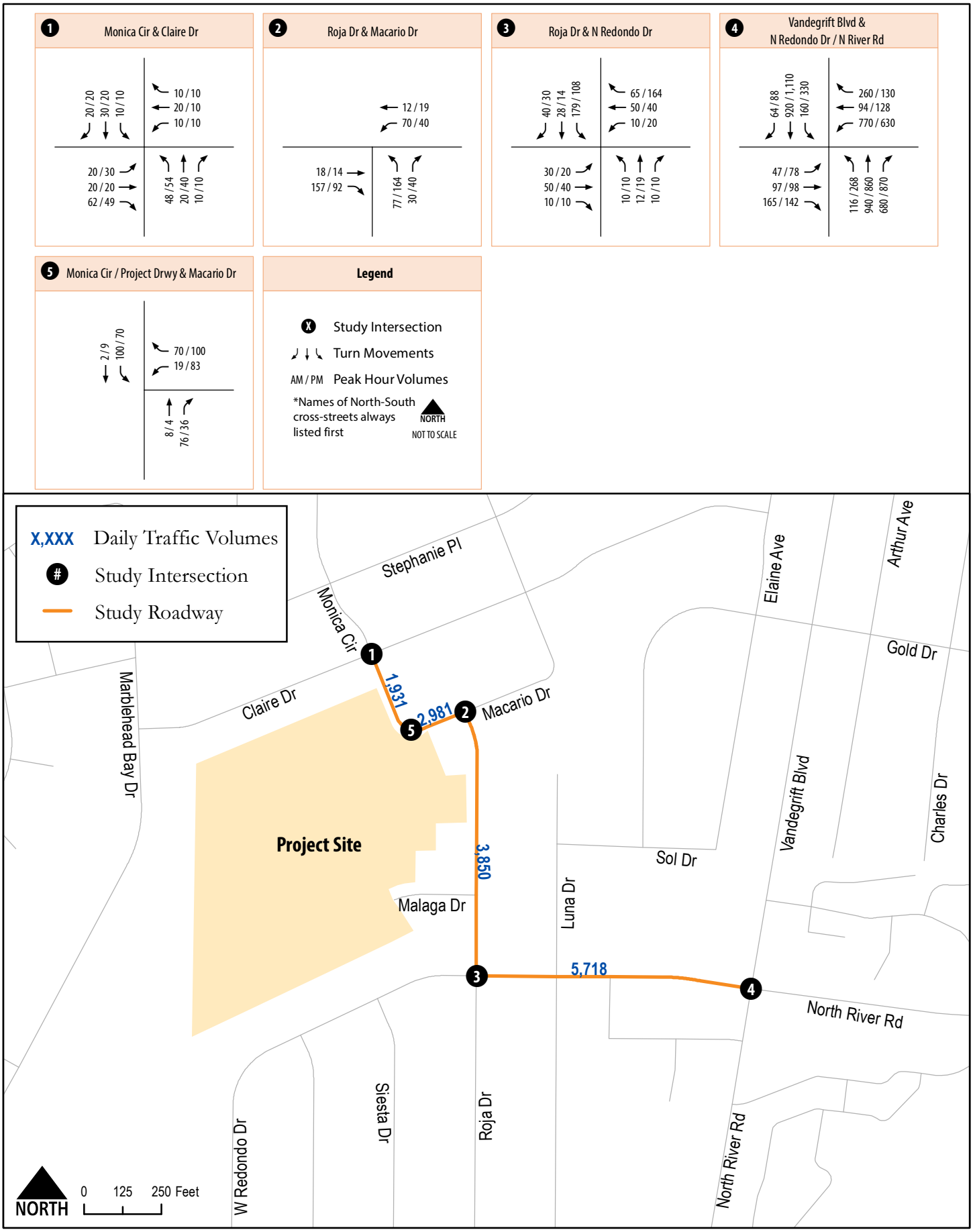
4. Vandegrift Boulevard / N. River Road & N. Redondo Drive – LOS E during the AM peak hour and LOS F during the PM peak hour

6.3 Horizon Year 2050 with Project Roadway Network and Traffic Volumes

Intersection geometrics under the Horizon Year 2050 with Project Conditions were assumed to be identical to the Horizon Year 2050 Conditions geometrics with exception to the following project feature:

- Enhancement of existing driveway, on the south leg of the Monica Circle and Macario Drive intersection, with special paving, landscaping, and monumentation to announce entry to the project site. This project driveway will provide the only access point to the project site which will function as a side-street stop-controlled intersection with full access.

Peak hour intersection volumes for the Horizon Year 2050 with Project Conditions were derived by combining the Proposed Project trips (as previously shown in Figure 3.2) to the Horizon Year 2050 traffic volumes (as previously shown in Figure 6.1). Peak hour intersection volumes for this scenario are displayed in **Figure 6.2**.



Pacifica Housing Project
Local Transportation Study

Figure 6.2
Traffic Volumes
Horizon Year 2050 with Project Conditions

6.4 Horizon Year 2050 with Project Traffic Conditions

LOS analyses under Horizon Year 2050 with Project Conditions were conducted using the methodologies described in Chapter 2. Study roadway segment and intersection LOS analysis results are discussed below.

6.4.1 Roadway Segment Analysis

Table 6.3 displays roadway segments and LOS analysis results for study roadway segments under Horizon Year 2050 with Project conditions.

As shown in Table 6.3, the following study roadway segments are projected to operate above capacity under Horizon Year 2050 with Project conditions:

- Macario Drive, between Monica Circle and Roja Drive
- Roja Drive, between Macario Drive and North Redondo Drive

It should be noted that the study roadway segments listed above are all local streets (non-Circulation Element roadways). Therefore, the determination of the need for roadway improvements shall be coordinated with City of Oceanside staff.

6.4.2 Intersection Analysis

Table 6.4 displays intersection LOS and average vehicle delay results for the key study area intersections under Horizon Year 2050 with Project conditions. LOS calculation worksheets for Horizon Year 2050 with Project Conditions are provided in Appendix L.

As shown in Table 6.4 all study area intersections are projected to operate at acceptable LOS C or better under Horizon Year 2050 with Project Conditions with exception to the following intersection:

4. Vandegrift Boulevard / N. River Road & N. Redondo Drive – LOS E during the AM peak hour and LOS F during the PM peak hour. The trips associated with the Proposed Project would increase delay at this intersection by 1.5 seconds in the AM peak hour and 1.2 seconds in the PM peak hour, which does not surpass the 2-second threshold for intersections operating at LOS E or F.

Based upon the criteria outlined in Section 2.5, the study intersection listed above is not anticipated to have an LOS impact with implementation of the Proposed Project and no improvements will be required.

Table 6.3 - Roadway Segment LOS Results – Horizon Year 2050 with Project Conditions

Roadway	Segment	Function Classification	LOS Threshold (LOS E)	Horizon Year 2050			Horizon Year 2050 + Project			ΔV/C	I?
				LOS	Daily Volume	V/C	LOS	Daily Volume	V/C		
Monica Circle	Claire Drive to Macario Drive	Local Street (2-lane)	2,200	C	1,800	0.818	C	1,931	0.878	0.060	N
Macario Drive	Monica Circle to Roja Drive	Local Street (2-lane)	2,200	C	1,800	0.818	Above Capacity[1]	2,981	1.355	0.537	N
Roja Drive	Macario Drive to North Redondo Drive	Local Street (2-lane)	2,200	Above Capacity[1]	2,800	1.273	Above Capacity[1]	3,850	1.750	0.477	N
North Redondo Drive	Roja Drive to Vandergrift Boulevard	Collector[2] (2-lane)	7,500	B	4,800	0.640	C	5,718	0.762	0.122	N

Source: CR Associates (2023)

Notes:
[1] Based upon the City's Circulation Element, the roadway is classified as a Local Street with a daily volume threshold of 2,200 for LOS C. If the daily volume exceeds the 2,200 threshold, the roadway segment operates above capacity.
[2] Functional classification based upon the curb-to-curb distance.
V/C = Volume/Capacity
I? = Improvement Required?

Table 6.4 - Peak Hour Intersection LOS Results – Horizon Year 2050 with Project Conditions

#	Intersection	Control Type	Horizon Year 2050				Horizon Year 2050 + Project							
			AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
			Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS	Δ	I?	Avg. Delay (sec.)	LOS	Δ	I?
1	Monica Circle & Claire Drive	SSSC	10.4	B	10.3	B	10.6	B	0.2	N	10.3	B	0.0	N
2	Roja Drive & Macario Drive	AWSC	7.8	A	7.8	A	8.2	A	0.4	N	8.6	A	0.8	N
3	Roja Drive & N. Redondo Drive	SSSC	14.6	B	11.6	B	18.6	C	4.0	N	13.1	B	1.5	N
4	Vandegrift Boulevard / N. River Road & N. Redondo Drive	Signal	57.8	**E**	91.2	**F**	59.3	**E**	1.5	N	92.4	**F**	1.2	N
5	Monica Circle / Project Driveway & Macario Drive	SSSC	Does Not Exist				8.6	A	8.6	N	8.5	A	8.5	N

Source: CR Associates (2023)

Notes:
SSSC = Side-Street Stop Controlled. For SSSC intersections, the delay shown is the worst delay experienced by any of the movements.
AWSC = All-Way Stop Controlled
Bold letter indicates substandard LOS
I? = Improvement Required?

7.0 LOS Impacts and Improvement Requirements

This chapter provides improvements requirements needed to increase LOS to acceptable or pre-project conditions for any roadway segments or intersections found to operate unacceptably with implementation of the Proposed Project.

7.1 Improvement Requirements – Existing with Project Conditions

Roadway Segment Analysis

The roadway segments listed below are anticipated to operate above capacity with implementation of the Proposed Project under Existing with Project Conditions:

- Macario Drive, between Monica Circle and Roja Drive
- Roja Drive, between Macario Drive and North Redondo Drive

It should be noted that the study roadway segments listed above are all local streets (non-Circulation Element roadways). Therefore, the determination of the need for roadway improvements shall be coordinated with City of Oceanside staff.

Given the buildout environment of these local streets and the relatively small amount of traffic that the Project will add to the surrounding transportation network, it is not anticipated that roadway improvements involving widening would be required. However, alternative improvements may be necessary such as traffic calming measures (i.e., speed cushions, speed feedback signs, etc.) and/or pedestrian or bicycle improvements such as high visibility crosswalks at nearby intersections.

Intersection Analysis

All study area intersections are projected to operate at acceptable LOS D or better under Existing with Project conditions. Therefore, no study intersections are anticipated to degrade in LOS to unacceptable levels with implementation of the Proposed Project and no improvements will be required.

7.2 Improvement Requirements – Near-Term Year 2025 with Project Conditions

This section identifies required improvements for any study roadway segments or intersections that are associated with the Proposed Project under Near-Term Year 2025 Base with Project conditions.

Roadway Segment Analysis

The roadway segments listed below are anticipated to operate above capacity with implementation of the Proposed Project under Near-Term Year 2025 Base with Project Conditions:

- Macario Drive, between Monica Circle and Roja Drive
- Roja Drive, between Macario Drive and North Redondo Drive

It should be noted that the study roadway segments listed above are all local streets (non-Circulation Element roadways). Therefore, the determination of the need for roadway improvements shall be coordinated with City of Oceanside staff.

Given the buildout environment of these local streets and the relatively small amount of traffic that the Project will add to the surrounding transportation network, it is not anticipated that roadway improvements involving widening would be required. However, alternative improvements may be necessary such as traffic calming measures (i.e., speed cushions, speed feedback signs, etc.) and/or pedestrian or bicycle improvements such as high visibility crosswalks at nearby intersections.

Intersection Analysis

All study area intersections are projected to operate at acceptable LOS B or better under Near-Term Year 2025 Base with Project Conditions with exception to the following intersection:

4. Vandegrift Boulevard / N. River Road & N. Redondo Drive – LOS E during the AM peak hour and LOS F during the PM peak hour. The trips associated with the Proposed Project would increase delay at this intersection by 0.5 seconds in the AM peak hour and 1.5 seconds in the PM peak hour, which does not surpass the 2-second threshold for intersections operating at LOS E or F.

Based upon the criteria outlined in Section 2.5, the study intersection listed above is not anticipated to have an LOS impact with implementation of the Proposed Project and no improvements will be required.

7.3 Improvement Requirements – Horizon Year 2050 with Project Conditions

This section identifies required improvements for any study roadway segments or intersections that are associated with the Proposed Project under Horizon Year 2050 with Project conditions.

Roadway Segment Analysis

The roadway segments listed below are anticipated to operate above capacity with implementation of the Proposed Project under Horizon Year 2050 with Project Conditions:

- Macario Drive, between Monica Circle and Roja Drive
- Roja Drive, between Macario Drive and North Redondo Drive

It should be noted that the study roadway segments listed above are all local streets (non-Circulation Element roadways). Therefore, the determination of the need for roadway improvements shall be coordinated with City of Oceanside staff.

Given the buildout environment of these local streets and the relatively small amount of traffic that the Project will add to the surrounding transportation network, it is not anticipated that roadway improvements involving widening would be required. However, alternative improvements may be necessary such as traffic calming measures (i.e., speed cushions, speed feedback signs, etc.) and/or pedestrian or bicycle improvements such as high visibility crosswalks at nearby intersections.

Intersection Analysis

All study area intersections are projected to operate at acceptable LOS C or better under Horizon Year 2050 with Project Conditions with exception to the following intersection:

4. Vandegrift Boulevard / N. River Road & N. Redondo Drive – LOS E during the AM peak hour and LOS F during the PM peak hour. The trips associated with the Proposed Project would increase delay at this intersection by 1.5 seconds in the AM peak hour and 1.2 seconds in the PM peak hour, which does not surpass the 2-second threshold for intersections operating at LOS E or F.

Based upon the criteria outlined in Section 2.5, the study intersection listed above is not anticipated to have an LOS impact with implementation of the Proposed Project and no improvements will be required.

8.0 Site Access & Circulation

This chapter addresses access to the project site and discusses the functionality of the project's internal circulation.

8.1 Driveway Access

The Proposed Project will be located at the southwest corner of the Monica Circle and Macario Drive intersection within the City of Oceanside. The project site is currently vacant and used to serve as the Pacifica Elementary School, which was closed in July 2007. The property is bordered by single family dwelling units on all sides.

The Proposed Project will be accessed primarily via the existing driveway which is the south leg of the three-legged intersection at Monica Circle and Macario Drive. Enhancements to this existing driveway will include special paving, landscaping, and monumentation to announce entry to the project site. The project driveway will function as a side-street stop-controlled intersection with full access. This driveway is projected to operate at LOS A under all study scenarios.

A secondary emergency access only access point will be located at Malaga Drive.

After further review of the project site plan, the following recommendations are provided:

- Driveways are recommended to be constructed in accordance with City standards
- Stop sign (R1-1) to be installed at the project driveway

8.2 Internal Circulation

Internal roadways on the project site allows for two-way flow of vehicle traffic. Dead-end aisles between buildings provide direct access to garages for each dwelling unit. Guest parking is provided at the community entry point. Additional resident parallel parking is also available throughout the project site.

Based upon review of the project site plan, the following recommendations are provided:

- Appropriate signage to warn drivers of pedestrian foot traffic
- Consider installation of speed cushions/bumps along internal roadways to calm traffic

Appendix A - Project Information Form – Pacifica Housing Project

PROJECT INFORMATION FORM (PIF)

THE FOLLOWING IS TO BE COMPLETED BY THE PROJECT APPLICANT:

	PROJECT INFORMATION FORM		
1.	**PROJECT DESCRIPTION:** The Oceanside Multi-Family project proposes to construct 164 townhomes on the old Pacifica Elementary School site (approximately 14.55 acres).		
2.	**PROJECT LOCATION:** Located adjacent to the intersection of Monica Circle and Macario Drive		
3.	**LAND USE:** Multi-Family (Residential) **SIZE/DENSITY:** 164 townhomes		
4.	**ZONING AND LAND USE CONSISTENT WITH ADOPTED GENERAL PLAN?**	☐ Yes	☑ No
5.	**PROJECT LOCATED IN TRANSIT PRIORITY AREA[1], SMART GROWTH AREA[2], OR LOW VMT AREA[3]?**	☑ Yes	☐ No
6.	**PROJECT TRIP GENERATION:** 1,312 **ADT**	☐ < 200 ADT ☐ ≥ 200 ADT ☑ ≥ 1,000 ADT ☐ ≥ 2,400 ADT	
	ATTACHMENTS		
A.	**PROJECT LOCATION MAP**	☑ Attached	
B.	**PROJECT TRIP DISTRIBUTION**	☑ Attached	
C.	**PROJECT TRIP ASSIGNMENT**	☑ Attached	

1) Projects located in a TPA must be able to access the transit station within a ½ mile walking distance or 6 minute walk continuously without discontinuity of sidewalk or obstructions to the route. Qualifying transit stops means a site containing an existing rail transit station served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods (OPR, 2017). A high-quality transit corridor may also be considered if a corridor with fixed route bus service has service intervals no longer than 15 minutes during peak commute hours (OPR, 2017).
(2) See Appendix B.
(3) Based on the most recent SANDAG SB 743 Screening Map. Example shown in Appendix C.

TO BE COMPLETED BY CITY STAFF AND RETURNED TO PROJECT APPLICANT

	PROJECT STUDY REQUIREMENTS			
1)	**Does the project require a CEQA VMT analysis?**	☑ Yes	☐ No	☐ Incomplete[(1)]
	A. If yes, does the project require a SANDAG Model Run?	☐ Yes	☑ No	
2a)	**Does the project require a Local Transportation Study?**	☒ Yes	☐ No	☐ Incomplete[(1)]
	OR			
2b)	**Does the project require a Local Transportation Assessment?**	☐ Yes	☒ No	☐ Incomplete[(1)]

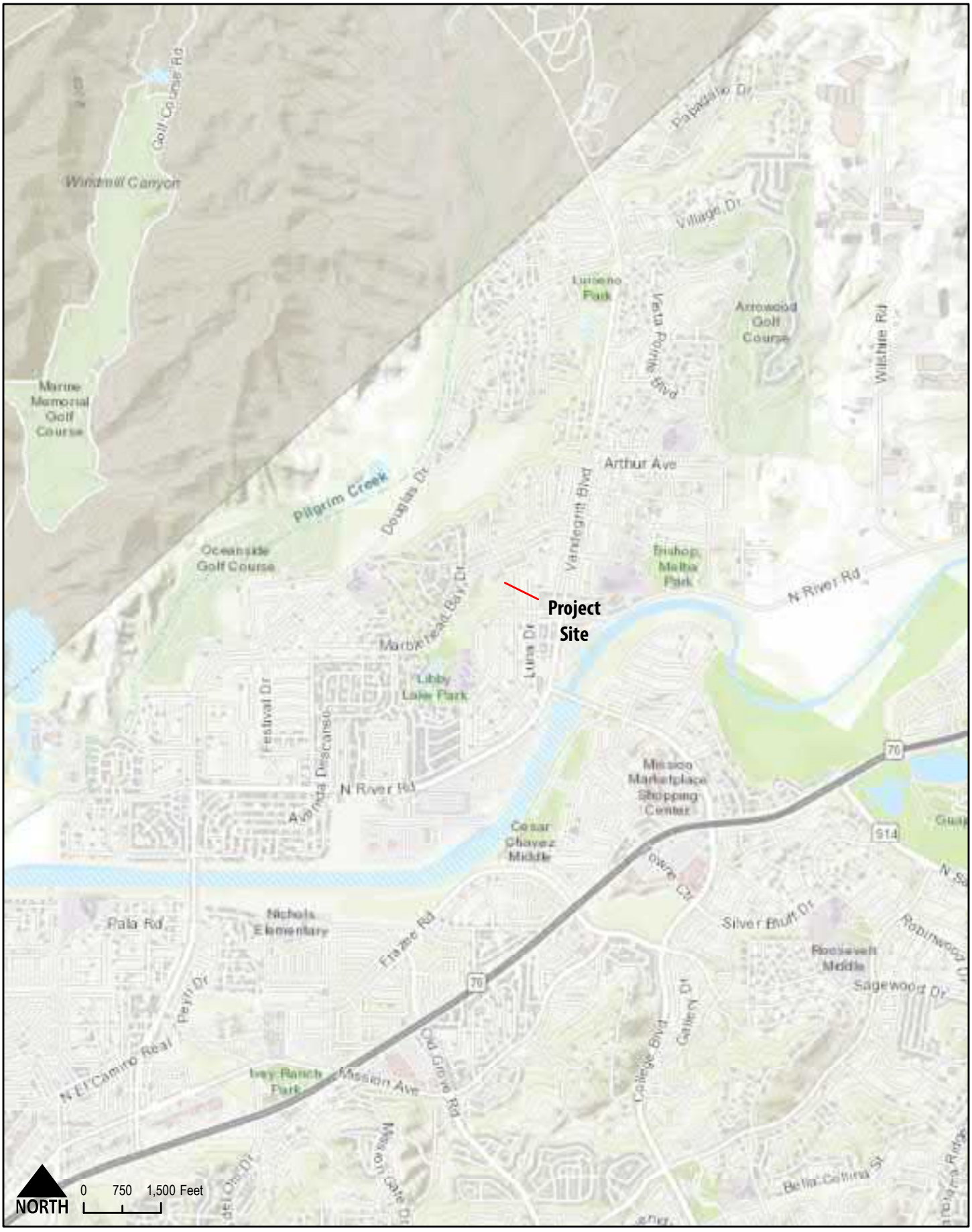
[(1)] Incomplete application or additional information is needed to determine study requirements.

SW 05/12/23
Planning Division Date

Transportation Engineering Section 5/12/23
Date

The Project is located within a ½ mile walking distance, without discontinuity of sidewalk or obstructions to the route, of the San Luis Rey Transit Center.

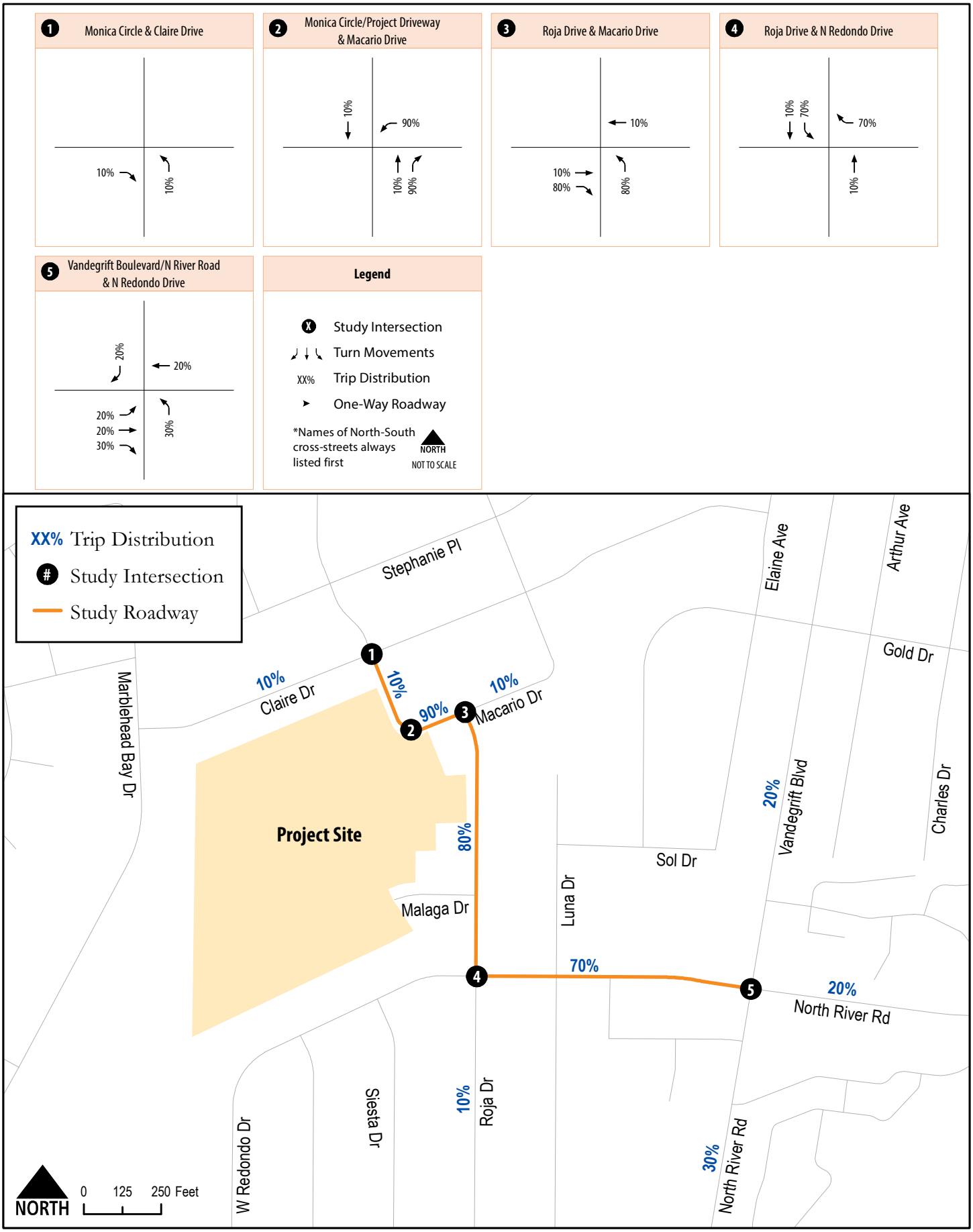
Walking Distance From Project Site to San Luis Rey Transit Center



Oceanside Multi-Family
Project Information Form

C+R

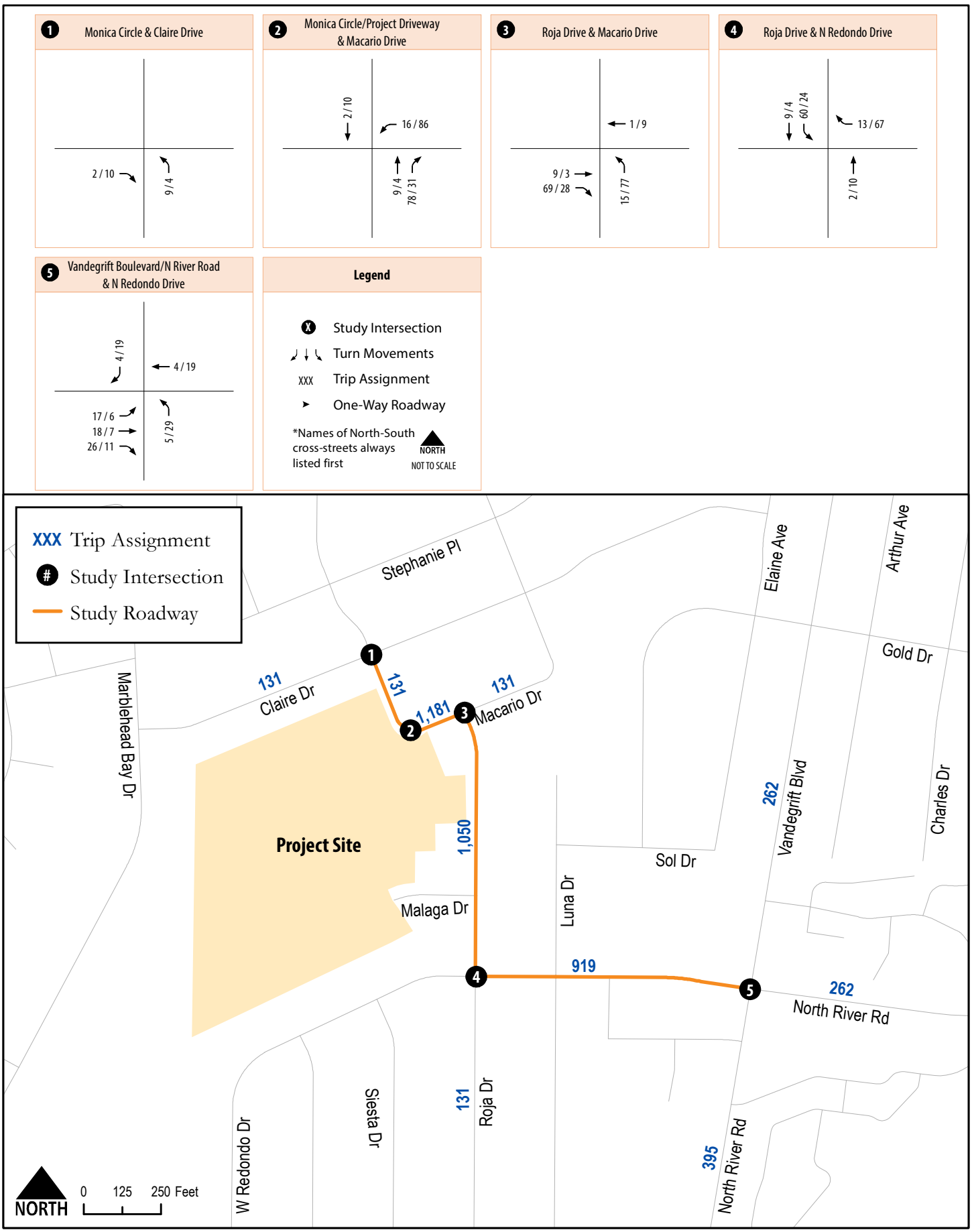
Figure 1
Project Regional Location



Oceanside Multi-Family Project Information Form

C+R

Figure 2
Project Trip Distribution



Oceanside Multi-Family Project Information Form

C R

Figure 3
Project Trip Assignment

Appendix B - Signal Timing Sheets

INTERSECTION: North River & Vandegrift/Red

Group Assignment: **NONE**
Field Master Assignment: **NONE**
System Reference Number: **82**

N/S Street Name: **Not Assigned**
E/W Street Name: **Not Assigned**

Last Database Change: **9/16/2022 3:17:52 PM**

Change Record					
Change	By	Date	Change	By	Date

Notes:

Drop Number	**15**	<C+0+0>
Zone Number		<C+0+1>
Area Number	**1**	<C+0+2>
Area Address	**82**	<C+0+3>
QuicNet Channel	**Serial:COM20:**	(QuicNet)

Communication Addresses

Manual Plan		<C+A+1>
Manual Offset		<C+B+1>

Manual Selection

Max Initial	**20**	<F+0+E>
Red Revert	**2.0**	<F+0+F>
All Red Start	**5.0**	<F+C+0>

Start / Revert Times

Row	Column Numbers ----> / Phase Names ---->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk	0	7	0	4	0	7	0	4
1	Ped FDW	0	20	0	22	0	16	0	20
2	Min Green	5	10	5	6	5	10	5	8
3	Type 3 Limit	0	99	0	0	0	99	0	0
4	Added Initial	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0
5	Veh Extension	2.5	4.5	2.5	3.0	2.5	4.5	2.5	3.0
6	Max Gap	2.5	8.0	2.5	3.0	2.5	8.0	2.5	3.0
7	Min Gap	2.5	4.0	2.5	3.0	2.5	4.0	2.5	3.0
8	Max Limit	20	60	25	25	60	40	20	25
9	Max Limit 2	30	40	30	30	30	40	30	30
A	- - - - - -	0	0	0	0	0	0	0	0
B	Call To Phase	0	0	0	0	0	0	0	0
C	Reduce By	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
D	Reduce Every	0.0	1.2	0.0	0.0	0.0	1.2	0.0	0.0
E	Yellow Change	4.1	4.8	4.1	4.8	4.1	4.8	4.1	4.8
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <F Page>

	E
RR-1 Delay	0
RR-1 Clear	10
EV-A Delay	0
EV-A Clear	5
EV-B Delay	0
EV-B Clear	5
EV-C Delay	0
EV-C Clear	5
EV-D Delay	0
EV-D Clear	5
RR-2 Delay	0
RR-2 Clear	10
View EV Delay	- - -
View EV Clear	- - -
View RR Delay	- - -
View RR Clear	- - -

Preempt Timing

Row		F
0	Permit	**12345678**
1	Red Lock	_____
2	Yellow Lock	_____
3	Min Recall	**_2___6__**
4	Ped Recall	_____
5	*View Set Peds*	**- - - - -**
6	Rest In Walk	_____
7	Red Rest	_____
8	Dual Entry	**_2_4_6_8**
9	Max Recall	_____
A	Soft Recall	_____
B	Max 2	_____
C	Cond. Service	_____
D	Man Cntrl Calls	_____
E	Yellow Start	**1___5___**
F	First Phases	**_2___6__**

Phase Functions <F Page>

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Row	Column Numbers ---->	Plan 1	2	3	4	5	6	7	8	9	Row
	Plan Name ---->										
0	Cycle Length	100	100	130	100	90	140	120	100	120	0
1	Phase 1 - ForceOff	65	25	72	75	60	100	75	65	25	1
2	Phase 2 - ForceOff	0	0	0	0	0	0	0	0	0	2
3	Phase 3 - ForceOff	25	45	34	40	26	48	26	25	45	3
4	Phase 4 - ForceOff	50	60	52	55	41	68	55	50	75	4
5	Phase 5 - ForceOff	65	25	95	17	60	110	75	65	100	5
6	Phase 6 - ForceOff	0	0	0	0	0	18	0	0	0	6
7	Phase 7 - ForceOff	20	40	18	1	1	42	20	25	40	7
8	Phase 8 - ForceOff	50	60	52	1	1	68	55	40	75	8
9	Ring Offset	0	0	0	0	0	0	0	0	0	9
A	Offset 1	57	40	60	47	16	70	94	0	40	A
B	Offset 2	0	0	0	0	0	0	0	0	0	B
C	Offset 3	0	0	0	0	0	0	0	0	0	C
D	Permissive	5	5	16	5	12	19	12	12	12	D
E	Hold Release	90	85	255	90	255	255	255	255	255	E
F	Zone Offset	0	0	0	0	0	0	0	0	0	F

(* = Coordination Recall)

Row		E	Row
			0
1	Plan 1 - Sync	_2___6__	1
2	Plan 2 - Sync	_2___6__	2
3	Plan 3 - Sync	_2___6__	3
4	Plan 4 - Sync	_2___6__	4
5	Plan 5 - Sync	_2___6__	5
6	Plan 6 - Sync	_2___6__	6
7	Plan 7 - Sync	_2___6__	7
8	Plan 8 - Sync	_2___6__	8
9	Plan 9 - Sync	_2___6__	9
A	Coord Ped *	_____	A
B	NEMA Hold	_____	B
C			C
D			D
E			E
F			F

Sync Phases <C Page>

Row	Column Numbers ---->	E	Row
0	Exclusive Phases	_____	0
1	RR-1 Clear Phases	_____	1
2	RR-2 Clear Phases	_____	2
3	RR-2 Limited Service	_____	3
4	Prot / Perm Phases	_____	4
5	Overlap A - Green Omit	_____	5
6	Overlap B - Green Omit	_____	6
7	Overlap C - Green Omit	_____	7
8	Overlap D - Green Omit	_____	8
9	Overlap Yellow Flash	_____	9
A	EV-A Phases	_2__5___	A
B	EV-B Phases	___4__7_	B
C	EV-C Phases	1____6__	C
D	EV-D Phases	__3____8	D
E	Extra 1 Config. Bits	1__4____	E
F	IC Select (Interconnect)	_2_____	F

Configuration <E Page>

	F
RR Overlap A - Phases	_____
RR Overlap B - Phases	_____
RR Overlap C - Phases	_____
RR Overlap D - Phases	_____
Ped 2P	_2_____
Ped 6P	_____6__
Ped 4P	___4____
Ped 8P	_____8
Yellow Flash Phases	_____
Overlap A - Phases	_____
Overlap B - Phases	_____
Overlap C - Phases	_____
Overlap D - Phases	_____
Restricted Phases	_____
Assign 5 Outputs	_____

Configuration <E Page>

Coordination <C Page>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 =
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

Assign 5 Outputs
(Ped Loadswitch Yellows)
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Force-Off Adjust	5

Coord Force-Off Adjust for Ped Service <C+D+F>

Transition Type	0

TBC Transition <C+D+D>

Transition Type
0 = Shortway
Non-zero = Lengthen

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Row		F	Row
0	Free Lag	_2_4_6_8	0
1	Plan 1 - Lag	_2_4_6_8	1
2	Plan 2 - Lag	1__45__8	2
3	Plan 3 - Lag	_2_4_6_8	3
4	Plan 4 - Lag	_2_45__8	4
5	Plan 5 - Lag	_2_4_6_8	5
6	Plan 6 - Lag	_2_4_6_8	6
7	Plan 7 - Lag	_2_4_6_8	7
8	Plan 8 - Lag	_2_4_6_8	8
9	Plan 9 - Lag	1__4_6_8	9
A	Coord Max *	_____	A
B	Coord Lag *	_____	B
C			C
D			D
E			E
F			F

Lag Phases <C Page>

INTERSECTION: North River & Vandegrift/Red

TOD Coordination
<9 Key with C+D+9=0>

Row	Time	Plan	Offset	Day of Week
0	00:00	E	A	1234567
1	06:00	7	A	_23456_
2	09:00	E	A	_23456_
3	15:00	6	A	_23456_
4	17:30	E	A	_23456_
5	00:00	0	0	_____
6	00:00	0	0	_____
7	00:00	0	0	_____
8	00:00	0	0	_____
9	00:00	0	0	_____
A	00:00	0	0	_____
B	00:00	0	0	_____
C	00:00	0	0	_____
D	00:00	0	0	_____
E	00:00	0	0	_____
F	00:00	0	0	_____

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

TOD Function
<7 Key>

Time	Funct.	Day of Week
15:00	C	_23456_
18:00	C	_23456_
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____
00:00	0	_____

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

<D Page>

Column F Phases/Bits
1_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Holiday # 1
TOD Coordination
<9 Key with C+D+9=1>

Time	Plan	Offset	Day of Week
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____

Month Select
1 = January
2 = February
3 = March
4 = April
5 = May
6 = June
7 = July
8 = August
9 = September
A = October
B = November
C = December

Holiday # 2
TOD Coordination
<9 Key with C+D+9=2>

Time	Plan	Offset	Day of Week
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____

Holiday # 3
TOD Coordination
<9 Key with C+D+9=3>

Time	Plan	Offset	Day of Week
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____
00:00	0	0	_____

Holiday Dates
<8 Key>

Row		Day	Year	Month	Day of Week
A	Holiday # 1 Date	0	0	0	_____
B	Holiday # 2 Date	0	0	0	_____
C	Holiday # 3 Date	0	0	0	_____

Row	1 Delay	3 Carry-over	Detector Name	332 Input File	Detector Number
0	1.0	0.0		I-1	14
1	0.0	0.0		I-2U	1
2	0.0	0.0		I-2L	5
3	0.0	0.0		I-3U	21
4	0.0	0.0		I-3L	25
5	0.0	0.0		I-4	9
6	0.0	0.0		I-5	16
7	0.0	0.0		I-6U	3
8	0.0	0.0		I-6L	7
9	0.0	0.0		I-7U	23
A	0.0	0.0		I-7L	27
B	0.0	0.0		I-8	11
C	0.0	0.0		I-9U	18
D	0.0	0.0		I-9L	20
E	- - -	- - -	- - -	- - -	- - -
F	- - -	- - -	- - -	- - -	- - -

Row	2 Delay	4 Carry-over	Detector Name	332 Input File	Detector Number
0	0.0	0.0		J-1	13
1	0.0	0.0		J-2U	2
2	0.0	0.0		J-2L	6
3	0.0	0.0		J-3U	22
4	0.0	0.0		J-3L	26
5	10.0	0.0		J-4	10
6	0.0	0.0		J-5	15
7	0.0	0.0		J-6U	4
8	0.0	0.0		J-6L	8
9	0.0	0.0		J-7U	24
A	0.0	0.0		J-7L	28
B	0.0	0.0		J-8	12
C	0.0	0.0		J-9U	17
D	0.0	0.0		J-9L	19
E	- - -	- - -	- - -	- - -	- - -
F	- - -	- - -	- - -	- - -	- - -

Detector Delay & Carryover <D Page>

Row		9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
A	Overlap A	0.0	0.0	0.0	0
B	Overlap B	0.0	0.0	0.0	0
C	Overlap C	0.0	0.0	0.0	0
D	Overlap D	0.0	0.0	0.0	0

Overlap Timing <F Page> <D Page>

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- -- --	1234____
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	____5678
E	-- -- -- -- -- -- -- --	1234____
F	-- 25 26 27 28 -- -- --	_2345___

Active Detectors <D Page>

Note: Initialized data is for all detectors to be active (ie, all flag bits set). A Detector which is "not flagged", will not be active as a Phase Detector, and WILL NOT call or extend its associated phase. It will still function as a System Detector.

Row		0 Detector Number
0		
1	System Det. # 1	0
2	System Det. # 2	0
3	System Det. # 3	0
4	System Det. # 4	0
5	System Det. # 5	0
6	System Det. # 6	0
7	System Det. # 7	0
8	System Det. # 8	0

System Detectors <D Page>

Max ON (minutes)	5	<D+A+E>
Max OFF (minutes)	60	<D+A+F>

Detector Failure Monitor

Phase Number	0	<F+C+1>
Time Before Yellow	0.0	<F+C+3>

Advance Warning Beacon - Sign 1

Phase Number	0	<F+D+1>
Time Before Yellow	0.0	<F+D+3>

Advance Warning Beacon - Sign 2

Long Failure	0.0	<F+0+6>
Short Failure	0.0	<F+0+7>

Power Cycle Correction (Default = 0.5)

Disable Parity	0	<D+B+0>

Dial-Up Telephone Communications
(If set to a non-zero value, parity will be disabled)

Appendix C - Bus Route Schedules

303

Oceanside to Vista via Town Center North

Oceanside a Vista vía Town Center North

M-F • SA • SU
L-V • SÁ • DO

Destinations/Destinos

- TrueCare La Mision
- MiraCosta College Learning Center
- Town Center North (Walmart)
- Vista High School
- Antique Gas & Steam Engine Museum (AGSEM)
- Jefferson Middle School
- Oceanside High School
- Vista Community Clinic

303 Oceanside to Vista via Town Center North

Oceanside a Vista vía Town Center North

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Eastbound to Vista
Lunes a Viernes • Dirección hacia el este a Vista

Oceanside Transit Center	Mission Ave. & Airport Rd.	Mission Ave. & El Camino Real	Douglas Dr. & N. River Rd.	San Luis Rey Transit Center	Town Center North	N. Santa Fe & Bobier Dr.	Vista Transit Center
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
4:05	4:14	4:18	4:22	4:28	4:34	4:43	4:51a
4:35	4:44	4:48	4:52	4:58	5:04	5:13	5:21
5:00	5:10	5:14	5:18	5:25	5:32	5:43	5:51
5:30	5:40	5:44	5:48	5:55	6:02	6:13	6:21
5:56	6:07	6:11	6:15	6:22	6:31	6:42	6:51
6:24	6:35	6:39	6:44	6:51	7:00	7:12	7:21
6:46	6:57	7:03	7:08	7:16	7:25	7:40	7:51
7:14	7:27	7:33	7:38	7:46	7:55	8:10	8:21
7:49	8:02	8:08	8:13	8:21	8:30	8:43	8:51
8:20	8:33	8:39	8:44	8:52	9:01	9:13	9:21
8:50	9:03	9:09	9:14	9:22	9:31	9:43	9:51
9:20	9:33	9:39	9:44	9:52	10:01	10:13	10:21
9:50	10:03	10:09	10:14	10:22	10:31	10:43	10:51
10:19	10:32	10:38	10:43	10:51	11:01	11:13	11:21
10:49	11:02	11:08	11:13	11:21	11:31	11:43	11:51
11:17	11:31	11:37	11:43	11:51	**12:01**	**12:13**	**12:21p**
11:45	11:59	**12:06**	**12:12**	**12:21**	**12:31**	**12:43**	**12:51**
12:15	**12:29**	**12:36**	**12:42**	**12:51**	**1:01**	**1:13**	**1:21**
12:45	**12:59**	**1:06**	**1:12**	**1:21**	**1:31**	**1:43**	**1:51**
1:13	**1:27**	**1:34**	**1:41**	**1:50**	**2:00**	**2:12**	**2:21**
1:39	**1:54**	**2:01**	**2:08**	**2:17**	**2:27**	**2:40**	**2:51**
2:04	**2:20**	**2:27**	**2:35**	**2:44**	**2:55**	**3:10**	**3:21**
2:33	**2:49**	**2:56**	**3:04**	**3:13**	**3:25**	**3:40**	**3:51**
3:02	**3:18**	**3:25**	**3:33**	**3:42**	**3:55**	**4:10**	**4:21**
***3:18**	***3:35**	***3:42**	***3:50**	***3:59**	***4:12**	***4:27**	***4:38**
3:31	**3:48**	**3:55**	**4:03**	**4:12**	**4:25**	**4:40**	**4:51**
****3:48**	****4:05**	****4:12**	****4:20**	****4:29**	****4:42**	****4:57**	****5:08**
4:06	**4:21**	**4:28**	**4:36**	**4:45**	**4:58**	**5:12**	**5:21**
4:36	**4:51**	**4:58**	**5:06**	**5:15**	**5:28**	**5:42**	**5:51**
5:08	**5:23**	**5:30**	**5:38**	**5:47**	**5:59**	**6:12**	**6:21**
5:41	**5:56**	**6:03**	**6:11**	**6:20**	**6:31**	**6:42**	**6:51**
6:14	**6:29**	**6:36**	**6:42**	**6:51**	**7:02**	**7:13**	**7:21**
6:47	**7:01**	**7:08**	**7:14**	**7:22**	**7:32**	**7:43**	**7:51**
7:20	**7:33**	**7:39**	**7:45**	**7:53**	**8:02**	**8:13**	**8:21**

* **Operates Wednesday only.**
Opera solamente los Miércoles.

** **Operates Monday, Tuesday, Thursday, and Friday.**
Opera Lunes, Martes, Jueves y Viernes.

303 Oceanside to Vista via Town Center North

Oceanside a Vista vía Town Center North

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Eastbound to Vista
Lunes a Viernes • Dirección hacia el este a Vista

Oceanside Transit Center	Mission Ave. & Airport Rd.	Mission Ave. & El Camino Real	Douglas Dr. & N. River Rd.	San Luis Rey Transit Center	Town Center North	N. Santa Fe & Bobier Dr.	Vista Transit Center
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
7:52	**8:05**	**8:11**	**8:16**	**8:24**	**8:33**	**8:44**	**8:51**
8:25	**8:38**	**8:44**	**8:49**	**8:56**	**9:03**	**–**	**–**
9:00	**9:12**	**9:17**	**9:22**	**9:28**	**9:35**	**9:45**	**9:51**
9:31	**9:43**	**9:48**	**9:52**	**9:58**	**10:05**	**–**	**–**
10:02	**10:14**	**10:19**	**10:23**	**10:29**	**10:36**	**10:45**	**10:51**
10:39	**10:49**	**10:52**	**10:56**	**11:01**	**11:07**	**11:15**	**11:21**
11:09	**11:19**	**11:22**	**11:26**	**11:31**	**11:37**	**11:45**	**11:51**
11:39	**11:49**	**11:52**	**11:56**	12:01	12:07a	–	–

303 Oceanside to Vista via Town Center North

Oceanside a Vista vía Town Center North

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Westbound to Oceanside
Lunes a Viernes • Dirección hacia el oeste a Oceanside

Vista Transit Center	N. Santa Fe & Bobier Dr.	Town Center North	San Luis Rey Transit Center	Douglas Dr. & N. River Rd.	Mission Ave. & El Camino Real	Mission Ave. & Airport Rd.	Oceanside Transit Center
8	**7**	**6**	**5**	**4**	**3**	**2**	**1**
–	–	4:05	4:13	4:21	4:26	4:33	4:43a
5:06	5:11	5:22	5:30	5:38	5:43	5:50	6:00
5:36	5:41	5:52	6:00	6:08	6:15	6:22	6:32
6:06	6:12	6:24	6:33	6:41	6:48	6:55	7:07
6:36	6:42	6:55	7:04	7:12	7:19	7:27	7:41
–	–	7:20	7:29	7:37	7:44	7:52	8:06
7:06	7:13	7:30	7:39	7:47	7:54	8:02	8:16
7:36	7:43	8:00	8:09	8:17	8:24	8:32	8:46
8:06	8:13	8:26	8:34	8:42	8:49	8:57	9:10
8:36	8:42	8:55	9:02	9:10	9:16	9:23	9:36
9:06	9:12	9:25	9:32	9:40	9:46	9:53	10:06
9:36	9:42	9:55	10:02	10:10	10:16	10:23	10:36
10:06	10:12	10:25	10:34	10:42	10:48	10:55	11:08
10:36	10:42	10:55	11:04	11:12	11:18	11:25	11:38
11:06	11:12	11:25	11:34	11:42	11:48	11:55	**12:09p**
11:36	11:42	11:55	**12:04**	**12:12**	**12:18**	**12:25**	**12:39**
12:06	**12:12**	**12:25**	**12:34**	**12:43**	**12:49**	**12:56**	**1:10**
12:36	**12:42**	**12:55**	**1:04**	**1:13**	**1:19**	**1:26**	**1:40**
1:06	**1:13**	**1:26**	**1:35**	**1:44**	**1:51**	**1:58**	**2:10**
1:36	**1:43**	**1:56**	**2:05**	**2:14**	**2:21**	**2:28**	**2:40**
2:06	**2:13**	**2:27**	**2:36**	**2:45**	**2:52**	**2:59**	**3:12**
2:36	**2:45**	**3:03**	**3:13**	**3:22**	**3:30**	**3:38**	**3:51**
3:06	**3:14**	**3:32**	**3:42**	**3:51**	**3:58**	**4:06**	4:19
3:36	**3:44**	**4:02**	**4:12**	**4:21**	**4:28**	**4:35**	**4:48**
4:06	**4:14**	**4:32**	**4:42**	**4:51**	**4:58**	**5:05**	**5:18**
4:36	**4:44**	**5:02**	**5:12**	**5:21**	**5:28**	**5:34**	**5:47**
5:06	**5:14**	**5:32**	**5:42**	**5:51**	**5:57**	**6:03**	**6:15**
5:36	**5:44**	**6:01**	**6:11**	**6:20**	**6:26**	**6:32**	**6:43**
6:06	**6:13**	**6:28**	**6:36**	**6:44**	**6:50**	**6:56**	**7:08**
6:36	**6:43**	**6:57**	**7:05**	**7:13**	**7:19**	**7:25**	**7:37**
7:06	**7:13**	**7:27**	**7:34**	**7:42**	**7:47**	**7:53**	**8:05**
7:36	**7:43**	**7:57**	**8:04**	**8:12**	**8:17**	**8:23**	**8:35**
8:05	**8:12**	**8:24**	**8:31**	**8:39**	**8:44**	**8:49**	**8:59**

Please note, BREEZE "school tripper" bus service only runs while schools are in session for in-person learning and are subject to change based on bell times. NCTD will update trip planning applications and GoNCTD.com when this service returns.

Tenga en cuenta que el servicio de autobús "school tripper" de BREEZE solo funciona mientras las escuelas se encuentren abiertas para clases presenciales y está sujeto a cambios en función de los horarios de entrada y salida. El NCTD actualizará las aplicaciones de planificación de viaje y GoNCTD.com cuando el sevicio se reanude.

303 Oceanside to Vista via Town Center North

Oceanside a Vista vía Town Center North

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Westbound to Oceanside
Lunes a Viernes • Dirección hacia el oeste a Oceanside

Vista Transit Center	N. Santa Fe & Bobier Dr.	Town Center North	San Luis Rey Transit Center	Douglas Dr. & N. River Rd.	Mission Ave. & El Camino Real	Mission Ave. & Airport Rd.	Oceanside Transit Center
8	**7**	**6**	**5**	**4**	**3**	**2**	**1**
8:35	8:42	8:54	9:01	9:09	9:14	9:19	9:29
9:06	9:12	9:24	9:31	9:37	9:42	9:47	9:57
10:08	10:13	10:24	10:30	10:36	10:41	10:46	10:55

303 Oceanside to Vista via Town Center North

Oceanside a Vista vía Town Center North

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Saturday & Sunday
Eastbound to Vista
Sábado y Domingo • Dirección hacia el este a Vista

Oceanside Transit Center	Mission Ave. & Airport Rd.	Mission Ave. & El Camino Real	Douglas Dr. & N. River Rd.	San Luis Rey Transit Center	Town Center North	N. Santa Fe & Bobier Dr.	Vista Transit Center
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
4:33	4:40	4:44	4:47	4:53	4:59a	–	–
5:07	5:15	5:19	5:22	5:28	5:34	5:44	5:51
5:34	5:42	5:46	5:51	5:57	6:04	6:14	6:21
6:03	6:12	6:16	6:21	6:27	6:34	6:44	6:51
6:31	6:40	6:44	6:49	6:57	7:04	7:14	7:21
6:58	7:07	7:11	7:17	7:25	7:32	7:43	7:51
7:25	7:35	7:39	7:46	7:54	8:02	8:13	8:21
7:55	8:05	8:09	8:16	8:24	8:32	8:43	8:51
8:24	8:35	8:39	8:46	8:54	9:02	9:13	9:21
8:52	9:03	9:09	9:16	9:24	9:32	9:43	9:51
9:21	9:32	9:38	9:45	9:53	10:02	10:13	10:21
9:51	10:02	10:08	10:15	10:23	10:32	10:43	10:51
10:17	10:28	10:35	10:43	10:52	11:02	11:13	11:21
10:45	10:56	11:04	11:12	11:21	11:31	11:42	11:51
11:12	11:23	11:31	11:39	11:50	**12:01**	**12:12**	**12:21p**
11:42	11:53	**12:01**	**12:09**	**12:20**	**12:31**	**12:42**	**12:51**
12:12	**12:23**	**12:31**	**12:39**	**12:50**	**1:01**	**1:12**	**1:21**
12:39	**12:51**	**1:00**	**1:08**	**1:19**	**1:30**	**1:42**	**1:51**
1:09	**1:21**	**1:30**	**1:38**	**1:49**	**2:00**	**2:12**	**2:21**
1:39	**1:51**	**2:00**	**2:08**	**2:19**	**2:30**	**2:42**	**2:51**
2:10	**2:22**	**2:30**	**2:38**	**2:49**	**3:00**	**3:12**	**3:21**
2:40	**2:52**	**3:00**	**3:08**	**3:19**	**3:30**	**3:42**	**3:51**
3:10	**3:22**	**3:30**	**3:38**	**3:49**	**4:00**	**4:12**	**4:21**
3:40	**3:52**	**4:00**	**4:08**	**4:19**	**4:30**	**4:42**	**4:51**
4:12	**4:24**	**4:32**	**4:40**	**4:51**	**5:01**	**5:12**	**5:21**
4:43	**4:55**	**5:02**	**5:10**	**5:21**	**5:31**	**5:42**	**5:51**
5:14	**5:26**	**5:33**	**5:41**	**5:52**	**6:02**	**6:13**	**6:21**
5:44	**5:56**	**6:03**	**6:11**	**6:22**	**6:32**	**6:43**	**6:51**
6:15	**6:27**	**6:34**	**6:41**	**6:52**	**7:02**	**7:13**	**7:21**
6:46	**6:58**	**7:04**	**7:11**	**7:22**	**7:32**	**7:43**	**7:51**
7:21	**7:32**	**7:37**	**7:44**	**7:55**	**8:04**	–	–
7:50	**8:01**	**8:06**	**8:13**	**8:24**	**8:33**	**8:44**	**8:51**
8:25	**8:36**	**8:41**	**8:48**	**8:56**	**9:04**	–	–
8:58	**9:08**	**9:13**	**9:19**	**9:26**	**9:34**	**9:44**	**9:51**
9:32	**9:41**	**9:46**	**9:51**	**9:58**	**10:05**	–	–
10:01	**10:10**	**10:15**	**10:20**	**10:27**	**10:34**	**10:44**	**10:51**
10:34	**10:42**	**10:46**	**10:51**	**10:58**	**11:04**	–	–
11:04	**11:11**	**11:15**	**11:20**	**11:27**	**11:33**	–	–
11:35	**11:42**	**11:46**	**11:51**	**11:58**	12:04a	–	–

303 Oceanside to Vista via Town Center North

Oceanside a Vista vía Town Center North

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Saturday & Sunday
Westbound to Oceanside
Sábado y Domingo • Dirección hacia el oeste a Oceanside

Vista Transit Center	N. Santa Fe & Bobier Dr.	Town Center North	San Luis Rey Transit Center	Douglas Dr. & N. River Rd.	Mission Ave. & El Camino Real	Mission Ave. & Airport Rd.	Oceanside Transit Center
8	**7**	**6**	**5**	**4**	**3**	**2**	**1**
6:06	6:11	6:22	6:30	6:38	6:43	6:50	7:00a
6:36	6:41	6:53	7:01	7:09	7:14	7:21	7:31
7:06	7:12	7:24	7:32	7:40	7:45	7:52	8:04
7:36	7:42	7:54	8:02	8:10	8:15	8:22	8:34
8:06	8:12	8:24	8:32	8:40	8:46	8:53	9:05
8:36	8:42	8:54	9:02	9:10	9:16	9:23	9:35
9:06	9:12	9:25	9:33	9:41	9:48	9:55	10:08
9:36	9:42	9:55	10:03	10:11	10:18	10:25	10:38
10:06	10:12	10:26	10:34	10:43	10:51	10:58	11:11
10:36	10:42	10:56	11:04	11:13	11:21	11:28	11:41
11:06	11:12	11:26	11:34	11:43	11:51	11:58	**12:11p**
11:36	11:42	11:56	**12:04**	**12:13**	**12:21**	**12:28**	**12:41**
12:06	**12:12**	**12:27**	**12:35**	**12:44**	**12:52**	**12:59**	**1:12**
12:36	**12:42**	**12:57**	**1:05**	**1:14**	**1:22**	**1:29**	**1:42**
1:06	**1:12**	**1:27**	**1:35**	**1:43**	**1:51**	**1:58**	**2:11**
1:36	**1:42**	**1:57**	**2:05**	**2:13**	**2:21**	**2:28**	**2:41**
2:06	**2:12**	**2:27**	**2:35**	**2:43**	**2:51**	**2:58**	**3:11**
2:36	**2:42**	**2:57**	**3:05**	**3:13**	**3:21**	**3:28**	**3:41**
3:06	**3:12**	**3:27**	**3:35**	**3:43**	**3:51**	**3:58**	**4:11**
3:36	**3:42**	**3:57**	**4:05**	**4:13**	**4:21**	**4:28**	**4:41**
4:06	**4:12**	**4:27**	**4:35**	**4:43**	**4:51**	**4:58**	**5:11**
4:36	**4:42**	**4:57**	**5:05**	**5:13**	**5:21**	**5:28**	**5:41**
5:06	**5:13**	**5:28**	**5:36**	**5:44**	**5:51**	**5:58**	**6:11**
5:36	**5:43**	**5:58**	**6:06**	**6:14**	**6:21**	**6:28**	**6:41**
6:06	**6:12**	**6:27**	**6:35**	**6:43**	**6:49**	**6:56**	**7:08**
6:36	**6:42**	**6:55**	**7:03**	**7:11**	**7:17**	**7:24**	**7:36**
7:06	**7:12**	**7:25**	**7:33**	**7:41**	**7:47**	**7:53**	**8:05**
7:36	**7:42**	**7:55**	**8:03**	**8:11**	**8:17**	**8:23**	**8:35**
8:06	**8:12**	**8:25**	**8:33**	**8:41**	**8:47**	**8:53**	**9:05**
9:06	**9:12**	**9:23**	**9:31**	**9:38**	**9:43**	**9:48**	**9:59**
10:06	**10:11**	**10:22**	**10:30**	**10:36**	**10:41**	**10:46**	**10:55**

309

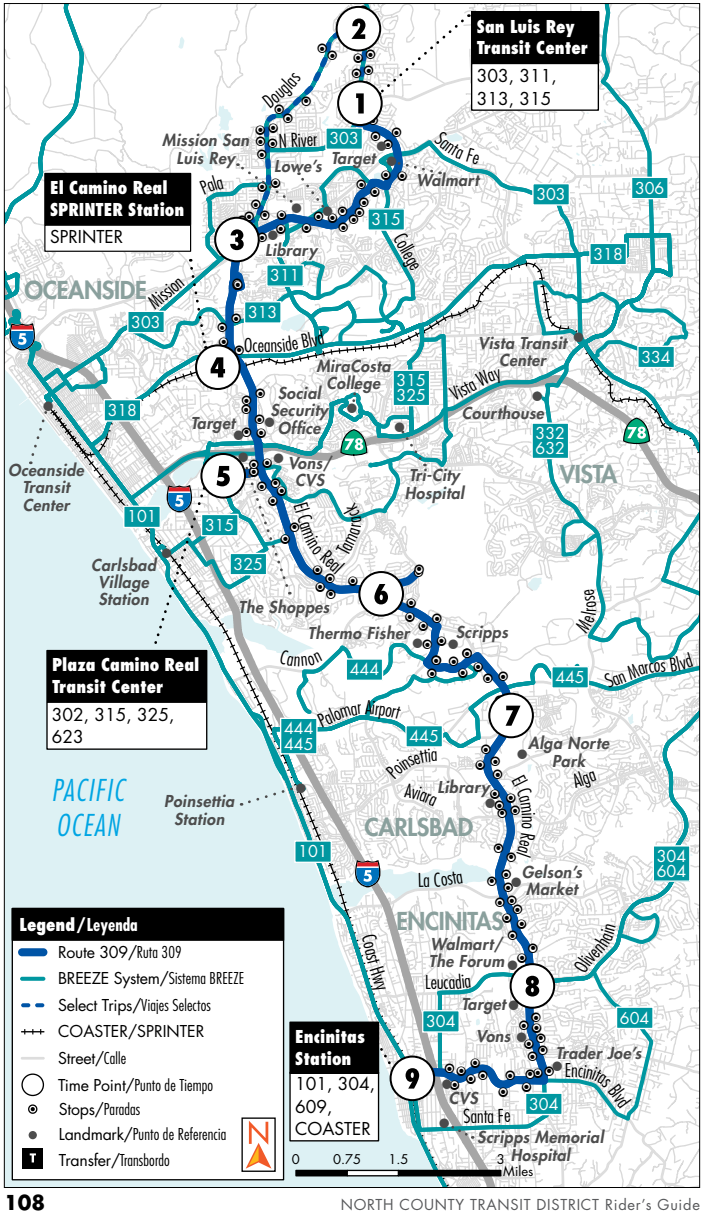
Oceanside to Encinitas via El Camino Real

Oceanside a Encinitas vía El Camino Real

M-F • SA • SU
L-V • SÁ • DO

Destinations/Destinos

- Encinitas City Hall
- Plaza Camino Real
- El Camino Real SPRINTER Station
- The Shoppes at Carlsbad
- The Forum Carlsbad
- San Diego Botanic Gardens
- Viasat
- Social Security Administration
- McClellan Palomar Airport



309 Oceanside to Encinitas via El Camino Real

Oceanside a Encinitas vía El Camino Real

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Southbound to Encinitas
Lunes a Viernes • Dirección hacia el sur a Encinitas

San Luis Rey Transit Center	Douglas Dr. & Vandegrift Bl.	Mission Ave. & El Camino Real	El Camino Real Station	Plaza Camino Real	El Camino Real & Cannon Rd.	El Camino Real & Gateway Rd.	El Camino Real & Leucadia Bl.	Encinitas Station
1	2	3	4	5	6	7	8	9
4:08	–	4:19	4:26	4:35	4:44	4:53	5:03	5:17a
4:37	–	4:48	4:56	5:05	5:14	5:24	5:34	5:48
5:06	–	5:17	5:26	5:35	5:44	5:54	6:04	6:18
5:30	–	5:42	5:51	6:00	6:09	6:19	6:30	6:47
5:59	–	6:12	6:21	6:30	6:41	6:52	7:05	7:25
6:29	–	6:42	6:51	7:00	7:11	7:24	7:38	8:00
6:57		7:12	7:21	7:32	7:43	7:56	8:10	8:32
7:27		7:42	7:51	8:02	8:13	8:26	8:41	9:03
7:57	–	8:12	8:21	8:32	8:43	8:54	9:09	9:29
8:27	–	8:42	8:51	9:02	9:13	9:24	9:38	9:58
8:54	8:58	9:08	9:21	9:33	9:44	9:53	10:07	10:27
9:27	–	9:42	9:51	10:03	10:14	10:23	10:37	10:57
9:57	–	10:12	10:21	10:33	10:44	10:53	11:07	11:27
10:27	–	10:42	10:51	11:04	11:15	11:24	11:38	11:58
10:54	10:58	11:08	11:21	11:34	11:45	11:54	**12:09**	**12:30p**
11:25	–	11:41	11:51	**12:04**	**12:15**	**12:24**	**12:39**	**1:00**
11:55	–	**12:11**	**12:21**	**12:34**	**12:46**	**12:55**	**1:10**	**1:31**
12:25	**–**	**12:41**	**12:51**	**1:04**	**1:16**	**1:25**	**1:40**	**2:01**
12:55	**–**	**1:11**	**1:21**	**1:34**	**1:46**	**1:55**	**2:10**	**2:31**
1:24	**1:28**	**1:38**	**1:51**	**2:04**	**2:16**	**2:25**	**2:40**	**3:01**
1:55	**–**	**2:11**	**2:21**	**2:34**	**2:46**	**2:55**	**3:10**	**3:31**
2:25	**–**	**2:41**	**2:51**	**3:05**	**3:17**	**3:26**	**3:41**	**4:02**
2:55	**–**	**3:11**	**3:21**	**3:35**	**3:47**	**3:56**	**4:11**	**4:32**
3:24	**–**	**3:40**	**3:51**	**4:04**	**4:16**	**4:25**	**4:40**	**5:01**
3:54	**–**	**4:10**	**4:21**	**4:34**	**4:46**	**4:55**	**5:10**	**5:31**
4:24	**–**	**4:40**	**4:51**	**5:04**	**5:16**	**5:25**	**5:40**	**6:01**
4:54	**–**	**5:10**	**5:21**	**5:34**	**5:46**	**5:55**	**6:08**	**6:29**
5:25	**–**	**5:41**	**5:51**	**6:03**	**6:15**	**6:24**	**6:37**	**6:54**
6:28	**–**	**6:42**	**6:51**	**7:02**	**7:14**	**7:22**	**7:35**	**7:52**
7:28	**–**	**7:42**	**7:51**	**8:02**	**8:12**	**8:20**	**8:31**	**8:47**
8:29	**–**	**8:42**	**8:51**	**9:01**	**9:11**	**9:19**	**9:29**	**9:44**

309 Oceanside to Encinitas via El Camino Real

Oceanside a Encinitas vía El Camino Real

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Northbound to Oceanside
Lunes a Viernes • Dirección hacia el norte a Oceanside

Encinitas Station	El Camino Real & Leucadia Bl.	El Camino Real & Gateway Rd.	El Camino Real & Cannon Rd.	Plaza Camino Real	El Camino Real Station	Mission Ave. & El Camino Real	Douglas Dr. & Vandegrift Bl.	San Luis Rey Transit Center
9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**
5:45	5:56	6:06	6:15	6:25	6:36	6:47	–	7:03a
6:10	6:22	6:32	6:45	6:55	7:06	7:17	–	7:33
6:35	6:48	7:00	7:13	7:25	7:36	7:47	–	8:03
7:06	7:19	7:31	7:43	7:55	8:06	8:17	–	8:33
7:32	7:47	8:00	8:11	8:23	8:36	8:47	–	9:03
8:02	8:17	8:30	8:41	8:53	9:06	9:17	–	9:33
8:34	8:49	9:01	9:12	9:23	9:36	9:49	9:59	10:05
9:04	9:19	9:31	9:42	9:53	10:06	10:17	–	10:34
9:34	9:49	10:01	10:12	10:23	10:36	10:47	–	11:04
10:03	10:19	10:31	10:42	10:53	11:06	11:17	–	11:36
10:32	10:48	11:00	11:11	11:22	11:36	11:47	–	**12:06p**
11:02	11:18	11:30	11:41	11:52	**12:06**	**12:19**	**12:29**	**12:35**
11:30	11:46	11:58	**12:10**	**12:22**	**12:36**	**12:47**	**–**	**1:06**
12:00	**12:16**	**12:28**	**12:40**	**12:52**	**1:06**	**1:17**	**–**	**1:36**
12:30	**12:46**	**12:58**	**1:10**	**1:22**	**1:36**	**1:47**	**–**	**2:08**
12:57	**1:13**	**1:25**	**1:38**	**1:50**	**2:06**	**2:17**	**–**	**2:38**
1:25	**1:42**	**1:55**	**2:08**	**2:20**	**2:36**	**2:48**	**–**	**3:09**
1:54	**2:11**	**2:24**	**2:38**	**2:50**	**3:06**	**3:19**	**–**	**3:40**
2:18	**2:36**	**2:51**	**3:05**	**3:20**	**3:36**	**3:49**	**–**	**4:10**
2:47	**3:05**	**3:20**	**3:35**	**3:50**	**4:06**	**4:21**	**–**	**4:42**
3:16	**3:35**	**3:50**	**4:05**	**4:20**	**4:36**	**4:51**	**–**	**5:12**
3:46	**4:05**	**4:20**	**4:35**	**4:50**	**5:06**	**5:21**	**–**	**5:42**
4:17	**4:35**	**4:50**	**5:07**	**5:20**	**5:36**	**5:51**	**–**	**6:11**
4:47	**5:05**	**5:20**	**5:37**	**5:50**	**6:06**	**6:21**	**–**	**6:41**
5:18	**5:37**	**5:51**	**6:06**	**6:19**	**6:35**	**6:47**	**–**	**7:06**
5:52	**6:09**	**6:23**	**6:37**	**6:50**	**7:06**	**7:18**	**–**	**7:37**
6:25	**6:41**	**6:54**	**7:07**	**7:20**	**7:36**	**7:47**	**–**	**8:05**
7:37	**7:51**	**8:03**	**8:13**	**8:23**	**8:36**	**8:47**	**–**	**9:04**
8:41	**8:53**	**9:04**	**9:13**	**9:23**	**9:36**	**9:47**	**–**	**10:03**
9:43	**9:55**	**10:06**	**10:15**	**10:25**	**10:36**	**10:47**	**–**	**11:02**

309 Oceanside to Encinitas via El Camino Real

Oceanside a Encinitas vía El Camino Real

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Saturday
Southbound to Encinitas
Sábado • Dirección hacia el sur a Encinitas

San Luis Rey Transit Center	Mission Ave. & El Camino Real	El Camino Real Station	Plaza Camino Rea	El Camino Real & Cannon Rd.	El Camino Real & Gateway Rd.	El Camino Real & Leucadia Bl.	Encinitas Station
1	**3**	**4**	**5**	**6**	**7**	**8**	**9**
4:58	5:11	5:21	5:38	5:49	5:57	6:09	6:24a
5:58	6:11	6:21	6:38	6:49	6:58	7:10	7:28
6:57	7:11	7:21	7:38	7:49	7:58	8:10	8:28
7:57	8:11	8:21	8:38	8:49	8:58	9:10	9:28
8:56	9:11	9:21	9:38	9:49	9:58	10:10	10:28
9:26	9:41	9:51	10:08	10:19	10:28	10:40	10:58
9:56	10:11	10:21	10:38	10:49	10:58	11:10	11:29
10:25	10:41	10:51	11:08	11:19	11:28	11:40	11:59
10:55	11:11	11:21	11:38	11:49	11:58	**12:10**	**12:29p**
11:25	11:41	11:51	**12:08**	**12:19**	**12:28**	**12:40**	**12:59**
11:55	**12:11**	**12:21**	**12:38**	**12:49**	**12:58**	**1:10**	**1:29**
12:24	**12:41**	**12:51**	**1:08**	**1:19**	**1:28**	**1:40**	**1:59**
12:54	**1:11**	**1:21**	**1:38**	**1:49**	**1:58**	**2:10**	**2:29**
1:24	**1:41**	**1:51**	**2:08**	**2:19**	**2:28**	**2:40**	**2:59**
1:55	**2:11**	**2:21**	**2:38**	**2:49**	**2:58**	**3:10**	**3:29**
2:25	**2:41**	**2:51**	**3:08**	**3:18**	**3:27**	**3:39**	**3:58**
2:55	**3:11**	**3:21**	**3:38**	**3:48**	**3:57**	**4:09**	**4:27**
3:25	**3:41**	**3:51**	**4:08**	**4:18**	**4:27**	**4:39**	**4:57**
3:54	**4:10**	**4:21**	**4:38**	**4:48**	**4:57**	**5:09**	**5:27**
4:24	**4:40**	**4:51**	**5:08**	**5:18**	**5:27**	**5:39**	**5:56**
4:55	**5:10**	**5:21**	**5:38**	**5:48**	**5:57**	**6:09**	**6:24**
5:25	**5:40**	**5:51**	**6:08**	**6:18**	**6:27**	**6:39**	**6:54**
5:55	**6:10**	**6:21**	**6:38**	**6:48**	**6:57**	**7:09**	**7:23**
6:56	**7:10**	**7:21**	**7:38**	**7:48**	**7:57**	**8:09**	**8:23**
7:56	**8:10**	**8:21**	**8:38**	**8:48**	**8:57**	**9:09**	**9:23**
8:57	**9:10**	**9:21**	**9:38**	**9:47**	**9:54**	**10:05**	**10:17**
10:05	**10:16**	**10:26**	**10:43**	**10:52**	**10:59**	**11:09**	**11:21**

309 Oceanside to Encinitas via El Camino Real

Oceanside a Encinitas vía El Camino Real

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Saturday
Northbound to Oceanside
Sábado • Dirección hacia el norte a Oceanside

Encinitas Station	El Camino Real & Leucadia Bl.	El Camino Real & Gateway Rd.	El Camino Real & Cannon Rd.	Plaza Camino Real	El Camino Real Station	Mission Ave. & El Camino Real	San Luis Rey Transit Center
9	**8**	**7**	**6**	**5**	**4**	**3**	**1**
5:15	5:26	5:35	5:44	5:55	6:06	6:17	6:30a
6:15	6:26	6:35	6:44	6:55	7:06	7:17	7:30
7:13	7:25	7:35	7:44	7:55	8:06	8:17	8:32
8:10	8:23	8:34	8:43	8:54	9:06	9:19	9:34
8:39	8:53	9:04	9:13	9:24	9:36	9:49	10:04
9:08	9:22	9:33	9:43	9:54	10:06	10:19	10:34
9:37	9:52	10:03	10:13	10:24	10:36	10:49	11:04
10:07	10:22	10:33	10:43	10:54	11:06	11:19	11:34
10:36	10:52	11:03	11:13	11:24	11:36	11:49	**12:06p**
11:06	11:22	11:33	11:43	11:54	**12:06**	**12:19**	**12:36**
11:37	11:53	**12:03**	**12:13**	**12:24**	**12:36**	**12:49**	**1:06**
12:07	**12:23**	**12:33**	**12:43**	**12:54**	**1:06**	**1:19**	**1:36**
12:37	**12:53**	**1:03**	**1:13**	**1:24**	**1:36**	**1:49**	**2:06**
1:06	**1:22**	**1:32**	**1:42**	**1:54**	**2:06**	**2:19**	**2:36**
1:35	**1:51**	**2:01**	**2:11**	**2:24**	**2:36**	**2:49**	**3:06**
2:03	**2:19**	**2:29**	**2:39**	**2:52**	**3:06**	**3:19**	**3:36**
2:32	**2:48**	**2:59**	**3:09**	**3:22**	**3:36**	**3:49**	**4:06**
3:02	**3:18**	**3:29**	**3:39**	**3:52**	**4:06**	**4:19**	**4:36**
3:32	**3:48**	**3:59**	**4:09**	**4:22**	**4:36**	**4:49**	**5:06**
4:02	**4:18**	**4:29**	**4:39**	**4:52**	**5:06**	**5:19**	**5:36**
4:32	**4:48**	**4:59**	**5:09**	**5:22**	**5:36**	**5:49**	**6:06**
5:04	**5:20**	**5:31**	**5:41**	**5:52**	**6:06**	**6:19**	**6:36**
5:34	**5:50**	**6:01**	**6:11**	**6:22**	**6:36**	**6:49**	**7:06**
6:05	**6:20**	**6:31**	**6:41**	**6:52**	**7:06**	**7:19**	**7:35**
7:12	**7:26**	**7:37**	**7:46**	**7:57**	**8:11**	**8:23**	**8:37**
8:30	**8:44**	**8:54**	**9:03**	**9:14**	**9:26**	**9:38**	**9:52**
10:22	**10:34**	**10:44**	**10:53**	**11:04**	**11:16**	**11:27**	**11:41**

309 Oceanside to Encinitas via El Camino Real

Oceanside a Encinitas vía El Camino Real

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Sunday
Southbound to Encinitas
Domingo • Dirección hacia el sur a Encinitas

San Luis Rey Transit Center	Mission Ave. & El Camino Real	El Camino Real Station	Plaza Camino Real	El Camino Real & Cannon Rd.	El Camino Real & Gateway Rd.	El Camino Real & Leucadia Bl.	Encinitas Station
1	3	4	5	6	7	8	9
4:58	5:11	5:21	5:38	5:49	5:57	6:09	6:24a
5:58	6:11	6:21	6:38	6:49	6:58	7:10	7:28
6:57	7:11	7:21	7:38	7:49	7:58	8:10	8:28
7:57	8:11	8:21	8:38	8:49	8:58	9:10	9:28
8:56	9:11	9:21	9:38	9:49	9:58	10:10	10:28
9:56	10:11	10:21	10:38	10:49	10:58	11:10	11:29
10:55	11:11	11:21	11:38	11:49	11:58	**12:10**	**12:29p**
11:55	**12:11**	**12:21**	**12:38**	**12:49**	**12:58**	**1:10**	**1:29**
12:54	**1:11**	**1:21**	**1:38**	**1:49**	**1:58**	**2:10**	**2:29**
1:55	**2:11**	**2:21**	**2:38**	**2:49**	**2:58**	**3:10**	**3:29**
2:55	**3:11**	**3:21**	**3:38**	**3:48**	**3:57**	**4:09**	**4:27**
3:54	**4:10**	**4:21**	**4:38**	**4:48**	**4:57**	**5:09**	**5:27**
4:55	**5:10**	**5:21**	**5:38**	**5:48**	**5:57**	**6:09**	**6:24**
5:55	**6:10**	**6:21**	**6:38**	**6:48**	**6:57**	**7:09**	**7:23**
6:56	**7:10**	**7:21**	**7:38**	**7:48**	**7:57**	**8:09**	**8:23**
7:56	**8:10**	**8:21**	**8:38**	**8:48**	**8:57**	**9:09**	**9:23**
8:57	**9:10**	**9:21**	**9:38**	**9:47**	**9:54**	**10:05**	**10:17**
10:05	**10:16**	**10:26**	**10:43**	**10:52**	**10:59**	**11:09**	**11:21**

309 Oceanside to Encinitas via El Camino Real

Oceanside a Encinitas vía El Camino Real

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Sunday
Northbound to Oceanside
Domingo • Dirección hacia el norte a Oceanside

Encinitas Station	El Camino Real & Leucadia Bl.	El Camino Real & Gateway Rd.	El Camino Real & Cannon Rd.	Plaza Camino Real	El Camino Real Station	Mission Ave. & El Camino Real	San Luis Rey Transit Center
9	**8**	**7**	**6**	**5**	**4**	**3**	**1**
5:15	5:26	5:35	5:44	5:55	6:06	6:17	6:30a
6:15	6:26	6:35	6:44	6:55	7:06	7:17	7:30
7:13	7:25	7:35	7:44	7:55	8:06	8:17	8:32
8:10	8:23	8:34	8:43	8:54	9:06	9:19	9:34
9:08	9:22	9:33	9:43	9:54	10:06	10:19	10:34
10:07	10:22	10:33	10:43	10:54	11:06	11:19	11:34
11:06	11:22	11:33	11:43	11:54	**12:06**	**12:19**	**12:36p**
12:07	**12:23**	**12:33**	**12:43**	**12:54**	**1:06**	**1:19**	**1:36**
1:06	**1:22**	**1:32**	**1:42**	**1:54**	**2:06**	**2:19**	**2:36**
2:03	**2:19**	**2:29**	**2:39**	**2:52**	**3:06**	**3:19**	**3:36**
3:02	**3:18**	**3:29**	**3:39**	**3:52**	**4:06**	**4:19**	**4:36**
4:02	**4:18**	**4:29**	**4:39**	**4:52**	**5:06**	**5:19**	**5:36**
5:04	**5:20**	**5:31**	**5:41**	**5:52**	**6:06**	**6:19**	**6:36**
6:05	**6:20**	**6:31**	**6:41**	**6:52**	**7:06**	**7:19**	**7:35**
7:12	**7:26**	**7:37**	**7:46**	**7:57**	**8:11**	**8:23**	**8:37**
8:30	**8:44**	**8:54**	**9:03**	**9:14**	**9:26**	**9:38**	**9:52**
10:22	**10:34**	**10:44**	**10:53**	**11:04**	**11:16**	**11:27**	**11:41**

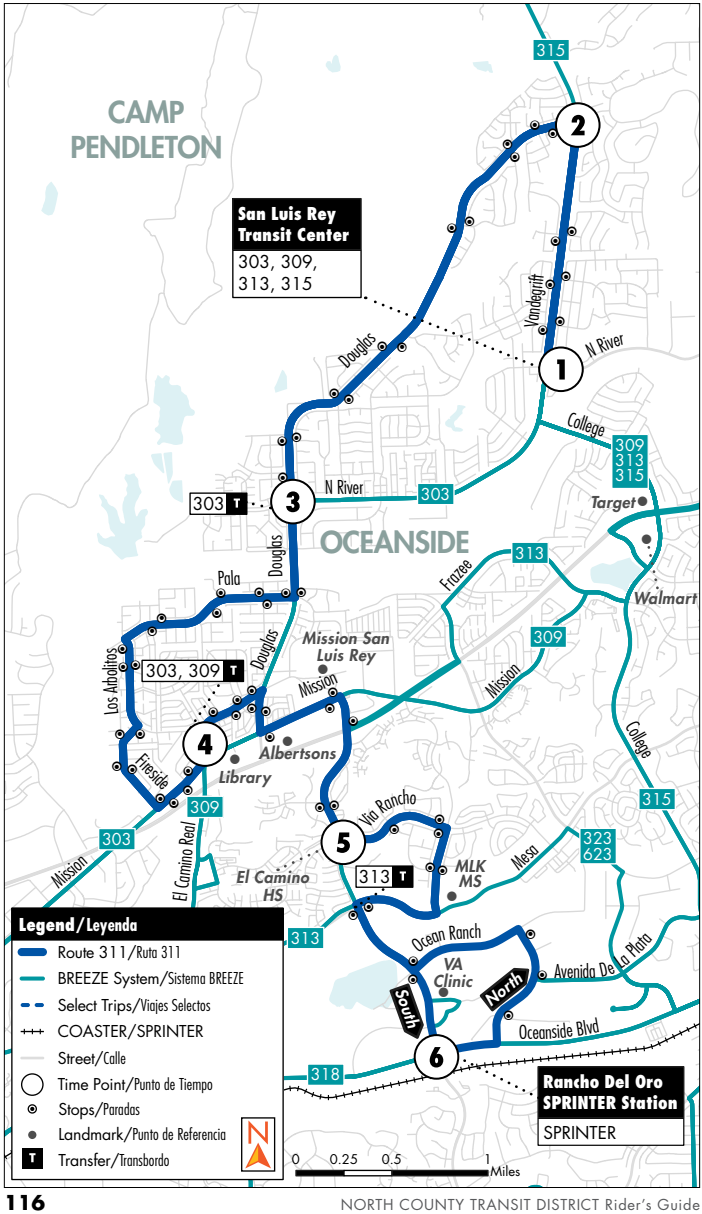
311

San Luis Rey Transit Center to Rancho Del Oro SPRINTER Station via Douglas Dr.

Carlsbad Village Station a 14 Area/College Blvd. Estación de SPRINTER

M-F
L-V

Destinations/Destinos
- El Camino High School
- Martin Luther King Jr. Middle School
- Ocean Ranch Corporate Centre
- Vista Community Clinic
- Mission San Luis Rey



311

San Luis Rey Transit Center to Rancho Del Oro SPRINTER Station via Douglas Dr.

Carlsbad Village Station a 14 Area/College Blvd. Estación de SPRINTER

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Southbound to Rancho Del Oro SPRINTER Station
Lunes a Viernes • Dirección hacia el sur a la Estación SPRINTER Rancho Del Oro

San Luis Rey Transit Center	Douglas Dr. & Vandegrift Bl.	Douglas Dr. & N. River Rd.	Mission Ave. & El Camino Real	Rancho Del Oro & Via Rancho Rd.	Rancho Del Oro SPRINTER Station
1	**2**	**3**	**4**	**5**	**6**
5:54	5:57	6:04	6:16	6:26	6:36a
6:20	6:24	6:33	6:45	6:59	7:11
7:01	7:04	7:13	7:25	7:37	7:48
7:20	7:23	7:31	7:43	7:56	8:06
7:34	7:37	7:46	7:58	8:10	8:21
3:24	**3:27**	**3:34**	**3:47**	**3:57**	**4:06p**
4:22	**4:25**	**4:32**	**4:45**	**4:56**	**5:06**
5:24	**5:27**	**5:34**	**5:47**	**5:57**	**6:06**

Monday - Friday
Northbound to San Luis Rey Transit Center
Lunes a Viernes • Dirección hacia el norte al Centro de Tránsito San Luis Rey

Rancho Del Oro SPRINTER Station	Rancho Del Oro & Via Rancho Rd.	Mission Ave. & El Camino Real	Douglas Dr. & N. River Rd.	Douglas Dr. & Vandegrift Bl.	San Luis Rey Transit Center
6	**5**	**4**	**3**	**2**	**1**
–	–	–	5:00	5:07	5:12a
–	–	5:53	6:04	6:12	6:18
6:49	7:01	7:10	7:23	7:31	7:37
7:49	8:00	8:09	8:22	8:29	8:35
***1:40**	***1:58**	***2:09**	***2:23**	***2:31**	***2:39p**
2:19	**2:37**	**2:48**	**3:02**	**3:10**	**3:18**
****2:42**	****3:00**	****3:11**	****3:25**	****3:33**	****3:41**
3:19	**3:31**	**3:40**	**3:53**	**4:01**	**4:09**
4:19	**4:30**	**4:39**	**4:52**	**5:00**	**5:07**
5:19	**5:30**	**5:39**	**5:52**	**6:00**	**6:06**

* **Operates Monday only.**
Opera solamente los Lunes.

** **Operates Tuesday, Wednesday, Thursday, and Friday.**
Opera Martes, Miércoles, Jueves y Viernes.

Route 311 does not operate on Saturdays, Sundays, or holidays.
La Ruta 311 no opera los sábados, domingos o en días festivos.

Please note, BREEZE "school tripper" bus service only runs while El Camino High School and/or MLK Middle School are in session for in-person learning and are subject to change based on bell times. NCTD will update trip planning applications and GoNCTD.com if this service changes.

Tenga en cuenta que el servicio de autobús "school tripper" del BREEZE solo funciona mientras El Camino High School y/o MLK Middle School se encuentren abiertas para clases presenciales y está sujeto a cambios en función de los horarios de entrada y salida. El NCTD actualizará las aplicaciones de planificación de viaje y GoNCTD.com cuando si este servicio cambia.

313

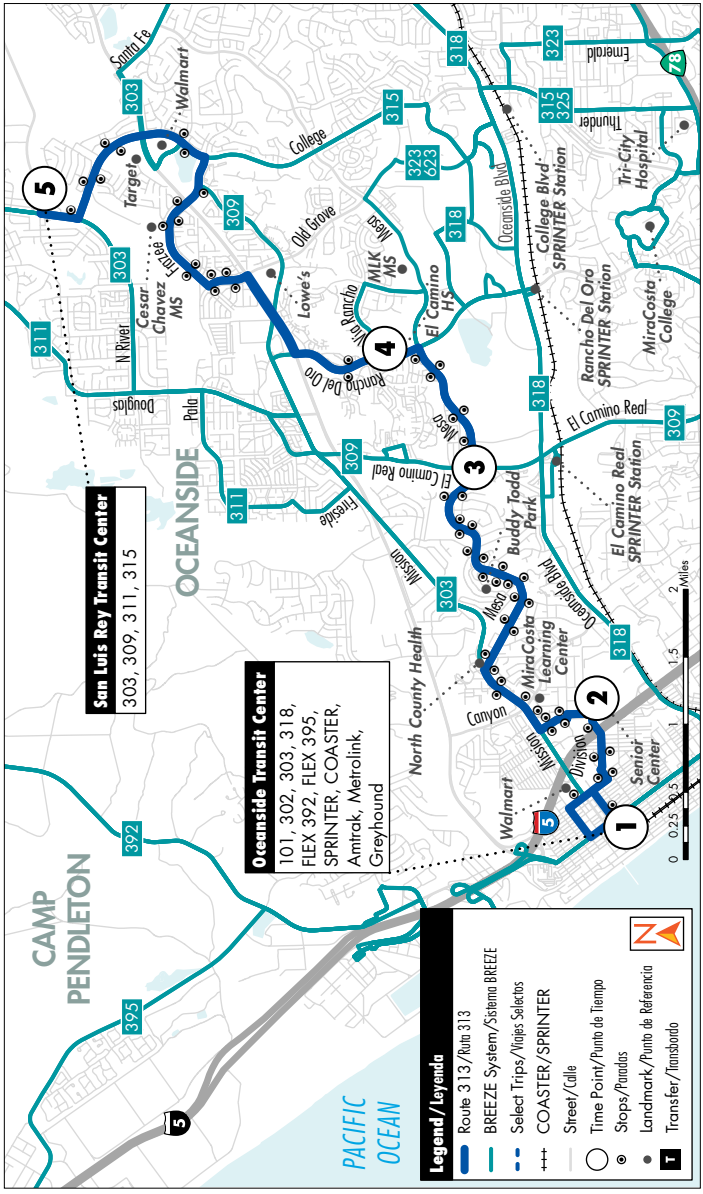
Oceanside Transit Center to San Luis Rey Transit Center via Mesa Dr.

Centro de Tránsito Oceanside al Centro de Tránsito San Luis Rey vía Mesa Dr.

M-F
L-V

Destinations/Destinos

- Oceanside Pier & Beach
- El Camino High School
- Jefferson Middle School
- Mission San Luis Rey
- Buddy Todd Park
- Ivey Ranch Park
- Oceanside Senior Center
- Boys and Girls Club



313 Oceanside Transit Center to San Luis Rey Transit Center via Mesa Dr.

Centro de Tránsito Oceanside al Centro de Tránsito San Luis Rey vía Mesa Dr.

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Eastbound to San Luis Rey Transit Center
Lunes a Viernes • Dirección hacia el este al Centro de Tránsito San Luis Rey

Oceanside Transit Center	Division St. & Country Club Ln.	Mesa Dr. & El Camino Real	Rancho Del Oro & Via Rancho Rd.	San Luis Rey Transit Center
1	**2**	**3**	**4**	**5**
6:33	6:38	6:48	6:53	7:08a
7:33	7:38	7:50	7:55	8:12
8:33	8:38	8:49	8:52	9:09
9:33	9:38	9:49	9:52	10:09
10:33	10:38	10:49	10:52	11:09
11:33	11:38	11:49	11:54	**12:12p**
12:33	**12:38**	**12:49**	**12:55**	**1:13**
1:33	**1:38**	**1:50**	**1:58**	**2:16**
2:33	**2:38**	**2:50**	**2:58**	**3:18**
–	–	–	***3:30**	***3:56**
3:33	**3:38**	**3:52**	**4:00**	**4:20**
4:33	**4:38**	**4:50**	**4:55**	**5:15**
5:33	**5:38**	**5:50**	**5:55**	**6:15**
6:33	**6:38**	**6:50**	**6:55**	**7:12**

* **Operates Monday, Tuesday, Thursday, and Friday.**
Opera Lunes, Martes, Jueves y Viernes.

Route 313 does not operate on Saturdays, Sundays, or holidays.
La Ruta 313 no opera los sábados, domingos o en días festivos.

Please note, BREEZE "school tripper" bus service only runs while El Camino High School is in session for in-person learning and are subject to change based on bell times. NCTD will update trip planning applications and GoNCTD.com if this service changes.

Tenga en cuenta que el servicio de autobús "school tripper" de BREEZE solo funciona mientras El Camino High School se encuentre abierta para clases presenciales y está sujeto a cambios en función de los horarios de entrada y salida. El NCTD actualizará las aplicaciones de planificación de viaje y GoNCTD.com si este servicio cambia.

313 Oceanside Transit Center to San Luis Rey Transit Center via Mesa Dr.

Centro de Tránsito Oceanside al Centro de Tránsito San Luis Rey vía Mesa Dr.

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Westbound to Oceanside Transit Center
Lunes a Viernes • Dirección hacia el oeste al Centro de Tránsito Oceanside

San Luis Rey Transit Center	Rancho Del Oro & Via Rancho Rd.	Mesa Dr. & El Camino Real	Division St. & Country Club Ln.	Oceanside Transit Center
5	**4**	**3**	**2**	**1**
5:46	6:00	6:03	6:15	6:23a
6:39	6:55	6:58	7:10	7:20
7:45	8:04	8:11	8:23	8:33
7:55	8:10	–	–	–
8:45	9:00	9:04	9:15	9:25
9:43	9:58	10:02	10:13	10:23
10:43	10:58	11:02	11:13	11:23
11:43	11:58	**12:02**	**12:13**	**12:23p**
12:42	**12:57**	**1:01**	**1:12**	**1:22**
1:40	**1:55**	**1:59**	**2:10**	**2:20**
2:40	**2:59**	**3:04**	**3:15**	**3:27**
3:40	**3:59**	**4:04**	**4:15**	**4:27**
4:41	**4:58**	**5:02**	**5:13**	**5:24**
5:41	**5:58**	**6:01**	**6:12**	**6:22**

Route 313 does not operate on Saturdays, Sundays, or holidays.
La Ruta 313 no opera los sábados, domingos o en días festivos.

Please note, BREEZE "school tripper" bus service only runs while El Camino High School is in session for in-person learning and are subject to change based on bell times. NCTD will update trip planning applications and GoNCTD.com if this service changes.

Tenga en cuenta que el servicio de autobús "school tripper" de BREEZE solo funciona mientras El Camino High School se encuentre abierta para clases presenciales y está sujeto a cambios en función de los horarios de entrada y salida. El NCTD actualizará las aplicaciones de planificación de viaje y GoNCTD.com si este servicio cambia.

315/325

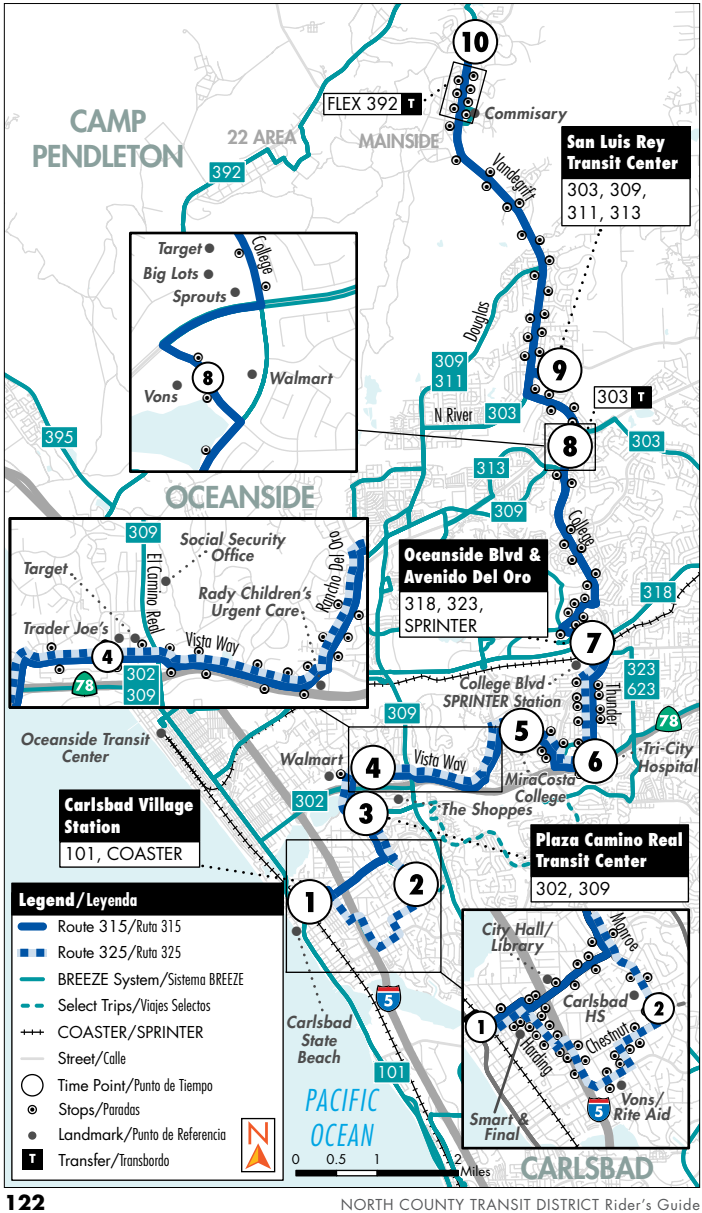
Carlsbad Village Station to 14 Area/ College Blvd. SPRINTER Station

Carlsbad Village Station a 14 Area/College Blvd. Estación de SPRINTER

M-F • SA • SU
L-V • SÁ • DO

M-F • SA
L-V • SÁ

Destinations/Destinos
- MiraCosta College
- Target
- Walmart
- Tri-City Medical Center
- The Shoppes at Carlsbad
- Carlsbad State Beach
- Camp Pendelton - Mainside



315/325

Carlsbad Village Station to 14 Area/ College Blvd. SPRINTER Station

Carlsbad Village Station a 14 Area/College Blvd. Estación de SPRINTER

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Northbound to 14 Area/College Blvd. SPRINTER Station
Lunes a Viernes • Dirección hacia el norte a 14 Area/College Blvd. Estación de SPRINTER

Route Ruta	Carlsbad Village Station	Chestnut & Monroe St. (Carlsbad HS)	Plaza Camino Real Transit Center	Vista Way & Via Esmarca	Mira Costa College	Thunder Dr. & Vista Way	Oceanside Bl. & Avenida Del Oro	Town Center North	San Luis Rey Transit Center	Vandegrift & 16th St.
	1	2	3	4	5	6	7	8	9	10
315	4:05	–	4:13	4:17	4:23	4:28	4:37	4:45	4:53	5:09a
315	5:02	–	5:11	5:15	5:22	5:28	5:37	5:45	5:54	6:11
315	5:58	–	6:07	6:11	6:18	6:24	6:34	6:42	6:51	7:08
325	6:14	6:27	6:33	6:37	6:45	6:52	7:04	–	–	–
315	6:51	–	7:03	7:07	7:15	7:22	7:34	7:44	7:53	8:10
325	7:10	7:26	7:33	7:37	7:45	7:52	8:04	–	–	–
315	7:48	–	8:00	8:06	8:15	8:22	8:34	8:44	8:53	9:10
325	8:06	8:23	8:30	8:35	8:44	8:51	9:04	–	–	–
315	8:48	–	9:00	9:06	9:15	9:22	9:34	9:44	9:53	10:10
325	9:06	9:23	9:30	9:36	9:45	9:52	10:04	–	–	–
315	9:48	–	10:00	10:06	10:15	10:22	10:34	10:44	10:53	11:10
325	10:06	10:23	10:30	10:36	10:45	10:52	11:04	–	–	–
315	10:45	–	10:59	11:05	11:14	11:21	11:34	11:44	11:53	**12:10p**
325	11:03	11:20	11:27	11:33	11:43	11:51	**12:04**	–	–	–
315	11:42	–	11:57	**12:03**	**12:13**	**12:21**	**12:34**	**12:44**	**12:53**	**1:10**
325	**12:02**	**12:19**	**12:27**	**12:33**	**12:43**	**12:51**	**1:04**	–	–	–
315	**12:42**	–	**12:57**	**1:03**	**1:13**	**1:21**	**1:34**	**1:44**	**1:53**	**2:10**
325	**1:02**	**1:19**	**1:27**	**1:33**	**1:43**	**1:51**	**2:04**	–	–	–
315	**1:40**	–	**1:55**	**2:01**	**2:11**	**2:19**	**2:32**	**2:45**	**2:54**	**3:11**
325	**2:00**	**2:17**	**2:25**	**2:31**	**2:41**	**2:49**	**3:02**	–	–	–

Route 325 Service
Servicio de la Ruta 325

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Todas las personas que ingresen a Camp Pendleton deben tener una identificación válida y están sujetas a registros en cualquier momento.

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315/325

Carlsbad Village Station to 14 Area/ College Blvd. SPRINTER Station

Carlsbad Village Station a 14 Area/College Blvd. Estación de SPRINTER

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Northbound to 14 Area/College Blvd. SPRINTER Station
Lunes a Viernes • Dirección hacia el norte a 14 Area/College Blvd. Estación de SPRINTER

Route Ruta	Carlsbad Village Station	Chestnut & Monroe St. (Carlsbad HS)	Plaza Camino Real Transit Center	Vista Way & Via Esmarca	Mira Costa College	Thunder Dr. & Vista Way	Oceanside Bl. & Avenida Del Oro	Town Center North	San Luis Rey Transit Center	Vandegrift & 16th St.
	1	2	3	4	5	6	7	8	9	10
315	2:40	–	2:55	3:01	3:11	3:19	3:32	3:45	3:55	4:12
325	2:59	3:17	3:25	3:31	3:41	3:49	4:02	–	–	–
315	3:40	–	3:55	4:01	4:11	4:19	4:32	4:45	4:55	5:12
325	4:03	4:20	4:27	4:33	4:43	4:51	5:04	–	–	–
315	4:42	–	4:57	5:03	5:13	5:21	5:34	5:47	5:57	6:14
325	5:04	5:21	5:27	5:33	5:43	5:51	6:04	–	–	–
315	5:45	–	6:00	6:06	6:16	6:23	6:34	6:46	6:55	7:10
325	6:10	6:27	6:33	6:38	6:47	6:54	7:04	–	–	–
315	6:45	–	6:58	7:03	7:12	7:19	7:29	7:40	7:48	8:03
315	7:45	–	7:57	8:02	8:10	8:17	8:27	8:38	8:45	9:00
315	8:45	–	8:57	9:02	9:10	9:17	9:27	9:38	9:45	–

Route 325 Service
Servicio de la Ruta 325

All persons entering Camp Pendleton must have valid identification and are subject to search at any time.
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315/325

Carlsbad Village Station to 14 Area/ College Blvd. SPRINTER Station

Carlsbad Village Station a 14 Area/College Blvd. Estación de SPRINTER

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Southbound to Carlsbad Village Station
Lunes a Viernes • Dirección hacia el sur a la Estación Carlsbad Village

Route Ruta	Vandegrift & 16th St.	San Luis Rey Transit Center	Town Center North	Oceanside Bl. & Avenida Del Oro	Thunder Dr. & Vista Way	MiraCosta College	Vista Way & Via Esmarca	Plaza Camino Real Transit Center	Chestnut & Monroe St. (Carlsbad HS)	Carlsbad Village Station
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**
315	–	5:06	5:13	5:23	5:29	5:37	5:43	5:49	–	5:58a
315	5:22	5:36	5:43	5:53	5:59	6:08	6:14	6:20	–	6:29
325	–	–	–	6:23	6:30	6:40	6:46	6:52	6:58	7:09
315	6:20	6:34	6:43	6:53	7:00	7:10	7:16	7:22	–	7:32
325	–	–	–	7:23	7:30	7:40	7:47	7:55	8:00	8:14
315	7:16	7:31	7:41	7:53	8:00	8:10	8:17	8:24	–	8:34
325	–	–	–	8:23	8:31	8:41	8:48	8:56	9:00	9:13
315	8:16	8:31	8:41	8:53	9:01	9:11	9:18	9:26	–	9:36
325	–	–	–	9:23	9:31	9:41	9:48	9:56	10:00	10:13
315	9:16	9:31	9:41	9:53	10:01	10:11	10:18	10:26	–	10:36
325	–	–	–	10:23	10:31	10:41	10:48	10:56	11:01	11:14
315	10:16	10:31	10:41	10:53	11:01	11:11	11:18	11:26	–	11:36
325	–	–	–	11:23	11:31	11:41	11:49	11:57	**12:02**	**12:15p**
315	11:15	11:31	11:41	11:53	**12:01**	**12:11**	**12:18**	**12:26**	–	**12:36**
325	–	–	–	**12:23**	**12:31**	**12:41**	**12:49**	**12:57**	**1:02**	**1:15**
315	**12:15**	**12:31**	**12:41**	**12:53**	**1:01**	**1:11**	**1:19**	**1:27**	–	**1:37**
325	–	–	–	**1:23**	**1:31**	**1:41**	**1:49**	**1:58**	**2:04**	**2:19**
315	**1:13**	**1:31**	**1:41**	**1:53**	**2:01**	**2:11**	**2:19**	**2:28**	–	**2:38**
325	–	–	–	**2:23**	**2:31**	**2:42**	**2:50**	**2:59**	**3:04**	**3:21**
315	**2:12**	**2:30**	**2:41**	**2:53**	**3:01**	**3:12**	**3:20**	**3:29**	–	**3:39**

Route 325 Service
Servicio de la Ruta 325

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315/325

Carlsbad Village Station to 14 Area/ College Blvd. SPRINTER Station

Carlsbad Village Station a 14 Area/College Blvd. Estación de SPRINTER

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Monday - Friday
Southbound to Carlsbad Village Station
Lunes a Viernes • Dirección hacia el sur a la Estación Carlsbad Village

Route Ruta	Vandegrift & 16th St.	San Luis Rey Transit Center	Town Center North	Oceanside Bl. & Avenida Del Oro	Thunder Dr. & Vista Way	MiraCosta College	Vista Way & Via Esmarca	Plaza Camino Real Transit Center	Chestnut & Monroe St. (Carlsbad HS)	Carlsbad Village Station
	10	9	8	7	6	5	4	3	2	1
325	–	–	–	3:23	3:31	3:42	3:50	3:59	4:04	4:16
315	3:12	3:30	3:41	3:53	4:01	4:12	4:20	4:29	–	4:39
325	–	–	–	4:23	4:31	4:42	4:50	4:59	5:03	5:15
315	4:12	4:30	4:41	4:53	5:01	5:12	5:20	5:29	–	5:39
325	–	–	–	5:23	5:31	5:42	5:50	5:59	6:03	6:15
315	4:42	5:00	5:11	5:23	5:31	5:42	5:50	5:59	–	6:09
315	5:13	5:29	5:40	5:52	6:00	6:11	6:19	6:28	–	6:38
315	6:17	6:31	6:42	6:53	7:01	7:11	7:18	7:26	–	7:36
315	7:20	7:34	7:42	7:53	8:00	8:10	8:17	8:25	–	8:34
315	8:04	8:18	8:26	8:37	8:44	8:53	9:00	9:07	–	9:16

Route 325 Service
Servicio de la Ruta 325

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315/325

Carlsbad Village Station to 14 Area/ College Blvd. SPRINTER Station

Carlsbad Village Station a 14 Area/College Blvd. Estación de SPRINTER

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Saturday
Northbound to 14 Area/College Blvd. SPRINTER Station
Sábado • Dirección hacia el norte a 14 Area/College Blvd. Estación de SPRINTER

Route Ruta	Carlsbad Village Station	Chestnut & Monroe St. (Carlsbad HS)	Plaza Camino Real Transit Center	Vista Way & Via Esmarca	MiraCosta College	Thunder Dr. & Vista Way	Oceanside Bl. & Avenida Del Oro	Town Center North	San Luis Rey Transit Center	Vandegrift & 16th St.
	1	2	3	4	5	6	7	8	9	10
315	6:58	–	7:08	7:11	7:19	7:25	7:35	7:45	7:54	8:10a
315	7:56	–	8:07	8:11	8:19	8:25	8:35	8:46	8:55	9:11
315	8:55	–	9:06	9:11	9:19	9:25	9:35	9:46	9:55	10:11
315	9:52	–	10:04	10:09	10:17	10:25	10:35	10:46	10:55	11:11
325	10:22	10:37	10:43	10:48	10:56	11:04	11:14	–	–	–
315	10:51	–	11:04	11:09	11:17	11:25	11:35	11:46	11:55	**12:11p**
315	11:51	–	**12:04**	**12:09**	**12:17**	**12:25**	**12:35**	**12:46**	**12:55**	**1:11**
315	**12:51**	–	**1:04**	**1:09**	**1:17**	**1:25**	**1:35**	**1:46**	**1:55**	**2:11**
325	**1:10**	**1:26**	**1:34**	**1:39**	**1:47**	**1:55**	**2:05**	–	–	–
315	**1:51**	–	**2:04**	**2:09**	**2:17**	**2:25**	**2:35**	**2:46**	**2:55**	**3:11**
315	**2:51**	–	**3:04**	**3:09**	**3:17**	**3:25**	**3:35**	**3:46**	**3:55**	**4:11**
315	**3:49**	–	**4:03**	**4:09**	**4:17**	**4:25**	**4:35**	**4:46**	**4:55**	**5:11**
325	**4:09**	**4:25**	**4:33**	**4:39**	**4:47**	**4:55**	**5:05**	–	–	–
315	**4:49**	–	**5:03**	**5:09**	**5:17**	**5:25**	**5:35**	**5:47**	**5:56**	**6:12**
315	**5:51**	–	**6:04**	**6:10**	**6:18**	**6:25**	**6:35**	**6:47**	**6:56**	**7:12**
325	**7:22**	**7:38**	**7:46**	**7:51**	**7:59**	**8:06**	**8:16**	–	–	–
315	**6:53**	–	**7:05**	**7:10**	**7:18**	**7:25**	**7:35**	**7:47**	**7:56**	**8:12**
315	**7:53**	–	**8:05**	**8:10**	**8:18**	**8:25**	**8:35**	**8:46**	**8:55**	**9:10**
315	**8:53**	–	**9:05**	**9:10**	**9:18**	**9:25**	**9:35**	**9:46**	**9:55**	**10:10**

Route 325 Service
Servicio de la Ruta 325

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315/325

Carlsbad Village Station to 14 Area/ College Blvd. SPRINTER Station

Carlsbad Village Station a 14 Area/College Blvd. Estación de SPRINTER

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Saturday
Southbound to Carlsbad Village Station
Sábado • Dirección hacia el sur a la Estación Carlsbad Village

Route Ruta	Vandegrift & 16th St.	San Luis Rey Transit Center	Town Center North	Oceanside Bl. & Avenida Del Oro	Thunder Dr. & Vista Way	MiraCosta College	Vista Way & Via Esmarca	Plaza Camino Real Transit Center	Chestnut & Monroe St. (Carlsbad HS)	Carlsbad Village Station
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**
315	6:21	6:33	6:40	6:50	6:56	7:04	7:10	7:18	–	7:27a
315	7:20	7:33	7:40	7:50	7:57	8:05	8:12	8:20	–	8:30
325	–	–	–	8:28	8:35	8:43	8:50	8:59	9:03	9:15
315	8:20	8:33	8:40	8:50	8:57	9:05	9:12	9:21	–	9:31
315	9:18	9:32	9:40	9:50	9:57	10:05	10:12	10:22	–	10:32
315	10:16	10:30	10:39	10:50	10:57	11:05	11:12	11:23	–	11:33
325	–	–	–	11:25	11:32	11:41	11:49	**12:00**	**12:04**	**12:16p**
315	11:16	11:30	11:39	11:50	11:57	**12:06**	**12:14**	**12:25**	**–**	**12:36**
315	**12:16**	**12:30**	**12:39**	**12:50**	**12:57**	**1:06**	**1:14**	**1:25**	**–**	**1:36**
315	**1:16**	**1:30**	**1:39**	**1:50**	**1:57**	**2:06**	**2:14**	**2:25**	**–**	**2:36**
325	**–**	**–**	**–**	**2:26**	**2:33**	**2:42**	**2:50**	**3:01**	**3:05**	**3:16**
315	**2:16**	**2:30**	**2:39**	**2:50**	**2:57**	**3:06**	**3:14**	**3:25**	**–**	**3:36**
315	**3:16**	**3:30**	**3:39**	**3:50**	**3:57**	**4:06**	**4:14**	**4:25**	**–**	**4:36**
325	**4:16**	**4:30**	**4:39**	**4:50**	**4:57**	**5:06**	**5:14**	**5:25**	**–**	**5:36**
325	**–**	**–**	**–**	**5:27**	**5:34**	**5:43**	**5:51**	**6:01**	**6:05**	**6:16**
315	**5:16**	**5:30**	**5:39**	**5:50**	**5:57**	**6:06**	**6:14**	**6:24**	**–**	**6:35**
315	**6:17**	**6:30**	**6:39**	**6:50**	**6:57**	**7:04**	**7:12**	**7:22**	**–**	**7:32**
315	**7:18**	**7:31**	**7:39**	**7:50**	**7:57**	**8:04**	**8:10**	**8:20**	**–**	**8:30**
315	**8:19**	**8:32**	**8:39**	**8:50**	**8:57**	**9:04**	**9:10**	**9:20**	**–**	**9:30**

Route 325 Service
Servicio de la Ruta 325

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315 Carlsbad Village Station to 14 Area

Carlsbad Village Station a 14 Area

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Sunday
Northbound to 14 Area
Domingo • Dirección hacia el norte a 14 Area

Route Ruta	Carlsbad Village Station	Plaza Camino Real Transit Center	Vista Way & Via Esmarca	MiraCosta College	Thunder Dr. & Vista Way	Oceanside Bl. & Avenida Del Oro	Town Center North	San Luis Rey Transit Center	Vandegrift & 16th St.
	1	3	4	5	6	7	8	9	10
315	6:58	7:08	7:11	7:19	7:25	7:35	7:45	7:54	8:10a
315	7:56	8:07	8:11	8:19	8:25	8:35	8:46	8:55	9:11
315	8:55	9:06	9:11	9:19	9:25	9:35	9:46	9:55	10:11
315	9:52	10:04	10:09	10:17	10:25	10:35	10:46	10:55	11:11
315	10:51	11:04	11:09	11:17	11:25	11:35	11:46	11:55	**12:11p**
315	11:51	**12:04**	**12:09**	**12:17**	**12:25**	**12:35**	**12:46**	**12:55**	**1:11**
315	**12:51**	**1:04**	**1:09**	**1:17**	**1:25**	**1:35**	**1:46**	**1:55**	**2:11**
315	**1:51**	**2:04**	**2:09**	**2:17**	**2:25**	**2:35**	**2:46**	**2:55**	**3:11**
315	**2:51**	**3:04**	**3:09**	**3:17**	**3:25**	**3:35**	**3:46**	**3:55**	**4:11**
315	**3:49**	**4:03**	**4:09**	**4:17**	**4:25**	**4:35**	**4:46**	**4:55**	**5:11**
315	**4:49**	**5:03**	**5:09**	**5:17**	**5:25**	**5:35**	**5:47**	**5:56**	**6:12**
315	**5:51**	**6:04**	**6:10**	**6:18**	**6:25**	**6:35**	**6:47**	**6:56**	**7:12**
315	**6:53**	**7:05**	**7:10**	**7:18**	**7:25**	**7:35**	**7:47**	**7:56**	**8:12**
315	**7:53**	**8:05**	**8:10**	**8:18**	**8:25**	**8:35**	**8:46**	**8:55**	**9:10**
315	**8:53**	**9:05**	**9:10**	**9:18**	**9:25**	**9:35**	**9:46**	**9:55**	**10:10**

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315 Carlsbad Village Station to 14 Area

Carlsbad Village Station a 14 Area

See pg. 6 for Holiday schedules/Ver pág. 270 para obtener los horarios de días festivos

Sunday
Southbound to Carlsbad Village Station
Domingo • Dirección hacia el sur a la Estación Carlsbad Village

Route Ruta	Vandegrift & 16th St.	San Luis Rey Transit Center	Town Center North	Oceanside Bl. & Avenida Del Oro	Thunder Dr. & Vista Way	MiraCosta College	Vista Way & Via Esmarca	Plaza Camino Real Transit Center	Carlsbad Village Station
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**1**
315	6:21	6:33	6:40	6:50	6:56	7:04	7:10	7:18	7:27a
315	7:20	7:33	7:40	7:50	7:57	8:05	8:12	8:20	8:30
315	8:20	8:33	8:40	8:50	8:57	9:05	9:12	9:21	9:31
315	9:18	9:32	9:40	9:50	9:57	10:05	10:12	10:22	10:32
315	10:16	10:30	10:39	10:50	10:57	11:05	11:12	11:23	11:33
315	11:16	11:30	11:39	11:50	11:57	**12:06**	**12:14**	**12:25**	**12:36p**
315	**12:16**	**12:30**	**12:39**	**12:50**	**12:57**	**1:06**	**1:14**	**1:25**	**1:36**
315	**1:16**	**1:30**	**1:39**	**1:50**	**1:57**	**2:06**	**2:14**	**2:25**	**2:36**
315	**2:16**	**2:30**	**2:39**	**2:50**	**2:57**	**3:06**	**3:14**	**3:25**	**3:36**
315	**3:16**	**3:30**	**3:39**	**3:50**	**3:57**	**4:06**	**4:14**	**4:25**	**4:36**
315	**4:16**	**4:30**	**4:39**	**4:50**	**4:57**	**5:06**	**5:14**	**5:25**	**5:36**
315	**5:16**	**5:30**	**5:39**	**5:50**	**5:57**	**6:06**	**6:14**	**6:24**	**6:35**
315	**6:17**	**6:30**	**6:39**	**6:50**	**6:57**	**7:04**	**7:12**	**7:22**	**7:32**
315	**7:18**	**7:31**	**7:39**	**7:50**	**7:57**	**8:04**	**8:10**	**8:20**	**8:30**
315	**8:19**	**8:32**	**8:39**	**8:50**	**8:57**	**9:04**	**9:10**	**9:20**	**9:30**

All persons entering Camp Pendleton must have valid identification and are subject to search at any time.
Todas las personas que ingresen a Camp Pendleton deben tener una identificación válida y están sujetas a registros en cualquier momento.

BE PREPARED: Base access subject to discretion of Camp Pendleton personnel. If passenger is declined access to the Base, it is the passenger's responsibility to be prepared to consider other transit options. For more information on *Traveling through Camp Pendleton,* see Rider's Guide index.

Esté listo: El acceso a la base es a discreción del personal de Camp Pendleton. Si un pasajero es negado el acceso a la base, es su responsabilidad encontrar otras opciones de transporte. Para obtener más información sobre cómo *viajar a través de Camp Pendleton,* refiérase al Índice de la Guía de Pasajeros.

Appendix D - Existing Traffic Counts

Intersection #1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Monica Circle
E/W: Claire Drive
Weather: Clear

File Name : 01_OCS_Mon_Cla AM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 1

Groups Printed- Total Volume

	Monica Circle Southbound				Claire Drive Westbound				Monica Circle Northbound				Claire Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	7	2	9	1	2	0	3	1	4	0	5	2	3	8	13	30
07:15 AM	0	9	2	11	0	7	0	7	2	1	0	3	4	2	10	16	37
07:30 AM	0	8	8	16	1	8	1	10	4	3	0	7	2	4	17	23	56
07:45 AM	0	9	4	13	0	5	0	5	2	5	0	7	0	4	10	14	39
Total	0	33	16	49	2	22	1	25	9	13	0	22	8	13	45	66	162
08:00 AM	0	6	3	9	0	4	0	4	12	6	2	20	1	4	11	16	49
08:15 AM	1	3	2	6	0	5	1	6	6	4	0	10	2	1	14	17	39
08:30 AM	2	5	6	13	1	5	1	7	11	2	1	14	2	4	15	21	55
08:45 AM	2	3	5	10	0	5	2	7	6	1	0	7	4	3	14	21	45
Total	5	17	16	38	1	19	4	24	35	13	3	51	9	12	54	75	188
Grand Total	5	50	32	87	3	41	5	49	44	26	3	73	17	25	99	141	350
Apprch %	5.7	57.5	36.8		6.1	83.7	10.2		60.3	35.6	4.1		12.1	17.7	70.2		
Total %	1.4	14.3	9.1	24.9	0.9	11.7	1.4	14	12.6	7.4	0.9	20.9	4.9	7.1	28.3	40.3	

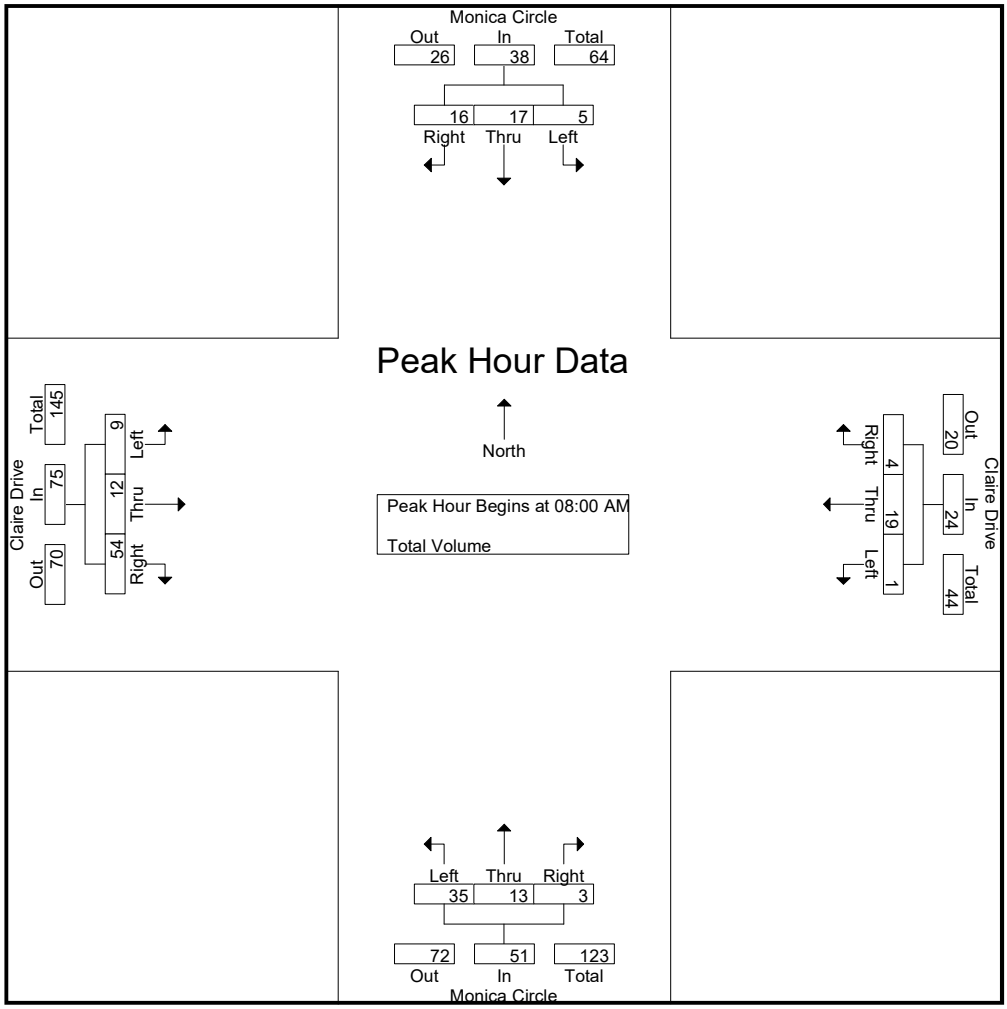
	Monica Circle Southbound				Claire Drive Westbound				Monica Circle Northbound				Claire Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	**6**	3	9	0	4	0	4	**12**	**6**	**2**	**20**	1	**4**	11	16	49
08:15 AM	1	3	2	6	0	**5**	1	6	6	4	0	10	2	1	14	17	39
08:30 AM	**2**	5	**6**	**13**	**1**	5	1	**7**	11	2	1	14	2	4	**15**	**21**	**55**
08:45 AM	2	3	5	10	0	5	**2**	7	6	1	0	7	**4**	3	14	21	45
Total Volume	5	17	16	38	1	19	4	24	35	13	3	51	9	12	54	75	188
% App. Total	13.2	44.7	42.1		4.2	79.2	16.7		68.6	25.5	5.9		12	16	72		
PHF	.625	.708	.667	.731	.250	.950	.500	.857	.729	.542	.375	.638	.563	.750	.900	.893	.855

Intersection #1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Monica Circle
E/W: Claire Drive
Weather: Clear

File Name : 01_OCS_Mon_Cla AM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:45 AM				08:00 AM			
+0 mins.	0	7	2	9	0	7	0	7	2	5	0	7	1	**4**	11	16
+15 mins.	0	**9**	2	11	**1**	**8**	**1**	**10**	**12**	**6**	**2**	**20**	2	1	14	17
+30 mins.	0	8	**8**	**16**	0	5	0	5	6	4	0	10	2	4	**15**	**21**
+45 mins.	0	9	4	13	0	4	0	4	11	2	1	14	**4**	3	14	21
Total Volume	0	33	16	49	1	24	1	26	31	17	3	51	9	12	54	75
% App. Total	0	67.3	32.7		3.8	92.3	3.8		60.8	33.3	5.9		12	16	72	
PHF	.000	.917	.500	.766	.250	.750	.250	.650	.646	.708	.375	.638	.563	.750	.900	.893

Intersection #1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Monica Circle
E/W: Claire Drive
Weather: Clear

File Name : 01_OCS_Mon_Cla PM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 1

Groups Printed- Total Volume

	Monica Circle Southbound				Claire Drive Westbound				Monica Circle Northbound				Claire Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	3	2	5	0	4	0	4	12	6	1	19	5	4	11	20	48
04:15 PM	0	3	0	3	0	0	0	0	16	6	0	22	6	3	6	15	40
04:30 PM	0	3	1	4	0	5	0	5	11	4	0	15	3	4	11	18	42
04:45 PM	0	8	3	11	1	3	1	5	8	6	1	15	5	5	10	20	51
Total	0	17	6	23	1	12	1	14	47	22	2	71	19	16	38	73	181
05:00 PM	0	3	2	5	1	2	0	3	7	10	2	19	6	3	7	16	43
05:15 PM	0	3	5	8	0	1	0	1	13	8	2	23	2	3	6	11	43
05:30 PM	1	4	1	6	0	1	0	1	17	3	0	20	7	5	10	22	49
05:45 PM	0	6	1	7	1	4	1	6	7	7	0	14	4	4	10	18	45
Total	1	16	9	26	2	8	1	11	44	28	4	76	19	15	33	67	180
Grand Total	1	33	15	49	3	20	2	25	91	50	6	147	38	31	71	140	361
Apprch %	2	67.3	30.6		12	80	8		61.9	34	4.1		27.1	22.1	50.7		
Total %	0.3	9.1	4.2	13.6	0.8	5.5	0.6	6.9	25.2	13.9	1.7	40.7	10.5	8.6	19.7	38.8	

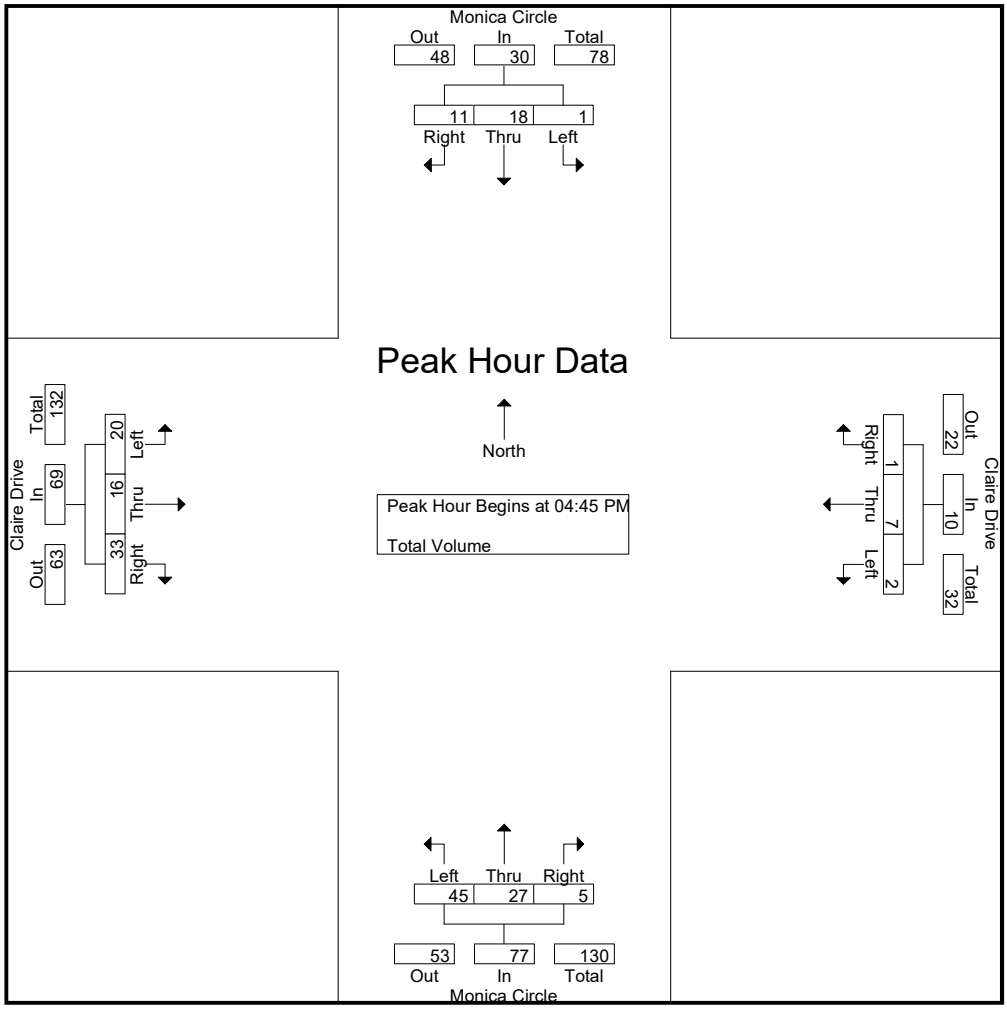
	Monica Circle Southbound				Claire Drive Westbound				Monica Circle Northbound				Claire Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**8**	3	**11**	**1**	**3**	**1**	**5**	8	6	1	15	5	**5**	**10**	20	**51**
05:00 PM	0	3	2	5	1	2	0	3	7	**10**	**2**	19	6	3	7	16	43
05:15 PM	0	3	**5**	8	0	1	0	1	13	8	2	**23**	2	3	6	11	43
05:30 PM	**1**	4	1	6	0	1	0	1	**17**	3	0	20	**7**	5	10	**22**	49
Total Volume	1	18	11	30	2	7	1	10	45	27	5	77	20	16	33	69	186
% App. Total	3.3	60	36.7		20	70	10		58.4	35.1	6.5		29	23.2	47.8		
PHF	.250	.563	.550	.682	.500	.583	.250	.500	.662	.675	.625	.837	.714	.800	.825	.784	.912

Intersection #1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Monica Circle
E/W: Claire Drive
Weather: Clear

File Name : 01_OCS_Mon_Cla PM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				04:45 PM				04:00 PM			
+0 mins.	0	**8**	3	**11**	0	4	0	4	8	6	1	15	5	4	**11**	**20**
+15 mins.	0	3	2	5	0	0	0	0	7	**10**	**2**	19	**6**	3	6	15
+30 mins.	0	3	**5**	8	0	**5**	0	**5**	13	8	2	**23**	3	4	11	18
+45 mins.	**1**	4	1	6	**1**	3	**1**	5	**17**	3	0	20	5	**5**	10	20
Total Volume	1	18	11	30	1	12	1	14	45	27	5	77	19	16	38	73
% App. Total	3.3	60	36.7		7.1	85.7	7.1		58.4	35.1	6.5		26	21.9	52.1	
PHF	.250	.563	.550	.682	.250	.600	.250	.700	.662	.675	.625	.837	.792	.800	.864	.913

Intersection #1

Location: Oceanside
N/S: Monica Circle
E/W: Claire Drive

Date: 9/27/2022
Day: Tuesday

PEDESTRIANS

	North Leg Monica Circle	East Leg Claire Drive	South Leg Monica Circle	West Leg Claire Drive	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	1	0	1	2
7:15 AM	0	0	2	2	4
7:30 AM	0	0	1	0	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	1	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	4	3	8

	North Leg Monica Circle	East Leg Claire Drive	South Leg Monica Circle	West Leg Claire Drive	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	2	2
4:15 PM	0	0	0	2	2
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	3	3
5:15 PM	0	3	1	0	4
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	3	1	8	12

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Intersection #1

Location: Oceanside
N/S: Monica Circle
E/W: Claire Drive

Date: 9/27/2022
Day: Tuesday

BICYCLES

	Southbound Monica Circle			Westbound Claire Drive			Northbound Monica Circle			Eastbound Claire Drive			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	1	1

	Southbound Monica Circle			Westbound Claire Drive			Northbound Monica Circle			Eastbound Claire Drive			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Intersection #2

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Roja Drive
E/W: Macario Drive
Weather: Clear

File Name : 02_OCS_Roj_Mac AM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 1

Groups Printed- Total Volume

	Personal Driveway Southbound				Macario Drive Westbound				Roja Drive Northbound				Macario Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	9	0	0	9	4	0	4	8	0	0	16	16	33
07:15 AM	0	1	0	1	10	1	0	11	5	0	4	9	0	1	18	19	40
07:30 AM	0	0	0	0	16	1	0	17	6	0	3	9	0	0	27	27	53
07:45 AM	0	0	0	0	16	0	0	16	9	1	8	18	0	1	21	22	56
Total	0	1	0	1	51	2	0	53	24	1	19	44	0	2	82	84	182
08:00 AM	0	0	0	0	22	0	0	22	19	0	9	28	0	0	17	17	67
08:15 AM	0	0	0	0	6	1	0	7	7	0	7	14	0	0	16	16	37
08:30 AM	0	0	0	0	7	0	0	7	14	0	2	16	0	1	21	22	45
08:45 AM	0	0	0	0	1	0	0	1	7	0	2	9	0	0	15	15	25
Total	0	0	0	0	36	1	0	37	47	0	20	67	0	1	69	70	174
Grand Total	0	1	0	1	87	3	0	90	71	1	39	111	0	3	151	154	356
Apprch %	0	100	0		96.7	3.3	0		64	0.9	35.1		0	1.9	98.1		
Total %	0	0.3	0	0.3	24.4	0.8	0	25.3	19.9	0.3	11	31.2	0	0.8	42.4	43.3	

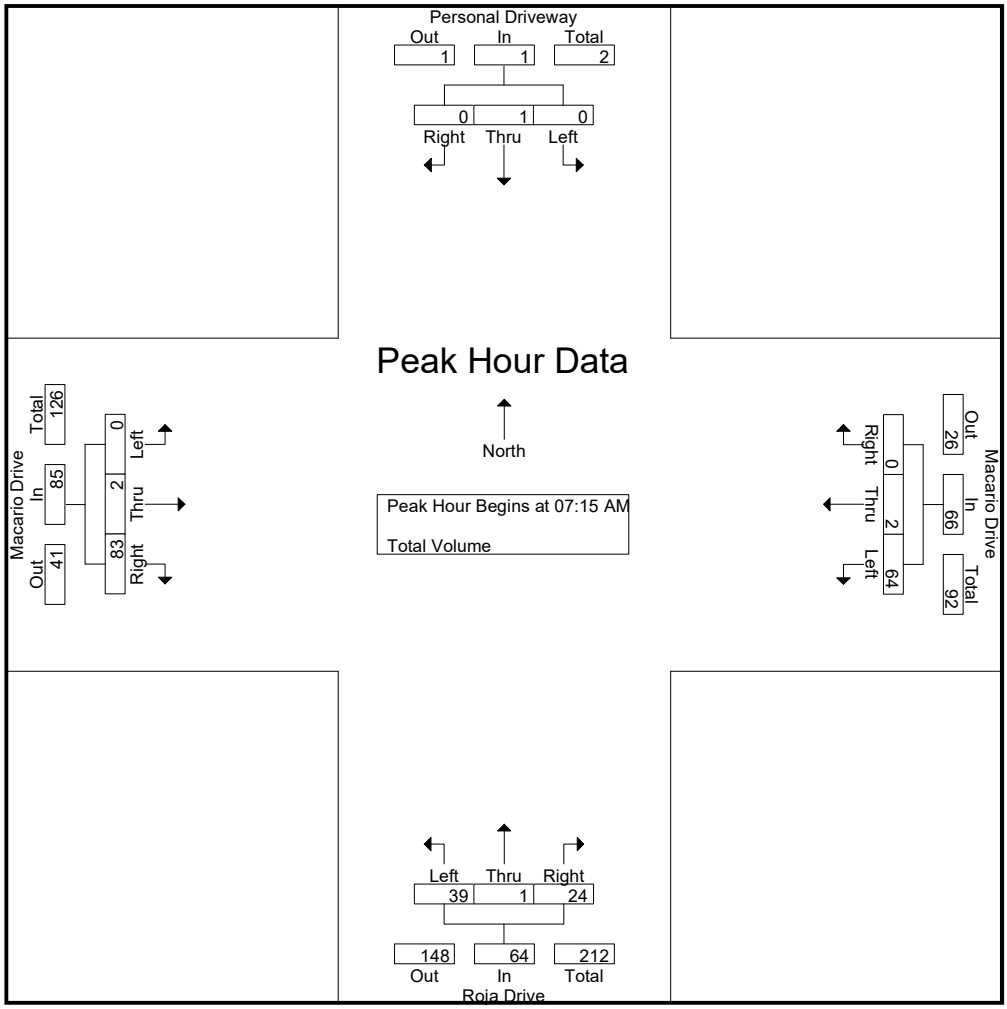
	Personal Driveway Southbound				Macario Drive Westbound				Roja Drive Northbound				Macario Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**1**	0	**1**	10	**1**	0	11	5	0	4	9	0	**1**	18	19	40
07:30 AM	0	0	0	0	16	1	0	17	6	0	3	9	0	0	**27**	**27**	53
07:45 AM	0	0	0	0	16	0	0	16	9	**1**	8	18	0	1	21	22	56
08:00 AM	0	0	0	0	**22**	0	0	**22**	**19**	0	**9**	**28**	0	0	17	17	**67**
Total Volume	0	1	0	1	64	2	0	66	39	1	24	64	0	2	83	85	216
% App. Total	0	100	0		97	3	0		60.9	1.6	37.5		0	2.4	97.6		
PHF	.000	.250	.000	.250	.727	.500	.000	.750	.513	.250	.667	.571	.000	.500	.769	.787	.806

Intersection #2

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Roja Drive
E/W: Macario Drive
Weather: Clear

File Name : 02_OCS_Roj_Mac AM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:45 AM				07:15 AM			
+0 mins.	0	0	0	0	10	**1**	0	11	9	**1**	8	18	0	**1**	18	19
+15 mins.	0	**1**	0	**1**	16	1	0	17	**19**	0	**9**	**28**	0	0	**27**	**27**
+30 mins.	0	0	0	0	16	0	0	16	7	0	7	14	0	1	21	22
+45 mins.	0	0	0	0	**22**	0	0	**22**	14	0	2	16	0	0	17	17
Total Volume	0	1	0	1	64	2	0	66	49	1	26	76	0	2	83	85
% App. Total	0	100	0		97	3	0		64.5	1.3	34.2		0	2.4	97.6	
PHF	.000	.250	.000	.250	.727	.500	.000	.750	.645	.250	.722	.679	.000	.500	.769	.787

Intersection #2

Counts Unlimited, Inc.
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City of Oceanside
N/S: Roja Drive
E/W: Macario Drive
Weather: Clear

File Name : 02_OCS_Roj_Mac PM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 1

Groups Printed- Total Volume

	Personal Driveway Southbound				Macario Drive Westbound				Roja Drive Northbound				Macario Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	3	0	0	3	20	0	7	27	0	1	12	13	43
04:15 PM	0	0	0	0	7	0	0	7	22	0	8	30	0	0	10	10	47
04:30 PM	0	0	0	0	7	0	0	7	16	0	3	19	0	0	13	13	39
04:45 PM	0	0	0	0	5	1	0	6	14	0	12	26	0	0	19	19	51
Total	0	0	0	0	22	1	0	23	72	0	30	102	0	1	54	55	180
05:00 PM	0	0	0	0	7	3	0	10	17	0	6	23	0	1	10	11	44
05:15 PM	0	0	0	0	9	0	0	9	21	0	3	24	0	1	8	9	42
05:30 PM	0	0	0	0	7	0	0	7	24	0	12	36	0	0	13	13	56
05:45 PM	0	0	0	0	10	0	0	10	11	0	9	20	0	0	18	18	48
Total	0	0	0	0	33	3	0	36	73	0	30	103	0	2	49	51	190
Grand Total	0	0	0	0	55	4	0	59	145	0	60	205	0	3	103	106	370
Apprch %	0	0	0		93.2	6.8	0		70.7	0	29.3		0	2.8	97.2		
Total %	0	0	0	0	14.9	1.1	0	15.9	39.2	0	16.2	55.4	0	0.8	27.8	28.6	

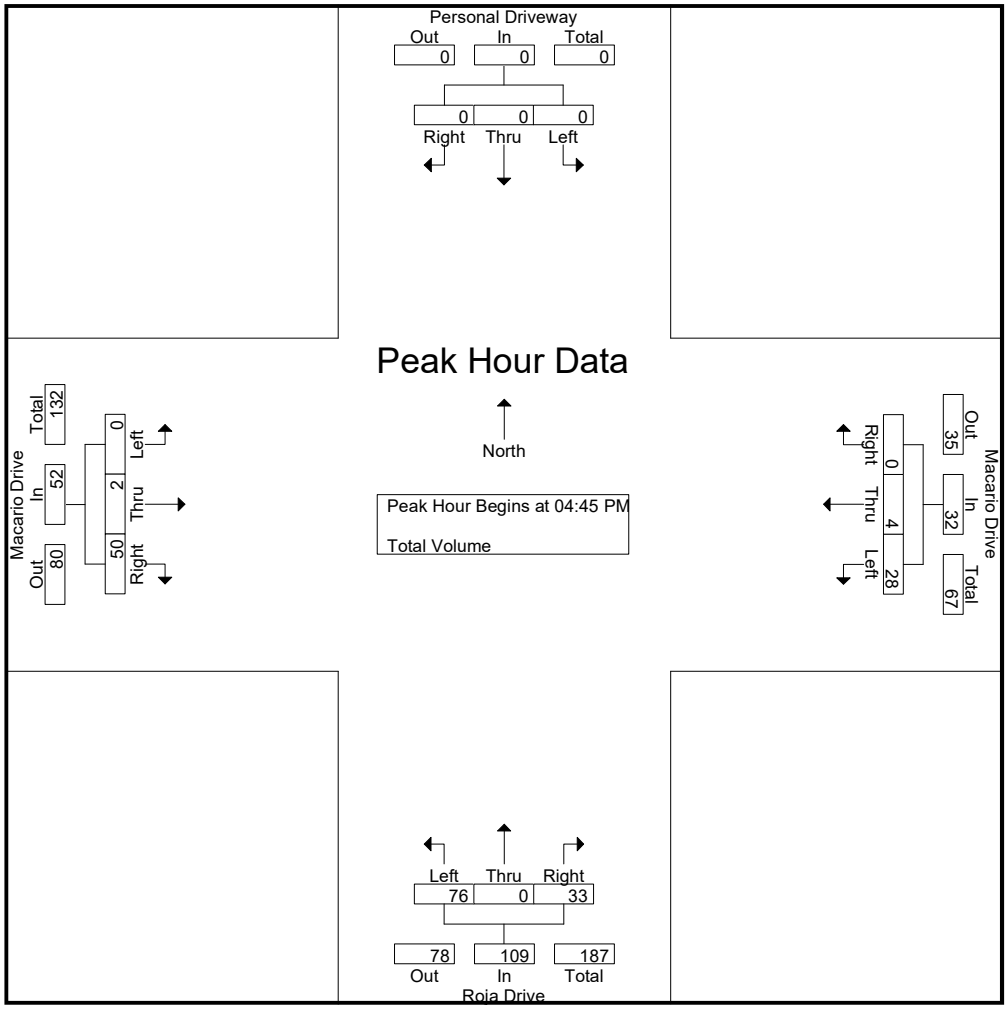
	Personal Driveway Southbound				Macario Drive Westbound				Roja Drive Northbound				Macario Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	5	1	0	6	14	0	**12**	26	0	0	**19**	**19**	51
05:00 PM	0	0	0	0	7	**3**	0	**10**	17	0	6	23	0	**1**	10	11	44
05:15 PM	0	0	0	0	**9**	0	0	9	21	0	3	24	0	1	8	9	42
05:30 PM	0	0	0	0	7	0	0	7	**24**	0	12	**36**	0	0	13	13	**56**
Total Volume	0	0	0	0	28	4	0	32	76	0	33	109	0	2	50	52	193
% App. Total	0	0	0		87.5	12.5	0		69.7	0	30.3		0	3.8	96.2		
PHF	.000	.000	.000	.000	.778	.333	.000	.800	.792	.000	.688	.757	.000	.500	.658	.684	.862

Intersection #2

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Roja Drive
E/W: Macario Drive
Weather: Clear

File Name : 02_OCS_Roj_Mac PM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:45 PM				04:00 PM			
+0 mins.	0	0	0	0	7	**3**	0	**10**	14	0	**12**	26	0	**1**	12	13
+15 mins.	0	0	0	0	9	0	0	9	17	0	6	23	0	0	10	10
+30 mins.	0	0	0	0	7	0	0	7	21	0	3	24	0	0	13	13
+45 mins.	0	0	0	0	**10**	0	0	10	**24**	0	12	**36**	0	0	**19**	**19**
Total Volume	0	0	0	0	33	3	0	36	76	0	33	109	0	1	54	55
% App. Total	0	0	0		91.7	8.3	0		69.7	0	30.3		0	1.8	98.2	
PHF	.000	.000	.000	.000	.825	.250	.000	.900	.792	.000	.688	.757	.000	.250	.711	.724

Intersection #2

Location: Oceanside
N/S: Roja Drive
E/W: Macario Drive

Date: 9/27/2022
Day: Tuesday

PEDESTRIANS

	North Leg Personal Driveway	East Leg Macario Drive	South Leg Roja Drive	West Leg Macario Drive	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	1	0	0	1
7:15 AM	0	1	1	2	4
7:30 AM	0	3	2	0	5
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	1	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	5	4	2	11

	North Leg Personal Driveway	East Leg Macario Drive	South Leg Roja Drive	West Leg Macario Drive	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	1	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	2	0	2
5:30 PM	0	1	0	0	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	2	2	0	4

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Intersection #2

Location: Oceanside
N/S: Roja Drive
E/W: Macario Drive

Date: 9/27/2022
Day: Tuesday

BICYCLES

	Southbound Personal Driveway			Westbound Macario Drive			Northbound Roja Drive			Eastbound Macario Drive			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
7:45 AM	0	0	0	1	0	0	0	0	0	0	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	0	0	0	0	1	0	0	1	3

	Southbound Personal Driveway			Westbound Macario Drive			Northbound Roja Drive			Eastbound Macario Drive			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	2	0	0	0	0	0	0	0	0	2

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Intersection #3

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Roja Drive
E/W: Redondo Drive
Weather: Clear

File Name : 03_OCS_Roj_Red AM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 1

Groups Printed- Total Volume

	Roja Drive Southbound				Redondo Drive Westbound				Roja Drive Northbound				Redondo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	19	3	5	27	0	4	8	12	0	0	2	2	1	7	0	8	49
07:15 AM	22	4	3	29	0	6	7	13	0	0	4	4	2	7	0	9	55
07:30 AM	36	3	4	43	1	7	6	14	1	2	3	6	1	7	0	8	71
07:45 AM	29	1	13	43	0	12	12	24	0	2	0	2	5	15	0	20	89
Total	106	11	25	142	1	29	33	63	1	4	9	14	9	36	0	45	264
08:00 AM	21	1	17	39	2	20	16	38	2	1	2	5	12	11	1	24	106
08:15 AM	21	1	2	24	0	3	13	16	0	0	1	1	3	6	1	10	51
08:30 AM	25	3	1	29	0	3	16	19	0	0	1	1	0	11	0	11	60
08:45 AM	17	0	1	18	0	6	7	13	0	0	1	1	2	4	0	6	38
Total	84	5	21	110	2	32	52	86	2	1	5	8	17	32	2	51	255
Grand Total	190	16	46	252	3	61	85	149	3	5	14	22	26	68	2	96	519
Apprch %	75.4	6.3	18.3		2	40.9	57		13.6	22.7	63.6		27.1	70.8	2.1		
Total %	36.6	3.1	8.9	48.6	0.6	11.8	16.4	28.7	0.6	1	2.7	4.2	5	13.1	0.4	18.5	

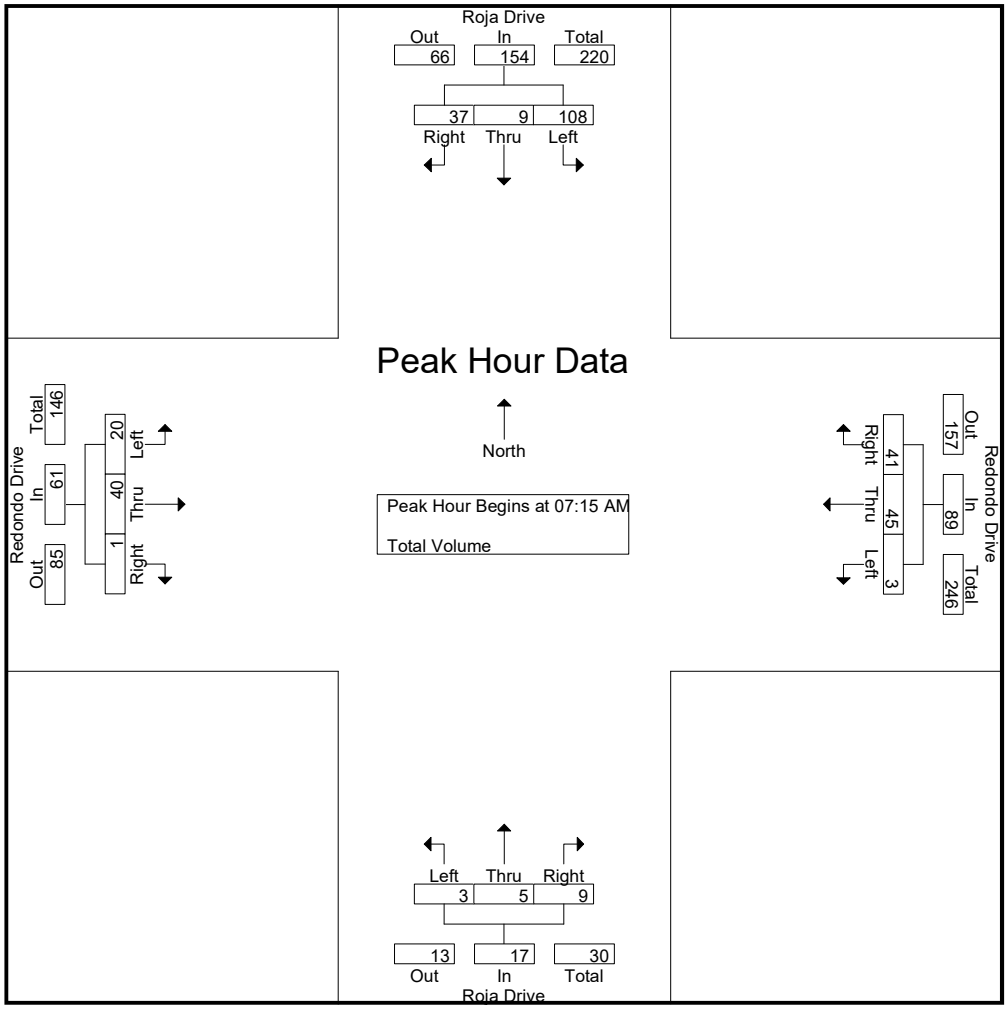
	Roja Drive Southbound				Redondo Drive Westbound				Roja Drive Northbound				Redondo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	22	**4**	3	29	0	6	7	13	0	0	**4**	4	2	7	0	9	55
07:30 AM	**36**	3	4	**43**	1	7	6	14	1	**2**	3	**6**	1	7	0	8	71
07:45 AM	29	1	13	43	0	12	12	24	0	2	0	2	5	**15**	0	20	89
08:00 AM	21	1	**17**	39	**2**	**20**	**16**	**38**	**2**	1	2	5	**12**	11	**1**	**24**	**106**
Total Volume	108	9	37	154	3	45	41	89	3	5	9	17	20	40	1	61	321
% App. Total	70.1	5.8	24		3.4	50.6	46.1		17.6	29.4	52.9		32.8	65.6	1.6		
PHF	.750	.563	.544	.895	.375	.563	.641	.586	.375	.625	.563	.708	.417	.667	.250	.635	.757

Intersection #3

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Roja Drive
E/W: Redondo Drive
Weather: Clear

File Name : 03_OCS_Roj_Red AM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:45 AM				07:15 AM				07:45 AM			
+0 mins.	22	**4**	3	29	0	12	12	24	0	0	**4**	4	5	**15**	0	20
+15 mins.	**36**	3	4	**43**	**2**	**20**	**16**	**38**	1	**2**	3	**6**	**12**	11	**1**	**24**
+30 mins.	29	1	13	43	0	3	13	16	0	2	0	2	3	6	1	10
+45 mins.	21	1	**17**	39	0	3	16	19	**2**	1	2	5	0	11	0	11
Total Volume	108	9	37	154	2	38	57	97	3	5	9	17	20	43	2	65
% App. Total	70.1	5.8	24		2.1	39.2	58.8		17.6	29.4	52.9		30.8	66.2	3.1	
PHF	.750	.563	.544	.895	.250	.475	.891	.638	.375	.625	.563	.708	.417	.717	.500	.677

Intersection #3

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Roja Drive
E/W: Redondo Drive
Weather: Clear

File Name : 03_OCS_Roj_Red PM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 1

Groups Printed- Total Volume

	Roja Drive Southbound				Redondo Drive Westbound				Roja Drive Northbound				Redondo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	14	1	3	18	5	13	23	41	1	1	2	4	2	3	0	5	68
04:15 PM	16	2	0	18	3	5	26	34	0	4	2	6	2	5	1	8	66
04:30 PM	16	1	4	21	4	9	18	31	0	2	2	4	1	8	0	9	65
04:45 PM	22	3	2	27	6	7	21	34	0	2	0	2	3	3	1	7	70
Total	68	7	9	84	18	34	88	140	1	9	6	16	8	19	2	29	269
05:00 PM	15	1	3	19	3	8	24	35	0	3	2	5	1	4	0	5	64
05:15 PM	14	1	6	21	2	6	21	29	0	1	1	2	4	6	0	10	62
05:30 PM	18	0	2	20	3	12	28	43	2	1	0	3	8	9	0	17	83
05:45 PM	23	1	4	28	1	11	21	33	0	3	2	5	2	11	2	15	81
Total	70	3	15	88	9	37	94	140	2	8	5	15	15	30	2	47	290
Grand Total	138	10	24	172	27	71	182	280	3	17	11	31	23	49	4	76	559
Apprch %	80.2	5.8	14		9.6	25.4	65		9.7	54.8	35.5		30.3	64.5	5.3		
Total %	24.7	1.8	4.3	30.8	4.8	12.7	32.6	50.1	0.5	3	2	5.5	4.1	8.8	0.7	13.6	

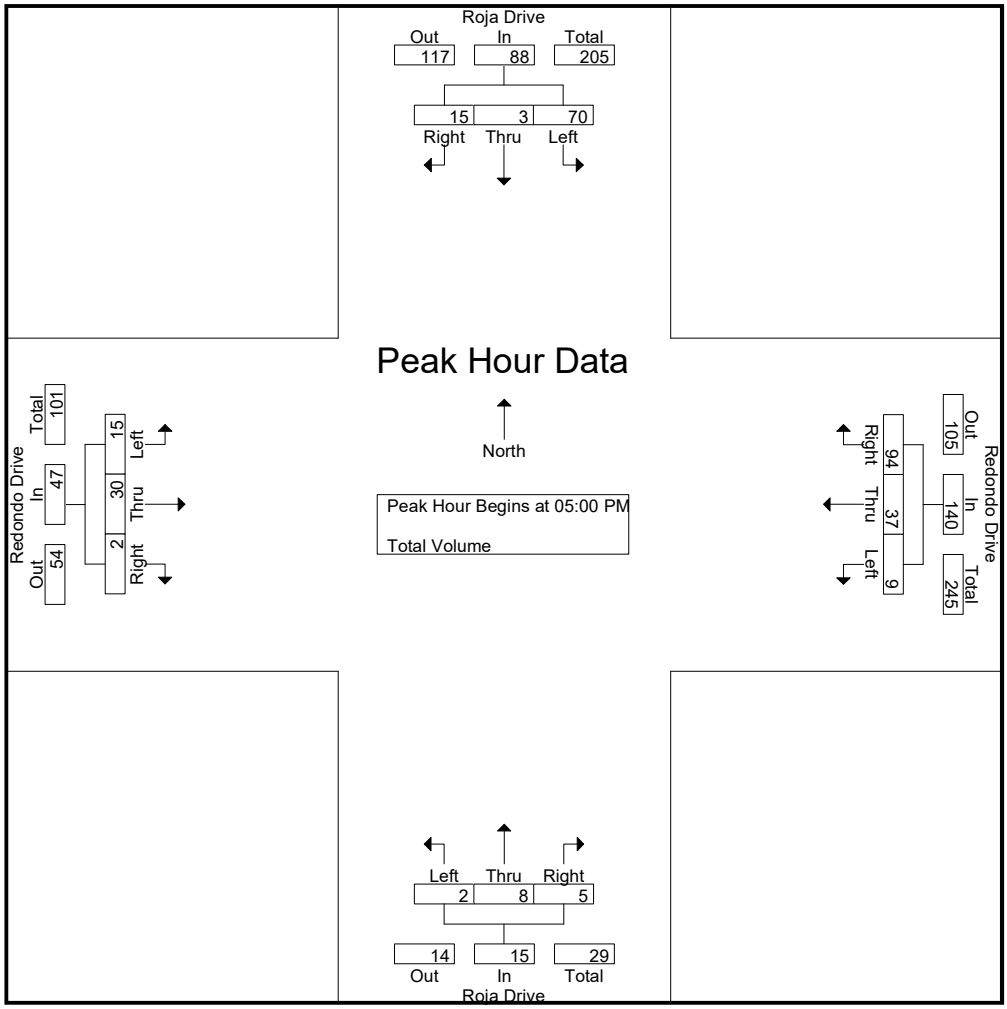
	Roja Drive Southbound				Redondo Drive Westbound				Roja Drive Northbound				Redondo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	15	**1**	3	19	**3**	8	24	35	0	**3**	**2**	**5**	1	4	0	5	64
05:15 PM	14	1	**6**	21	2	6	21	29	0	1	1	2	4	6	0	10	62
05:30 PM	18	0	2	20	3	**12**	**28**	**43**	**2**	1	0	3	**8**	9	0	**17**	**83**
05:45 PM	**23**	1	4	**28**	1	11	21	33	0	3	2	5	2	**11**	**2**	15	81
Total Volume	70	3	15	88	9	37	94	140	2	8	5	15	15	30	2	47	290
% App. Total	79.5	3.4	17		6.4	26.4	67.1		13.3	53.3	33.3		31.9	63.8	4.3		
PHF	.761	.750	.625	.786	.750	.771	.839	.814	.250	.667	.625	.750	.469	.682	.250	.691	.873

Intersection #3

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Roja Drive
E/W: Redondo Drive
Weather: Clear

File Name : 03_OCS_Roj_Red PM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:45 PM				04:15 PM				05:00 PM			
+0 mins.	16	1	4	21	**6**	7	21	34	0	**4**	**2**	**6**	1	4	0	5
+15 mins.	**22**	**3**	2	**27**	3	8	24	35	0	2	2	4	4	6	0	10
+30 mins.	15	1	3	19	2	6	21	29	0	2	0	2	**8**	9	0	**17**
+45 mins.	14	1	**6**	21	3	**12**	**28**	**43**	0	3	2	5	2	**11**	**2**	15
Total Volume	67	6	15	88	14	33	94	141	0	11	6	17	15	30	2	47
% App. Total	76.1	6.8	17		9.9	23.4	66.7		0	64.7	35.3		31.9	63.8	4.3	
PHF	.761	.500	.625	.815	.583	.688	.839	.820	.000	.688	.750	.708	.469	.682	.250	.691

Intersection #3

Location: Oceanside
N/S: Roja Drive
E/W: Redondo Drive

Date: 9/27/2022
Day: Tuesday

PEDESTRIANS

	North Leg Roja Drive Pedestrians	East Leg Redondo Drive Pedestrians	South Leg Roja Drive Pedestrians	West Leg Redondo Drive Pedestrians	
7:00 AM	3	0	1	0	4
7:15 AM	1	0	4	1	6
7:30 AM	4	3	8	0	15
7:45 AM	2	2	12	0	16
8:00 AM	5	1	3	0	9
8:15 AM	10	2	3	0	15
8:30 AM	2	1	3	1	7
8:45 AM	1	0	1	0	2
TOTAL VOLUMES:	28	9	35	2	74

	North Leg Roja Drive Pedestrians	East Leg Redondo Drive Pedestrians	South Leg Roja Drive Pedestrians	West Leg Redondo Drive Pedestrians	
4:00 PM	2	7	3	0	12
4:15 PM	0	2	4	0	6
4:30 PM	0	0	2	0	2
4:45 PM	0	0	2	0	2
5:00 PM	1	0	3	0	4
5:15 PM	1	1	2	0	4
5:30 PM	1	1	1	0	3
5:45 PM	1	3	1	1	6
TOTAL VOLUMES:	6	14	18	1	39

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Intersection #3

Location: Oceanside
N/S: Roja Drive
E/W: Redondo Drive

Date: 9/27/2022
Day: Tuesday

BICYCLES

	Southbound Roja Drive			Westbound Redondo Drive			Northbound Roja Drive			Eastbound Redondo Drive			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
7:45 AM	1	0	1	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	1	0	1	0	0	0	0	0	0	1	0	0	3

	Southbound Roja Drive			Westbound Redondo Drive			Northbound Roja Drive			Eastbound Redondo Drive			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	1	0	1	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	2	0	0	0	1	0	0	0	0	0	1	0	4
5:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	2	0	0	1	3	0	0	0	1	0	4	0	11

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Intersection #4

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Vandegrift Blvd/River Road
E/W: Redondo Drive/River Road
Weather: Clear

File Name : 04_OCS_Vande_Red AM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 1

Groups Printed- Total Volume

	Vandegrift Boulevard Southbound				River Road Westbound				River Road Northbound				Redondo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	18	126	7	151	98	8	67	173	18	201	37	256	9	13	23	45	625
07:15 AM	21	202	10	233	117	13	52	182	24	231	62	317	3	12	29	44	776
07:30 AM	21	214	8	243	107	28	66	201	17	205	62	284	7	15	43	65	793
07:45 AM	30	208	13	251	109	20	53	182	25	186	94	305	7	11	31	49	787
Total	90	750	38	878	431	69	238	738	84	823	255	1162	26	51	126	203	2981
08:00 AM	32	193	11	236	132	28	44	204	34	194	91	319	7	30	27	64	823
08:15 AM	16	150	4	170	125	22	31	178	25	153	61	239	9	6	22	37	624
08:30 AM	12	106	7	125	118	9	32	159	29	147	41	217	5	9	23	37	538
08:45 AM	8	124	3	135	75	6	23	104	21	97	42	160	5	6	20	31	430
Total	68	573	25	666	450	65	130	645	109	591	235	935	26	51	92	169	2415
Grand Total	158	1323	63	1544	881	134	368	1383	193	1414	490	2097	52	102	218	372	5396
Apprch %	10.2	85.7	4.1		63.7	9.7	26.6		9.2	67.4	23.4		14	27.4	58.6		
Total %	2.9	24.5	1.2	28.6	16.3	2.5	6.8	25.6	3.6	26.2	9.1	38.9	1	1.9	4	6.9	

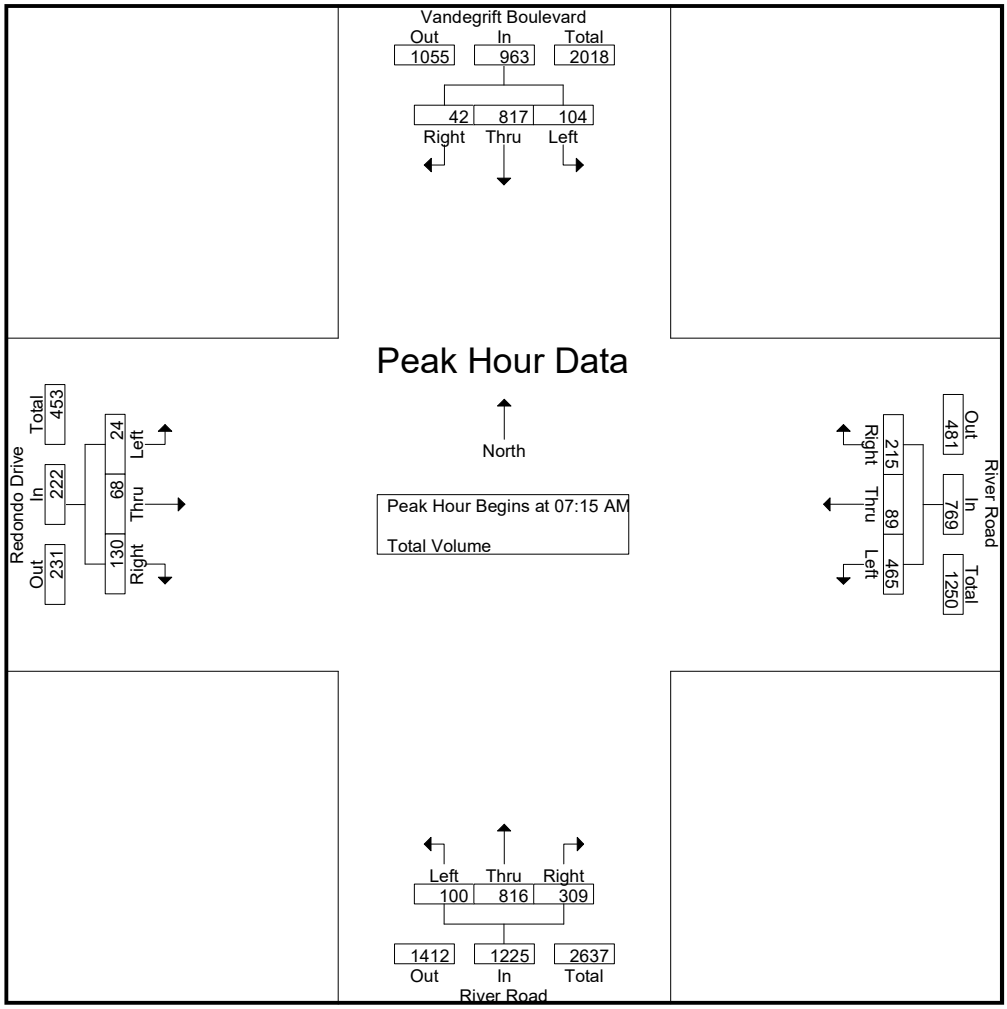
	Vandegrift Boulevard Southbound				River Road Westbound				River Road Northbound				Redondo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	21	202	10	233	117	13	52	182	24	**231**	62	317	3	12	29	44	776
07:30 AM	21	**214**	8	243	107	**28**	**66**	201	17	205	62	284	**7**	15	**43**	**65**	793
07:45 AM	30	208	**13**	**251**	109	20	53	182	25	186	**94**	305	7	11	31	49	787
08:00 AM	**32**	193	11	236	**132**	28	44	**204**	**34**	194	91	**319**	7	**30**	27	64	**823**
Total Volume	104	817	42	963	465	89	215	769	100	816	309	1225	24	68	130	222	3179
% App. Total	10.8	84.8	4.4		60.5	11.6	28		8.2	66.6	25.2		10.8	30.6	58.6		
PHF	.813	.954	.808	.959	.881	.795	.814	.942	.735	.883	.822	.960	.857	.567	.756	.854	.966

Intersection #4

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Vandegrift Blvd/River Road
E/W: Redondo Drive/River Road
Weather: Clear

File Name : 04_OCS_Vande_Red AM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	21	202	10	233	117	13	52	182	24	**231**	62	317	3	12	29	44
+15 mins.	21	**214**	8	243	107	**28**	**66**	201	17	205	62	284	**7**	15	**43**	**65**
+30 mins.	30	208	**13**	**251**	109	20	53	182	25	186	**94**	305	7	11	31	49
+45 mins.	**32**	193	11	236	**132**	28	44	**204**	**34**	194	91	**319**	7	**30**	27	64
Total Volume	104	817	42	963	465	89	215	769	100	816	309	1225	24	68	130	222
% App. Total	10.8	84.8	4.4		60.5	11.6	28		8.2	66.6	25.2		10.8	30.6	58.6	
PHF	.813	.954	.808	.959	.881	.795	.814	.942	.735	.883	.822	.960	.857	.567	.756	.854

Intersection #4

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Vandegrift Blvd/River Road
E/W: Redondo Drive/River Road
Weather: Clear

File Name : 04_OCS_Vande_Red PM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 1

Groups Printed- Total Volume

	Vandegrift Boulevard Southbound				River Road Westbound				River Road Northbound				Redondo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	77	262	8	347	56	25	20	101	51	199	104	354	12	19	28	59	861
04:15 PM	58	234	12	304	91	33	24	148	50	171	103	324	14	22	37	73	849
04:30 PM	50	245	17	312	52	19	21	92	65	201	115	381	12	18	25	55	840
04:45 PM	63	240	12	315	56	26	22	104	59	194	105	358	22	24	31	77	854
Total	248	981	49	1278	255	103	87	445	225	765	427	1417	60	83	121	264	3404
05:00 PM	67	234	11	312	60	15	15	90	69	191	93	353	10	14	31	55	810
05:15 PM	37	197	9	243	56	22	21	99	49	155	84	288	13	21	22	56	686
05:30 PM	50	196	12	258	69	28	16	113	66	188	87	341	17	22	28	67	779
05:45 PM	44	133	16	193	77	14	19	110	65	197	104	366	30	15	37	82	751
Total	198	760	48	1006	262	79	71	412	249	731	368	1348	70	72	118	260	3026
Grand Total	446	1741	97	2284	517	182	158	857	474	1496	795	2765	130	155	239	524	6430
Apprch %	19.5	76.2	4.2		60.3	21.2	18.4		17.1	54.1	28.8		24.8	29.6	45.6		
Total %	6.9	27.1	1.5	35.5	8	2.8	2.5	13.3	7.4	23.3	12.4	43	2	2.4	3.7	8.1	

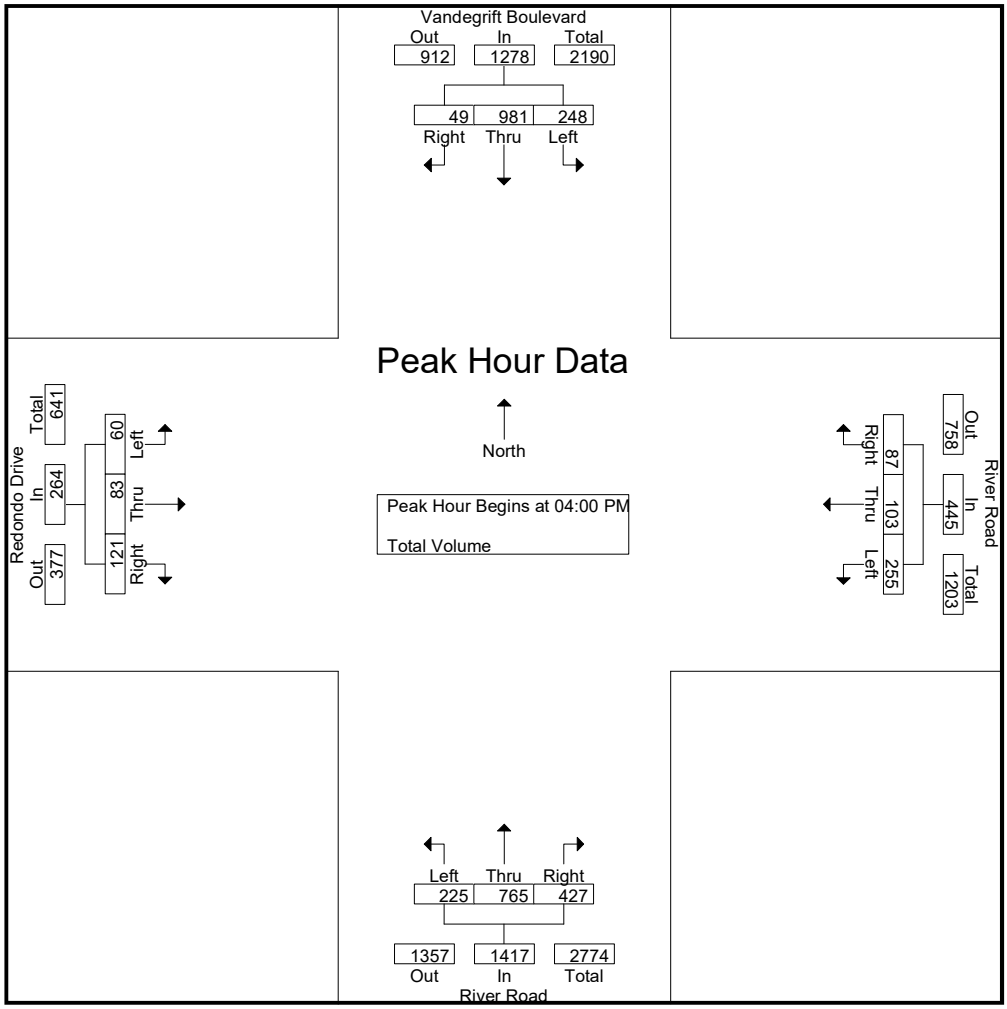
	Vandegrift Boulevard Southbound				River Road Westbound				River Road Northbound				Redondo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**77**	**262**	8	**347**	56	25	20	101	51	199	104	354	12	19	28	59	**861**
04:15 PM	58	234	12	304	**91**	**33**	**24**	**148**	50	171	103	324	14	22	**37**	73	849
04:30 PM	50	245	**17**	312	52	19	21	92	**65**	**201**	**115**	**381**	12	18	25	55	840
04:45 PM	63	240	12	315	56	26	22	104	59	194	105	358	**22**	**24**	31	**77**	854
Total Volume	248	981	49	1278	255	103	87	445	225	765	427	1417	60	83	121	264	3404
% App. Total	19.4	76.8	3.8		57.3	23.1	19.6		15.9	54	30.1		22.7	31.4	45.8		
PHF	.805	.936	.721	.921	.701	.780	.906	.752	.865	.951	.928	.930	.682	.865	.818	.857	.988

Intersection #4

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Oceanside
N/S: Vandegrift Blvd/River Road
E/W: Redondo Drive/River Road
Weather: Clear

File Name : 04_OCS_Vande_Red PM
Site Code : 22922841
Start Date : 9/27/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	**77**	**262**	8	**347**	56	25	20	101	51	199	104	354	12	19	28	59
+15 mins.	58	234	12	304	**91**	**33**	**24**	**148**	50	171	103	324	14	22	**37**	73
+30 mins.	50	245	**17**	312	52	19	21	92	**65**	**201**	**115**	**381**	12	18	25	55
+45 mins.	63	240	12	315	56	26	22	104	59	194	105	358	**22**	**24**	31	**77**
Total Volume	248	981	49	1278	255	103	87	445	225	765	427	1417	60	83	121	264
% App. Total	19.4	76.8	3.8		57.3	23.1	19.6		15.9	54	30.1		22.7	31.4	45.8	
PHF	.805	.936	.721	.921	.701	.780	.906	.752	.865	.951	.928	.930	.682	.865	.818	.857

Intersection #4

Location: Oceanside
N/S: Vandegrift Blvd/River Rd
E/W: Redondo Dr/River Rd

Date: 9/27/2022
Day: Tuesday

PEDESTRIANS

	North Leg Vandegrift Boulevard	East Leg River Road	South Leg River Road	West Leg Redondo Drive	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	5	0	5
7:15 AM	1	2	12	4	19
7:30 AM	1	2	11	2	16
7:45 AM	6	1	5	1	13
8:00 AM	2	0	1	0	3
8:15 AM	0	0	1	0	1
8:30 AM	0	1	4	1	6
8:45 AM	0	0	3	0	3
TOTAL VOLUMES:	10	6	42	8	66

	North Leg Vandegrift Boulevard	East Leg River Road	South Leg River Road	West Leg Redondo Drive	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	5	1	25	1	32
4:15 PM	1	0	8	1	10
4:30 PM	2	5	7	5	19
4:45 PM	0	0	8	0	8
5:00 PM	3	2	1	0	6
5:15 PM	2	0	6	0	8
5:30 PM	1	0	4	0	5
5:45 PM	0	1	9	0	10
TOTAL VOLUMES:	14	9	68	7	98

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Intersection #4

Location: Oceanside
N/S: Vandegrift Blvd/River Rd
E/W: Redondo Dr/River Rd

Date: 9/27/2022
Day: Tuesday

BICYCLES

	Southbound Vandegrift Boulevard			Westbound River Road			Northbound River Road			Eastbound Redondo Drive			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	1	0	0	0	0	0	1	0	0	0	2	4
7:15 AM	0	2	0	0	0	1	0	1	0	0	0	0	4
7:30 AM	0	1	0	0	0	0	0	0	0	0	1	0	2
7:45 AM	0	2	0	0	0	0	0	1	0	0	2	0	5
8:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	2
8:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:45 AM	0	3	0	0	0	0	0	1	0	0	0	0	4
TOTAL VOLUMES:	0	10	0	1	0	1	0	5	0	0	4	2	23

	Southbound Vandegrift Boulevard			Westbound River Road			Northbound River Road			Eastbound Redondo Drive			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	1	0	0	3	0	0	0	0	4
5:15 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
5:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	2	0	0	3	0	0	7	0	0	1	0	13

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Roadway Segment A

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Oceanside
Monica Circle
B/ Claire Drive - Macario Drive
24 Hour Directional Volume Count

OCS001
Site Code: 229-22841

Start Time	10/4/22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	6			2	10				
12:15		2	13			0	11				
12:30		2	4			0	9				
12:45		0	4	6	27	2	8	4	38	10	65
01:00		0	9			1	6				
01:15		1	11			1	16				
01:30		0	9			1	7				
01:45		1	14	2	43	1	7	4	36	6	79
02:00		1	12			1	7				
02:15		0	20			0	15				
02:30		1	5			1	15				
02:45		0	13	2	50	1	17	3	54	5	104
03:00		0	16			0	21				
03:15		0	16			2	9				
03:30		0	22			2	19				
03:45		0	14	0	68	2	13	6	62	6	130
04:00		0	17			4	12				
04:15		1	17			5	15				
04:30		1	12			3	16				
04:45		0	**19**	2	65	5	18	17	61	19	126
05:00		0	**22**			7	12				
05:15		1	**18**			6	**19**				
05:30		0	**18**			4	**22**				
05:45		3	16	4	74	8	**18**	25	71	29	145
06:00		0	15			8	**16**				
06:15		1	10			6	14				
06:30		5	13			9	9				
06:45		6	18	12	56	13	5	36	44	48	100
07:00		2	8			**14**	10				
07:15		3	13			**14**	7				
07:30		2	15			**28**	14				
07:45		**12**	16	19	52	**22**	14	78	45	97	97
08:00		**17**	8			10	7				
08:15		**11**	7			10	5				
08:30		**13**	9			20	8				
08:45		8	9	49	33	20	2	60	22	109	55
09:00		6	14			14	7				
09:15		5	2			4	5				
09:30		8	5			9	6				
09:45		7	2	26	23	11	3	38	21	64	44
10:00		7	5			7	3				
10:15		6	7			8	4				
10:30		6	6			3	1				
10:45		8	1	27	19	5	2	23	10	50	29
11:00		4	1			8	2				
11:15		7	2			9	0				
11:30		11	1			8	0				
11:45		5	3	27	7	7	2	32	4	59	11
Total		176	517	176	517	326	468	326	468	502	985
Combined Total		693		693		794		794		1487	
AM Peak	-	07:45	-	-	-	07:00	-	-	-	-	-
Vol.	-	53	-	-	-	78	-	-	-	-	-
P.H.F.		0.779				0.696					
PM Peak	-	-	04:45	-	-	-	05:15	-	-	-	-
Vol.	-	-	77	-	-	-	75	-	-	-	-
P.H.F.			0.875				0.852				
Percentage		25.4%	74.6%			41.1%	58.9%				
ADT/AADT		ADT 1,487		AADT 1,487							

Roadway Segment C

City of Oceanside
Roja Drive
B/ Macario Drive - North Redondo Drive
24 Hour Directional Volume Count

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

OCS002
Site Code: 229-22841

Start Time	10/4/22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	12			4	11				
12:15		3	14			0	13				
12:30		3	8			0	13				
12:45		1	9	10	43	2	17	6	54	16	97
01:00		0	12			1	11				
01:15		3	12			1	18				
01:30		0	12			1	9				
01:45		2	23	5	59	1	15	4	53	9	112
02:00		1	16			1	15				
02:15		0	27			0	19				
02:30		0	12			1	21				
02:45		0	22	1	77	1	29	3	84	4	161
03:00		2	27			1	29				
03:15		0	25			2	16				
03:30		0	27			4	22				
03:45		1	19	3	98	1	19	8	86	11	184
04:00		0	24			4	17				
04:15		2	19			4	20				
04:30		1	20			4	22				
04:45		0	**30**	3	93	5	23	17	82	20	175
05:00		0	**28**			5	23				
05:15		3	**28**			12	**26**				
05:30		0	**27**			8	**31**				
05:45		4	21	7	104	15	**28**	40	108	47	212
06:00		2	22			14	**24**				
06:15		6	16			16	21				
06:30		3	22			25	15				
06:45		10	26	21	86	21	12	76	72	97	158
07:00		5	17			24	14				
07:15		5	22			**22**	12				
07:30		10	22			**43**	17				
07:45		**22**	21	42	82	**36**	14	125	57	167	139
08:00		**30**	13			**26**	8				
08:15		**19**	12			15	7				
08:30		**16**	16			28	9				
08:45		12	9	77	50	29	3	98	27	175	77
09:00		17	16			18	7				
09:15		9	5			10	10				
09:30		7	9			15	8				
09:45		10	3	43	33	16	3	59	28	102	61
10:00		8	7			13	4				
10:15		9	9			11	6				
10:30		8	9			4	2				
10:45		11	2	36	27	12	1	40	13	76	40
11:00		11	2			13	3				
11:15		13	5			16	3				
11:30		20	1			14	0				
11:45		8	4	52	12	12	2	55	8	107	20
Total		300	764	300	764	531	672	531	672	831	1436
Combined Total		1064		1064		1203		1203		2267	
AM Peak	-	07:45	-	-	-	07:15	-	-	-	-	-
Vol.	-	87	-	-	-	127	-	-	-	-	-
P.H.F.		0.725				0.738					
PM Peak	-	-	04:45	-	-	-	05:15	-	-	-	-
Vol.	-	-	113	-	-	-	109	-	-	-	-
P.H.F.			0.942				0.879				
Percentage		28.2%	71.8%			44.1%	55.9%				
ADT/AADT		ADT 2,267		AADT 2,267							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Oceanside
North Redondo Drive
B/ Roja Drive - North River Road
24 Hour Directional Volume Count

OCS003
Site Code: 229-22841

Start Time	9/27/22 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	27			2	34				
12:15		2	30			7	31				
12:30		2	26			6	31				
12:45		3	23	10	106	1	23	16	119	26	225
01:00		3	21			1	27				
01:15		2	23			3	24				
01:30		1	34			0	24				
01:45		0	35	6	113	1	25	5	100	11	213
02:00		1	23			1	30				
02:15		1	24			2	38				
02:30		6	32			2	35				
02:45		0	**40**	8	119	1	46	6	149	14	268
03:00		1	**52**			1	**73**				
03:15		6	**48**			0	**61**				
03:30		6	**48**			1	**64**				
03:45		4	39	17	187	6	**67**	8	265	25	452
04:00		5	25			3	56				
04:15		15	36			5	63				
04:30		10	42			1	46				
04:45		19	42	49	145	1	55	10	220	59	365
05:00		16	38			3	58				
05:15		22	35			2	54				
05:30		32	51			11	57				
05:45		41	48	111	172	8	50	24	219	135	391
06:00		39	49			10	54				
06:15		35	37			8	48				
06:30		39	36			12	37				
06:45		31	36	144	158	14	31	44	170	188	328
07:00		**45**	36			18	41				
07:15		**49**	23			23	33				
07:30		**65**	23			19	38				
07:45		**61**	19	220	101	**31**	29	91	141	311	242
08:00		42	15			**42**	30				
08:15		33	21			**24**	31				
08:30		43	14			**29**	18				
08:45		25	7	143	57	14	24	109	103	252	160
09:00		21	11			11	19				
09:15		24	9			19	15				
09:30		24	18			25	17				
09:45		26	8	95	46	28	22	83	73	178	119
10:00		16	10			19	16				
10:15		24	2			17	10				
10:30		19	5			15	10				
10:45		26	10	85	27	13	16	64	52	149	79
11:00		29	10			22	10				
11:15		35	7			30	14				
11:30		24	6			25	5				
11:45		39	7	127	30	30	8	107	37	234	67
Total		1015	1261	1015	1261	567	1648	567	1648	1582	2909
Combined Total		2276		2276		2215		2215		4491	
AM Peak	-	07:00	-	-	-	07:45	-	-	-	-	-
Vol.	-	220	-	-	-	126	-	-	-	-	-
P.H.F.		0.846				0.750					
PM Peak	-	-	02:45	-	-	-	03:00	-	-	-	-
Vol.	-	-	188	-	-	-	265	-	-	-	-
P.H.F.			0.904				0.908				
Percentage		44.6%	55.4%			25.6%	74.4%				
ADT/AADT		ADT 4,491		AADT 4,491							

Appendix E - LOS Calculation Worksheets – Existing Conditions

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	12	54	1	19	4	35	13	3	5	17	16
Future Vol, veh/h	9	12	54	1	19	4	35	13	3	5	17	16
Conflicting Peds, #/hr	0	0	4	4	0	0	3	0	1	1	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	14	64	1	22	5	41	15	4	6	20	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	158	147	37	185	154	18	42	0	0	20	0	0
Stage 1	45	45	-	100	100	-	-	-	-	-	-	-
Stage 2	113	102	-	85	54	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	808	744	1035	776	738	1061	1567	-	-	1596	-	-
Stage 1	969	857	-	906	812	-	-	-	-	-	-	-
Stage 2	892	811	-	923	850	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	764	718	1028	697	712	1060	1563	-	-	1594	-	-
Mov Cap-2 Maneuver	764	718	-	697	712	-	-	-	-	-	-	-
Stage 1	940	851	-	881	789	-	-	-	-	-	-	-
Stage 2	840	788	-	845	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	10	5.1	1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1563	-	-	926	752	1594	-	-
HCM Lane V/C Ratio	0.026	-	-	0.095	0.038	0.004	-	-
HCM Control Delay (s)	7.4	0	-	9.3	10	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.1	0	-	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	16	33	2	7	1	45	27	5	1	18	11
Future Vol, veh/h	20	16	33	2	7	1	45	27	5	1	18	11
Conflicting Peds, #/hr	0	0	1	1	0	0	8	0	3	3	0	8
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	18	36	2	8	1	49	30	5	1	20	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	171	172	35	190	176	36	40	0	0	38	0	0
Stage 1	36	36	-	134	134	-	-	-	-	-	-	-
Stage 2	135	136	-	56	42	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	792	721	1038	770	717	1037	1570	-	-	1572	-	-
Stage 1	980	865	-	869	785	-	-	-	-	-	-	-
Stage 2	868	784	-	956	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	759	689	1029	708	685	1034	1558	-	-	1568	-	-
Mov Cap-2 Maneuver	759	689	-	708	685	-	-	-	-	-	-	-
Stage 1	942	857	-	839	758	-	-	-	-	-	-	-
Stage 2	831	757	-	902	852	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	10.1	4.3	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1558	-	-	845	714	1568	-	-
HCM Lane V/C Ratio	0.032	-	-	0.09	0.015	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.7	10.1	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0	0	-	-

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	83	64	2	39	24
Future Vol, veh/h	2	83	64	2	39	24
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	102	79	2	48	30
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7	7.9	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	62%	0%	97%
Vol Thru, %	0%	2%	3%
Vol Right, %	38%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	63	85	66
LT Vol	39	0	64
Through Vol	0	2	2
RT Vol	24	83	0
Lane Flow Rate	78	105	81
Geometry Grp	1	1	1
Degree of Util (X)	0.09	0.103	0.098
Departure Headway (Hd)	4.147	3.545	4.345
Convergence, Y/N	Yes	Yes	Yes
Cap	856	999	821
Service Time	2.215	1.61	2.396
HCM Lane V/C Ratio	0.091	0.105	0.099
HCM Control Delay	7.6	7	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.3	0.3

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	50	28	4	76	33
Future Vol, veh/h	2	50	28	4	76	33
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	58	33	5	88	38
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.9	7.7	7.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	70%	0%	88%
Vol Thru, %	0%	4%	12%
Vol Right, %	30%	96%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	109	52	32
LT Vol	76	0	28
Through Vol	0	2	4
RT Vol	33	50	0
Lane Flow Rate	127	60	37
Geometry Grp	1	1	1
Degree of Util (X)	0.143	0.061	0.045
Departure Headway (Hd)	4.06	3.608	4.38
Convergence, Y/N	Yes	Yes	Yes
Cap	881	980	810
Service Time	2.097	1.678	2.446
HCM Lane V/C Ratio	0.144	0.061	0.046
HCM Control Delay	7.8	6.9	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.2	0.1

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	40	1	3	45	41	3	5	9	108	9	37
Future Vol, veh/h	20	40	1	3	45	41	3	5	9	108	9	37
Conflicting Peds, #/hr	28	0	35	35	0	28	2	0	9	9	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	53	1	4	59	54	4	7	12	142	12	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	141	0	0	89	0	0	268	290	98	246	263	116
Stage 1	-	-	-	-	-	-	141	141	-	122	122	-
Stage 2	-	-	-	-	-	-	127	149	-	124	141	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1442	-	-	1506	-	-	685	620	958	708	642	936
Stage 1	-	-	-	-	-	-	862	780	-	882	795	-
Stage 2	-	-	-	-	-	-	877	774	-	880	780	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1404	-	-	1456	-	-	606	570	918	657	591	909
Mov Cap-2 Maneuver	-	-	-	-	-	-	606	570	-	657	591	-
Stage 1	-	-	-	-	-	-	817	740	-	842	771	-
Stage 2	-	-	-	-	-	-	813	751	-	837	740	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.5	0.3	10.1	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	723	1404	-	-	1456	-	-	699
HCM Lane V/C Ratio	0.031	0.019	-	-	0.003	-	-	0.29
HCM Control Delay (s)	10.1	7.6	0	-	7.5	0	-	12.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	1.2

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	30	2	9	37	94	2	8	5	70	3	15
Future Vol, veh/h	15	30	2	9	37	94	2	8	5	70	3	15
Conflicting Peds, #/hr	6	0	16	16	0	6	1	0	14	14	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	34	2	10	43	108	2	9	6	80	3	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	157	0	0	54	0	0	215	264	67	214	211	104
Stage 1	-	-	-	-	-	-	87	87	-	123	123	-
Stage 2	-	-	-	-	-	-	128	177	-	91	88	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1423	-	-	1551	-	-	742	641	997	743	686	951
Stage 1	-	-	-	-	-	-	921	823	-	681	794	-
Stage 2	-	-	-	-	-	-	876	753	-	916	822	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1415	-	-	1524	-	-	702	615	967	706	658	945
Mov Cap-2 Maneuver	-	-	-	-	-	-	702	615	-	706	658	-
Stage 1	-	-	-	-	-	-	894	799	-	685	784	-
Stage 2	-	-	-	-	-	-	849	743	-	877	798	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.5	10.2	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	713	1415	-	-	1524	-	-	736
HCM Lane V/C Ratio	0.024	0.012	-	-	0.007	-	-	0.137
HCM Control Delay (s)	10.2	7.6	0	-	7.4	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	68	130	465	89	215	100	816	309	104	817	42
Future Volume (veh/h)	24	68	130	465	89	215	100	816	309	104	817	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.99	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	70	107	479	92	199	103	841	255	107	842	35
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	288	220	536	149	323	128	2221	668	132	1554	667
Arrive On Green	0.02	0.15	0.15	0.16	0.29	0.29	0.07	0.43	0.43	0.07	0.44	0.44
Sat Flow, veh/h	1781	1870	1431	3456	523	1130	1781	5106	1536	1781	3554	1526
Grp Volume(v), veh/h	25	70	107	479	0	291	103	841	255	107	842	35
Grp Sat Flow(s),veh/h/ln	1781	1870	1431	1728	0	1653	1781	1702	1536	1781	1777	1526
Q Serve(g_s), s	1.7	3.9	8.2	16.3	0.0	18.3	6.8	13.4	13.5	7.1	21.0	1.6
Cycle Q Clear(g_c), s	1.7	3.9	8.2	16.3	0.0	18.3	6.8	13.4	13.5	7.1	21.0	1.6
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	42	288	220	536	0	472	128	2221	668	132	1554	667
V/C Ratio(X)	0.60	0.24	0.49	0.89	0.00	0.62	0.81	0.38	0.38	0.81	0.54	0.05
Avail Cap(c_a), veh/h	211	373	285	582	0	472	211	2221	668	211	1554	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	44.6	46.4	49.7	0.0	37.2	54.9	22.9	23.0	54.7	24.9	19.4
Incr Delay (d2), s/veh	9.6	0.4	1.7	15.1	0.0	2.4	8.5	0.5	1.7	9.0	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.9	2.9	8.0	0.0	7.5	3.3	5.2	5.0	3.4	8.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	45.0	48.1	64.8	0.0	39.6	63.4	23.4	24.6	63.8	26.3	19.6
LnGrp LOS	E	D	D	E	A	D	E	C	C	E	C	B
Approach Vol, veh/h		202			770			1199			984	
Approach Delay, s/veh		49.4			55.3			27.1			30.1	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	58.0	23.7	24.3	13.7	58.3	7.9	40.1
Change Period (Y+Rc), s	5.1	5.8	5.1	5.8	5.1	5.8	5.1	5.8
Max Green Setting (Gmax), s	14.2	39.9	20.2	23.9	14.2	39.9	14.2	29.9
Max Q Clear Time (g_c+I1), s	9.1	15.5	18.3	10.2	8.8	23.0	3.7	20.3
Green Ext Time (p_c), s	0.1	10.9	0.3	0.6	0.1	7.6	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	83	121	255	103	87	225	765	427	248	981	49
Future Volume (veh/h)	60	83	121	255	103	87	225	765	427	248	981	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	84	98	258	104	79	227	773	344	251	991	39
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	310	227	317	207	157	253	2208	661	275	1580	684
Arrive On Green	0.04	0.17	0.17	0.09	0.21	0.21	0.14	0.43	0.43	0.15	0.44	0.44
Sat Flow, veh/h	1781	1870	1373	3456	970	737	1781	5106	1528	1781	3554	1539
Grp Volume(v), veh/h	61	84	98	258	0	183	227	773	344	251	991	39
Grp Sat Flow(s),veh/h/ln	1781	1870	1373	1728	0	1707	1781	1702	1528	1781	1777	1539
Q Serve(g_s), s	4.7	5.5	9.0	10.3	0.0	13.2	17.5	14.2	23.1	19.4	30.1	2.0
Cycle Q Clear(g_c), s	4.7	5.5	9.0	10.3	0.0	13.2	17.5	14.2	23.1	19.4	30.1	2.0
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	310	227	317	0	363	253	2208	661	275	1580	684
V/C Ratio(X)	0.77	0.27	0.43	0.81	0.00	0.50	0.90	0.35	0.52	0.91	0.63	0.06
Avail Cap(c_a), veh/h	461	350	257	763	0	363	461	2208	661	333	1580	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.2	51.0	52.5	62.4	0.0	48.6	59.0	26.6	29.1	58.2	29.9	22.1
Incr Delay (d2), s/veh	11.2	0.5	1.3	3.8	0.0	1.1	8.3	0.4	2.9	24.5	1.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.7	3.1	4.6	0.0	5.6	8.3	5.7	8.7	10.4	12.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.4	51.5	53.8	66.2	0.0	49.7	67.3	27.0	32.0	82.7	31.8	22.3
LnGrp LOS	E	D	D	E	A	D	E	C	C	F	C	C
Approach Vol, veh/h		243			441			1344			1281	
Approach Delay, s/veh		58.9			59.4			35.1			41.5	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.7	66.4	17.9	29.0	25.0	68.1	11.3	35.6
Change Period (Y+Rc), s	5.1	5.8	5.1	5.8	5.1	5.8	5.1	5.8
Max Green Setting (Gmax), s	26.2	34.9	30.9	26.2	36.2	24.9	36.2	20.9
Max Q Clear Time (g_c+I1), s	21.4	25.1	12.3	11.0	19.5	32.1	6.7	15.2
Green Ext Time (p_c), s	0.2	6.0	0.6	0.7	0.4	0.0	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	42.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Appendix F - LOS Calculation Worksheets – Existing with Project Conditions

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	12	56	1	19	4	43	13	3	5	17	16
Future Vol, veh/h	9	12	56	1	19	4	43	13	3	5	17	16
Conflicting Peds, #/hr	0	0	4	4	0	0	3	0	1	1	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	14	66	1	22	5	51	15	4	6	20	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	178	167	37	206	174	18	42	0	0	20	0	0
Stage 1	45	45	-	120	120	-	-	-	-	-	-	-
Stage 2	133	122	-	86	54	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	784	726	1035	752	719	1061	1567	-	-	1596	-	-
Stage 1	969	857	-	884	796	-	-	-	-	-	-	-
Stage 2	870	795	-	922	850	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	738	696	1028	670	690	1060	1563	-	-	1594	-	-
Mov Cap-2 Maneuver	738	696	-	670	690	-	-	-	-	-	-	-
Stage 1	934	851	-	854	769	-	-	-	-	-	-	-
Stage 2	813	768	-	842	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10.1	5.4	1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1563	-	-	918	732	1594	-	-
HCM Lane V/C Ratio	0.032	-	-	0.099	0.039	0.004	-	-
HCM Control Delay (s)	7.4	0	-	9.4	10.1	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.1	0	-	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	16	42	2	7	1	49	27	5	1	18	11
Future Vol, veh/h	20	16	42	2	7	1	49	27	5	1	18	11
Conflicting Peds, #/hr	0	0	1	1	0	0	8	0	3	3	0	8
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	18	46	2	8	1	54	30	5	1	20	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	181	182	35	205	186	36	40	0	0	38	0	0
Stage 1	36	36	-	144	144	-	-	-	-	-	-	-
Stage 2	145	146	-	61	42	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	781	712	1038	753	708	1037	1570	-	-	1572	-	-
Stage 1	980	865	-	859	778	-	-	-	-	-	-	-
Stage 2	858	776	-	950	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	747	679	1029	683	675	1034	1558	-	-	1568	-	-
Mov Cap-2 Maneuver	747	679	-	683	675	-	-	-	-	-	-	-
Stage 1	939	857	-	826	748	-	-	-	-	-	-	-
Stage 2	819	747	-	887	852	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	10.2	4.5	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1558	-	-	856	701	1568	-	-
HCM Lane V/C Ratio	0.035	-	-	0.1	0.016	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.7	10.2	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0	0	-	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	150	64	4	56	24
Future Vol, veh/h	10	150	64	4	56	24
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	185	79	5	69	30
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.6	8.1	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	70%	0%	94%
Vol Thru, %	0%	6%	6%
Vol Right, %	30%	94%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	80	160	68
LT Vol	56	0	64
Through Vol	0	10	4
RT Vol	24	150	0
Lane Flow Rate	99	198	84
Geometry Grp	1	1	1
Degree of Util (X)	0.12	0.198	0.104
Departure Headway (Hd)	4.375	3.609	4.45
Convergence, Y/N	Yes	Yes	Yes
Cap	807	976	795
Service Time	2.47	1.698	2.535
HCM Lane V/C Ratio	0.123	0.203	0.106
HCM Control Delay	8.1	7.6	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.7	0.3

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	82	28	13	150	33
Future Vol, veh/h	6	82	28	13	150	33
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	95	33	15	174	38
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.4	8	8.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	82%	0%	68%
Vol Thru, %	0%	7%	32%
Vol Right, %	18%	93%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	183	88	41
LT Vol	150	0	28
Through Vol	0	6	13
RT Vol	33	82	0
Lane Flow Rate	213	102	48
Geometry Grp	1	1	1
Degree of Util (X)	0.251	0.112	0.062
Departure Headway (Hd)	4.247	3.923	4.668
Convergence, Y/N	Yes	Yes	Yes
Cap	836	919	771
Service Time	2.325	1.925	2.672
HCM Lane V/C Ratio	0.255	0.111	0.062
HCM Control Delay	8.8	7.4	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1	0.4	0.2

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	40	1	3	45	56	3	7	9	167	17	37
Future Vol, veh/h	20	40	1	3	45	56	3	7	9	167	17	37
Conflicting Peds, #/hr	28	0	35	35	0	28	2	0	9	9	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	53	1	4	59	74	4	9	12	220	22	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	161	0	0	89	0	0	283	310	98	257	273	126
Stage 1	-	-	-	-	-	-	141	141	-	132	132	-
Stage 2	-	-	-	-	-	-	142	169	-	125	141	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1418	-	-	1506	-	-	669	605	958	696	634	924
Stage 1	-	-	-	-	-	-	862	780	-	871	787	-
Stage 2	-	-	-	-	-	-	861	759	-	879	780	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1380	-	-	1456	-	-	583	557	918	644	583	898
Mov Cap-2 Maneuver	-	-	-	-	-	-	583	557	-	644	583	-
Stage 1	-	-	-	-	-	-	817	740	-	832	763	-
Stage 2	-	-	-	-	-	-	787	736	-	833	740	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.5	0.2	10.4	14.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	690	1380	-	-	1456	-	-	670
HCM Lane V/C Ratio	0.036	0.019	-	-	0.003	-	-	0.434
HCM Control Delay (s)	10.4	7.7	0	-	7.5	0	-	14.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	2.2

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	30	2	9	37	158	2	17	5	98	7	15
Future Vol, veh/h	15	30	2	9	37	158	2	17	5	98	7	15
Conflicting Peds, #/hr	6	0	16	16	0	6	1	0	14	14	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	34	2	10	43	182	2	20	6	113	8	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	231	0	0	54	0	0	255	338	67	256	248	141
Stage 1	-	-	-	-	-	-	87	87	-	160	160	-
Stage 2	-	-	-	-	-	-	168	251	-	96	88	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1337	-	-	1551	-	-	698	583	997	697	655	907
Stage 1	-	-	-	-	-	-	921	823	-	842	766	-
Stage 2	-	-	-	-	-	-	834	699	-	911	822	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1329	-	-	1524	-	-	655	558	967	651	627	901
Mov Cap-2 Maneuver	-	-	-	-	-	-	655	558	-	651	627	-
Stage 1	-	-	-	-	-	-	893	798	-	826	755	-
Stage 2	-	-	-	-	-	-	802	689	-	860	797	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.5	0.3	11.1	11.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	620	1329	-	-	1524	-	-	673
HCM Lane V/C Ratio	0.044	0.013	-	-	0.007	-	-	0.205
HCM Control Delay (s)	11.1	7.7	0	-	7.4	0	-	11.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	85	155	465	93	215	106	816	309	104	817	46
Future Volume (veh/h)	41	85	155	465	93	215	106	816	309	104	817	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.99	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	88	127	479	96	199	109	841	255	107	842	37
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	299	230	536	153	317	134	2191	659	132	1521	653
Arrive On Green	0.03	0.16	0.16	0.16	0.28	0.28	0.08	0.43	0.43	0.07	0.43	0.43
Sat Flow, veh/h	1781	1870	1436	3456	539	1117	1781	5106	1536	1781	3554	1525
Grp Volume(v), veh/h	42	88	127	479	0	295	109	841	255	107	842	37
Grp Sat Flow(s),veh/h/ln	1781	1870	1436	1728	0	1655	1781	1702	1536	1781	1777	1525
Q Serve(g_s), s	2.8	5.0	9.8	16.3	0.0	18.6	7.2	13.5	13.6	7.1	21.3	1.7
Cycle Q Clear(g_c), s	2.8	5.0	9.8	16.3	0.0	18.6	7.2	13.5	13.6	7.1	21.3	1.7
Prop In Lane	1.00		1.00	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	299	230	536	0	469	134	2191	659	132	1521	653
V/C Ratio(X)	0.75	0.29	0.55	0.89	0.00	0.63	0.81	0.38	0.39	0.81	0.55	0.06
Avail Cap(c_a), veh/h	211	373	286	582	0	469	211	2191	659	211	1521	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.7	44.4	46.5	49.7	0.0	37.5	54.6	23.4	23.5	54.7	25.7	20.1
Incr Delay (d2), s/veh	13.9	0.5	2.1	15.1	0.0	2.7	9.8	0.5	1.7	9.0	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.4	3.5	8.0	0.0	7.6	3.5	5.3	5.0	3.4	8.8	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.5	45.0	46.5	64.8	0.0	40.1	64.4	23.9	25.2	63.8	27.2	20.3
LnGrp LOS	E	D	D	E	A	D	E	C	C	E	C	C
Approach Vol, veh/h		257			774			1205			986	
Approach Delay, s/veh		51.1			55.4			27.8			30.9	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	57.3	23.7	25.0	14.2	57.1	8.9	39.8
Change Period (Y+Rc), s	5.1	5.8	5.1	5.8	5.1	5.8	5.1	5.8
Max Green Setting (Gmax), s	14.2	39.9	20.2	23.9	14.2	39.9	14.2	29.9
Max Q Clear Time (g_c+I1), s	9.1	15.6	18.3	11.8	9.2	23.3	4.8	20.6
Green Ext Time (p_c), s	0.1	10.9	0.3	0.7	0.1	7.5	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	91	133	255	121	87	253	765	427	248	981	67
Future Volume (veh/h)	68	91	133	255	121	87	253	765	427	248	981	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	69	92	110	258	122	79	256	773	344	251	991	58
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	313	230	317	218	141	282	2200	658	275	1517	656
Arrive On Green	0.05	0.17	0.17	0.09	0.21	0.21	0.16	0.43	0.43	0.15	0.43	0.43
Sat Flow, veh/h	1781	1870	1375	3456	1044	676	1781	5106	1528	1781	3554	1538
Grp Volume(v), veh/h	69	92	110	258	0	201	256	773	344	251	991	58
Grp Sat Flow(s),veh/h/ln	1781	1870	1375	1728	0	1720	1781	1702	1528	1781	1777	1538
Q Serve(g_s), s	5.4	6.0	10.1	10.3	0.0	14.7	19.8	14.2	23.2	19.4	31.0	3.1
Cycle Q Clear(g_c), s	5.4	6.0	10.1	10.3	0.0	14.7	19.8	14.2	23.2	19.4	31.0	3.1
Prop In Lane	1.00		1.00	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	313	230	317	0	360	282	2200	658	275	1517	656
V/C Ratio(X)	0.78	0.29	0.48	0.81	0.00	0.56	0.91	0.35	0.52	0.91	0.65	0.09
Avail Cap(c_a), veh/h	461	350	257	763	0	360	461	2200	658	333	1517	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.8	51.1	52.8	62.4	0.0	49.6	57.9	26.7	29.3	58.2	31.9	23.9
Incr Delay (d2), s/veh	10.3	0.5	1.5	3.8	0.0	1.9	12.2	0.4	3.0	24.5	2.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.9	3.5	4.6	0.0	6.4	9.7	5.7	8.8	10.4	13.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.1	51.6	54.3	66.2	0.0	51.5	70.0	27.2	32.2	82.7	34.1	24.2
LnGrp LOS	E	D	D	E	A	D	E	C	C	F	C	C
Approach Vol, veh/h		271			459			1373			1300	
Approach Delay, s/veh		58.9			59.8			36.4			43.0	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.7	66.1	17.9	29.2	27.3	65.5	12.1	35.1
Change Period (Y+Rc), s	5.1	5.8	5.1	5.8	5.1	5.8	5.1	5.8
Max Green Setting (Gmax), s	26.2	34.9	30.9	26.2	36.2	24.9	36.2	20.9
Max Q Clear Time (g_c+I1), s	21.4	25.2	12.3	12.1	21.8	33.0	7.4	16.7
Green Ext Time (p_c), s	0.2	6.0	0.6	0.7	0.4	0.0	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	43.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	51	8	76	72	2
Future Vol, veh/h	19	51	8	76	72	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	55	9	83	78	2

Major/Minor	Minor2		Major2	
Conflicting Flow All	158	2	0	0
Stage 1	158	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.52	6.22	4.12	-
Critical Hdwy Stg 1	5.52	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	4.018	3.318	2.218	-
Pot Cap-1 Maneuver	734	1082	-	-
Stage 1	767	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	0	1082	-	-
Mov Cap-2 Maneuver	0	-	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-

Approach	NB	SB
HCM Control Delay, s	8.6	
HCM LOS	A	

Minor Lane/Major Mvmt	NBLn1	SBL	SBT
Capacity (veh/h)	1082	-	-
HCM Lane V/C Ratio	0.084	-	-
HCM Control Delay (s)	8.6	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Intersection	
Int Delay, s/veh	3.3

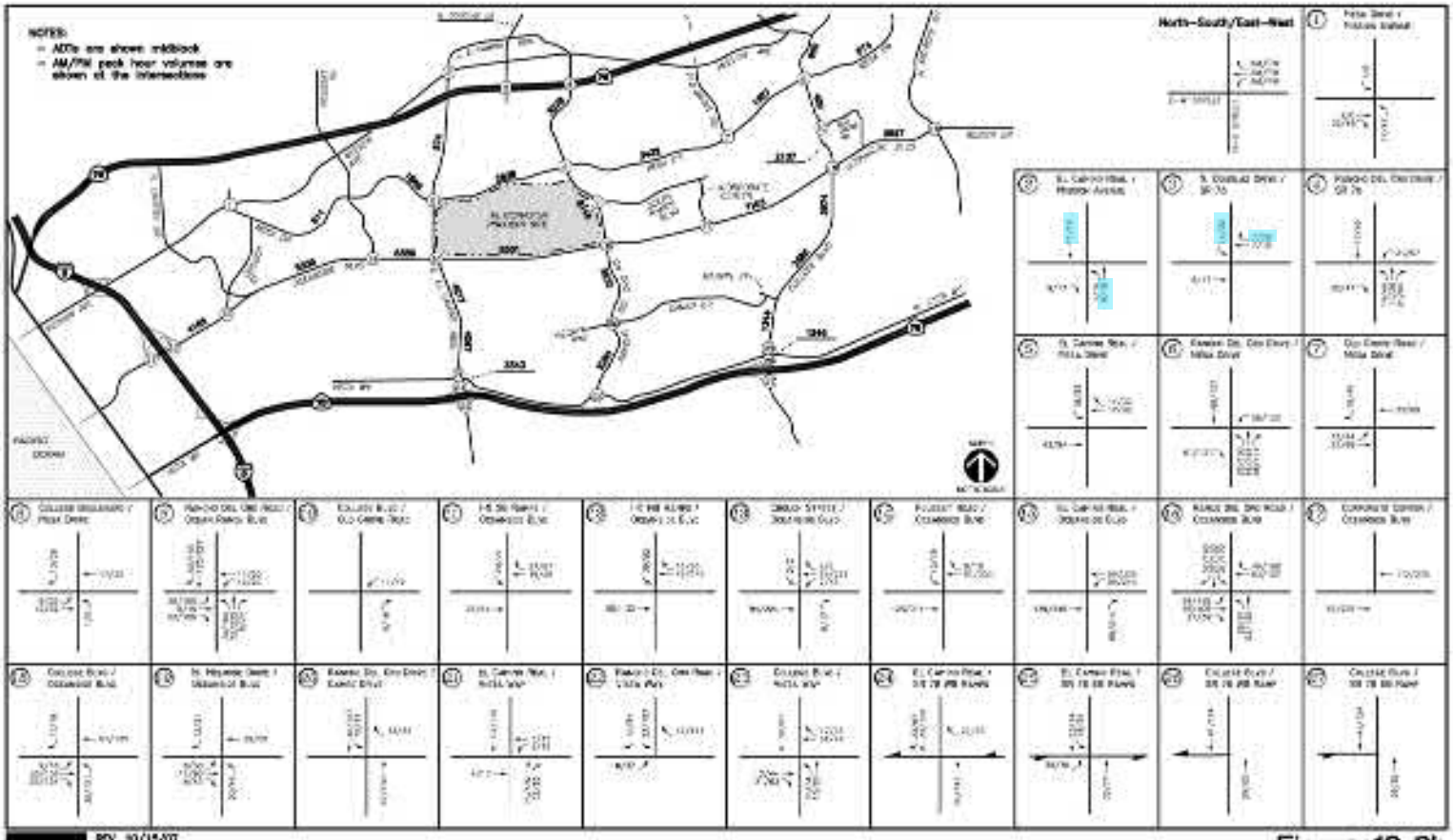
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	83	77	4	36	53	9
Future Vol, veh/h	83	77	4	36	53	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	90	84	4	39	58	10

Major/Minor	Minor2		Major2	
Conflicting Flow All	126	10	0	0
Stage 1	126	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.52	6.22	4.12	-
Critical Hdwy Stg 1	5.52	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	4.018	3.318	2.218	-
Pot Cap-1 Maneuver	764	1071	-	-
Stage 1	792	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	0	1071	-	-
Mov Cap-2 Maneuver	0	-	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-

Approach	NB	SB
HCM Control Delay, s	8.5	
HCM LOS	A	

Minor Lane/Major Mvmt	NBLn1	SBL	SBT
Capacity (veh/h)	1071	-	-
HCM Lane V/C Ratio	0.041	-	-
HCM Control Delay (s)	8.5	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Appendix G - Cumulative Project Information



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REV: 10/15/07
LLG1686 FIG10-2b

Figure 10-2b

Year 2030 Project Traffic Volumes
AM/PM Peak Hours & ADT

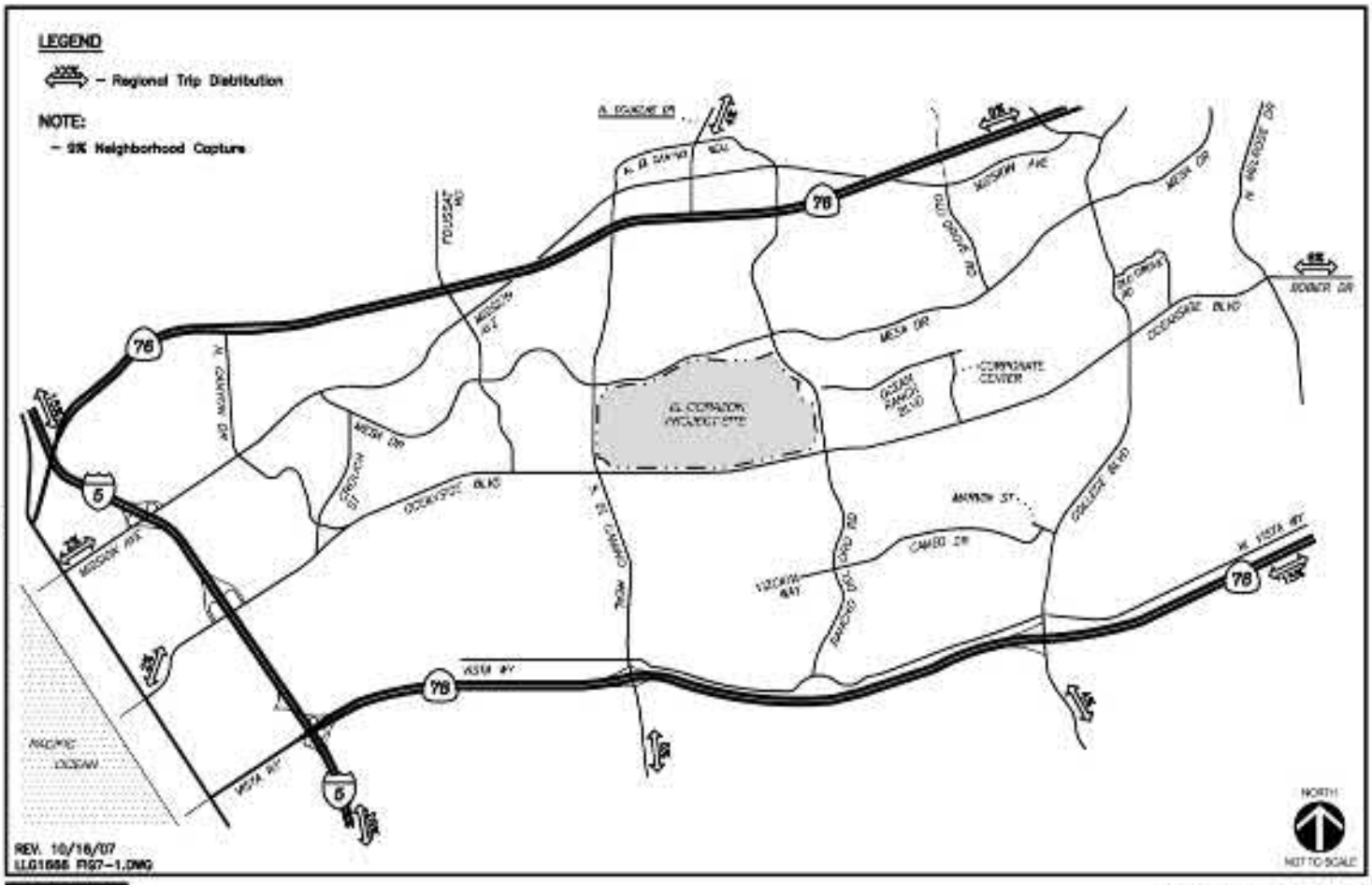

Figure 7-1

Hotel - Project Regional Traffic Distribution

EL CORAZON

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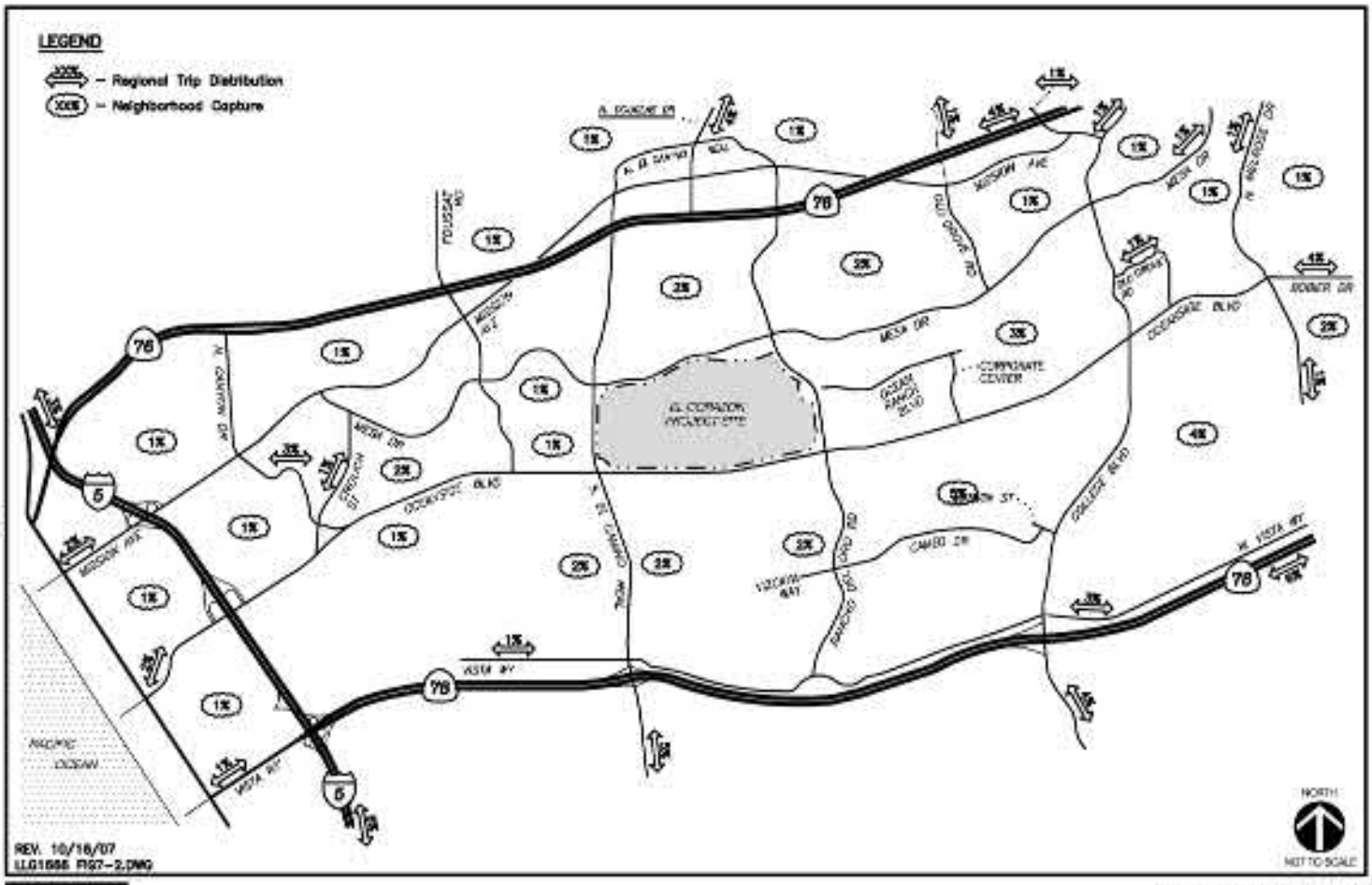

Figure 7-2

Commercial - Project Regional Traffic Distribution

EL CORAZON

LINSCOTT LAW & GREENSPAN engineers

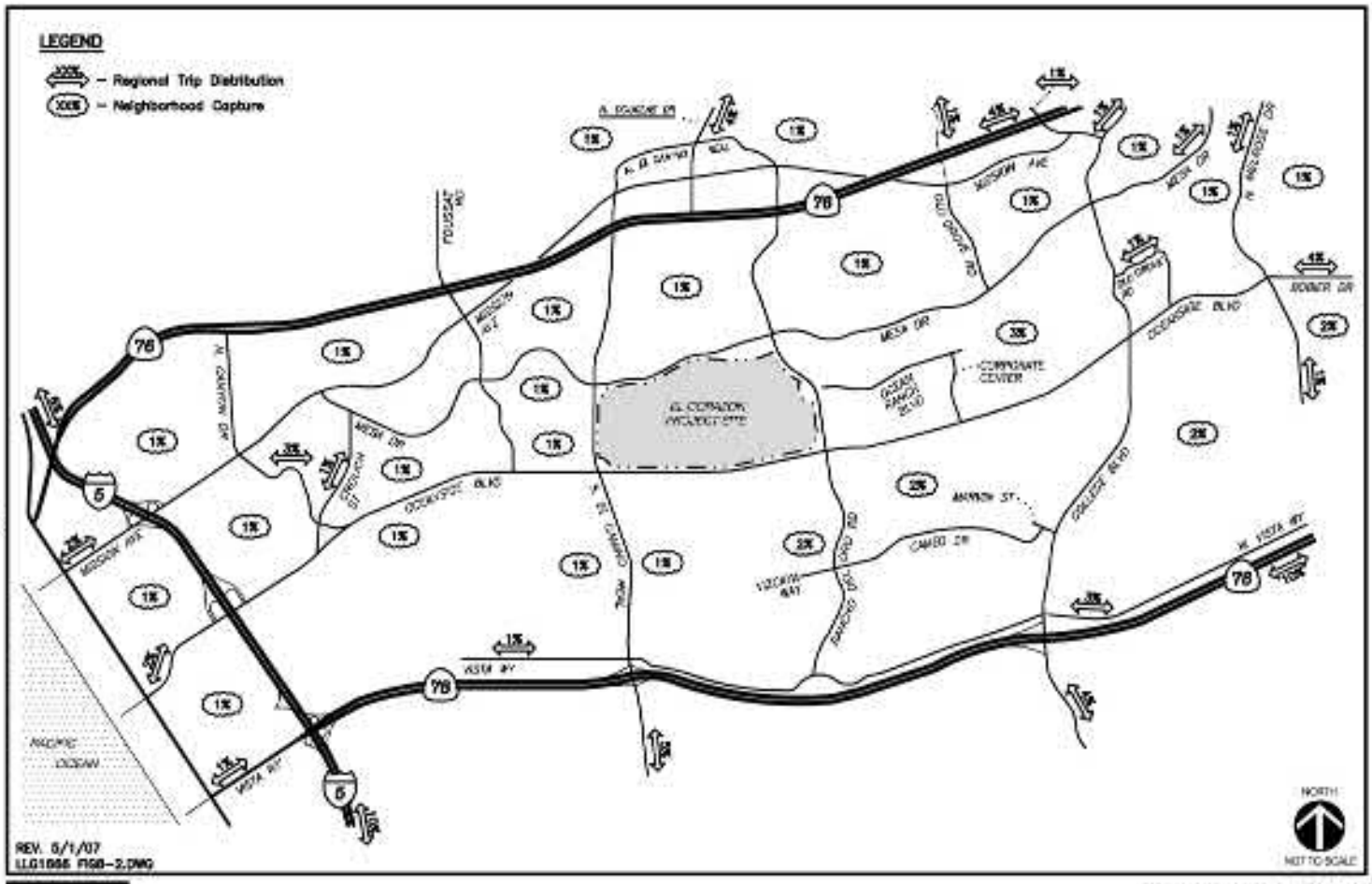

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Figure 8-2

Park - Project Regional Traffic Distribution

EL CORAZON