

TRAFFIC IMPACT ANALYSIS

**CAPISTRANO GREENERY AT PRIMA DESHECHA LANDFILL
SAN JUAN CAPISTRANO, CALIFORNIA**



June 2023

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EXECUTIVE SUMMARY

The purpose of this Traffic Impact Analysis (TIA) is to determine the potential traffic impacts resulting from the proposed Capistrano Greenery operational modifications (project) within the Prima Deshecha Landfill at 32250 Avenida La Pata in San Juan Capistrano, California. This TIA analyzes levels of service (LOS) to address the effects of the project on the local circulation system and evaluates vehicle miles traveled (VMT) to address potential transportation impacts per the California Environmental Quality Act (CEQA).

Orange County Waste & Recycling (OCWR) currently operates the Capistrano Greenery composting facility at the Prima Deshecha Landfill. The existing Prima Deshecha Landfill and Capistrano Greenery are open from 7:00 a.m. to 5:00 p.m., Monday through Saturday.

The Capistrano Greenery composting operation was permitted in 2020 to receive a maximum of 204 tons per day of processed green material (PGM), processed agricultural material, and manure. The Capistrano Greenery is critical in meeting California (State) mandates for the recycling of organic material. As a newly operating facility, the Capistrano Greenery has not yet reached its maximum intake capacity of 204 tons per day. The Capistrano Greenery currently receives approximately 170 tons per week of PGM and manure (approximately 150 tons of PGM once per week and 10 tons of manure twice per week). Although the Capistrano Greenery is not processing waste at the permitted maximum, there is a need to continue meeting the increasingly aggressive State's recycling mandates. Per Assembly Bill (AB) 1594, as of January 1, 2020, PGM is no longer considered as an exempt waste, but rather PGM is counted as disposal and is part of the landfill's daily disposal tonnage.

OCWR is the lead agency for the proposed operational modifications to the existing Capistrano Greenery, including the following key components:

1. acceptance of new types of feedstock, including food waste
2. increase in daily tonnage from 204 to 536 tons per day
3. use of Covered Aerated Static Pile (CASP) technology to increase the volume of compost, reduce water use, and increase environmental controls for the process
4. addition of solar panels to power the blowers for the CASP system
5. chipping and grinding activities
6. community compost give-away events at a maximum monthly cadence
7. modifications to surface grinding to improve stormwater management

The proposed project would allow the Capistrano Greenery to accept more incoming organic materials for processing, thereby better assisting local municipalities by offering an expanded option for meeting State organic waste recycling mandates. The proposed project would have the same hours of operation and include an increase in permitted daily intake to a maximum of 536 tons per day of compostable organic waste materials. After the composting process has been completed on site, 536 tons per day of compost would be delivered to markets inside and outside Orange County. The designated truck route to/from the Capistrano Greenery and regional locations is Interstate 5 (I-5), Ortega Highway (State Route 74 [SR-74]), and Avenida La Pata.

The intake of 536 tons per day of compostable organic waste materials would require up to 25 trucks (with a 22-ton capacity), generating 50 daily trips. The 536 tons per day of compost delivery would require an additional 25 trucks (with a 22-ton capacity), generating 50 daily trips. The proposed project would require 50 total trucks, generating 100 total daily trips. Based on the current hours of operation (10 hours between 7:00 a.m. and 5:00 p.m.), this would equate to approximately 10 trips per hour.

Because trucks are larger, slower, and have less maneuverability than a typical vehicle within the local circulation system, a passenger car equivalent (PCE) factor of 2 has been applied to the project trucks. Applying the PCE factor of 2 to the 50 daily trucks, the proposed project would generate 200 daily trips, including 20 a.m. peak-hour trips (10 inbound and 10 outbound) and 20 p.m. peak-hour trips (10 inbound and 10 outbound), in PCEs. The remaining 160 PCE trips (80 inbound and 80 outbound) would occur outside the peak-hour periods.

This study focuses on the a.m. peak-hour and p.m. peak-hour LOS at seven intersections and daily (24-hour) LOS at five roadway segments. The a.m. and p.m. peak hours are the single highest hours of traffic volume on the local circulation system between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m., respectively. Project impacts were determined based on an analysis of Existing and Existing Plus Project conditions.

Based on the results of this analysis, the proposed project can be implemented without impacting the design or operation of the surrounding roadway system with the State Route 74 (SR-74) Lower Ortega Highway Widening Project. An evaluation of intersection and roadway LOS shows that the addition of project traffic with the widening improvement, which would provide an additional eastbound lane and an additional westbound lane totaling four lanes along Ortega Highway between Calle Entradero and Reata Road, would not significantly impact the study area locations, according to the City of San Juan Capistrano's performance criteria.

According to the County of Orange's *Final Draft Guidelines for Evaluating Vehicles Miles Traveled under CEQA* (LSA 2020), public services and facilities (e.g., Prima Deshecha Landfill and Capistrano Greenery) that support community health, safety, or welfare are screened from a vehicle miles traveled (VMT) analysis. Therefore, the proposed project is screened from a VMT analysis and presumed to have a less than significant transportation impact.

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LIST OF ABBREVIATIONS AND ACRONYMS

AB	Assembly Bill
ADT	average daily traffic
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
HCM	<i>Highway Capacity Manual</i>
I-5	Interstate 5
ICU	intersection capacity utilization
LOS	level(s) of service
MPAH	Master Plan of Arterial Highways
mph	miles per hour
NDS	National Data & Surveying Services
OCTA	Orange County Transportation Authority
OCWR	Orange County Waste & Recycling
OPR	Governor's Office of Planning and Research
PCE	passenger car equivalent
PGM	processed green material
project	Capistrano Greenery operational modifications project
SB	Senate Bill
SR-74	State Route 74
TIA	Traffic Impact Analysis
TRB	Transportation Research Board
v/c	volume-to-capacity
vph	vehicles per hour

TRAFFIC IMPACT ANALYSIS CAPISTRANO GREENERY

LSA has prepared the following Traffic Impact Analysis (TIA) to identify the potential traffic impacts resulting from the proposed Capistrano Greenery operational modifications (project) within the Prima Deshecha Landfill at 32250 Avenida La Pata in San Juan Capistrano, California. LSA has prepared this analysis in accordance with the City of San Juan Capistrano Administrative Policy No. 310 (revised 1998), the City of San Juan Capistrano General Plan Circulation Element and Growth Management Element (1999), the Orange County Congestion Management Program (CMP) (OCTA 2017), and applicable provisions of the California Environmental Quality Act (CEQA). This TIA analyzes levels of service (LOS) to address the effects of the project on the local circulation system and evaluates vehicle miles traveled (VMT) to address potential transportation impacts per CEQA.

INTRODUCTION

Project Background

Orange County Waste & Recycling (OCWR) currently operates the Capistrano Greenery composting facility at the Prima Deshecha Landfill at 32250 Avenida La Pata, San Juan Capistrano. Figure 1 shows the project location. The existing Prima Deshecha Landfill and Capistrano Greenery are open from 7:00 a.m. to 5:00 p.m., Monday through Saturday.

The Capistrano Greenery composting operation was permitted in 2020 to receive a maximum of 204 tons per day of processed green material (PGM), processed agricultural material, and manure. The Capistrano Greenery is critical in meeting California (State) mandates for the recycling of organic material. As a newly operating facility, the Capistrano Greenery has not yet reached its maximum intake capacity of 204 tons per day. The Capistrano Greenery currently receives approximately 170 tons per week of PGM and manure (approximately 150 tons of PGM once per week and 10 tons of manure twice per week). Although the Capistrano Greenery is not processing waste at the permitted maximum, there is a need to continue meeting the increasingly aggressive State's recycling mandates. Per Assembly Bill (AB) 1594, as of January 1, 2020, PGM is no longer considered as an exempt waste, but rather PGM is counted as disposal and is part of the landfill's daily disposal tonnage.

OCWR is the lead agency for the proposed operational modifications to the existing Capistrano Greenery, including the following key components:

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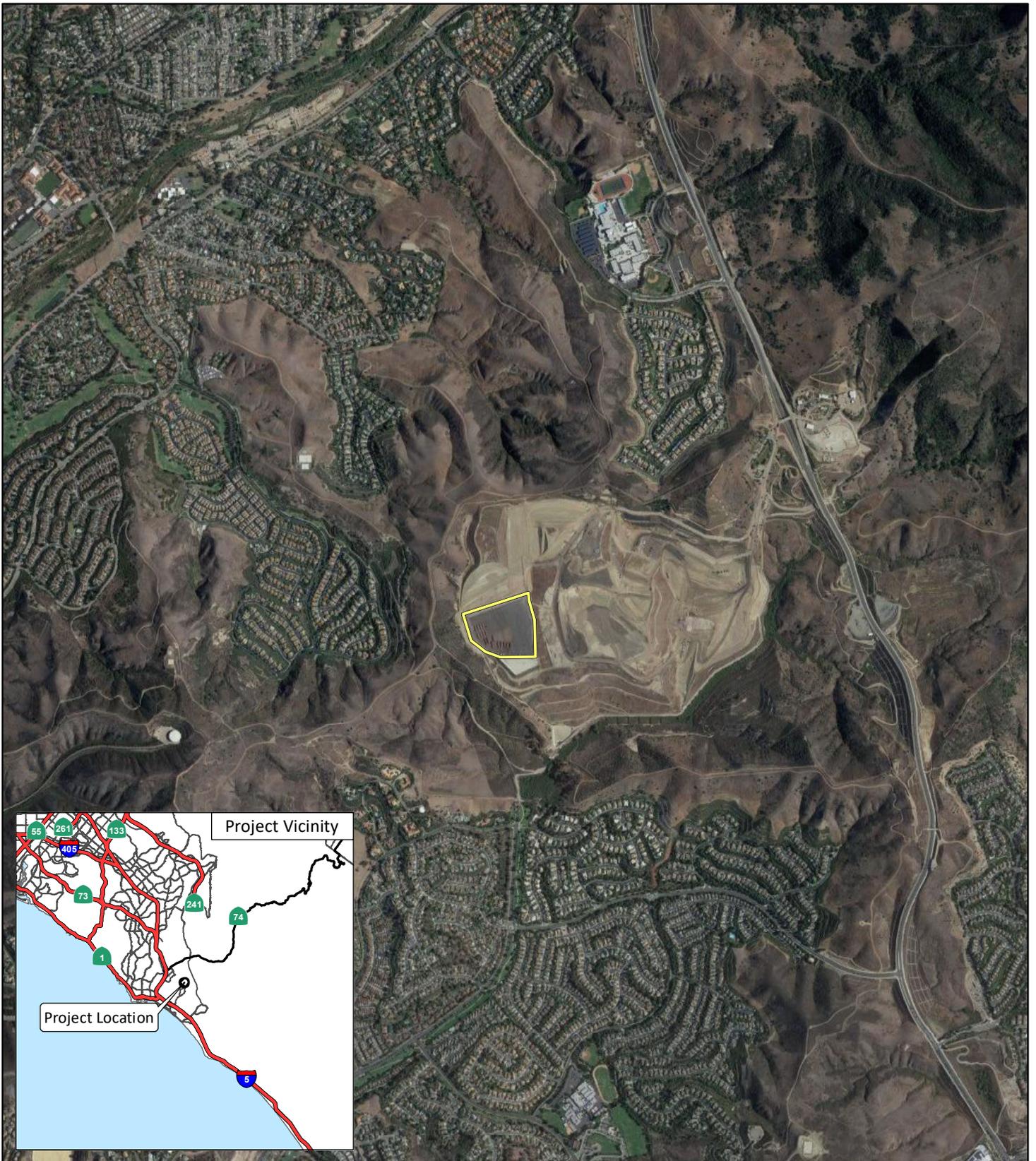


FIGURE 1

LSA

LEGEND

 Project Location



0 1000 2000
FEET

SOURCE: Bing Maps (2021)

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Capistrano Greenery at Prima Deshecha Landfill Project
Regional Project Location

Figure 2 illustrates the project site plan.

The proposed project would allow the Capistrano Greenery to accept more incoming organic materials for processing, thereby better assisting local municipalities by offering an expanded option for meeting State organic waste recycling mandates. The proposed project would have the same hours of operation and include an increase in permitted daily intake to a maximum of 536 tons per day of compostable organic waste materials. After the composting process has been completed on site, 536 tons per day of compost would be delivered to markets inside and outside Orange County.

The proposed project would require approximately 50 trucks, generating an average daily traffic (ADT) of 200 in passenger car equivalents (PCEs). The designated truck route to/from the Capistrano Greenery and regional locations is Interstate 5 (I-5), Ortega Highway (State Route 74 [SR-74]), and Avenida La Pata.

Study Area Boundary

As shown on Figure 1, the study area includes the following intersections:

1. I-5 southbound ramps/Ortega Highway
2. I-5 northbound ramps/Ortega Highway
3. Rancho Viejo Road/Ortega Highway
4. La Novia Avenue/Ortega Highway
5. Reata Road/Ortega Highway
6. Antonio Parkway–Avenida La Pata/Ortega Highway
7. Avenida La Pata/Stallion Ridge

The study area also includes the following Ortega Highway roadway segments:

1. I-5 southbound ramps to I-5 northbound ramps
2. I-5 southbound ramps to Rancho Viejo Road
3. Rancho Viejo Road to La Novia Avenue
4. La Novia Avenue to Calle Entradero
5. Calle Entradero to Reata Road
6. Reata Road to Antonio Parkway–Avenida La Pata

ANALYSIS METHODOLOGY

Intersection LOS Methodologies

Per City of San Juan Capistrano Administrative Policy No. 310, the City of San Juan Capistrano's guideline for preparing traffic studies, intersections are evaluated using the intersection capacity utilization (ICU) and the *Highway Capacity Manual* (HCM), 6th Edition (TRB 2017) methodologies.

The ICU methodology for signalized intersections compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums up these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The ICU calculations assume a lane capacity of 1,700 vehicles per hour (vph) and a clearance interval (or loss time) of 0.05. The resulting ICU is expressed in terms of LOS, where LOS A represents free-flow activity and LOS F represents overcapacity operation.

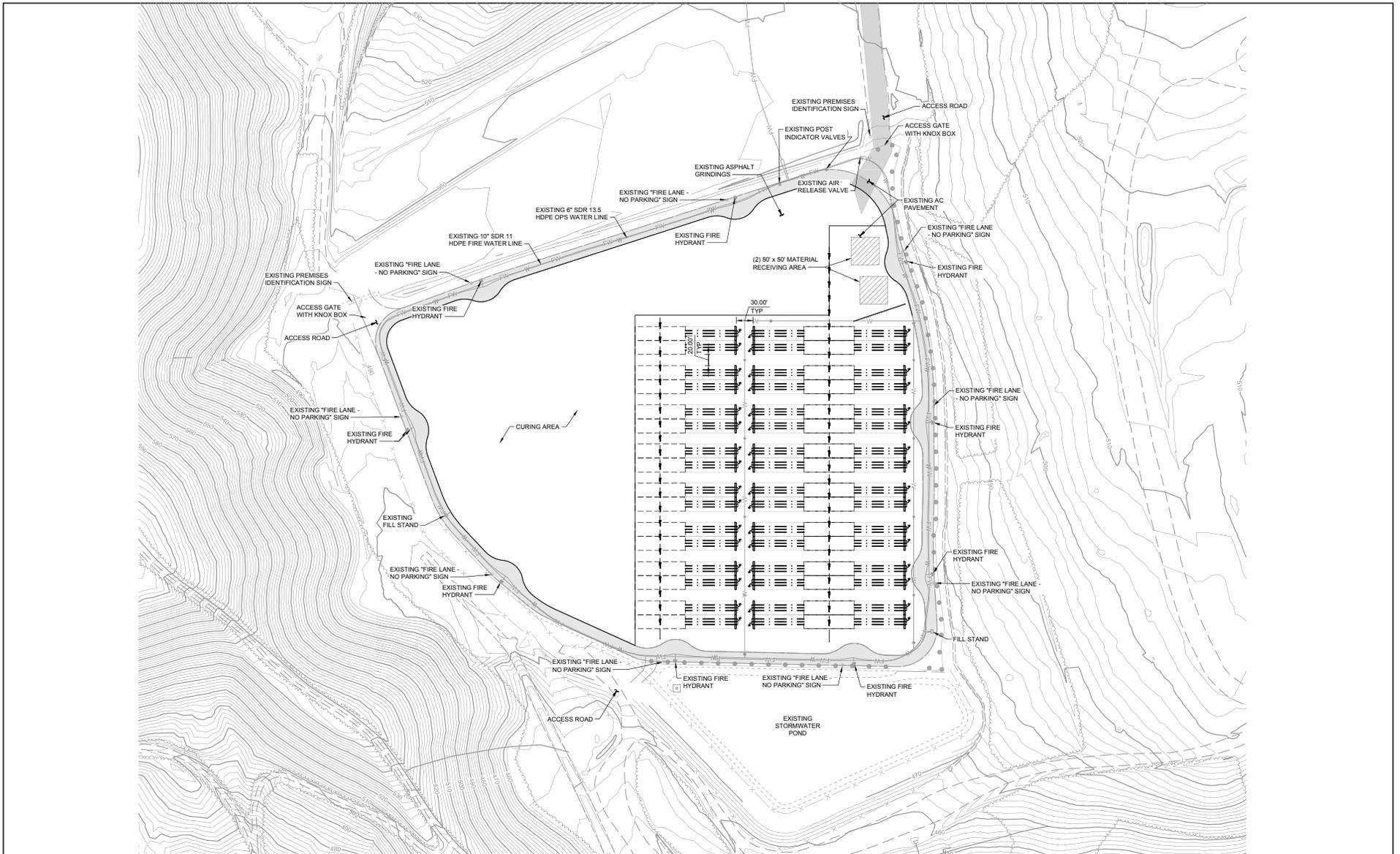
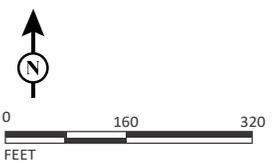


FIGURE 2

LSA



SOURCE: Tetra Tech

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Capistrano Greenery at Prima Deshecha Landfill Project
Site Plan

The relationship between LOS and the ICU value (i.e., v/c ratio) is as follows:

Level of Service	Volume-to-Capacity (ICU Methodology)
A	≤0.60
B	>0.60 and ≤0.70
C	>0.70 and ≤0.80
D	>0.80 and ≤0.90
E	>0.90 and ≤1.00
F	>1.00

ICU = Intersection Capacity Utilization

In addition to the ICU methodology for calculating intersection LOS, the HCM methodology was used. The HCM intersection methodology presents LOS in terms of delay (in seconds per vehicle). The resulting delay is expressed in terms of LOS, as in the ICU methodology.

The relationship between LOS and the delay for signalized intersections is shown below:

Level of Service	Signalized Intersection Delay (seconds) per Vehicle (HCM Methodology)
A	≤10.0
B	>10.0 and ≤20.0
C	>20.0 and ≤35.0
D	>35.0 and ≤55.0
E	>55.0 and ≤80.0
F	>80.0

HCM = *Highway Capacity Manual* (TRB 2017)

TRB = Transportation Research Board

The study area intersection LOS analysis was conducted for the weekday a.m. peak hour (the single highest hour of traffic volume on the local circulation system between 7:00 a.m. and 9:00 a.m.) and weekday p.m. peak hour (the single highest hour of traffic volume on the local circulation system between 4:00 p.m. and 6:00 p.m.).

The City of San Juan Capistrano requires an HCM operational analysis of study area intersections designated as “hot spots” using the Synchro computer software package. Intersections designated as hot spots are closely spaced and experience high volumes during the peak hours. The peak 30-minute volumes in the a.m. and p.m. peak-hour periods are multiplied by 2 to represent the peak-hour volumes at the hot-spot intersections. This analysis is conducted to evaluate the impacts of the proposed project on the signal operations of these locations. In addition to the hot-spot locations, LSA utilized Synchro (version 10) for the HCM analysis of all other study area intersections.

Roadway Segment LOS Methodology

Roadway segment v/c ratios were determined using the daily capacities contained in the 2018 Orange County Transportation Authority (OCTA) *Guidance for Administration of the Orange County Master Plan of Arterial Highways* (MPAH). Facility types were taken from the City of San Juan Capistrano General Plan and the MPAH.

The following table illustrates daily capacities for roadways in the study area:

Facility Type	Number of Lanes	Capacity
Major	8	75,000
Major	6	56,300
Primary	4 (Divided)	37,500
Secondary	4 (Undivided)	25,000
Limited Secondary	2 (Divided)	20,000
Local Arterial	2 (Undivided)	12,500

Threshold of Significance

The City of San Juan Capistrano considers LOS D as the upper limit of satisfactory operations for intersections and roadway segments. However, as indicated in the City of San Juan Capistrano General Plan Circulation Element, the following intersections and roadway segments are identified as hot-spot locations (i.e., School hot spot, Operations hot spot, and Space Constrained hot spot), where LOS E is considered satisfactory:

Hot Spot Intersections

1. I-5 northbound ramps/Ortega Highway
2. I-5 southbound ramps/Ortega Highway

Hot Spot Roadway Segment

1. Ortega Highway between the I-5 southbound ramps and I-5 northbound ramps

Both intersections are Orange County CMP intersections, and Ortega Highway is a CMP roadway. LOS E is considered acceptable at these locations, consistent with the City of San Juan Capistrano’s target LOS for hot-spot locations.

Based on City of San Juan Capistrano Administrative Policy No. 310, a project impact occurs at a non-hot-spot intersection (or roadway segment) when the project’s increase in ICU (or v/c ratio) is 0.01 or greater and the resulting LOS is E or F (ICU methodology). A project impact also occurs at a non-hot-spot intersection when the project’s increase in delay is 1.0 second or greater and the resulting LOS is E or F (HCM methodology).

A project impact occurs at a hot-spot intersection (or roadway segment) when the project’s increase in ICU (or v/c ratio) is 0.01 or greater and the resulting LOS is F. A project impact also occurs at a hot-spot intersection when the project’s increase in delay is 1.0 second or greater and the resulting LOS is F.

PROPOSED PROJECT TRAFFIC

Trip Generation

The trip generation for the proposed project is based on operational information from OCWR. As previously described, the daily intake of 536 tons of compostable organic waste materials and the daily delivery of 536 tons of compost would require 50 total trucks. Based on the current hours of operation of the Capistrano Greenery (10 hours between 7:00 a.m. and 5:00 p.m.), this equates to approximately 5 trucks (or 10 trips [5 inbound and 5 outbound]) per hour. Because trucks are larger, slower, and have less maneuverability than a typical vehicle within the local circulation system, a PCE factor of 2 has been assumed for each of the 50 daily trucks.

As shown in Table A, the proposed project would generate 200 ADT, with 20 trips in the a.m. peak hour (10 inbound and 10 outbound) and 20 trips in the p.m. peak hour (10 inbound and 10 outbound) in PCEs. The remaining 160 trips (80 inbound and 80 outbound) would occur outside the peak-hour periods.

Table A: Project Trip Generation

Trip Type	Quantity	PCE	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trucks	50	2	200	10	10	20	10	10	20

Source: Orange County Waste & Recycling (June 2023).

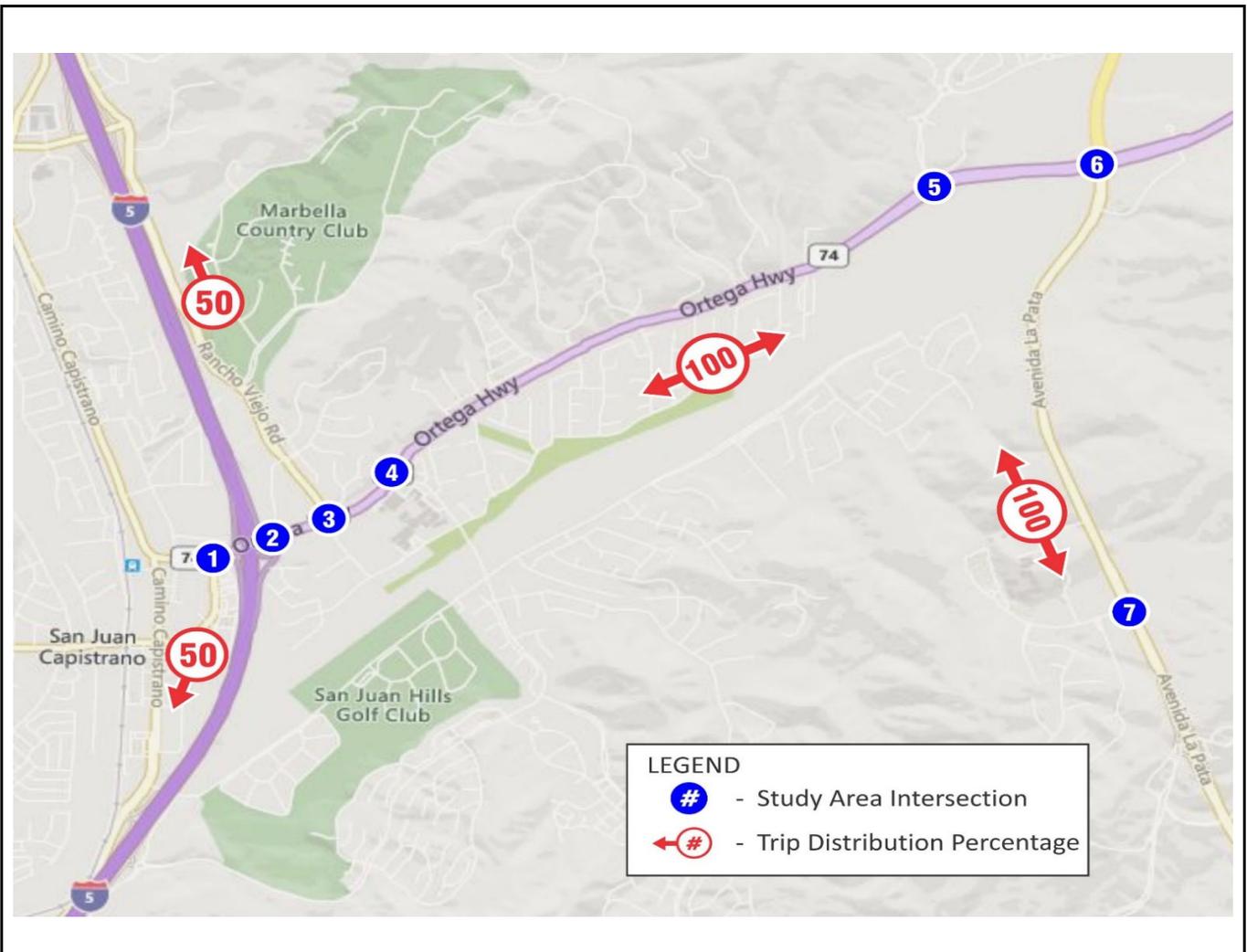
ADT = average daily traffic

PCE = passenger car equivalent

The project trips have been added to the existing traffic volumes to represent the Existing Plus Project conditions.

Trip Distribution and Assignment

The directions of approach to and departure from the site are based on operational information from OCWR and the City of San Juan Capistrano’s designated truck routes (e.g., I-5, Ortega Highway, and Avenida La Pata). Approximately 50 percent of the trips are destined north on I-5 and 50 percent are destined south on I-5. The results of the impact analysis and the access analysis are discussed later in this TIA. Figure 3 illustrates the project trip distribution and assignment.



LEGEND

- # - Study Area Intersection
- # - Trip Distribution Percentage

1 I-5 SB Ramps/Ortega Hwy	2 I-5 NB Ramps/Ortega Hwy	3 Rancho Viejo/Ortega Hwy	4 La Novia Ave/Ortega Hwy	5 Reata Rd/Ortega Hwy
6 Ave La Pata/Ortega Hwy	7 Ave La Pata/Stallion Ridge			



LEGEND
 xxx / yyy AM / PM Volume
 NB = northbound
 SB = southbound

FIGURE 3

*Capistrano Greenery at Prima Deshecha Landfill Project
 Project Trip Distribution and Assignment*

EXISTING CONDITIONS

Existing Circulation System

Key roadways in the vicinity of the proposed project are as follows:

- **Ortega Highway:** Ortega Highway is an east-west roadway located north of the project site. Ortega Highway is divided west of Gateway Place and undivided east of Gateway Place (Gateway Place is just east of Antonio Parkway–Avenida La Pata). It extends east from Camino Capistrano west of I-5 to Interstate 215 in Perris. Ortega Highway is designated as a Primary Arterial in the City of San Juan Capistrano Circulation Element. Ortega Highway is a CMP facility and is designated as a hot-spot location west of the I-5 northbound ramps. Between the I-5 northbound and southbound ramps, Ortega Highway functions as an eight-lane facility due to the dual left-turn lanes at the signalized I-5 southbound ramps/Ortega Highway intersection. Between the I-5 northbound ramps and Antonio Parkway–Avenida La Pata, the number of Ortega Highway lanes vary between two lanes and six lanes. The speed limit along Ortega Highway west of Antonio Parkway–Avenida La Pata is 35–45 miles per hour (mph). Curbside parking is not permitted.
- **I-5:** I-5 is a north-south interstate freeway located west of the project site. I-5 has 10 travel lanes in the project vicinity, of which 4 lanes are general-purpose lanes and 1 lane is a high-occupancy vehicle lane in each direction.
- **Avenida La Pata:** Avenida La Pata is a divided north-south roadway east of the project site. It has four to six travel lanes. The speed limit along Avenida La Pata is 55 mph. On-street (Class II) bicycle lanes are provided on both sides of the street. Curbside parking is not permitted.
- **Reata Road:** Reata Road is a divided two-lane roadway that connects Ortega Highway to residential neighborhoods north of Ortega Highway. On-street (Class II) bicycle lanes are provided on both sides of the street. Curbside parking is not permitted.
- **La Novia Avenue:** La Novia Avenue is an undivided four-lane, north-south roadway located northwest of the project site. La Novia Avenue is designated as a Primary Arterial in the City of San Juan Capistrano Circulation Element. The speed limit along La Novia Avenue is 35 mph (25 mph adjacent to the St. Margaret’s Episcopal School when children are present). Curbside parking is not permitted on either side of La Novia Avenue.
- **Rancho Viejo Road:** Rancho Viejo Road is a four-lane, north-south roadway located northwest of the project site. It is generally divided with a raised median (and left-turn lanes for access to local streets) north of Ortega Highway and undivided south of Ortega Highway. Rancho Viejo Road is designated as a Secondary Arterial north of Ortega Highway and a Collector south of Ortega Highway in the City of San Juan Capistrano Circulation Element. The speed limit along Rancho Viejo Road north and south of Ortega Highway is 45 mph and 30 mph, respectively. Curbside parking is not permitted on either side of Rancho Viejo Road.

Existing Traffic Volumes and Levels of Service

Existing traffic volumes were collected by Counts Unlimited in January 2023 for the study area intersections and roadway segments. Appendix A provides the existing traffic volume data. The existing a.m. and p.m. peak-hour turn movement volumes for the study area intersections are shown on Figure 4.

Tables B and C summarize the results of the existing peak-hour LOS analysis for the study area intersections using the ICU and HCM methodologies, respectively. The existing ICU and HCM worksheets are contained in Appendices B and C, respectively. As shown in Table B, all study area intersections, including the hot-spot intersections, currently operate at satisfactory LOS based on the ICU methodology. As shown in Table C, all study area intersections, including the hot-spot intersections, currently operate at satisfactory LOS based on the HCM methodology.

Existing roadway segment ADT volumes, v/c ratios, and LOS are presented in Table D. Tables E and F present the existing peak-hour volumes, v/c ratios, and LOS for the roadway segments. As Table D indicates, all study area roadway segments currently operate at satisfactory LOS on a daily basis, with the exception of Ortega Highway from Calle Entradero to Reata Road (LOS F). As shown on Tables E and F, all study area roadway segments currently operate at satisfactory LOS in both directions during both peak hours, with the exception of Ortega Highway from Calle Entradero to Reata Road (LOS F in the westbound direction during the a.m. peak hour).

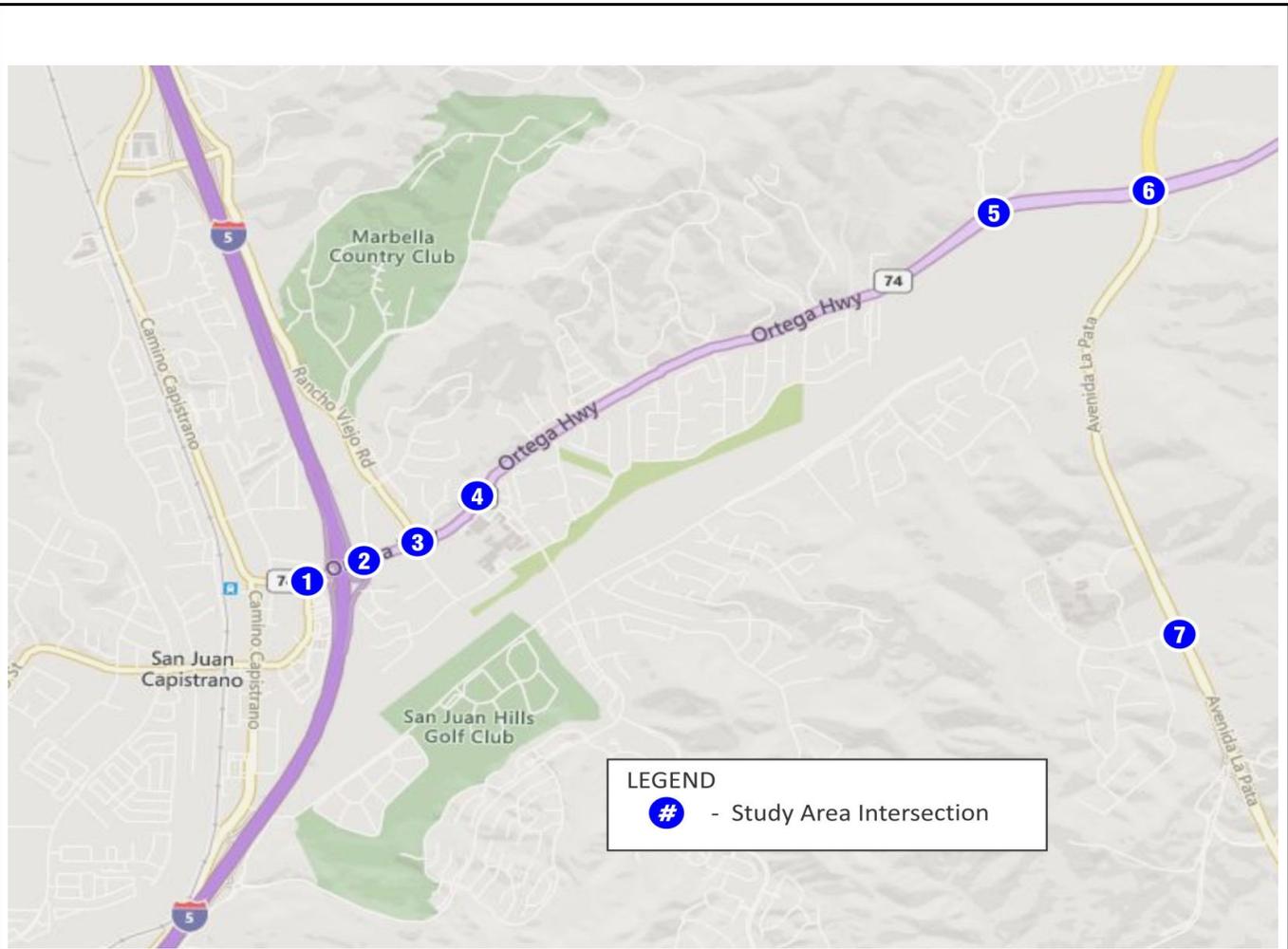
EXISTING PLUS PROJECT CONDITIONS

Existing Plus Project Traffic Volumes and LOS

To determine the Existing Plus Project condition, traffic generated by the proposed project was added to existing baseline traffic volumes at the study area intersections. Figure 5 shows the resulting Existing Plus Project peak-hour traffic volumes.

Tables G and H summarize the results of the Existing Plus Project peak-hour LOS analysis for the study area intersections using the ICU and HCM methodologies, respectively. The Existing Plus Project ICU and HCM worksheets are contained in Appendices B and C, respectively. As shown in Table G, all study area intersections, including the hot-spot intersections, are anticipated to operate at satisfactory LOS based on the ICU methodology. As shown in Table H, all study area intersections, including the hot-spot intersections, are anticipated to operate at satisfactory LOS based on the HCM methodology. Therefore, a significant project impact would not occur at any study area intersection based on the ICU and HCM methodologies.

Existing Plus Project roadway segment ADT volumes, v/c ratios, and LOS are presented in Table I. Tables J and K present the Existing Plus Project peak-hour volumes, v/c ratios, and LOS for the roadway segments. As Table I indicates, all study area roadway segments are anticipated to operate at satisfactory LOS with the proposed project on a daily basis, with the exception of Ortega Highway from Calle Entradero to Reata Road (LOS F). As shown on Tables J and K, all study area roadway segments would operate at satisfactory LOS in both directions during both peak hours, with the exception of Ortega Highway from Calle Entradero to Reata Road (LOS F in the westbound direction during the a.m. peak hour).



LEGEND
 # - Study Area Intersection

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FIGURE 4

LSA



LEGEND
 xxx / yyy AM / PM Volume
 NB = northbound
 SB = southbound

Capistrano Greenery at Prima Deshecha Landfill Project
 Existing Peak-Hour Volumes

Table B: Existing Intersection Level of Service Summary (ICU)

Intersection		Control	Peak Hour	Existing	
				ICU	LOS
1	I-5 SB Ramps/Ortega Highway ¹	Signal	AM	0.652	B
			PM	0.662	B
2	I-5 NB Ramps/Ortega Highway ¹	Signal	AM	0.724	C
			PM	0.675	B
3	Rancho Viejo Road/Ortega Highway	Signal	AM	0.625	B
			PM	0.700	B
4	La Novia Avenue/Ortega Highway	Signal	AM	0.653	B
			PM	0.698	B
5	Reata Road/Ortega Highway	Signal	AM	0.677	B
			PM	0.568	A
6	Antonio Parkway–Avenida La Pata/Ortega Highway	Signal	AM	0.715	C
			PM	0.624	B
7	Avenida La Pata/Stallion Ridge	Signal	AM	0.467	A
			PM	0.415	A

¹ Intersection is considered a hot-spot location (LOS E is acceptable).

ICU = Intersection Capacity Utilization

LOS = level of service

NB = northbound

SB = southbound

Table C: Existing Intersection Level of Service Summary (HCM)

Intersection		Control	Peak Hour	Existing	
				Delay	LOS
1	I-5 SB Ramps/Ortega Highway ¹	Signal	AM	24.7	C
			PM	23.4	C
2	I-5 NB Ramps/Ortega Highway ¹	Signal	AM	51.8	D
			PM	32.8	C
3	Rancho Viejo Road/Ortega Highway	Signal	AM	44.6	D
			PM	36.0	C
4	La Novia Avenue/Ortega Highway	Signal	AM	22.7	C
			PM	21.1	C
5	Reata Road/Ortega Highway	Signal	AM	23.1	C
			PM	19.9	B
6	Antonio Parkway–Avenida La Pata/Ortega Highway	Signal	AM	38.3	D
			PM	30.3	C
7	Avenida La Pata/Stallion Ridge	Signal	AM	23.0	C
			PM	14.8	B

¹ Intersection is considered a hot-spot location (LOS E is acceptable).

HCM = *Highway Capacity Manual*

LOS = level of service

NB = northbound

SB = southbound

Table D: Existing Roadway Segment Level of Service Summary (Daily)

Ortega Highway Segment	No. of Lanes	LOS E Capacity	Existing		
			ADT	V/C	LOS
I-5 SB Ramps to I-5 NB Ramps ^{1,2}	8D	75,000	50,730	0.676	B
I-5 NB Ramps to Rancho Viejo Road ¹	6D	56,300	45,487	0.808	D
Rancho Viejo Road to La Novia Avenue ¹	5D	46,900	37,532	0.800	C
La Novia Avenue to Calle Entradero ¹	4D	37,500	36,211	0.966	E
Calle Entradero to Reata Road ¹	2D	20,000	33,853	1.693	F
Reata Road to Antonio Parkway–Avenida La Pata ¹	4D	37,500	31,853	0.849	D

█ = exceeds City's Level of Service criteria

¹Segment is a CMP location (LOS E is acceptable).

²Segment is considered a hot-spot location (LOS E is acceptable).

ADT = average daily traffic

CMP = Congestion Management Program

D = divided

LOS = level of service

NB = northbound

SB = southbound

V/C = volume-to-capacity ratio

Table E: Existing Roadway Segment LOS Summary (AM Peak Hour)

Ortega Highway Segment	Direction	No. of Lanes	LOS E Capacity	Existing		
				AM Vol	V/C	LOS
I-5 Southbound Ramps to I-5 Northbound Ramps ^{1,2}	Eastbound	4	6,800	1,959	0.288	A
	Westbound	4	6,800	1,947	0.286	A
I-5 Northbound Ramps to Rancho Viejo Road ²	Eastbound	3	5,100	1,954	0.383	A
	Westbound	3	5,100	1,754	0.344	A
Rancho Viejo Road to La Novia Avenue ²	Eastbound	2	3,400	1,265	0.372	A
	Westbound	3	5,100	1,881	0.369	A
La Novia Avenue to Calle Entradero ²	Eastbound	2	3,400	1,192	0.351	A
	Westbound	2	3,400	1,676	0.493	A
Calle Entradero to Reata Road ²	Eastbound	1	1,700	975	0.574	A
	Westbound	1	1,700	1,744	1.026	F
Reata Road to Antonio Parkway–Avenida La Pata ²	Eastbound	2	3,400	921	0.271	A
	Westbound	2	3,400	1,614	0.475	A

■ = exceeds City's Level of Service criteria

¹ Segment is considered a hot-spot location (LOS E is acceptable).

² Segment is a CMP location (LOS E is acceptable).

AM Vol = a.m. peak-hour volume

CMP = Congestion Management Program

I-5 = Interstate 5

LOS = level of service

V/C = volume-to-capacity ratio

Table F: Existing Roadway Segment LOS Summary (PM Peak Hour)

Ortega Highway Segment	Direction	No. of Lanes	LOS E Capacity	Existing		
				PM Vol	V/C	LOS
I-5 Southbound Ramps to I-5 Northbound Ramps ^{1,2}	Eastbound	4	6,800	1,953	0.287	A
	Westbound	4	6,800	1,938	0.285	A
I-5 Northbound Ramps to Rancho Viejo Road ²	Eastbound	3	5,100	1,870	0.367	A
	Westbound	3	5,100	1,700	0.333	A
Rancho Viejo Road to La Novia Avenue ²	Eastbound	2	3,400	1,593	0.469	A
	Westbound	3	5,100	1,307	0.256	A
La Novia Avenue to Calle Entradero ²	Eastbound	2	3,400	1,668	0.491	A
	Westbound	2	3,400	1,214	0.357	A
Calle Entradero to Reata Road ²	Eastbound	1	1,700	1,609	0.946	E
	Westbound	1	1,700	1,175	0.691	B
Reata Road to Antonio Parkway–Avenida La Pata ²	Eastbound	2	3,400	1,538	0.452	A
	Westbound	2	3,400	1,098	0.323	A

¹ Segment is considered a hot-spot location (LOS E is acceptable).

² Segment is a CMP location (LOS E is acceptable).

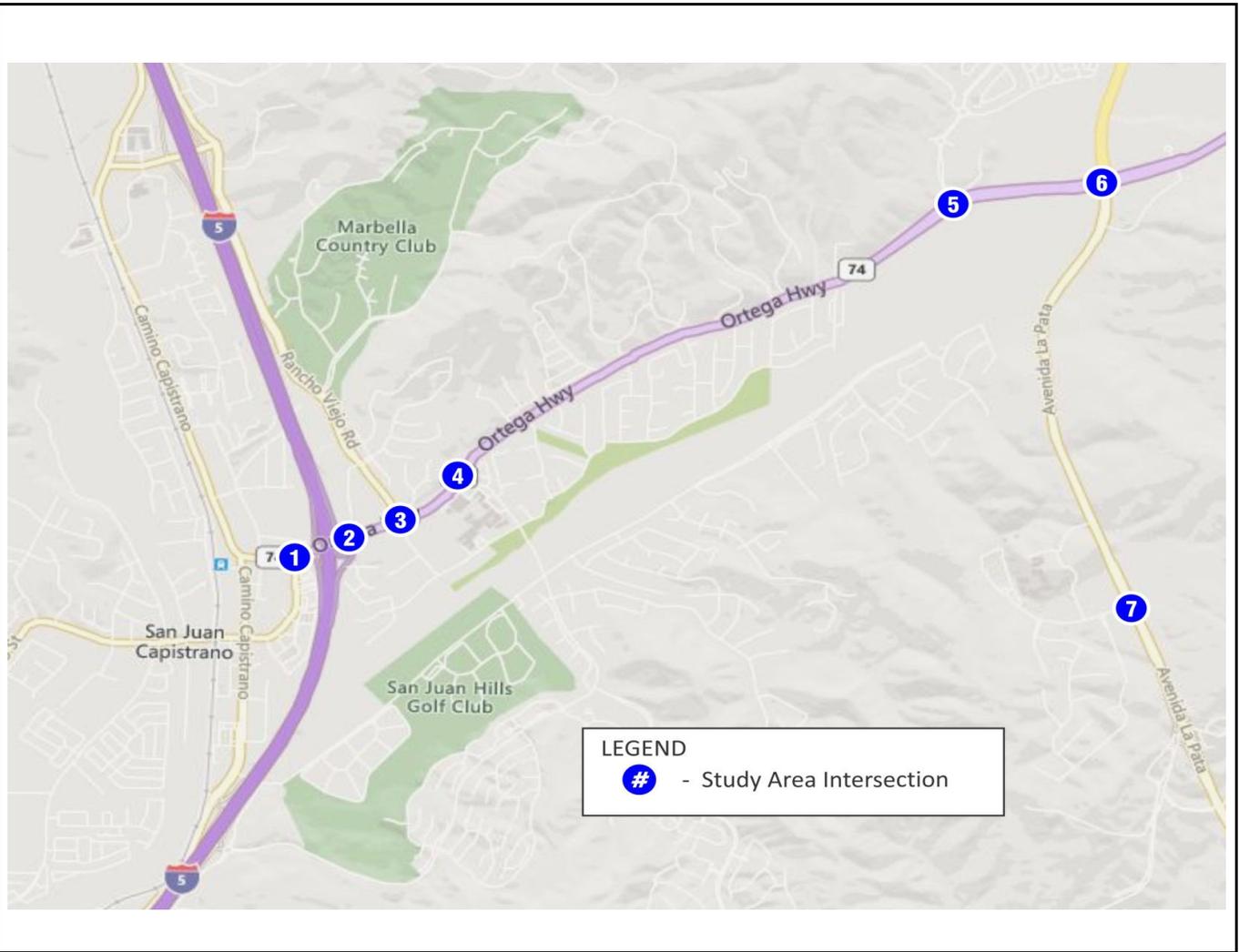
CMP = Congestion Management Program

I-5 = Interstate 5

LOS = level of service

PM Vol = p.m. peak-hour volume

V/C = volume-to-capacity ratio



LEGEND
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FIGURE 5

LSA



LEGEND

xxx / yyy AM / PM Volume

NB = northbound

SB = southbound

Capistrano Greenery at Prima Deshecha Landfill Project
 Existing Plus Project Peak-Hour Volumes

Table G: Existing Plus Project Intersection Level of Service Summary (ICU)

Intersection	Control	Peak Hour	1		2		3	
			Existing		Existing Plus Project		Project Impact ²	
			ICU	LOS	ICU	LOS	ICU	Yes/No
1 I-5 SB Ramps/Ortega Highway ¹	Signal	AM	0.652	B	0.654	B	0.002	No
		PM	0.662	B	0.665	B	0.003	No
2 I-5 NB Ramps/Ortega Highway ¹	Signal	AM	0.724	C	0.727	C	0.003	No
		PM	0.675	B	0.679	B	0.004	No
3 Rancho Viejo Road/Ortega Highway	Signal	AM	0.625	B	0.627	B	0.002	No
		PM	0.700	B	0.703	C	0.003	No
4 La Novia Avenue/Ortega Highway	Signal	AM	0.653	B	0.656	B	0.003	No
		PM	0.698	B	0.701	C	0.003	No
5 Reata Road/Ortega Highway	Signal	AM	0.677	B	0.680	B	0.003	No
		PM	0.568	A	0.571	A	0.003	No
6 Antonio Parkway–Avenida La Pata/Ortega Highway	Signal	AM	0.715	C	0.724	C	0.009	No
		PM	0.624	B	0.624	B	0.000	No
7 Avenida La Pata/Stallion Ridge	Signal	AM	0.467	A	0.469	A	0.002	No
		PM	0.415	A	0.418	A	0.003	No

¹ Intersection is considered a hot-spot location (LOS E is acceptable).

² A significant project impact occurs when the ICU in (2) minus the ICU in (1) is 0.01 or greater and the LOS in (2) is E or F.

ICU = Intersection Capacity Utilization

LOS = level of service

NB = northbound

SB = southbound

Table H: Existing Plus Project Intersection Level of Service Summary (HCM)

Intersection	Control	Peak Hour	1		2		3	
			Existing		Existing Plus Project		Project Impact ²	
			Delay	LOS	Delay	LOS	Delay	Yes/No
1 I-5 SB Ramps/Ortega Highway ¹	Signal	AM	24.7	C	24.8	C	0.1	No
		PM	23.4	C	23.6	C	0.2	No
2 I-5 NB Ramps/Ortega Highway ¹	Signal	AM	51.8	D	52.7	D	0.9	No
		PM	32.8	C	33.1	C	0.3	No
3 Rancho Viejo Road/Ortega Highway	Signal	AM	44.6	D	45.4	D	0.8	No
		PM	36.0	C	36.3	D	0.3	No
4 La Novia Avenue/Ortega Highway	Signal	AM	22.7	C	22.9	C	0.2	No
		PM	21.1	C	21.2	C	0.1	No
5 Reata Road/Ortega Highway	Signal	AM	23.1	C	23.5	C	0.4	No
		PM	19.9	B	20.1	C	0.2	No
6 Antonio Parkway–Avenida La Pata/Ortega Highway	Signal	AM	38.3	D	39.4	D	1.1	No
		PM	30.3	C	30.6	C	0.3	No
7 Avenida La Pata/Stallion Ridge	Signal	AM	23.0	C	23.0	C	0.0	No
		PM	14.8	B	14.8	B	0.0	No

¹ Intersection is considered a hot-spot location (LOS E is acceptable).

² A significant project impact occurs when the delay in (2) minus the delay in (1) is 1.0 seconds or greater and the LOS in (2) is E or F.

HCM = *Highway Capacity Manual*

LOS = level of service

NB = northbound

SB = southbound

Table I: Existing Plus Project Roadway Segment Level of Service Summary (Daily)

Ortega Highway Segment	No. of Lanes	LOS E Capacity	1			Project ADT	2			3	
			Existing				Existing Plus Project			Project Impact ⁴	
			ADT	V/C	LOS		ADT	V/C	LOS	Δ V/C	Yes/No
I-5 SB Ramps to I-5 NB Ramps ^{1,2}	8D	75,000	50,730	0.676	B	100	50,830	0.678	B	0.002	No
I-5 NB Ramps to Rancho Viejo Road ¹	6D	56,300	45,487	0.808	D	200	45,687	0.811	D	0.003	No
Rancho Viejo Road to La Novia Avenue ¹	5D	46,900	37,532	0.800	C	200	37,732	0.805	D	0.005	No
La Novia Avenue to Calle Entradero ¹	4D	37,500	36,421	0.971	E	200	36,621	0.977	E	0.006	No
Calle Entradero to Reata Road ¹	2D	20,000	33,853	1.693	F	200	34,053	1.703	F	0.010	Yes
<i>With Improvement³</i>	4D	37,500	33,853	0.903	E	200	34,053	0.908	E	0.005	No
Reata Road to Antonio–Avenida La Pata ¹	4D	37,500	31,853	0.849	D	200	32,053	0.855	D	0.006	No

 = exceeds City's Level of Service criteria

¹ Segment is a CMP location (LOS E is acceptable).

² Segment is considered a hot-spot location (LOS E is acceptable).

³ The Caltrans Lower 74 Widening Project would add one additional lane in each direction.

⁴ A significant project impact occurs when the V/C in (2) minus the V/C in (1) is 0.01 or greater and the LOS in (2) is E or F.

Δ = change

ADT = average daily traffic

Caltrans = California Department of Transportation

CMP = Congestion Management Program

D = divided

LOS = level of service

NB = northbound

SB = southbound

V/C = volume-to-capacity ratio



Table J: Existing Plus Project Roadway Segment LOS Summary (AM Peak Hour)

Ortega Highway Segment	Direction	No. of Lanes	LOS E Capacity	1			Project AM Vol	2			3	
				Existing				Existing + Project			Project LOS Impact ⁴	
				AM Vol	V/C	LOS		AM Vol	V/C	LOS	Δ AM Vol	Yes/No
I-5 Southbound Ramps to I-5 Northbound Ramps ^{1,2}	Eastbound	4	6,800	1,959	0.288	A	10	1,969	0.290	A	0.002	No
	Westbound	4	6,800	1,947	0.286	A	10	1,957	0.288	A	0.002	No
I-5 Northbound Ramps to Rancho Viejo Road ²	Eastbound	3	5,100	1,954	0.383	A	20	1,974	0.387	A	0.004	No
	Westbound	3	5,100	1,754	0.344	A	20	1,774	0.348	A	0.004	No
Rancho Viejo Road to La Novia Avenue ²	Eastbound	2	3,400	1,265	0.372	A	20	1,285	0.378	A	0.006	No
	Westbound	3	5,100	1,881	0.369	A	20	1,901	0.373	A	0.004	No
La Novia Avenue to Calle Entradero ²	Eastbound	2	3,400	1,192	0.351	A	20	1,212	0.356	A	0.005	No
	Westbound	2	3,400	1,676	0.493	A	20	1,696	0.499	A	0.006	No
Calle Entradero to Reata Road ²	Eastbound	1	1,700	975	0.574	A	20	995	0.585	A	0.011	No
	Westbound	1	1,700	1,744	1.026	F	20	1,764	1.038	F	0.012	Yes
<i>With Improvement³</i>	<i>Eastbound</i>	2	3,400	975	0.287	A	20	995	0.293	A	0.006	No
	<i>Westbound</i>	2	3,400	1,744	0.513	A	20	1,764	0.519	A	0.006	No
Reata Road to Antonio Parkway–Avenida La Pata ²	Eastbound	2	3,400	921	0.271	A	20	941	0.277	A	0.006	No
	Westbound	2	3,400	1,614	0.475	A	20	1,634	0.481	A	0.006	No

█ = exceeds City's Level of Service criteria

¹ Segment is considered a hot-spot location (LOS E is acceptable).

² Segment is a CMP location (LOS E is acceptable).

³ The Caltrans Lower 74 Widening Project would add one additional lane in each direction.

⁴ A project LOS impact occurs when the V/C in (2) minus the V/C in (1) is 0.01 or greater, and the LOS in (2) is E or F.

AM Vol = a.m. peak-hour volume

Caltrans = California Department of Transportation

CMP = Congestion Management Program

I-5 = Interstate 5

LOS = level of service

V/C = volume-to-capacity ratio

Table K: Existing Plus Project Roadway Segment LOS Summary (PM Peak Hour)

Ortega Highway Segment	Direction	No. of Lanes	LOS E Capacity	1			Project PM Vol	2			3	
				Existing				Existing + Project			Project LOS Impact ⁴	
				PM Vol	V/C	LOS		PM Vol	V/C	LOS	Δ PM Vol	Yes/No
I-5 Southbound Ramps to I-5 Northbound Ramps ^{1,2}	Eastbound	4	6,800	1,953	0.287	A	10	1,963	0.289	A	0.002	No
	Westbound	4	6,800	1,938	0.285	A	10	1,948	0.286	A	0.001	No
I-5 Northbound Ramps to Rancho Viejo Road ²	Eastbound	3	5,100	1,870	0.367	A	20	1,890	0.371	A	0.004	No
	Westbound	3	5,100	1,700	0.333	A	20	1,720	0.337	A	0.004	No
Rancho Viejo Road to La Novia Avenue ²	Eastbound	2	3,400	1,593	0.469	A	20	1,613	0.474	A	0.005	No
	Westbound	3	5,100	1,307	0.256	A	20	1,327	0.260	A	0.004	No
La Novia Avenue to Calle Entradero ²	Eastbound	2	3,400	1,668	0.491	A	20	1,688	0.496	A	0.005	No
	Westbound	2	3,400	1,214	0.357	A	20	1,234	0.363	A	0.006	No
Calle Entradero to Reata Road ²	Eastbound	1	1,700	1,609	0.946	E	20	1,629	0.958	E	0.012	No
	Westbound	1	1,700	1,175	0.691	B	20	1,195	0.703	C	0.012	No
<i>With Improvement³</i>	<i>Eastbound</i>	<i>2</i>	<i>3,400</i>	<i>1,609</i>	<i>0.473</i>	<i>A</i>	<i>20</i>	<i>1,629</i>	<i>0.479</i>	<i>A</i>	<i>0.006</i>	<i>No</i>
	<i>Westbound</i>	<i>2</i>	<i>3,400</i>	<i>1,175</i>	<i>0.346</i>	<i>A</i>	<i>20</i>	<i>1,195</i>	<i>0.351</i>	<i>A</i>	<i>0.005</i>	<i>No</i>
Reata Road to Antonio Parkway–Avenida La Pata ²	Eastbound	2	3,400	1,538	0.452	A	20	1,558	0.458	A	0.006	No
	Westbound	2	3,400	1,098	0.323	A	20	1,118	0.329	A	0.006	No

¹ Segment is considered a hot-spot location (LOS E is acceptable).

² Segment is a CMP location (LOS E is acceptable).

³ The Caltrans Lower 74 Widening Project would add one additional lane in each direction.

⁴ A project LOS impact occurs when the V/C in (2) minus the V/C in (1) is 0.01 or greater, and the LOS in (2) is E or F.

Caltrans = California Department of Transportation

CMP = Congestion Management Program

I-5 = Interstate 5

LOS = level of service

PM Vol = p.m. peak-hour volume

V/C = volume-to-capacity ratio

The proposed project would increase the deficient westbound a.m. peak-hour v/c ratio by greater than 0.01. Therefore, a project LOS impact would occur at Ortega Highway from Calle Entradero to Reata Road.

The California Department of Transportation (Caltrans) has a planned and funded improvement (the SR-74 Lower Ortega Highway Widening Project), included in the 2020 State Transportation Improvement Program (STIP), that would provide a second eastbound lane and a second westbound lane along Ortega Highway between Calle Entradero and Reata Road. This Caltrans widening project would result in satisfactory LOS (LOS E or better) at Ortega Highway from Calle Entradero to Reata Road on a daily and peak-hour basis. As such, an alleviation of the project LOS impact is anticipated from the planned widening project.

VEHICLE MILES TRAVELED ANALYSIS

Senate Bill (SB) 743, signed into law in 2013, changed the way transportation impact analyses are conducted under CEQA. Vehicle miles traveled (VMT) has replaced motorist delay and LOS as the metric for impact determination in CEQA. Subsequent to the adoption of SB 743, the Governor's Office of Planning and Research (OPR) prepared the *Technical Advisory on Evaluating Transportation Impacts in CEQA* to provide recommendations for VMT assessment, thresholds of significance, and mitigation measures. The County has since adopted its own guidelines for evaluating VMT under CEQA as part of its *2020 Local CEQA Procedures Manual*, adopted by the Orange County Board of Supervisors in 2020.

According to the County's *Final Draft Guidelines for Evaluating Vehicles Miles Traveled under CEQA* (LSA 2020), conditions may exist under which a project would have a less than significant transportation impact. More specifically, public services and facilities that support community health, safety, or welfare are screened from a vehicle miles traveled (VMT) analysis. Such facilities include fire stations, police/sheriff stations, jails, community centers, refuse stations, and landfills (i.e., Prima Deshecha Landfill and Capistrano Greenery). These facilities are already a part of the community, and as a public service, the VMT is accounted for in the existing regional average. Therefore, the proposed project is screened from a VMT analysis and presumed to have a less than significant transportation impact.

However, other CEQA assessment factors are still relevant to the proposed project. Per the *2020 Local CEQA Procedures Manual*, and as in previous CEQA practice, the lead agency is still required to provide traffic analysis that is specific to the proposed project to be reviewed and approved by the Board of Supervisors. Therefore, while not pursuant to the new VMT guidelines that replaced LOS, this TIA evaluates potential project effects to both VMT and LOS.

CONCLUSIONS

This TIA analyzes LOS to address the effects of the project on the local circulation system and evaluates VMT to address potential transportation impacts per CEQA. Based on the results of this TIA, the proposed project can be implemented without impacting the surrounding circulation system with the planned SR-74 Lower Ortega Highway Widening Project by Caltrans. The evaluation of the study area intersection and roadway segment LOS with the proposed project on site and the widening improvement, which would provide an additional eastbound lane and an additional westbound lane totaling four lanes along Ortega Highway between Calle Entradero and Reata Road, would not create any significant adverse impacts according to the City of San Juan Capistrano's performance criteria. As a public service and facility, the proposed project is screened out from a VMT analysis and presumed to have a less than significant transportation impact.

REFERENCES

City of San Juan Capistrano. 1998. Administrative Policy No. 310. (Adopted June 27, 1989; revised April 7, 1998).

_____. 1999. General Plan. Circulation Element. Adopted December 14, 1999.

County of Orange. 2020. *2020 Local CEQA Procedures Manual*. Adopted November 17, 2020.

Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December.

Orange County Transportation Authority (OCTA). 2017. *Congestion Management Program*.

LSA. 2017. *SR-74 Lower Ortega Highway Widening Project Traffic Study Report*. December.

_____. 2020. *Final Draft Guidelines for Evaluating Vehicle Miles Traveled under CEQA*. Prepared for the County of Orange. September 17.

Transportation Research Board (TRB). 1982. *NCHRP Report 255: Highway Traffic Data for Urbanized Area Project Planning and Design*. December.

_____. 2017. *Highway Capacity Manual*, 6th ed.

APPENDIX A

EXISTING TRAFFIC VOLUMES

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

City of San Juan Capistrano
 N/S: I-5 Southbound Ramps
 E/W: Ortega Highway (SR-74)
 Weather: Clear

File Name : 01_SJO_5S_74 AM
 Site Code : 00323060
 Start Date : 1/25/2023
 Page No : 1

Groups Printed- Total Volume

Start Time	I-5 Southbound Off Ramp Southbound				Ortega Highway Westbound				I-5 Southbound On Ramp Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	133	0	150	283	75	141	0	216	0	0	0	0	0	182	31	213	712
07:15 AM	132	0	216	348	78	157	0	235	0	0	0	0	0	187	27	214	797
07:30 AM	146	0	203	349	100	183	0	283	0	0	0	0	0	240	23	263	895
07:45 AM	177	0	224	401	83	229	0	312	0	0	0	0	0	324	48	372	1085
Total	588	0	793	1381	336	710	0	1046	0	0	0	0	0	933	129	1062	3489
08:00 AM	224	0	248	472	78	168	0	246	0	0	0	0	0	318	43	361	1079
08:15 AM	212	0	251	463	82	197	0	279	0	0	0	0	0	323	33	356	1098
08:30 AM	206	0	187	393	95	168	0	263	0	0	0	0	0	235	36	271	927
08:45 AM	160	0	178	338	92	167	0	259	0	0	0	0	0	246	28	274	871
Total	802	0	864	1666	347	700	0	1047	0	0	0	0	0	1122	140	1262	3975
Grand Total	1390	0	1657	3047	683	1410	0	2093	0	0	0	0	0	2055	269	2324	7464
Apprch %	45.6	0	54.4		32.6	67.4	0		0	0	0	0	0	88.4	11.6		
Total %	18.6	0	22.2	40.8	9.2	18.9	0	28	0	0	0	0	0	27.5	3.6	31.1	

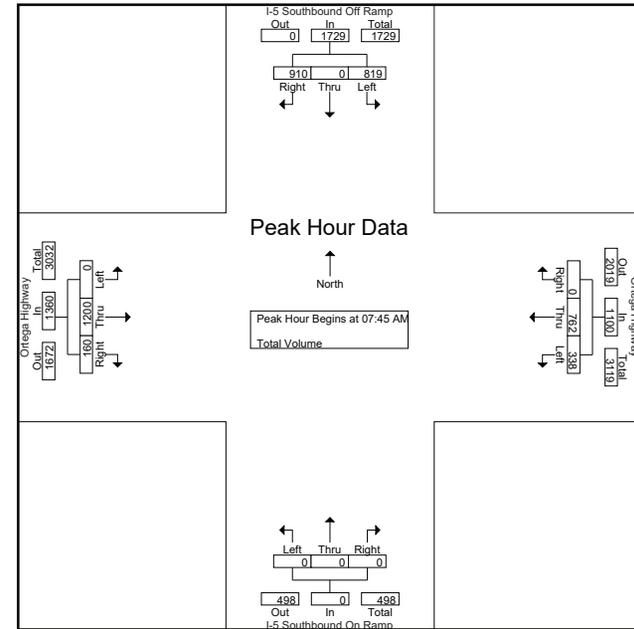
Start Time	I-5 Southbound Off Ramp Southbound				Ortega Highway Westbound				I-5 Southbound On Ramp Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:45 AM	177	0	224	401	83	229	0	312	0	0	0	0	0	324	48	372	1085
08:00 AM	224	0	248	472	78	168	0	246	0	0	0	0	0	318	43	361	1079
08:15 AM	212	0	251	463	82	197	0	279	0	0	0	0	0	323	33	356	1098
08:30 AM	206	0	187	393	95	168	0	263	0	0	0	0	0	235	36	271	927
Total Volume	819	0	910	1729	338	762	0	1100	0	0	0	0	0	1200	160	1360	4189
% App. Total	47.4	0	52.6		30.7	69.3	0		0	0	0	0	0	88.2	11.8		
PHF	.914	.000	.906	.916	.889	.832	.000	.881	.000	.000	.000	.000	.000	.926	.833	.914	.954

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

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

City of San Juan Capistrano
 N/S: I-5 Southbound Ramps
 E/W: Ortega Highway (SR-74)
 Weather: Clear

File Name : 01_SJO_5S_74 AM
 Site Code : 00323060
 Start Date : 1/25/2023
 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:

	07:45 AM				07:30 AM				07:00 AM				07:45 AM				
+0 mins.	177	0	224	401	100	183	0	283	0	0	0	0	0	0	324	48	372
+15 mins.	224	0	248	472	83	229	0	312	0	0	0	0	0	0	318	43	361
+30 mins.	212	0	251	463	78	168	0	246	0	0	0	0	0	0	323	33	356
+45 mins.	206	0	187	393	82	197	0	279	0	0	0	0	0	0	235	36	271
Total Volume	819	0	910	1729	343	777	0	1120	0	0	0	0	0	0	1200	160	1360
% App. Total	47.4	0	52.6		30.6	69.4	0		0	0	0	0	0	0	88.2	11.8	
PHF	.914	.000	.906	.916	.858	.848	.000	.897	.000	.000	.000	.000	.000	.000	.926	.833	.914

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

City of San Juan Capistrano
N/S: I-5 Southbound Ramps
E/W: Ortega Highway (SR-74)
Weather: Clear

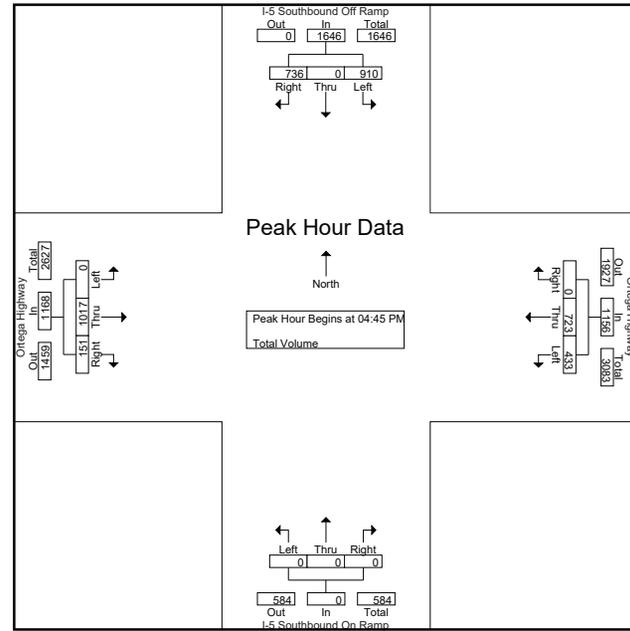
File Name : 01_SJO_5S_74 PM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 1

Groups Printed- Total Volume

Start Time	I-5 Southbound Off Ramp Southbound				Ortega Highway Westbound				I-5 Southbound On Ramp Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	258	0	179	437	100	178	0	278	0	0	0	0	0	232	37	269	984
04:15 PM	266	0	164	430	116	181	0	297	0	0	0	0	0	221	32	253	980
04:30 PM	232	0	162	394	113	167	0	280	0	0	0	0	0	211	45	256	930
04:45 PM	234	0	183	417	110	163	0	273	0	0	0	0	0	253	37	290	980
Total	990	0	688	1678	439	689	0	1128	0	0	0	0	0	917	151	1068	3874
05:00 PM	215	0	193	408	112	203	0	315	0	0	0	0	0	279	39	318	1041
05:15 PM	233	0	182	415	113	189	0	302	0	0	0	0	0	248	42	290	1007
05:30 PM	228	0	178	406	98	168	0	266	0	0	0	0	0	237	33	270	942
05:45 PM	191	0	160	351	94	225	0	319	0	0	0	0	0	210	30	240	910
Total	867	0	713	1580	417	785	0	1202	0	0	0	0	0	974	144	1118	3900
Grand Total	1857	0	1401	3258	856	1474	0	2330	0	0	0	0	0	1891	295	2186	7774
Apprch %	57	0	43		36.7	63.3	0		0	0	0	0	0	86.5	13.5		
Total %	23.9	0	18	41.9	11	19	0	30	0	0	0	0	0	24.3	3.8	28.1	

Start Time	I-5 Southbound Off Ramp Southbound				Ortega Highway Westbound				I-5 Southbound On Ramp Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	234	0	183	417	110	163	0	273	0	0	0	0	0	253	37	290	980
05:00 PM	215	0	193	408	112	203	0	315	0	0	0	0	0	279	39	318	1041
05:15 PM	233	0	182	415	113	189	0	302	0	0	0	0	0	248	42	290	1007
05:30 PM	228	0	178	406	98	168	0	266	0	0	0	0	0	237	33	270	942
Total Volume	910	0	736	1646	433	723	0	1156	0	0	0	0	0	1017	151	1168	3970
% App. Total	55.3	0	44.7		37.5	62.5	0		0	0	0	0	0	87.1	12.9		
PHF	.972	.000	.953	.987	.958	.890	.000	.917	.000	.000	.000	.000	.000	.911	.899	.918	.953

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



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				04:00 PM				04:45 PM			
+0 mins.	258	0	179	437	112	203	0	315	0	0	0	0	0	253	37	290
+15 mins.	266	0	164	430	113	189	0	302	0	0	0	0	0	279	39	318
+30 mins.	232	0	162	394	98	168	0	266	0	0	0	0	0	248	42	290
+45 mins.	234	0	183	417	94	225	0	319	0	0	0	0	0	237	33	270
Total Volume	990	0	688	1678	417	785	0	1202	0	0	0	0	0	1017	151	1168
% App. Total	59	0	41		34.7	65.3	0		0	0	0	0	0	87.1	12.9	
PHF	.930	.000	.940	.960	.923	.872	.000	.942	.000	.000	.000	.000	.000	.911	.899	.918

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

City of San Juan Capistrano
N/S: I-5 Southbound Ramps
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 01_SJO_5S_74 PM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 2

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

City of San Juan Capistrano
N/S: Avd Los Cerritos/I-5 NB Ramps
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 02_SJO_5N_74 AM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 1

Groups Printed- Total Volume

Start Time	Avenida Los Cerritos Southbound				Ortega Highway Westbound				I-5 Northbound Ramps Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	2	0	11	13	0	448	16	464	21	4	69	94	6	200	107	313	884
07:15 AM	6	0	25	31	0	475	14	489	39	3	81	123	7	215	110	332	975
07:30 AM	2	0	15	17	0	443	9	452	63	6	111	180	12	242	140	394	1043
07:45 AM	9	0	26	35	0	432	11	443	61	13	144	218	6	319	161	486	1182
Total	19	0	77	96	0	1798	50	1848	184	26	405	615	31	976	518	1525	4084
08:00 AM	7	0	18	25	0	468	13	481	36	2	138	176	14	399	133	546	1228
08:15 AM	6	0	18	24	0	405	6	411	53	14	189	256	15	367	160	542	1233
08:30 AM	5	0	20	25	0	519	16	535	31	6	114	151	5	306	151	462	1173
08:45 AM	4	0	22	26	0	318	9	327	39	9	158	206	8	261	140	409	968
Total	22	0	78	100	0	1710	44	1754	159	31	599	789	42	1333	584	1959	4602
Grand Total	41	0	155	196	0	3508	94	3602	343	57	1004	1404	73	2309	1102	3484	8686
Apprch %	20.9	0	79.1		0	97.4	2.6		24.4	4.1	71.5		2.1	66.3	31.6		
Total %	0.5	0	1.8	2.3	0	40.4	1.1	41.5	3.9	0.7	11.6	16.2	0.8	26.6	12.7	40.1	

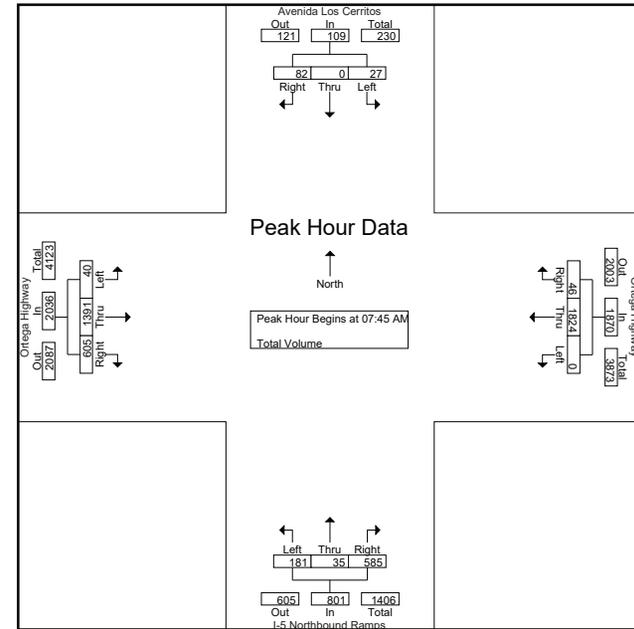
Start Time	Avenida Los Cerritos Southbound				Ortega Highway Westbound				I-5 Northbound Ramps Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:45 AM	9	0	26	35	0	432	11	443	61	13	144	218	6	319	161	486	1182
08:00 AM	7	0	18	25	0	468	13	481	36	2	138	176	14	399	133	546	1228
08:15 AM	6	0	18	24	0	405	6	411	53	14	189	256	15	367	160	542	1233
08:30 AM	5	0	20	25	0	519	16	535	31	6	114	151	5	306	151	462	1173
Total Volume	27	0	82	109	0	1824	46	1870	181	35	585	801	40	1391	605	2036	4816
% App. Total	24.8	0	75.2		0	97.5	2.5		22.6	4.4	73		2	68.3	29.7		
PHF	.750	.000	.788	.779	.000	.879	.719	.874	.742	.625	.774	.782	.667	.872	.939	.932	.976

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

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

City of San Juan Capistrano
N/S: Avd Los Cerritos/I-5 NB Ramps
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 02_SJO_5N_74 AM
Site Code : 00323060
Start Date : 1/25/2023
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:

	07:45 AM				07:45 AM				07:30 AM				07:45 AM			
+0 mins.	9	0	26	35	0	432	11	443	63	6	111	180	6	319	161	486
+15 mins.	7	0	18	25	0	468	13	481	61	13	144	218	14	399	133	546
+30 mins.	6	0	18	24	0	405	6	411	36	2	138	176	15	367	160	542
+45 mins.	5	0	20	25	0	519	16	535	53	14	189	256	5	306	151	462
Total Volume	27	0	82	109	0	1824	46	1870	213	35	582	830	40	1391	605	2036
% App. Total	24.8	0	75.2		0	97.5	2.5		25.7	4.2	70.1		2	68.3	29.7	
PHF	.750	.000	.788	.779	.000	.879	.719	.874	.845	.625	.770	.811	.667	.872	.939	.932

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

City of San Juan Capistrano
N/S: Avd Los Cerritos/I-5 NB Ramps
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 02_SJO_5N_74 PM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 1

Groups Printed- Total Volume

Start Time	Avenida Los Cerritos Southbound				Ortega Highway Westbound				I-5 Northbound Ramps Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	14	0	39	53	0	416	15	431	46	13	118	177	12	356	127	495	1156
04:15 PM	9	0	31	40	0	391	14	405	43	6	97	146	7	377	120	504	1095
04:30 PM	7	0	40	47	0	416	19	435	33	15	103	151	15	340	106	461	1094
04:45 PM	9	0	30	39	0	411	18	429	41	4	100	145	14	340	138	492	1105
Total	39	0	140	179	0	1634	66	1700	163	38	418	619	48	1413	491	1952	4450
05:00 PM	11	0	27	38	0	453	11	464	43	7	71	121	15	369	144	528	1151
05:15 PM	7	0	31	38	0	423	4	427	46	13	90	149	13	327	134	474	1088
05:30 PM	11	0	26	37	0	414	17	431	41	1	88	130	15	337	135	487	1085
05:45 PM	5	0	24	29	0	403	13	416	58	6	94	158	8	285	117	410	1013
Total	34	0	108	142	0	1693	45	1738	188	27	343	558	51	1318	530	1899	4337
Grand Total	73	0	248	321	0	3327	111	3438	351	65	761	1177	99	2731	1021	3851	8787
Apprch %	22.7	0	77.3		0	96.8	3.2		29.8	5.5	64.7		2.6	70.9	26.5		
Total %	0.8	0	2.8	3.7	0	37.9	1.3	39.1	4	0.7	8.7	13.4	1.1	31.1	11.6	43.8	

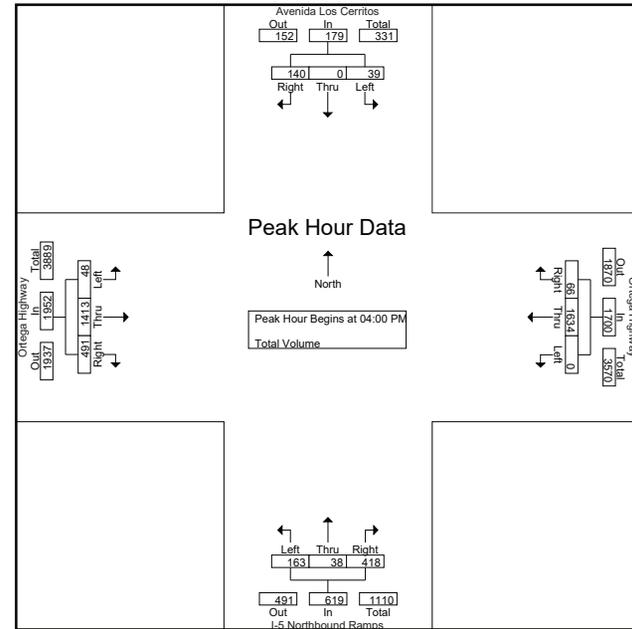
Start Time	Avenida Los Cerritos Southbound				Ortega Highway Westbound				I-5 Northbound Ramps Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	14	0	39	53	0	416	15	431	46	13	118	177	12	356	127	495	1156
04:15 PM	9	0	31	40	0	391	14	405	43	6	97	146	7	377	120	504	1095
04:30 PM	7	0	40	47	0	416	19	435	33	15	103	151	15	340	106	461	1094
04:45 PM	9	0	30	39	0	411	18	429	41	4	100	145	14	340	138	492	1105
Total	39	0	140	179	0	1634	66	1700	163	38	418	619	48	1413	491	1952	4450
% App. Total	21.8	0	78.2		0	96.1	3.9		26.3	6.1	67.5		2.5	72.4	25.2		
PHF	.696	.000	.875	.844	.000	.982	.868	.977	.886	.633	.886	.874	.800	.937	.889	.968	.962

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

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

City of San Juan Capistrano
N/S: Avd Los Cerritos/I-5 NB Ramps
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 02_SJO_5N_74 PM
Site Code : 00323060
Start Date : 1/25/2023
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				04:30 PM				04:00 PM				04:15 PM			
+0 mins.	14	0	39	53	0	416	19	435	46	13	118	177	7	377	120	504
+15 mins.	9	0	31	40	0	411	18	429	43	6	97	146	15	340	106	461
+30 mins.	7	0	40	47	0	453	11	464	33	15	103	151	14	340	138	492
+45 mins.	9	0	30	39	0	423	4	427	41	4	100	145	15	369	144	528
Total Volume	39	0	140	179	0	1703	52	1755	163	38	418	619	51	1426	508	1985
% App. Total	21.8	0	78.2		0	97	3		26.3	6.1	67.5		2.6	71.8	25.6	
PHF	.696	.000	.875	.844	.000	.940	.684	.946	.886	.633	.886	.874	.850	.946	.882	.940

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

City of San Juan Capistrano
N/S: Rancho Viejo Road
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 03_SJO_RV_74 AM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 1

Groups Printed- Total Volume

Start Time	Rancho Viejo Road Southbound				Ortega Highway Westbound				Rancho Viejo Road Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	26	5	17	48	6	401	32	439	32	8	7	47	21	195	61	277	811
07:15 AM	21	9	15	45	15	441	35	491	43	9	6	58	15	231	63	309	903
07:30 AM	44	23	29	96	11	378	57	446	51	19	9	79	27	248	70	345	966
07:45 AM	36	15	34	85	10	412	97	519	32	15	8	55	38	315	117	470	1129
Total	127	52	95	274	42	1632	221	1895	158	51	30	239	101	989	311	1401	3809
08:00 AM	64	31	29	124	16	367	106	489	65	16	13	94	41	335	154	530	1237
08:15 AM	65	37	27	129	17	339	119	475	95	36	20	151	46	292	204	542	1297
08:30 AM	56	20	52	128	20	375	94	489	74	26	15	115	60	230	125	415	1147
08:45 AM	46	23	36	105	21	268	67	356	56	11	8	75	59	244	143	446	982
Total	231	111	144	486	74	1349	386	1809	290	89	56	435	206	1101	626	1933	4663
Grand Total	358	163	239	760	116	2981	607	3704	448	140	86	674	307	2090	937	3334	8472
Apprch %	47.1	21.4	31.4		3.1	80.5	16.4		66.5	20.8	12.8		9.2	62.7	28.1		
Total %	4.2	1.9	2.8	9	1.4	35.2	7.2	43.7	5.3	1.7	1	8	3.6	24.7	11.1	39.4	

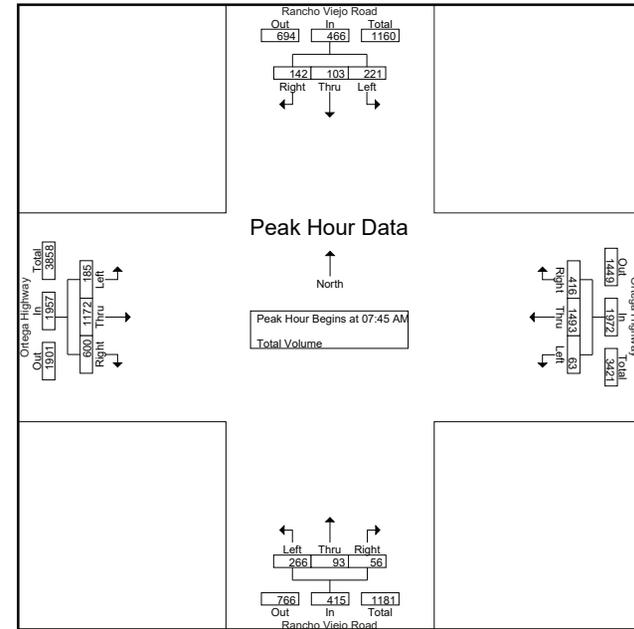
Start Time	Rancho Viejo Road Southbound				Ortega Highway Westbound				Rancho Viejo Road Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:45 AM	36	15	34	85	10	412	97	519	32	15	8	55	38	315	117	470	1129
08:00 AM	64	31	29	124	16	367	106	489	65	16	13	94	41	335	154	530	1237
08:15 AM	65	37	27	129	17	339	119	475	95	36	20	151	46	292	204	542	1297
08:30 AM	56	20	52	128	20	375	94	489	74	26	15	115	60	230	125	415	1147
Total Volume	221	103	142	466	63	1493	416	1972	266	93	56	415	185	1172	600	1957	4810
% App. Total	47.4	22.1	30.5		3.2	75.7	21.1		64.1	22.4	13.5		9.5	59.9	30.7		
PHF	.850	.696	.683	.903	.788	.906	.874	.950	.700	.646	.700	.687	.771	.875	.735	.903	.927

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

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

City of San Juan Capistrano
N/S: Rancho Viejo Road
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 03_SJO_RV_74 AM
Site Code : 00323060
Start Date : 1/25/2023
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:

	08:00 AM				07:45 AM				08:00 AM				07:45 AM			
+0 mins.	64	31	29	124	10	412	97	519	65	16	13	94	38	315	117	470
+15 mins.	65	37	27	129	16	367	106	489	95	36	20	151	41	335	154	530
+30 mins.	56	20	52	128	17	339	119	475	74	26	15	115	46	292	204	542
+45 mins.	46	23	36	105	20	375	94	489	56	11	8	75	60	230	125	415
Total Volume	231	111	144	486	63	1493	416	1972	290	89	56	435	185	1172	600	1957
% App. Total	47.5	22.8	29.6		3.2	75.7	21.1		66.7	20.5	12.9		9.5	59.9	30.7	
PHF	.888	.750	.692	.942	.788	.906	.874	.950	.763	.618	.700	.720	.771	.875	.735	.903

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Corona, CA 92878
(951)268-6268

City of San Juan Capistrano
N/S: Rancho Viejo Road
E/W: Ortega Highway (SR-74)
Weather: Clear

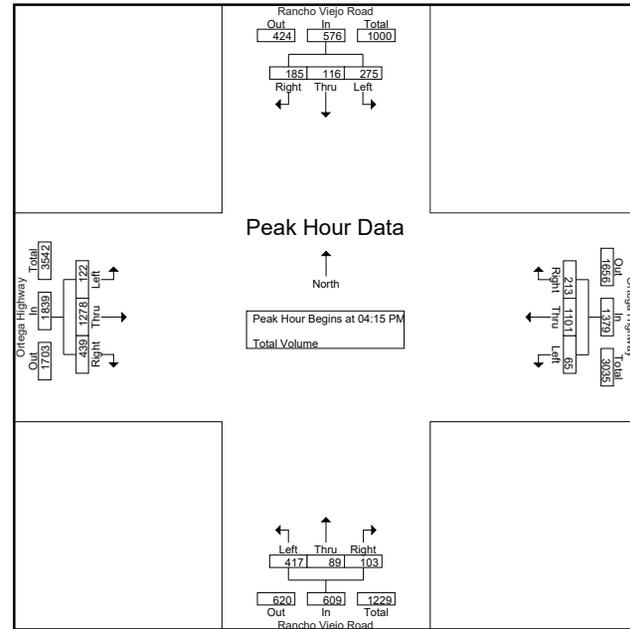
File Name : 03_SJO_RV_74 PM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 1

Groups Printed- Total Volume

Start Time	Rancho Viejo Road Southbound				Ortega Highway Westbound				Rancho Viejo Road Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	54	34	59	147	13	238	57	308	104	20	22	146	33	332	109	474	1075
04:15 PM	62	34	47	143	15	296	50	361	71	22	33	126	38	361	110	509	1139
04:30 PM	61	29	49	139	22	255	50	327	119	18	26	163	29	285	95	409	1038
04:45 PM	75	24	44	143	13	267	53	333	110	22	20	152	33	342	116	491	1119
Total	252	121	199	572	63	1056	210	1329	404	82	101	587	133	1320	430	1883	4371
05:00 PM	77	29	45	151	15	283	60	358	117	27	24	168	22	290	118	430	1107
05:15 PM	64	21	35	120	13	289	41	343	86	15	27	128	30	297	106	433	1024
05:30 PM	49	24	44	117	14	258	35	307	110	20	29	159	23	300	85	408	991
05:45 PM	45	29	38	112	20	259	55	334	121	17	24	162	17	257	102	376	984
Total	235	103	162	500	62	1089	191	1342	434	79	104	617	92	1144	411	1647	4106
Grand Total	487	224	361	1072	125	2145	401	2671	838	161	205	1204	225	2464	841	3530	8477
Apprch %	45.4	20.9	33.7		4.7	80.3	15		69.6	13.4	17		6.4	69.8	23.8		
Total %	5.7	2.6	4.3	12.6	1.5	25.3	4.7	31.5	9.9	1.9	2.4	14.2	2.7	29.1	9.9	41.6	

Start Time	Rancho Viejo Road Southbound				Ortega Highway Westbound				Rancho Viejo Road Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	62	34	47	143	15	296	50	361	71	22	33	126	38	361	110	509	1139
04:30 PM	61	29	49	139	22	255	50	327	119	18	26	163	29	285	95	409	1038
04:45 PM	75	24	44	143	13	267	53	333	110	22	20	152	33	342	116	491	1119
05:00 PM	77	29	45	151	15	283	60	358	117	27	24	168	22	290	118	430	1107
Total Volume	275	116	185	576	65	1101	213	1379	417	89	103	609	122	1278	439	1839	4403
% App. Total	47.7	20.1	32.1		4.7	79.8	15.4		68.5	14.6	16.9		6.6	69.5	23.9		
PHF	.893	.853	.944	.954	.739	.930	.888	.955	.876	.824	.780	.906	.803	.885	.930	.903	.966

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:15 PM



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

	04:15 PM				04:30 PM				05:00 PM				04:00 PM			
+0 mins.	62	34	47	143	15	296	50	361	117	27	24	168	33	332	109	474
+15 mins.	61	29	49	139	22	255	50	327	86	15	27	128	38	361	110	509
+30 mins.	75	24	44	143	13	267	53	333	110	20	29	159	29	285	95	409
+45 mins.	77	29	45	151	15	283	60	358	121	17	24	162	33	342	116	491
Total Volume	275	116	185	576	65	1101	213	1379	434	79	104	617	133	1320	430	1883
% App. Total	47.7	20.1	32.1		4.7	79.8	15.4		70.3	12.8	16.9		7.1	70.1	22.8	
PHF	.893	.853	.944	.954	.739	.930	.888	.955	.897	.731	.897	.918	.875	.914	.927	.925

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

City of San Juan Capistrano
N/S: Rancho Viejo Road
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 03_SJO_RV_74 PM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 2

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

City of San Juan Capistrano
 N/S: La Novia Avenue
 E/W: Ortega Highway (SR-74)
 Weather: Clear

File Name : 04_SJO_La Nov_74 AM
 Site Code : 00323060
 Start Date : 1/25/2023
 Page No : 1

Groups Printed- Total Volume

Start Time	Ortega Highway Westbound			La Novia Avenue Northbound			Ortega Highway Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	33	386	419	60	10	70	189	31	220	709
07:15 AM	39	412	451	74	26	100	199	48	247	798
07:30 AM	39	404	443	57	43	100	223	38	261	804
07:45 AM	37	431	468	70	41	111	298	43	341	920
Total	148	1633	1781	261	120	381	909	160	1069	3231
08:00 AM	55	413	468	106	53	159	272	91	363	990
08:15 AM	73	419	492	121	75	196	248	101	349	1037
08:30 AM	41	383	424	107	43	150	231	37	268	842
08:45 AM	27	265	292	67	25	92	245	40	285	669
Total	196	1480	1676	401	196	597	996	269	1265	3538
Grand Total	344	3113	3457	662	316	978	1905	429	2334	6769
Apprch %	10	90		67.7	32.3		81.6	18.4		
Total %	5.1	46	51.1	9.8	4.7	14.4	28.1	6.3	34.5	

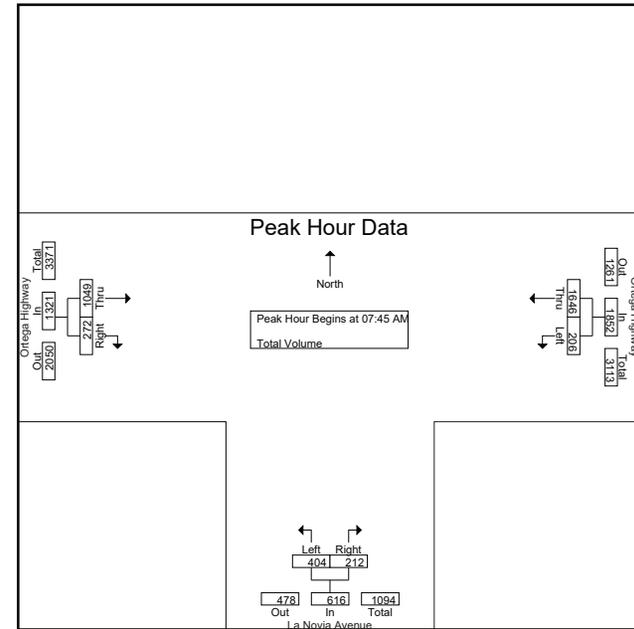
Start Time	Ortega Highway Westbound			La Novia Avenue Northbound			Ortega Highway Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:45 AM	37	431	468	70	41	111	298	43	341	920
08:00 AM	55	413	468	106	53	159	272	91	363	990
08:15 AM	73	419	492	121	75	196	248	101	349	1037
08:30 AM	41	383	424	107	43	150	231	37	268	842
Total Volume	206	1646	1852	404	212	616	1049	272	1321	3789
% App. Total	11.1	88.9		65.6	34.4		79.4	20.6		
PHF	.705	.955	.941	.835	.707	.786	.880	.673	.910	.913

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

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 (951)268-6268

City of San Juan Capistrano
 N/S: La Novia Avenue
 E/W: Ortega Highway (SR-74)
 Weather: Clear

File Name : 04_SJO_La Nov_74 AM
 Site Code : 00323060
 Start Date : 1/25/2023
 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:

	07:30 AM	07:45 AM	07:45 AM
+0 mins.	39 404 443	70 41 111	298 43 341
+15 mins.	37 431 468	106 53 159	272 91 363
+30 mins.	55 413 468	121 75 196	248 101 349
+45 mins.	73 419 492	107 43 150	231 37 268
Total Volume	204 1667 1871	404 212 616	1049 272 1321
% App. Total	10.9 89.1	65.6 34.4	79.4 20.6
PHF	.699 .967 .951	.835 .707 .786	.880 .673 .910

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City of San Juan Capistrano
 N/S: La Novia Avenue
 E/W: Ortega Highway (SR-74)
 Weather: Clear

File Name : 04_SJO_La Nov_74 PM
 Site Code : 00323060
 Start Date : 1/25/2023
 Page No : 1

Groups Printed- Total Volume

Start Time	Ortega Highway Westbound			La Novia Avenue Northbound			Ortega Highway Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	49	253	302	64	59	123	349	28	377	802
04:15 PM	37	262	299	60	50	110	381	52	433	842
04:30 PM	44	270	314	75	63	138	323	40	363	815
04:45 PM	37	262	299	61	69	130	374	46	420	849
Total	167	1047	1214	260	241	501	1427	166	1593	3308
05:00 PM	26	288	314	79	60	139	354	32	386	839
05:15 PM	32	255	287	55	46	101	348	25	373	761
05:30 PM	35	246	281	61	50	111	341	23	364	756
05:45 PM	24	274	298	54	51	105	314	29	343	746
Total	117	1063	1180	249	207	456	1357	109	1466	3102
Grand Total	284	2110	2394	509	448	957	2784	275	3059	6410
Apprch %	11.9	88.1		53.2	46.8		91	9		
Total %	4.4	32.9	37.3	7.9	7	14.9	43.4	4.3	47.7	

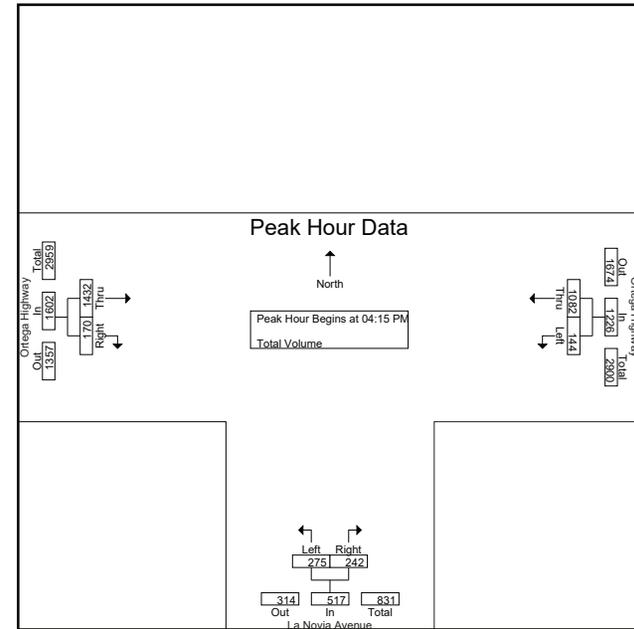
Start Time	Ortega Highway Westbound			La Novia Avenue Northbound			Ortega Highway Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:15 PM	37	262	299	60	50	110	381	52	433	842
04:30 PM	44	270	314	75	63	138	323	40	363	815
04:45 PM	37	262	299	61	69	130	374	46	420	849
05:00 PM	26	288	314	79	60	139	354	32	386	839
Total Volume	144	1082	1226	275	242	517	1432	170	1602	3345
% App. Total	11.7	88.3		53.2	46.8		89.4	10.6		
PHF	.818	.939	.976	.870	.877	.930	.940	.817	.925	.985

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:15 PM

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

City of San Juan Capistrano
 N/S: La Novia Avenue
 E/W: Ortega Highway (SR-74)
 Weather: Clear

File Name : 04_SJO_La Nov_74 PM
 Site Code : 00323060
 Start Date : 1/25/2023
 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:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	37	262	299	60	50	110	381	52	433
+15 mins.	44	270	314	75	63	138	323	40	363
+30 mins.	37	262	299	61	69	130	374	46	420
+45 mins.	26	288	314	79	60	139	354	32	386
Total Volume	144	1082	1226	275	242	517	1432	170	1602
% App. Total	11.7	88.3		53.2	46.8		89.4	10.6	
PHF	.818	.939	.976	.870	.877	.930	.940	.817	.925

Counts Unlimited, Inc.
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City of San Juan Capistrano
N/S: Reata Road
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 05_SJO_Reata_74 AM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 1

Groups Printed- Total Volume

Start Time	Reata Road Southbound				Ortega Highway Westbound				Reata Road Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	0	27	28	0	407	8	415	1	0	0	1	6	188	0	194	638
07:15 AM	4	0	33	37	0	411	3	414	0	0	0	0	15	206	1	222	673
07:30 AM	3	0	48	51	0	381	5	386	1	0	0	1	12	206	0	218	656
07:45 AM	3	0	42	45	0	391	5	396	1	0	0	1	30	307	3	340	782
Total	11	0	150	161	0	1590	21	1611	3	0	0	3	63	907	4	974	2749
08:00 AM	5	0	55	60	1	395	7	403	1	0	1	2	23	325	0	348	813
08:15 AM	8	1	59	68	0	369	6	375	0	0	0	0	25	233	5	263	706
08:30 AM	3	0	30	33	1	309	6	316	3	0	0	3	39	240	0	279	631
08:45 AM	8	0	15	23	1	289	13	303	0	0	0	0	17	218	0	235	561
Total	24	1	159	184	3	1362	32	1397	4	0	1	5	104	1016	5	1125	2711
Grand Total	35	1	309	345	3	2952	53	3008	7	0	1	8	167	1923	9	2099	5460
Apprch %	10.1	0.3	89.6		0.1	98.1	1.8		87.5	0	12.5		8	91.6	0.4		
Total %	0.6	0	5.7	6.3	0.1	54.1	1	55.1	0.1	0	0	0.1	3.1	35.2	0.2	38.4	

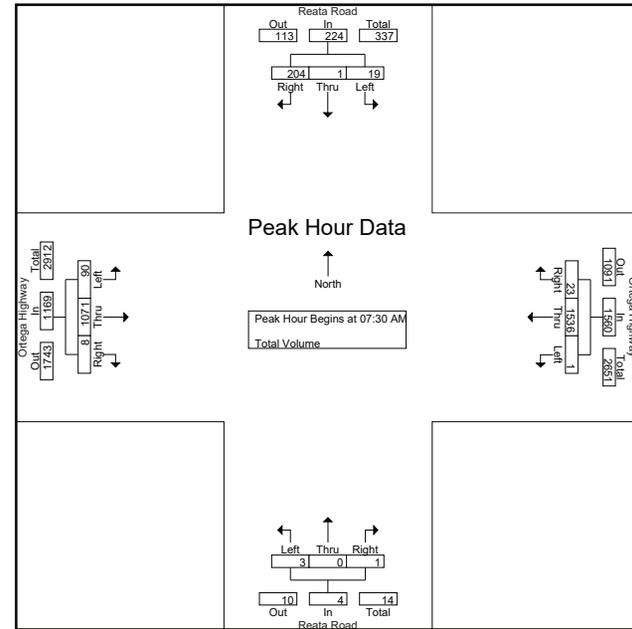
Start Time	Reata Road Southbound				Ortega Highway Westbound				Reata Road Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:30 AM	3	0	48	51	0	381	5	386	1	0	0	1	12	206	0	218	656
07:45 AM	3	0	42	45	0	391	5	396	1	0	0	1	30	307	3	340	782
08:00 AM	5	0	55	60	1	395	7	403	1	0	1	2	23	325	0	348	813
08:15 AM	8	1	59	68	0	369	6	375	0	0	0	0	25	233	5	263	706
Total Volume	19	1	204	224	1	1536	23	1560	3	0	1	4	90	1071	8	1169	2957
% App. Total	8.5	0.4	91.1		0.1	98.5	1.5		75	0	25		7.7	91.6	0.7		
PHF	.594	.250	.864	.824	.250	.972	.821	.968	.750	.000	.250	.500	.750	.824	.400	.840	.909

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:30 AM

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City of San Juan Capistrano
N/S: Reata Road
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 05_SJO_Reata_74 AM
Site Code : 00323060
Start Date : 1/25/2023
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:

	07:30 AM				07:00 AM				07:45 AM				07:45 AM			
+0 mins.	3	0	48	51	0	407	8	415	1	0	0	1	30	307	3	340
+15 mins.	3	0	42	45	0	411	3	414	1	0	1	2	23	325	0	348
+30 mins.	5	0	55	60	0	381	5	386	0	0	0	0	25	233	5	263
+45 mins.	8	1	59	68	0	391	5	396	3	0	0	3	39	240	0	279
Total Volume	19	1	204	224	0	1590	21	1611	5	0	1	6	117	1105	8	1230
% App. Total	8.5	0.4	91.1		0	98.7	1.3		83.3	0	16.7		9.5	89.8	0.7	
PHF	.594	.250	.864	.824	.000	.967	.656	.970	.417	.000	.250	.500	.750	.850	.400	.884

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City of San Juan Capistrano
N/S: Reata Road
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Weather: Clear

File Name : 05_SJO_Reata_74 PM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 1

Groups Printed- Total Volume

Start Time	Reata Road Southbound				Ortega Highway Westbound				Reata Road Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	8	0	30	38	0	266	10	276	0	1	0	1	22	378	0	400	715
04:15 PM	6	0	20	26	2	255	16	273	0	0	1	1	24	374	1	399	699
04:30 PM	15	0	37	52	7	275	1	283	0	0	1	1	29	373	1	403	739
04:45 PM	6	0	33	39	0	259	6	265	0	2	1	3	31	374	2	407	714
Total	35	0	120	155	9	1055	33	1097	0	3	3	6	106	1499	4	1609	2867
05:00 PM	9	0	24	33	1	281	11	293	2	0	1	3	21	387	1	409	738
05:15 PM	6	0	19	25	2	265	12	279	1	0	1	2	26	350	1	377	683
05:30 PM	2	0	24	26	0	235	6	241	0	0	0	0	15	369	0	384	651
05:45 PM	5	0	22	27	0	253	8	261	1	0	0	1	22	367	1	390	679
Total	22	0	89	111	3	1034	37	1074	4	0	2	6	84	1473	3	1560	2751
Grand Total	57	0	209	266	12	2089	70	2171	4	3	5	12	190	2972	7	3169	5618
Apprch %	21.4	0	78.6		0.6	96.2	3.2		33.3	25	41.7		6	93.8	0.2		
Total %	1	0	3.7	4.7	0.2	37.2	1.2	38.6	0.1	0.1	0.1	0.2	3.4	52.9	0.1	56.4	

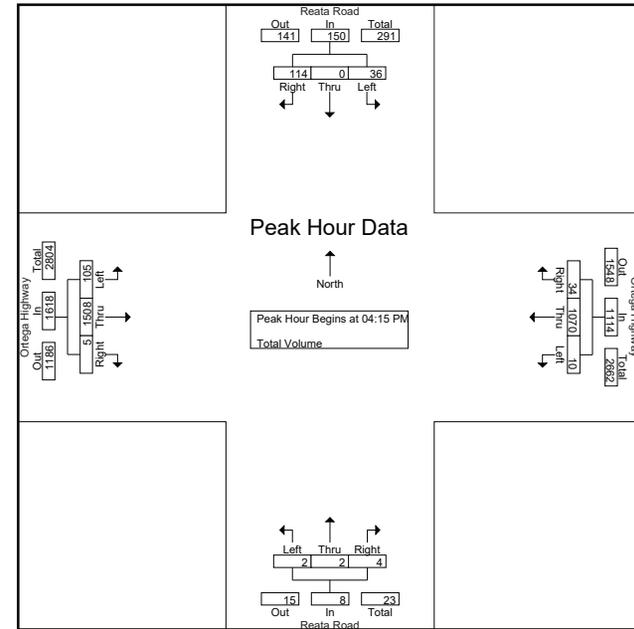
Start Time	Reata Road Southbound				Ortega Highway Westbound				Reata Road Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:15 PM	6	0	20	26	2	255	16	273	0	0	1	1	24	374	1	399	699
04:30 PM	15	0	37	52	7	275	1	283	0	0	1	1	29	373	1	403	739
04:45 PM	6	0	33	39	0	259	6	265	0	2	1	3	31	374	2	407	714
05:00 PM	9	0	24	33	1	281	11	293	2	0	1	3	21	387	1	409	738
Total Volume	36	0	114	150	10	1070	34	1114	2	2	4	8	105	1508	5	1618	2890
% App. Total	24	0	76		0.9	96.1	3.1		25	25	50		6.5	93.2	0.3		
PHF	.600	.000	.770	.721	.357	.952	.531	.951	.250	.250	1.00	.667	.847	.974	.625	.989	.978

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:15 PM

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(951)268-6268

City of San Juan Capistrano
N/S: Reata Road
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 05_SJO_Reata_74 PM
Site Code : 00323060
Start Date : 1/25/2023
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				04:30 PM				04:30 PM				04:15 PM			
+0 mins.	8	0	30	38	7	275	1	283	0	0	1	1	24	374	1	399
+15 mins.	6	0	20	26	0	259	6	265	0	2	1	3	29	373	1	403
+30 mins.	15	0	37	52	1	281	11	293	2	0	1	3	31	374	2	407
+45 mins.	6	0	33	39	2	265	12	279	1	0	1	2	21	387	1	409
Total Volume	35	0	120	155	10	1080	30	1120	3	2	4	9	105	1508	5	1618
% App. Total	22.6	0	77.4		0.9	96.4	2.7		33.3	22.2	44.4		6.5	93.2	0.3	
PHF	.583	.000	.811	.745	.357	.961	.625	.956	.375	.250	1.000	.750	.847	.974	.625	.989

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City of San Juan Capistrano
N/S: Antonio Parkway/Avenida La Pata
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 06_SJO_ALP_74 AM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 1

Groups Printed- Total Volume

Start Time	Antonio Parkway Southbound				Ortega Highway Westbound				Avenida La Pata Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	18	129	96	243	43	216	58	317	104	134	1	239	84	36	64	184	983
07:15 AM	21	139	142	302	45	203	63	311	92	120	12	224	95	53	58	206	1043
07:30 AM	20	184	157	361	40	158	74	272	65	123	15	203	98	39	67	204	1040
07:45 AM	19	271	176	466	43	181	80	304	77	159	12	248	127	51	120	298	1316
Total	78	723	571	1372	171	758	275	1204	338	536	40	914	404	179	309	892	4382
08:00 AM	23	358	210	591	42	125	70	237	106	182	10	298	130	38	158	326	1452
08:15 AM	14	291	166	471	40	112	72	224	93	240	8	341	126	39	82	247	1283
08:30 AM	19	113	121	253	23	67	24	114	77	163	9	249	131	51	57	239	855
08:45 AM	20	122	147	289	25	94	23	142	60	84	11	155	122	43	54	219	805
Total	76	884	644	1604	130	398	189	717	336	669	38	1043	509	171	351	1031	4395
Grand Total	154	1607	1215	2976	301	1156	464	1921	674	1205	78	1957	913	350	660	1923	8777
Apprch %	5.2	54	40.8		15.7	60.2	24.2		34.4	61.6	4		47.5	18.2	34.3		
Total %	1.8	18.3	13.8	33.9	3.4	13.2	5.3	21.9	7.7	13.7	0.9	22.3	10.4	4	7.5	21.9	

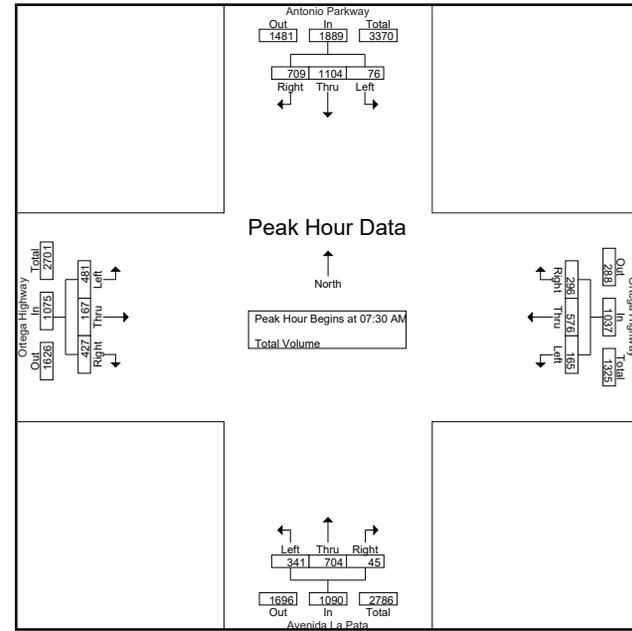
Start Time	Antonio Parkway Southbound				Ortega Highway Westbound				Avenida La Pata Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:30 AM	20	184	157	361	40	158	74	272	65	123	15	203	98	39	67	204	1040
07:45 AM	19	271	176	466	43	181	80	304	77	159	12	248	127	51	120	298	1316
08:00 AM	23	358	210	591	42	125	70	237	106	182	10	298	130	38	158	326	1452
08:15 AM	14	291	166	471	40	112	72	224	93	240	8	341	126	39	82	247	1283
Total Volume	76	1104	709	1889	165	576	296	1037	341	704	45	1090	481	167	427	1075	5091
% App. Total	4	58.4	37.5		15.9	55.5	28.5		31.3	64.6	4.1		44.7	15.5	39.7		
PHF	.826	.771	.844	.799	.959	.796	.925	.853	.804	.733	.750	.799	.925	.819	.676	.824	.877

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:30 AM

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

City of San Juan Capistrano
N/S: Antonio Parkway/Avenida La Pata
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 06_SJO_ALP_74 AM
Site Code : 00323060
Start Date : 1/25/2023
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:

	07:30 AM				07:00 AM				07:45 AM				07:45 AM			
+0 mins.	20	184	157	361	43	216	58	317	77	159	12	248	127	51	120	298
+15 mins.	19	271	176	466	45	203	63	311	106	182	10	298	130	38	158	326
+30 mins.	23	358	210	591	40	158	74	272	93	240	8	341	126	39	82	247
+45 mins.	14	291	166	471	43	181	80	304	77	163	9	249	131	51	57	239
Total Volume	76	1104	709	1889	171	758	275	1204	353	744	39	1136	514	179	417	1110
% App. Total	4	58.4	37.5		14.2	63	22.8		31.1	65.5	3.4		46.3	16.1	37.6	
PHF	.826	.771	.844	.799	.950	.877	.859	.950	.833	.775	.813	.833	.981	.877	.660	.851

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City of San Juan Capistrano
N/S: Antonio Parkway/Avenida La Pata
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 06_SJO_ALP_74 PM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 1

Groups Printed- Total Volume

Start Time	Antonio Parkway Southbound				Ortega Highway Westbound				Avenida La Pata Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	58	119	115	292	26	70	27	123	105	174	57	336	123	207	72	402	1153
04:15 PM	63	138	146	347	21	60	26	107	61	193	42	296	143	192	72	407	1157
04:30 PM	58	159	138	355	21	68	25	114	77	174	50	301	127	206	57	390	1160
04:45 PM	60	167	133	360	24	48	26	98	82	219	63	364	113	177	62	352	1174
Total	239	583	532	1354	92	246	104	442	325	760	212	1297	506	782	263	1551	4644
05:00 PM	78	123	135	336	22	61	26	109	85	177	32	294	135	198	73	406	1145
05:15 PM	36	158	130	324	23	59	40	122	75	178	54	307	143	178	67	388	1141
05:30 PM	70	133	139	342	27	40	30	97	61	166	46	273	117	170	47	334	1046
05:45 PM	53	118	138	309	34	65	30	129	57	120	40	217	151	189	61	401	1056
Total	237	532	542	1311	106	225	126	457	278	641	172	1091	546	735	248	1529	4388
Grand Total	476	1115	1074	2665	198	471	230	899	603	1401	384	2388	1052	1517	511	3080	9032
Apprch %	17.9	41.8	40.3		22	52.4	25.6		25.3	58.7	16.1		34.2	49.3	16.6		
Total %	5.3	12.3	11.9	29.5	2.2	5.2	2.5	10	6.7	15.5	4.3	26.4	11.6	16.8	5.7	34.1	

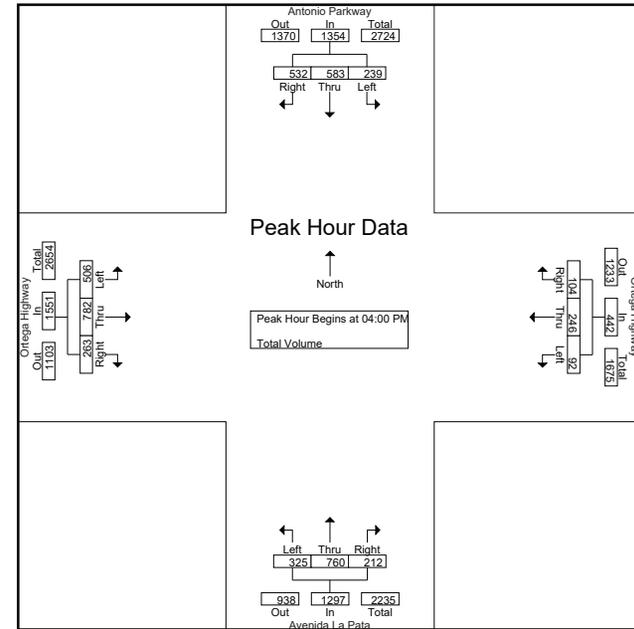
Start Time	Antonio Parkway Southbound				Ortega Highway Westbound				Avenida La Pata Northbound				Ortega Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	58	119	115	292	26	70	27	123	105	174	57	336	123	207	72	402	1153
04:15 PM	63	138	146	347	21	60	26	107	61	193	42	296	143	192	72	407	1157
04:30 PM	58	159	138	355	21	68	25	114	77	174	50	301	127	206	57	390	1160
04:45 PM	60	167	133	360	24	48	26	98	82	219	63	364	113	177	62	352	1174
Total	239	583	532	1354	92	246	104	442	325	760	212	1297	506	782	263	1551	4644
% App. Total	17.7	43.1	39.3		20.8	55.7	23.5		25.1	58.6	16.3		32.6	50.4	17		
PHF	.948	.873	.911	.940	.885	.879	.963	.898	.774	.868	.841	.891	.885	.944	.913	.953	.989

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

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City of San Juan Capistrano
N/S: Antonio Parkway/Avenida La Pata
E/W: Ortega Highway (SR-74)
Weather: Clear

File Name : 06_SJO_ALP_74 PM
Site Code : 00323060
Start Date : 1/25/2023
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:

	04:15 PM				05:00 PM				04:00 PM				04:15 PM			
+0 mins.	63	138	146	347	22	61	26	109	105	174	57	336	143	192	72	407
+15 mins.	58	159	138	355	23	59	40	122	61	193	42	296	127	206	57	390
+30 mins.	60	167	133	360	27	40	30	97	77	174	50	301	113	177	62	352
+45 mins.	78	123	135	336	34	65	30	129	82	219	63	364	135	198	73	406
Total Volume	259	587	552	1398	106	225	126	457	325	760	212	1297	518	773	264	1555
% App. Total	18.5	42	39.5		23.2	49.2	27.6		25.1	58.6	16.3		33.3	49.7	17	
PHF	.830	.879	.945	.971	.779	.865	.788	.886	.774	.868	.841	.891	.906	.938	.904	.955

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City of San Juan Capistrano
 N/S: Avenida La Pata
 E/W: Stallion Ridge
 Weather: Clear

File Name : 07_SJO_ALP_SR AM
 Site Code : 00323060
 Start Date : 1/25/2023
 Page No : 1

Groups Printed- Total Volume

Start Time	Avenida La Pata Southbound				Stallion Ridge Westbound				Avenida La Pata Northbound				Stallion Ridge Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	3	145	161	309	1	0	2	3	40	68	2	110	176	0	41	217	639
07:15 AM	1	148	82	231	1	0	4	5	16	120	1	137	49	1	6	56	429
07:30 AM	1	181	87	269	1	0	3	4	15	142	0	157	58	0	14	72	502
07:45 AM	1	190	197	388	0	0	1	1	32	137	0	169	99	0	16	115	673
Total	6	664	527	1197	3	0	10	13	103	467	3	573	382	1	77	460	2243
08:00 AM	2	167	270	439	0	0	1	1	81	145	0	226	170	0	36	206	872
08:15 AM	0	242	258	500	1	1	1	3	75	173	0	248	152	0	53	205	956
08:30 AM	1	161	23	185	0	0	1	1	7	134	0	141	94	0	25	119	446
08:45 AM	1	178	20	199	0	0	0	0	1	142	0	143	10	0	1	11	353
Total	4	748	571	1323	1	1	3	5	164	594	0	758	426	0	115	541	2627
Grand Total	10	1412	1098	2520	4	1	13	18	267	1061	3	1331	808	1	192	1001	4870
Apprch %	0.4	56	43.6		22.2	5.6	72.2		20.1	79.7	0.2		80.7	0.1	19.2		
Total %	0.2	29	22.5	51.7	0.1	0	0.3	0.4	5.5	21.8	0.1	27.3	16.6	0	3.9	20.6	

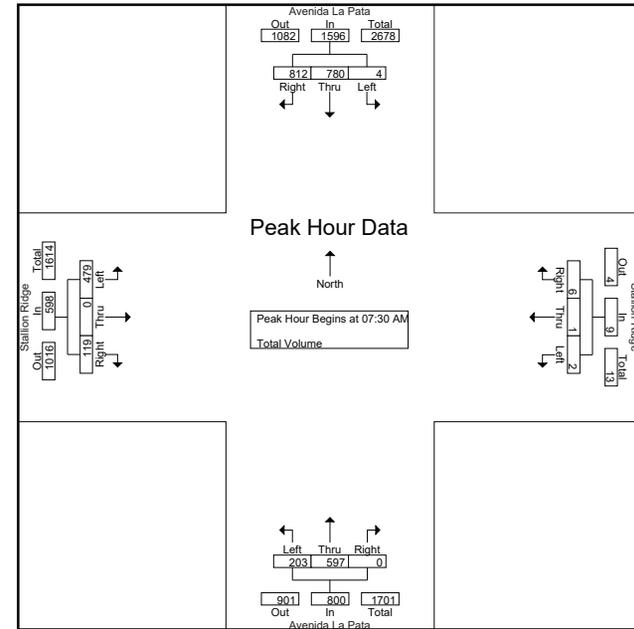
Start Time	Avenida La Pata Southbound				Stallion Ridge Westbound				Avenida La Pata Northbound				Stallion Ridge Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:30 AM	1	181	87	269	1	0	3	4	15	142	0	157	58	0	14	72	502
07:45 AM	1	190	197	388	0	0	1	1	32	137	0	169	99	0	16	115	673
08:00 AM	2	167	270	439	0	0	1	1	81	145	0	226	170	0	36	206	872
08:15 AM	0	242	258	500	1	1	1	3	75	173	0	248	152	0	53	205	956
Total Volume	4	780	812	1596	2	1	6	9	203	597	0	800	479	0	119	598	3003
% App. Total	0.3	48.9	50.9		22.2	11.1	66.7		25.4	74.6	0		80.1	0	19.9		
PHF	.500	.806	.752	.798	.500	.250	.500	.563	.627	.863	.000	.806	.704	.000	.561	.726	.785

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:30 AM

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City of San Juan Capistrano
 N/S: Avenida La Pata
 E/W: Stallion Ridge
 Weather: Clear

File Name : 07_SJO_ALP_SR AM
 Site Code : 00323060
 Start Date : 1/25/2023
 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:

	07:30 AM				07:00 AM				07:30 AM				07:45 AM			
+0 mins.	1	181	87	269	1	0	2	3	15	142	0	157	99	0	16	115
+15 mins.	1	190	197	388	1	0	4	5	32	137	0	169	170	0	36	206
+30 mins.	2	167	270	439	1	0	3	4	81	145	0	226	152	0	53	205
+45 mins.	0	242	258	500	0	0	1	1	75	173	0	248	94	0	25	119
Total Volume	4	780	812	1596	3	0	10	13	203	597	0	800	515	0	130	645
% App. Total	0.3	48.9	50.9		23.1	0	76.9		25.4	74.6	0		79.8	0	20.2	
PHF	.500	.806	.752	.798	.750	.000	.625	.650	.627	.863	.000	.806	.757	.000	.613	.783

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City of San Juan Capistrano
N/S: Avenida La Pata
E/W: Stallion Ridge
Weather: Clear

File Name : 07_SJO_ALP_SR PM
Site Code : 00323060
Start Date : 1/25/2023
Page No : 1

Groups Printed- Total Volume

Start Time	Avenida La Pata Southbound				Stallion Ridge Westbound				Avenida La Pata Northbound				Stallion Ridge Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	2	139	96	237	2	0	0	2	18	218	1	237	84	0	18	102	578
04:15 PM	0	118	88	206	0	0	1	1	15	233	0	248	62	0	9	71	526
04:30 PM	0	141	69	210	0	0	2	2	16	220	0	236	74	0	15	89	537
04:45 PM	0	164	85	249	2	0	1	3	30	231	0	261	116	0	18	134	647
Total	2	562	338	902	4	0	4	8	79	902	1	982	336	0	60	396	2288
05:00 PM	0	134	82	216	0	0	2	2	30	203	1	234	86	0	28	114	566
05:15 PM	0	131	89	220	0	0	0	0	17	239	0	256	70	0	20	90	566
05:30 PM	0	142	61	203	0	0	0	0	17	222	0	239	49	0	9	58	500
05:45 PM	0	148	91	239	0	0	1	1	9	192	0	201	29	1	11	41	482
Total	0	555	323	878	0	0	3	3	73	856	1	930	234	1	68	303	2114
Grand Total	2	1117	661	1780	4	0	7	11	152	1758	2	1912	570	1	128	699	4402
Apprch %	0.1	62.8	37.1		36.4	0	63.6		7.9	91.9	0.1		81.5	0.1	18.3		
Total %	0	25.4	15	40.4	0.1	0	0.2	0.2	3.5	39.9	0	43.4	12.9	0	2.9	15.9	

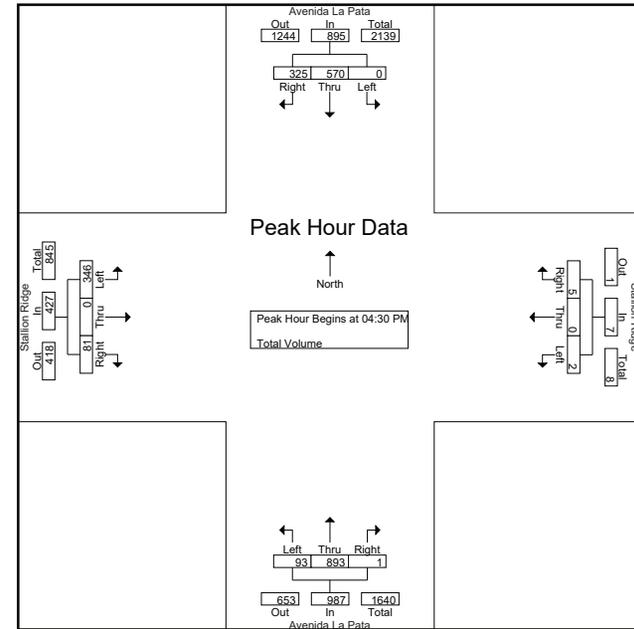
Start Time	Avenida La Pata Southbound				Stallion Ridge Westbound				Avenida La Pata Northbound				Stallion Ridge Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:30 PM	0	141	69	210	0	0	2	2	16	220	0	236	74	0	15	89	537
04:45 PM	0	164	85	249	2	0	1	3	30	231	0	261	116	0	18	134	647
05:00 PM	0	134	82	216	0	0	2	2	30	203	1	234	86	0	28	114	566
05:15 PM	0	131	89	220	0	0	0	0	17	239	0	256	70	0	20	90	566
Total Volume	0	570	325	895	2	0	5	7	93	893	1	987	346	0	81	427	2316
% App. Total	0	63.7	36.3		28.6	0	71.4		9.4	90.5	0.1		81	0	19		
PHF	.000	.869	.913	.899	.250	.000	.625	.583	.775	.934	.250	.945	.746	.000	.723	.797	.895

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:30 PM

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City of San Juan Capistrano
N/S: Avenida La Pata
E/W: Stallion Ridge
Weather: Clear

File Name : 07_SJO_ALP_SR PM
Site Code : 00323060
Start Date : 1/25/2023
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				04:45 PM				04:30 PM			
+0 mins.	2	139	96	237	2	0	0	2	30	231	0	261	74	0	15	89
+15 mins.	0	118	88	206	0	0	1	1	30	203	1	234	116	0	18	134
+30 mins.	0	141	69	210	0	0	2	2	17	239	0	256	86	0	28	114
+45 mins.	0	164	85	249	2	0	1	3	17	222	0	239	70	0	20	90
Total Volume	2	562	338	902	4	0	4	8	94	895	1	990	346	0	81	427
% App. Total	0.2	62.3	37.5		50	0	50		9.5	90.4	0.1		81	0	19	
PHF	.250	.857	.880	.906	.500	.000	.500	.667	.783	.936	.250	.948	.746	.000	.723	.797

APPENDIX B

ICU WORKSHEETS

Scenario Report

Scenario: Existing AM
Command: Default Command
Volume: Existing AM
Geometry: Default Geometry
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 1 I-5 SB Ramps/Ortega	B xxxxx	0.652	B xxxxx	0.652	+ 0.000 V/C
# 2 I- NB Ramps/Ortega	C xxxxx	0.724	C xxxxx	0.724	+ 0.000 V/C
# 3 Rancho Viejo/Ortega	B xxxxx	0.625	B xxxxx	0.625	+ 0.000 V/C
# 4 La Novia/Ortega	B xxxxx	0.653	B xxxxx	0.653	+ 0.000 V/C
# 5 Reata/Ortega	B xxxxx	0.677	B xxxxx	0.677	+ 0.000 V/C
# 6 Av. La Pata/Ortega	C xxxxx	0.715	C xxxxx	0.715	+ 0.000 V/C
# 7 Av. La Pata/Stallion	A xxxxx	0.467	A xxxxx	0.467	+ 0.000 V/C

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

Intersection #1 I-5 SB Ramps/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.652
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves.

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

Intersection #2 I- NB Ramps/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.724
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves.

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

Intersection #3 Rancho Viejo/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.625
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Ovl Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 1 0 1 0 1 1 0 1 0 1 0 3 0 1

Volume Module:
Base Vol: 266 93 56 221 103 142 185 1172 600 63 1493 416
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 266 93 56 221 103 142 185 1172 600 63 1493 416
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 266 93 56 221 103 142 185 1172 600 63 1493 416
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 266 93 56 221 103 142 185 1172 600 63 1493 416
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 266 93 56 221 103 142 185 1172 600 63 1493 416
OvlAdjVol: 461

Saturation Flow Module:
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.93 0.67 0.40 1.42 0.66 0.92 1.00 2.00 1.00 1.00 3.00 1.00
Final Sat.: 3274 1140 686 2411 1125 1564 1700 3400 1700 1700 5100 1700

Capacity Analysis Module:
Vol/Sat: 0.08 0.08 0.08 0.09 0.09 0.09 0.11 0.34 0.35 0.04 0.29 0.24
OvlAdjV/S: 0.27
Crit Moves: **** **

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

Intersection #4 La Novia/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.653
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module:
Base Vol: 404 0 212 0 0 0 0 0 1049 272 206 1646 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 404 0 212 0 0 0 0 0 1049 272 206 1646 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 404 0 212 0 0 0 0 0 1049 272 206 1646 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 404 0 212 0 0 0 0 0 1049 272 206 1646 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 404 0 212 0 0 0 0 0 1049 272 206 1646 0

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

Capacity Analysis Module:
Vol/Sat: 0.12 0.00 0.12 0.00 0.00 0.00 0.00 0.31 0.16 0.12 0.48 0.00
Crit Moves: **** **

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

Intersection #5 Reata/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.677
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 35 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	2	0	1	1

Volume Module:

Base Vol:	3	0	1	19	1	204	90	1071	8	1	1536	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	0	1	19	1	204	90	1071	8	1	1536	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	1	19	1	204	90	1071	8	1	1536	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	0	1	19	1	204	90	1071	8	1	1536	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	0	1	19	1	204	90	1071	8	1	1536	23

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.00	0.01	0.99	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	0	1700	1700	8	1692	1700	3400	1700	1700	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.01	0.12	0.12	0.05	0.32	0.00	0.00	0.45	0.01
Crit Moves:	****			****			****			****		

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

Intersection #6 Av. La Pata/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.715
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 39 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0	1	1	0	3	0	2	2	0

Volume Module:

Base Vol:	341	704	45	76	1104	709	481	167	427	165	576	296
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	341	704	45	76	1104	709	481	167	427	165	576	296
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	341	704	45	76	1104	709	481	167	427	165	576	296
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	341	704	45	76	1104	709	481	167	427	165	576	296
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	341	704	45	76	1104	709	481	167	427	165	576	296
OvlAdjVol:	228											

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	3.00	1.00	1.00	3.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	5100	1700	1700	5100	3400	3400	3400	1700	1700	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.10	0.14	0.03	0.04	0.22	0.21	0.14	0.05	0.25	0.10	0.17	0.17
OvlAdjV/S:	0.07											
Crit Moves:	****			****			****		****	****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Av. La Pata/Stallion

Cycle (sec): 100 Critical Vol./Cap.(X): 0.467
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movements (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 10 rows of volume and adjustment factors.

Saturation Flow Module table with 12 columns for lane saturation and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for capacity and 3 rows for Vol/Sat, Crit Moves, and a summary row.

Scenario Report

Scenario: Existing PM

Command: Default Command
 Volume: Existing PM
 Geometry: Default Geometry
 Impact Fee: Default Impact Fee
 Trip Generation: Default Trip Generation
 Trip Distribution: Default Trip Distribution
 Paths: Default Path
 Routes: Default Route
 Configuration: Default Configuration

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 I-5 SB Ramps/Ortega	B	xxxxx 0.662	B	xxxxx 0.662	+ 0.000 V/C
# 2 I- NB Ramps/Ortega	B	xxxxx 0.675	B	xxxxx 0.675	+ 0.000 V/C
# 3 Rancho Viejo/Ortega	C	xxxxx 0.700	C	xxxxx 0.700	+ 0.000 V/C
# 4 La Novia/Ortega	B	xxxxx 0.698	B	xxxxx 0.698	+ 0.000 V/C
# 5 Reata/Ortega	A	xxxxx 0.568	A	xxxxx 0.568	+ 0.000 V/C
# 6 Av. La Pata/Ortega	B	xxxxx 0.624	B	xxxxx 0.624	+ 0.000 V/C
# 7 Av. La Pata/Stallion	A	xxxxx 0.415	A	xxxxx 0.415	+ 0.000 V/C

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

Intersection #1 I-5 SB Ramps/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.662
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 10 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) and 4 columns for movement (L, T, R).

Saturation Flow Module: Table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat., and 4 columns for movement (L, T, R).

Capacity Analysis Module: Table with 10 columns for Vol/Sat and 4 columns for movement (L, T, R).

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

Intersection #2 I- NB Ramps/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.675
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 10 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) and 4 columns for movement (L, T, R).

Saturation Flow Module: Table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat., and 4 columns for movement (L, T, R).

Capacity Analysis Module: Table with 10 columns for Vol/Sat and 4 columns for movement (L, T, R).

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

Intersection #3 Rancho Viejo/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.700
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, OvlAdjV/S, Crit Moves.

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

Intersection #4 La Novia/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.698
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves.

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

Intersection #5 Reata/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.568
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves.

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

Intersection #6 Av. La Pata/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.624
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 30 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, OvlAdjV/S, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Av. La Pata/Stallion

Cycle (sec): 100 Critical Vol./Cap.(X): 0.415
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 20 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns for movement types (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 10 rows of volume-related metrics such as Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns for lane saturation and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for capacity metrics and 3 rows for Vol/Sat, Crit Moves, and a summary row.

 Scenario Report
 Scenario: Existing plus Project AM
 Command: Default Command
 Volume: Existing plus Project AM
 Geometry: Default Geometry
 Impact Fee: Default Impact Fee
 Trip Generation: Default Trip Generation
 Trip Distribution: Default Trip Distribution
 Paths: Default Path
 Routes: Default Route
 Configuration: Default Configuration

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 I-5 SB Ramps/Ortega	B	xxxxx 0.654	B	xxxxx 0.654	+ 0.000 V/C
# 2 I- NB Ramps/Ortega	C	xxxxx 0.727	C	xxxxx 0.727	+ 0.000 V/C
# 3 Rancho Viejo/Ortega	B	xxxxx 0.627	B	xxxxx 0.627	+ 0.000 V/C
# 4 La Novia/Ortega	B	xxxxx 0.656	B	xxxxx 0.656	+ 0.000 V/C
# 5 Reata/Ortega	B	xxxxx 0.680	B	xxxxx 0.680	+ 0.000 V/C
# 6 Av. La Pata/Ortega	C	xxxxx 0.724	C	xxxxx 0.724	+ 0.000 V/C
# 7 Av. La Pata/Stallion	A	xxxxx 0.469	A	xxxxx 0.469	+ 0.000 V/C

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

Intersection #1 I-5 SB Ramps/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.654
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

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

Volume Module:
Base Vol: 0 0 0 824 0 910 0 1200 160 343 762 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 824 0 910 0 1200 160 343 762 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 0 0 0 824 0 910 0 1200 0 343 762 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 824 0 910 0 1200 0 343 762 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
FinalVolume: 0 0 0 824 0 910 0 1200 0 343 762 0

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

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.24 0.00 0.27 0.00 0.24 0.00 0.10 0.22 0.00
Crit Moves: **** **

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

Intersection #2 I- NB Ramps/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.727
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

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

Volume Module:
Base Vol: 181 35 590 27 0 82 40 1396 605 0 1834 46
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 181 35 590 27 0 82 40 1396 605 0 1834 46
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 181 35 590 27 0 82 40 1396 605 0 1834 46
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 181 35 590 27 0 82 40 1396 605 0 1834 46
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 181 35 590 27 0 82 40 1396 605 0 1834 46

Saturation Flow Module:
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.45 0.09 1.46 1.00 0.00 1.00 1.00 2.79 1.21 0.00 2.93 0.07
Final Sat.: 764 148 2489 1700 0 1700 1700 4744 2056 0 4975 125

Capacity Analysis Module:
Vol/Sat: 0.24 0.24 0.24 0.02 0.00 0.05 0.02 0.29 0.29 0.00 0.37 0.37
Crit Moves: **** **

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

Intersection #3 Rancho Viejo/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.627
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, OvlAdjV/S, Crit Moves.

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

Intersection #4 La Novia/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.656
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
Intersection #5 Reata/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.680
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: B

Table with columns: Approach, Movement, North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

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

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves.

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
Intersection #6 Av. La Pata/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.724
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: C

Table with columns: Approach, Movement, North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

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

Capacity Analysis Module: Table with columns: Vol/Sat, OvlAdjV/S, Crit Moves.

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
*****
Intersection #7 Av. La Pata/Stallion
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.469
Loss Time (sec):   5          Average Delay (sec/veh):    xxxxxx
Optimal Cycle:    22          Level Of Service:          A
*****
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Include       Ignore         Include         Include
Min. Green:       0 0 0 0       0 0 0 0       0 0 0 0       0 0 0 0
Y+R:             4.0 4.0 4.0   4.0 4.0 4.0   4.0 4.0 4.0   4.0 4.0 4.0
Lanes:           1 0 1 1 0     1 0 3 0 1     2 0 0 1 0     1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:         203 607 0 4 790 812 479 0 119 2 1 6
Growth Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:     203 607 0 4 790 812 479 0 119 2 1 6
User Adj:        1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:         1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:      203 607 0 4 790 0 479 0 119 2 1 6
Reduct Vol:      0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:    203 607 0 4 790 0 479 0 119 2 1 6
PCE Adj:         1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:         1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:    203 607 0 4 790 0 479 0 119 2 1 6
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:        1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:          1.00 2.00 0.00 1.00 3.00 1.00 2.00 0.00 1.00 1.00 0.14 0.86
Final Sat.:     1700 3400 0 1700 5100 1700 3400 0 1700 1700 243 1457
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:         0.12 0.18 0.00 0.00 0.15 0.00 0.14 0.00 0.07 0.00 0.00 0.00
Crit Moves:      ****          ****          ****          ****
*****

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Scenario Report
Scenario: Existing plus Project PM

Command: Default Command
Volume: Existing plus Project PM
Geometry: Default Geometry
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 1 I-5 SB Ramps/Ortega	B xxxxx	0.665	B xxxxx	0.665	+ 0.000 V/C
# 2 I- NB Ramps/Ortega	B xxxxx	0.679	B xxxxx	0.679	+ 0.000 V/C
# 3 Rancho Viejo/Ortega	C xxxxx	0.703	C xxxxx	0.703	+ 0.000 V/C
# 4 La Novia/Ortega	C xxxxx	0.701	C xxxxx	0.701	+ 0.000 V/C
# 5 Reata/Ortega	A xxxxx	0.571	A xxxxx	0.571	+ 0.000 V/C
# 6 Av. La Pata/Ortega	B xxxxx	0.624	B xxxxx	0.624	+ 0.000 V/C
# 7 Av. La Pata/Stallion	A xxxxx	0.418	A xxxxx	0.418	+ 0.000 V/C

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

 Intersection #1 I-5 SB Ramps/Ortega

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.665
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 34 Level Of Service: B

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

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

 Volume Module:
 Base Vol: 0 0 0 915 0 736 0 1107 151 438 723 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 915 0 736 0 1107 151 438 723 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 915 0 736 0 1107 0 438 723 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 915 0 736 0 1107 0 438 723 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 915 0 736 0 1107 0 438 723 0

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

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.27 0.00 0.22 0.00 0.22 0.00 0.13 0.21 0.00
 Crit Moves: **** **

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

 Intersection #2 I- NB Ramps/Ortega

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.679
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 35 Level Of Service: B

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

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

 Volume Module:
 Base Vol: 161 38 423 39 0 140 48 1418 605 0 1644 66
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 161 38 423 39 0 140 48 1418 605 0 1644 66
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 161 38 423 39 0 140 48 1418 605 0 1644 66
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 161 38 423 39 0 140 48 1418 605 0 1644 66
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 161 38 423 39 0 140 48 1418 605 0 1644 66

 Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.52 0.12 1.36 1.00 0.00 1.00 1.00 2.80 1.20 0.00 2.88 0.12
 Final Sat.: 880 208 2312 1700 0 1700 1700 4766 2034 0 4903 197

 Capacity Analysis Module:
 Vol/Sat: 0.18 0.18 0.18 0.02 0.00 0.08 0.03 0.30 0.30 0.00 0.34 0.34
 Crit Moves: **** **

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

Intersection #3 Rancho Viejo/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.703
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, OvlAdjV/S, Crit Moves.

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

Intersection #4 La Novia/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.701
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves.

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

 Intersection #5 Reata/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.571
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 27 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	2	0	1	1

Volume Module:

Base Vol:	2	2	4	36	0	114	105	1518	5	10	1080	34
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	2	4	36	0	114	105	1518	5	10	1080	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	2	4	36	0	114	105	1518	5	10	1080	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	2	4	36	0	114	105	1518	5	10	1080	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	2	4	36	0	114	105	1518	5	10	1080	34

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.33	0.67	1.00	0.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	567	1133	1700	0	1700	1700	3400	1700	1700	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.07	0.06	0.45	0.00	0.01	0.32	0.02
Crit Moves:	****			****		****	****		****			

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

 Intersection #6 Av. La Pata/Ortega

Cycle (sec): 100 Critical Vol./Cap.(X): 0.624
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 30 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	3	0	1	1	0	3	0	2	2	0

Volume Module:

Base Vol:	333	760	212	239	583	532	506	782	273	92	246	104
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	333	760	212	239	583	532	506	782	273	92	246	104
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	333	760	212	239	583	532	506	782	273	92	246	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	333	760	212	239	583	532	506	782	273	92	246	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	333	760	212	239	583	532	506	782	273	92	246	104
OvlAdjVol:						26						

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	3.00	1.00	1.00	3.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3400	5100	1700	1700	5100	3400	3400	3400	1700	1700	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.10	0.15	0.12	0.14	0.11	0.16	0.15	0.23	0.16	0.05	0.07	0.06
OvlAdjV/S:						0.01						
Crit Moves:	****			****		****	****		****			

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

Intersection #7 Av. La Pata/Stallion

Cycle (sec): 100 Critical Vol./Cap.(X): 0.418
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 21 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 3 0 1 2 0 0 1 0 1 0 0 1 0
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 93 903 1 0 580 325 346 0 81 2 0 5
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 93 903 1 0 580 325 346 0 81 2 0 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 93 903 1 0 580 0 346 0 81 2 0 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 93 903 1 0 580 0 346 0 81 2 0 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 93 903 1 0 580 0 346 0 81 2 0 5
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.99 0.01 1.00 3.00 1.00 2.00 0.00 1.00 1.00 0.00 1.00
 Final Sat.: 1700 3396 4 1700 5100 1700 3400 0 1700 1700 0 1700
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.05 0.27 0.27 0.00 0.11 0.00 0.10 0.00 0.05 0.00 0.00 0.00
 Crit Moves: **** **** **** ****

APPENDIX C

HCM WORKSHEETS

HCM 6th Signalized Intersection Summary

1: Ortega & I-5 SB Off-Ramp

02/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑					↑↑		↑↑
Traffic Volume (veh/h)	0	1200	160	338	762	0	0	0	0	819	0	910
Future Volume (veh/h)	0	1200	160	338	762	0	0	0	0	819	0	910
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	0	1870
Adj Flow Rate, veh/h	0	1263	0	356	802	0				862	0	958
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	1487	0	432	1745	0				1240	0	1001
Arrive On Green	0.00	0.29	0.00	0.13	0.49	0.00				0.36	0.00	0.36
Sat Flow, veh/h	0	5274	1585	3456	3647	0				3456	0	2790
Grp Volume(v), veh/h	0	1263	0	356	802	0				862	0	958
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1728	1777	0				1728	0	1395
Q Serve(g_s), s	0.0	14.0	0.0	6.0	8.9	0.0				12.8	0.0	20.1
Cycle Q Clear(g_c), s	0.0	14.0	0.0	6.0	8.9	0.0				12.8	0.0	20.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1487	0	432	1745	0				1240	0	1001
V/C Ratio(X)	0.00	0.85	0.00	0.82	0.46	0.00				0.70	0.00	0.96
Avail Cap(c_a), veh/h	0	1532	0	432	1777	0				1240	0	1001
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.0	0.0	25.6	10.0	0.0				16.4	0.0	18.8
Incr Delay (d2), s/veh	0.0	4.6	0.0	12.2	0.2	0.0				1.7	0.0	18.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.6	0.0	3.1	2.9	0.0				4.8	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.7	0.0	37.9	10.2	0.0				18.1	0.0	37.7
LnGrp LOS	A	C		D	B	A				B	A	D
Approach Vol, veh/h		1263	A		1158						1820	
Approach Delay, s/veh		24.7			18.7						28.4	
Approach LOS		C			B						C	
Timer - Assigned Phs		3	4		6					8		
Phs Duration (G+Y+Rc), s		12.0	22.0		26.0					34.0		
Change Period (Y+Rc), s		4.5	4.5		4.5					4.5		
Max Green Setting (Gmax), s		7.5	18.0		21.0					30.0		
Max Q Clear Time (g_c+I1), s		8.0	16.0		22.1					10.9		
Green Ext Time (p_c), s		0.0	1.5		0.0					5.5		
Intersection Summary												
HCM 6th Ctrl Delay		24.7										
HCM 6th LOS		C										
Notes												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

2: I-5 NB Ramps & Ortega

02/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑					↑↑		↑↑
Traffic Volume (veh/h)	40	1391	605	0	1824	46	181	35	585	27	0	82
Future Volume (veh/h)	40	1391	605	0	1824	46	181	35	585	27	0	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	1632	525	0	1920	48	191	328	422	28	0	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	59	2383	673	0	1798	45	258	443	605	126	133	113
Arrive On Green	0.03	0.42	0.42	0.00	0.35	0.35	0.38	0.38	0.38	0.07	0.00	0.07
Sat Flow, veh/h	1781	5611	1585	0	5292	128	676	1161	1585	1781	1870	1585
Grp Volume(v), veh/h	42	1632	525	0	1275	693	519	0	422	28	0	86
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	0	1702	1847	1837	0	1585	1781	1870	1585
Q Serve(g_s), s	2.6	26.0	31.3	0.0	38.6	38.6	26.8	0.0	24.7	1.6	0.0	5.9
Cycle Q Clear(g_c), s	2.6	26.0	31.3	0.0	38.6	38.6	26.8	0.0	24.7	1.6	0.0	5.9
Prop In Lane	1.00		1.00	0.00		0.07	0.37		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	2383	673	0	1195	648	701	0	605	126	133	113
V/C Ratio(X)	0.72	0.68	0.78	0.00	1.07	1.07	0.74	0.00	0.70	0.22	0.00	0.76
Avail Cap(c_a), veh/h	83	2459	695	0	1195	648	701	0	605	293	308	261
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	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.7	25.7	27.2	0.0	35.7	35.7	29.3	0.0	28.7	48.2	0.0	50.2
Incr Delay (d2), s/veh	15.9	0.8	5.5	0.0	46.0	55.2	6.9	0.0	6.6	0.9	0.0	10.2
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	1.4	11.4	12.6	0.0	23.2	26.9	12.9	0.0	10.3	0.8	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.6	26.4	32.8	0.0	81.7	90.9	36.2	0.0	35.2	49.1	0.0	60.4
LnGrp LOS	E	C	C	A	F	F	D	A	D	D	A	E
Approach Vol, veh/h		2199			1968				941			114
Approach Delay, s/veh		28.8			85.0				35.8			57.6
Approach LOS		C			F				D			E
Timer - Assigned Phs		2	4		6		7		8			
Phs Duration (G+Y+Rc), s		46.5	51.2		12.3		8.1		43.1			
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5		4.5			
Max Green Setting (Gmax), s		30.2	48.2		18.1		5.1		38.6			
Max Q Clear Time (g_c+I1), s		28.8	33.3		7.9		4.6		40.6			
Green Ext Time (p_c), s		0.7	11.2		0.2		0.0		0.0			
Intersection Summary												
HCM 6th Ctrl Delay		51.8										
HCM 6th LOS		D										
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary

3: Rancho Viejo & Ortega

02/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	1172	600	63	1493	416	266	93	56	221	103	142
Future Volume (veh/h)	185	1172	600	63	1493	416	266	93	56	221	103	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	195	1234	632	66	1572	438	280	98	59	163	206	149
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	227	1368	1010	85	1557	483	899	276	166	240	279	192
Arrive On Green	0.13	0.38	0.38	0.05	0.31	0.31	0.25	0.25	0.25	0.14	0.14	0.14
Sat Flow, veh/h	1781	3554	1585	1781	5106	1585	3563	1094	658	1781	2066	1420
Grp Volume(v), veh/h	195	1234	632	66	1572	438	280	0	157	163	186	169
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1585	1781	0	1752	1781	1870	1615
Q Serve(g_s), s	10.7	32.7	24.1	3.7	30.5	26.5	6.4	0.0	7.4	8.7	9.5	10.1
Cycle Q Clear(g_c), s	10.7	32.7	24.1	3.7	30.5	26.5	6.4	0.0	7.4	8.7	9.5	10.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		0.88
Lane Grp Cap(c), veh/h	227	1368	1010	85	1557	483	899	0	442	240	253	218
V/C Ratio(X)	0.86	0.90	0.63	0.78	1.01	0.91	0.31	0.00	0.36	0.68	0.73	0.78
Avail Cap(c_a), veh/h	258	1368	1010	123	1557	483	899	0	442	321	337	291
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	29.0	10.9	47.1	34.7	33.4	30.3	0.0	30.7	41.2	41.5	41.8
Incr Delay (d2), s/veh	21.9	8.6	1.2	17.3	25.1	20.6	0.9	0.0	2.2	3.5	5.6	9.2
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	6.1	15.1	15.3	2.0	15.9	12.7	2.8	0.0	3.4	4.0	4.7	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	37.6	12.2	64.4	59.9	54.0	31.2	0.0	32.9	44.7	47.1	51.0
LnGrp LOS	E	D	B	E	F	D	C	A	C	D	D	D
Approach Vol, veh/h	2061			2076			437			518		
Approach Delay, s/veh	32.3			58.8			31.8			47.6		
Approach LOS	C			E			C			D		
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+Rc), s	29.7	9.3	43.0		18.0	17.3	35.0					
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s	19.0	6.9	38.1		18.0	14.5	30.5					
Max Q Clear Time (g_c+I1), s	9.4	5.7	34.7		12.1	12.7	32.5					
Green Ext Time (p_c), s	1.4	0.0	2.8		1.4	0.1	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	44.6											
HCM 6th LOS	D											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary

4: La Novia & Ortega

02/17/2023

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1049	272	206	1646	404	212
Future Volume (veh/h)	1049	272	206	1646	404	212
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1104	286	217	1733	425	223
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1215	542	262	1983	1049	481
Arrive On Green	0.34	0.34	0.15	0.56	0.30	0.30
Sat Flow, veh/h	3647	1585	1781	3647	3456	1585
Grp Volume(v), veh/h	1104	286	217	1733	425	223
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1728	1585
Q Serve(g_s), s	19.3	9.4	7.7	27.3	6.3	7.4
Cycle Q Clear(g_c), s	19.3	9.4	7.7	27.3	6.3	7.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1215	542	262	1983	1049	481
V/C Ratio(X)	0.91	0.53	0.83	0.87	0.41	0.46
Avail Cap(c_a), veh/h	1230	549	288	2050	1049	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	17.2	26.9	12.4	18.0	18.3
Incr Delay (d2), s/veh	10.0	0.9	16.8	4.4	1.2	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	3.3	4.3	9.9	2.5	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.4	18.1	43.8	16.8	19.1	21.5
LnGrp LOS	C	B	D	B	B	C
Approach Vol, veh/h	1390		1950		648	
Approach Delay, s/veh	27.9		19.8		20.0	
Approach LOS	C		B		B	
Timer - Assigned Phs	2	3	4			8
Phs Duration (G+Y+Rc), s	24.2	14.1	26.7			40.8
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5
Max Green Setting (Gmax), s	18.5	10.5	22.5			37.5
Max Q Clear Time (g_c+I1), s	9.4	9.7	21.3			29.3
Green Ext Time (p_c), s	1.7	0.1	0.9			6.6
Intersection Summary						
HCM 6th Ctrl Delay	22.7					
HCM 6th LOS	C					

HCM 6th Signalized Intersection Summary

5: Reata Rd & Ortega Hwy

02/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	90	1071	8	1	1536	23	3	0	1	19	1	204
Future Volume (veh/h)	90	1071	8	1	1536	23	3	0	1	19	1	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	95	1127	8	1	1617	24	3	0	1	20	1	215
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	1940	865	3	1702	759	269	0	410	469	2	408
Arrive On Green	0.07	0.55	0.55	0.00	0.48	0.48	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1165	0	1585	1416	7	1579
Grp Volume(v), veh/h	95	1127	8	1	1617	24	3	0	1	20	0	216
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1165	0	1585	1416	0	1586
Q Serve(g_s), s	3.7	14.7	0.2	0.0	30.3	0.6	0.2	0.0	0.0	0.7	0.0	8.1
Cycle Q Clear(g_c), s	3.7	14.7	0.2	0.0	30.3	0.6	8.3	0.0	0.0	0.8	0.0	8.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	1940	865	3	1702	759	269	0	410	469	0	410
V/C Ratio(X)	0.78	0.58	0.01	0.39	0.95	0.03	0.01	0.00	0.00	0.04	0.00	0.53
Avail Cap(c_a), veh/h	128	1940	865	128	1711	763	269	0	410	469	0	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	10.5	7.2	34.7	17.3	9.6	25.7	0.0	19.1	19.4	0.0	22.1
Incr Delay (d2), s/veh	25.1	0.4	0.0	76.2	12.0	0.0	0.1	0.0	0.0	0.2	0.0	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.0	0.0	0.1	13.5	0.2	0.0	0.0	0.0	0.3	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.0	10.9	7.2	110.9	29.3	9.6	25.8	0.0	19.2	19.6	0.0	26.9
LnGrp LOS	E	B	A	F	C	A	C	A	B	B	A	C
Approach Vol, veh/h	1230			1642			4			236		
Approach Delay, s/veh	14.5			29.0			24.1			26.3		
Approach LOS	B			C			C			C		
Timer - Assigned Phs	2	3	4	6			7	8				
Phs Duration (G+Y+Rc), s	22.5	4.6	42.5	22.5			9.3	37.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5			4.5	4.5				
Max Green Setting (Gmax), s	18.0	5.0	33.5	18.0			5.0	33.5				
Max Q Clear Time (g_c+I1), s	10.3	2.0	16.7	10.1			5.7	32.3				
Green Ext Time (p_c), s	0.0	0.0	7.7	0.8			0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay	23.1											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

6: Av. La Pata/Antonio Pkwy & Ortega Hwy

02/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	481	167	427	165	576	296	341	704	45	76	1104	709
Future Volume (veh/h)	481	167	427	165	576	296	341	704	45	76	1104	709
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	506	176	449	174	606	312	359	741	47	80	1162	746
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	586	977	436	212	798	356	448	1615	501	103	1249	1155
Arrive On Green	0.17	0.27	0.27	0.12	0.22	0.22	0.13	0.32	0.32	0.06	0.24	0.24
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	5106	1585	1781	5106	2790
Grp Volume(v), veh/h	506	176	449	174	606	312	359	741	47	80	1162	746
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1702	1585	1781	1702	1395
Q Serve(g_s), s	11.1	2.9	21.3	7.4	12.4	14.8	7.8	9.0	1.6	3.4	17.3	16.6
Cycle Q Clear(g_c), s	11.1	2.9	21.3	7.4	12.4	14.8	7.8	9.0	1.6	3.4	17.3	16.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	586	977	436	212	798	356	448	1615	501	103	1249	1155
V/C Ratio(X)	0.86	0.18	1.03	0.82	0.76	0.88	0.80	0.46	0.09	0.77	0.93	0.65
Avail Cap(c_a), veh/h	601	977	436	255	823	367	512	1615	501	197	1249	1155
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	21.5	28.2	33.4	28.2	29.1	32.8	21.2	18.7	36.1	28.7	18.2
Incr Delay (d2), s/veh	12.2	0.1	51.2	16.2	4.0	20.2	7.9	0.9	0.4	11.6	13.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	1.2	13.9	4.1	5.5	7.4	3.7	3.6	0.6	1.8	8.3	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	21.6	79.4	49.6	32.2	49.3	40.7	22.2	19.1	47.7	42.2	21.0
LnGrp LOS	D	C	F	D	C	D	D	C	B	D	D	C
Approach Vol, veh/h	1131			1092			1147			1988		
Approach Delay, s/veh	54.4			39.8			27.9			34.4		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	29.1	13.8	25.8	14.6	23.5	17.7	21.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.6	21.9	11.1	20.4	11.5	19.0	13.5	18.0				
Max Q Clear Time (g_c+I1), s	5.4	11.0	9.4	23.3	9.8	19.3	13.1	16.8				
Green Ext Time (p_c), s	0.0	3.9	0.1	0.0	0.2	0.0	0.1	0.7				
Intersection Summary												
HCM 6th Ctrl Delay	38.3											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary

7: Av. La Pata & Stallion Ridge

02/17/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑		↑	↑		↑↑	↑↑		↑	↑↑↑	↑
Traffic Volume (veh/h)	479	0	119	2	1	6	203	597	0	4	780	812
Future Volume (veh/h)	479	0	119	2	1	6	203	597	0	4	780	812
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	504	0	125	2	1	6	214	628	0	4	821	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	630	0	281	125	15	90	255	1759	0	10	1824	0
Arrive On Green	0.18	0.00	0.18	0.07	0.07	0.07	0.14	0.50	0.00	0.01	0.36	0.00
Sat Flow, veh/h	3456	0	1585	1781	231	1389	1781	3647	0	1781	5106	1585
Grp Volume(v), veh/h	504	0	125	2	0	7	214	628	0	4	821	0
Grp Sat Flow(s), veh/h/ln	1728	0	1585	1781	0	1620	1781	1777	0	1781	1702	1585
Q Serve(g_s), s	10.0	0.0	5.0	0.1	0.0	0.3	8.4	7.7	0.0	0.2	8.8	0.0
Cycle Q Clear(g_c), s	10.0	0.0	5.0	0.1	0.0	0.3	8.4	7.7	0.0	0.2	8.8	0.0
Prop In Lane	1.00		1.00	1.00		0.86	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	630	0	281	125	0	106	255	1759	0	10	1824	0
V/C Ratio(X)	0.80	0.00	0.44	0.02	0.00	0.07	0.84	0.36	0.00	0.42	0.45	0.00
Avail Cap(c_a), veh/h	872	0	400	449	0	409	262	1759	0	132	1824	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.9	0.0	26.2	30.9	0.0	31.3	29.8	11.1	0.0	35.4	17.6	0.0
Incr Delay (d2), s/veh	3.7	0.0	1.1	0.1	0.0	0.3	20.5	0.6	0.0	26.9	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	1.9	0.0	0.0	0.1	4.9	2.9	0.0	0.1	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	0.0	27.3	30.9	0.0	31.6	50.3	11.6	0.0	62.3	18.4	0.0
LnGrp LOS	C	A	C	C	A	C	D	B	A	E	B	
Approach Vol, veh/h	629			9			842			825		
Approach Delay, s/veh	30.8			31.4			21.4			18.6		
Approach LOS	C			C			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.9	39.8	9.5	17.2	14.7	30.0	17.5	9.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.3	30.7	18.0	18.0	10.5	25.5	18.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	9.7	2.1	7.0	10.4	10.8	12.0	2.3				
Green Ext Time (p_c), s	0.0	4.3	0.0	0.4	0.0	5.0	1.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay	23.0											
HCM 6th LOS	C											

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: Ortega & I-5 SB Off-Ramp

02/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑					↑↑		↑↑
Traffic Volume (veh/h)	0	1107	151	433	723	0	0	0	0	910	0	736
Future Volume (veh/h)	0	1107	151	433	723	0	0	0	0	910	0	736
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	0	1870
Adj Flow Rate, veh/h	0	1165	0	456	761	0				958	0	775
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	1369		505	1718	0				1307	0	1055
Arrive On Green	0.00	0.27	0.00	0.15	0.48	0.00				0.38	0.00	0.38
Sat Flow, veh/h	0	5274	1585	3456	3647	0				3456	0	2790
Grp Volume(v), veh/h	0	1165	0	456	761	0				958	0	775
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1728	1777	0				1728	0	1395
Q Serve(g_s), s	0.0	14.1	0.0	8.4	9.1	0.0				15.5	0.0	15.6
Cycle Q Clear(g_c), s	0.0	14.1	0.0	8.4	9.1	0.0				15.5	0.0	15.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1369		505	1718	0				1307	0	1055
V/C Ratio(X)	0.00	0.85		0.90	0.44	0.00				0.73	0.00	0.73
Avail Cap(c_a), veh/h	0	1414		505	1750	0				1307	0	1055
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.6	0.0	27.3	11.0	0.0				17.4	0.0	17.4
Incr Delay (d2), s/veh	0.0	5.1	0.0	19.4	0.2	0.0				2.2	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.8	0.0	4.7	3.2	0.0				5.9	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.6	0.0	46.7	11.2	0.0				19.6	0.0	20.1
LnGrp LOS	A	C		D	B	A				B	A	C
Approach Vol, veh/h		1165	A		1217						1733	
Approach Delay, s/veh		27.6			24.5						19.8	
Approach LOS		C			C						B	
Timer - Assigned Phs		3	4		6					8		
Phs Duration (G+Y+Rc), s		14.0	21.9		29.1					35.9		
Change Period (Y+Rc), s		4.5	4.5		4.5					4.5		
Max Green Setting (Gmax), s		9.5	18.0		24.0					32.0		
Max Q Clear Time (g_c+I1), s		10.4	16.1		17.6					11.1		
Green Ext Time (p_c), s		0.0	1.4		3.9					5.4		
Intersection Summary												
HCM 6th Ctrl Delay			23.4									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

2: I-5 NB Ramps & Ortega

02/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑					↑↑		↑↑
Traffic Volume (veh/h)	48	1413	491	0	1634	66	164	38	418	39	0	140
Future Volume (veh/h)	48	1413	491	0	1634	66	164	38	418	39	0	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1511	501	0	1720	69	173	210	326	41	0	147
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	67	2586	731	0	1904	76	240	292	461	201	211	179
Arrive On Green	0.04	0.46	0.46	0.00	0.38	0.38	0.29	0.29	0.29	0.11	0.00	0.11
Sat Flow, veh/h	1781	5611	1585	0	5205	202	826	1003	1585	1781	1870	1585
Grp Volume(v), veh/h	51	1511	501	0	1162	627	383	0	326	41	0	147
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	0	1702	1834	1829	0	1585	1781	1870	1585
Q Serve(g_s), s	2.8	19.9	24.9	0.0	32.2	32.3	18.8	0.0	18.4	2.1	0.0	9.1
Cycle Q Clear(g_c), s	2.8	19.9	24.9	0.0	32.2	32.3	18.8	0.0	18.4	2.1	0.0	9.1
Prop In Lane	1.00		1.00	0.00		0.11	0.45		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	67	2586	731	0	1287	693	532	0	461	201	211	179
V/C Ratio(X)	0.76	0.58	0.69	0.00	0.90	0.90	0.72	0.00	0.71	0.20	0.00	0.82
Avail Cap(c_a), veh/h	94	2710	766	0	1311	706	532	0	461	322	339	287
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	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.6	19.9	21.2	0.0	29.4	29.4	31.8	0.0	31.6	40.3	0.0	43.4
Incr Delay (d2), s/veh	19.6	0.3	2.4	0.0	8.9	15.0	8.2	0.0	8.8	0.5	0.0	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	8.4	9.4	0.0	14.3	16.6	9.4	0.0	8.0	0.9	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.2	20.2	23.7	0.0	38.3	44.3	39.9	0.0	40.5	40.8	0.0	53.0
LnGrp LOS	E	C	C	A	D	D	D	A	D	D	A	D
Approach Vol, veh/h		2063			1789			709				188
Approach Delay, s/veh		22.2			40.4			40.2				50.3
Approach LOS		C			D			D				D
Timer - Assigned Phs		2	4		6	7	8					
Phs Duration (G+Y+Rc), s		33.6	50.6		15.8	8.3	42.3					
Change Period (Y+Rc), s		4.5	4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s		20.1	48.3		18.1	5.3	38.5					
Max Q Clear Time (g_c+I1), s		20.8	26.9		11.1	4.8	34.3					
Green Ext Time (p_c), s		0.0	13.8		0.3	0.0	3.5					
Intersection Summary												
HCM 6th Ctrl Delay					32.8							
HCM 6th LOS					C							
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary

3: Rancho Viejo & Ortega

02/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔	↔	↔	↔↔↔	↔	↔	↔↔	↔	↔	↔↔	↔
Traffic Volume (veh/h)	122	1278	439	65	1101	213	417	89	103	275	116	185
Future Volume (veh/h)	122	1278	439	65	1101	213	417	89	103	275	116	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	128	1345	462	68	1159	224	439	94	108	202	244	195
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	1428	973	87	1848	574	756	168	194	280	308	236
Arrive On Green	0.09	0.40	0.40	0.05	0.36	0.36	0.21	0.21	0.21	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1585	1781	5106	1585	3563	794	912	1781	1965	1505
Grp Volume(v), veh/h	128	1345	462	68	1159	224	439	0	202	202	232	207
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1585	1781	0	1706	1781	1870	1599
Q Serve(g_s), s	7.1	36.4	15.9	3.8	18.7	10.5	11.1	0.0	10.6	10.8	11.9	12.5
Cycle Q Clear(g_c), s	7.1	36.4	15.9	3.8	18.7	10.5	11.1	0.0	10.6	10.8	11.9	12.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.53	1.00		0.94
Lane Grp Cap(c), veh/h	159	1428	973	87	1848	574	756	0	362	280	294	251
V/C Ratio(X)	0.81	0.94	0.47	0.78	0.63	0.39	0.58	0.00	0.56	0.72	0.79	0.83
Avail Cap(c_a), veh/h	237	1439	978	89	1848	574	756	0	362	321	337	288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	28.8	10.5	47.0	26.3	23.7	35.4	0.0	35.2	40.1	40.6	40.8
Incr Delay (d2), s/veh	11.7	12.4	0.4	34.0	0.7	0.4	3.2	0.0	6.1	6.7	10.6	15.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	17.3	9.1	2.5	7.5	3.9	5.1	0.0	5.0	5.2	6.3	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	41.2	10.9	81.1	27.0	24.1	38.6	0.0	41.3	46.8	51.2	56.7
LnGrp LOS	E	D	B	F	C	C	D	A	D	D	D	E
Approach Vol, veh/h	1935			1451			641			641		
Approach Delay, s/veh	35.0			29.1			39.5			51.6		
Approach LOS	C			C			D			D		
Timer - Assigned Phs	2	3	4	6			7	8				
Phs Duration (G+Y+Rc), s	25.7	9.4	44.7	20.2			13.4	40.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5			4.5	4.5				
Max Green Setting (Gmax), s	18.5	5.0	40.5	18.0			13.3	32.2				
Max Q Clear Time (g_c+I1), s	13.1	5.8	38.4	14.5			9.1	20.7				
Green Ext Time (p_c), s	1.5	0.0	1.8	1.1			0.1	6.6				
Intersection Summary												
HCM 6th Ctrl Delay	36.0											
HCM 6th LOS	D											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary

4: La Novia & Ortega

02/17/2023

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔↔	↔	↔	↔↔	↔↔	↔
Traffic Volume (veh/h)	1432	170	144	1062	275	242
Future Volume (veh/h)	1432	170	144	1062	275	242
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1507	179	152	1118	289	255
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1690	754	187	2263	867	398
Arrive On Green	0.48	0.48	0.10	0.64	0.25	0.25
Sat Flow, veh/h	3647	1585	1781	3647	3456	1585
Grp Volume(v), veh/h	1507	179	152	1118	289	255
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1728	1585
Q Serve(g_s), s	30.9	5.3	6.7	13.3	5.5	11.5
Cycle Q Clear(g_c), s	30.9	5.3	6.7	13.3	5.5	11.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1690	754	187	2263	867	398
V/C Ratio(X)	0.89	0.24	0.81	0.49	0.33	0.64
Avail Cap(c_a), veh/h	1755	783	189	2332	867	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	12.4	35.0	7.7	24.5	26.8
Incr Delay (d2), s/veh	6.1	0.2	22.9	0.2	1.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	1.8	4.0	4.3	2.3	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.2	12.6	58.0	7.9	25.5	34.5
LnGrp LOS	C	B	E	A	C	C
Approach Vol, veh/h	1686		1270		544	
Approach Delay, s/veh	23.8		13.9		29.7	
Approach LOS	C		B		C	
Timer - Assigned Phs	2	3	4	8		
Phs Duration (G+Y+Rc), s	24.6	12.9	42.5	55.4		
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		
Max Green Setting (Gmax), s	18.5	8.5	39.5	52.5		
Max Q Clear Time (g_c+I1), s	13.5	8.7	32.9	15.3		
Green Ext Time (p_c), s	1.0	0.0	5.2	10.5		
Intersection Summary						
HCM 6th Ctrl Delay	21.1					
HCM 6th LOS	C					

HCM 6th Signalized Intersection Summary

5: Reata Rd & Ortega Hwy

02/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔	↔	↔	↔↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	105	1508	5	10	1070	34	2	2	4	36	0	114
Future Volume (veh/h)	105	1508	5	10	1070	34	2	2	4	36	0	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	111	1587	5	11	1126	36	2	2	4	38	0	120
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	1777	793	25	1544	689	389	155	309	499	0	440
Arrive On Green	0.08	0.50	0.50	0.01	0.43	0.43	0.28	0.28	0.28	0.28	0.00	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1272	557	1113	1410	0	1585
Grp Volume(v), veh/h	111	1587	5	11	1126	36	2	0	6	38	0	120
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1272	0	1670	1410	0	1585
Q Serve(g_s), s	4.0	26.1	0.1	0.4	17.0	0.9	0.1	0.0	0.2	1.3	0.0	3.8
Cycle Q Clear(g_c), s	4.0	26.1	0.1	0.4	17.0	0.9	3.9	0.0	0.2	1.5	0.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	142	1777	793	25	1544	689	389	0	464	499	0	440
V/C Ratio(X)	0.78	0.89	0.01	0.45	0.73	0.05	0.01	0.00	0.01	0.08	0.00	0.27
Avail Cap(c_a), veh/h	168	1837	819	137	1776	792	389	0	464	499	0	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	14.6	8.1	31.7	15.2	10.6	19.8	0.0	17.0	17.5	0.0	18.3
Incr Delay (d2), s/veh	18.2	5.9	0.0	12.1	1.3	0.0	0.0	0.0	0.1	0.3	0.0	1.5
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	2.3	10.2	0.0	0.2	6.3	0.3	0.0	0.0	0.1	0.4	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	20.5	8.1	43.8	16.5	10.6	19.8	0.0	17.0	17.8	0.0	19.8
LnGrp LOS	D	C	A	D	B	B	B	A	B	B	A	B
Approach Vol, veh/h	1703			1173			8			158		
Approach Delay, s/veh	22.3			16.6			17.7			19.3		
Approach LOS	C			B			B			B		
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+Rc), s	22.5	5.4	36.9		22.5	9.7	32.7					
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s	18.0	5.0	33.5		18.0	6.1	32.4					
Max Q Clear Time (g_c+I1), s	5.9	2.4	28.1		5.8	6.0	19.0					
Green Ext Time (p_c), s	0.0	0.0	4.3		0.6	0.0	6.8					
Intersection Summary												
HCM 6th Ctrl Delay	19.9											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

6: Av. La Pata/Antonio Pkwy & Ortega Hwy

02/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔	↔	↔	↔↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	506	782	263	92	246	104	325	760	212	239	583	532
Future Volume (veh/h)	506	782	263	92	246	104	325	760	212	239	583	532
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	533	823	277	97	259	109	342	800	223	252	614	560
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	625	1035	462	124	639	285	438	1279	397	296	1479	1313
Arrive On Green	0.18	0.29	0.29	0.07	0.18	0.18	0.13	0.25	0.25	0.17	0.29	0.29
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	5106	1585	1781	5106	2790
Grp Volume(v), veh/h	533	823	277	97	259	109	342	800	223	252	614	560
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1702	1585	1781	1702	1395
Q Serve(g_s), s	12.1	17.3	12.1	4.3	5.2	4.9	7.7	11.2	9.9	11.1	7.8	10.7
Cycle Q Clear(g_c), s	12.1	17.3	12.1	4.3	5.2	4.9	7.7	11.2	9.9	11.1	7.8	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	625	1035	462	124	639	285	438	1279	397	296	1479	1313
V/C Ratio(X)	0.85	0.80	0.60	0.78	0.41	0.38	0.78	0.63	0.56	0.85	0.42	0.43
Avail Cap(c_a), veh/h	706	1227	547	146	792	353	603	1279	397	408	1479	1313
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	26.4	24.6	37.0	29.3	29.2	34.2	26.9	26.4	32.7	23.2	14.2
Incr Delay (d2), s/veh	9.0	3.2	1.3	20.7	0.4	0.8	4.5	2.3	5.6	12.0	0.9	1.0
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	5.7	7.4	4.5	2.6	2.2	1.9	3.4	4.7	4.2	5.6	3.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	29.6	25.9	57.7	29.7	30.0	38.7	29.2	32.0	44.7	24.0	15.2
LnGrp LOS	D	C	C	E	C	C	D	C	C	D	C	B
Approach Vol, veh/h	1633			465			1365			1426		
Approach Delay, s/veh	32.7			35.6			32.0			24.2		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.9	24.7	10.1	28.0	14.8	27.9	19.1	19.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	18.5	19.0	6.6	27.9	14.1	23.4	16.5	18.0				
Max Q Clear Time (g_c+I1), s	13.1	13.2	6.3	19.3	9.7	12.7	14.1	7.2				
Green Ext Time (p_c), s	0.3	3.0	0.0	4.3	0.5	4.9	0.6	1.5				
Intersection Summary												
HCM 6th Ctrl Delay	30.3											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

7: Av. La Pata & Stallion Ridge

02/17/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑		↑	↑		↑↑	↑↑		↑	↑↑↑	↑
Traffic Volume (veh/h)	346	0	81	2	0	5	93	893	1	0	570	325
Future Volume (veh/h)	346	0	81	2	0	5	93	893	1	0	570	325
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	364	0	85	2	0	5	98	940	1	0	600	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	533	0	209	163	0	110	127	1923	2	3	1910	
Arrive On Green	0.15	0.00	0.13	0.09	0.00	0.07	0.07	0.53	0.53	0.00	0.37	0.00
Sat Flow, veh/h	3456	0	1585	1781	0	1585	1781	3643	4	1781	5106	1585
Grp Volume(v), veh/h	364	0	85	2	0	5	98	459	482	0	600	0
Grp Sat Flow(s), veh/h/ln	1728	0	1585	1781	0	1585	1781	1777	1870	1781	1702	1585
Q Serve(g_s), s	5.4	0.0	2.7	0.1	0.0	0.2	2.9	8.9	8.9	0.0	4.5	0.0
Cycle Q Clear(g_c), s	5.4	0.0	2.7	0.1	0.0	0.2	2.9	8.9	8.9	0.0	4.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	533	0	209	163	0	110	127	938	987	3	1910	
V/C Ratio(X)	0.68	0.00	0.41	0.01	0.00	0.05	0.77	0.49	0.49	0.00	0.31	
Avail Cap(c_a), veh/h	1146	0	526	591	0	526	187	938	987	164	1910	
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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	21.7	0.0	21.6	22.4	0.0	23.6	24.8	8.2	8.2	0.0	12.1	0.0
Incr Delay (d2), s/veh	1.6	0.0	1.3	0.0	0.0	0.2	11.1	1.8	1.7	0.0	0.4	0.0
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	2.1	0.0	1.0	0.0	0.0	0.1	1.5	3.1	3.2	0.0	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	0.0	22.9	22.4	0.0	23.8	35.9	10.0	9.9	0.0	12.5	0.0
LnGrp LOS	C	A	C	C	A	C	D	A	A	A	B	
Approach Vol, veh/h	449			7			1039			600		
Approach Delay, s/veh	23.2			23.4			12.4			12.5		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	33.2	9.5	11.6	8.4	24.8	12.9	8.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	21.0	18.0	18.0	5.7	20.3	18.0	18.0				
Max Q Clear Time (g_c+I1), s	0.0	10.9	2.1	4.7	4.9	6.5	7.4	2.2				
Green Ext Time (p_c), s	0.0	4.3	0.0	0.3	0.0	3.5	1.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay	14.8											
HCM 6th LOS	B											

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: Ortega & I-5 SB Off-Ramp

06/06/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑					↑↑		↑↑
Traffic Volume (veh/h)	0	1200	160	343	762	0	0	0	0	824	0	910
Future Volume (veh/h)	0	1200	160	343	762	0	0	0	0	824	0	910
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	0	1870
Adj Flow Rate, veh/h	0	1263	0	361	802	0				867	0	958
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	1487		432	1745	0				1240	0	1001
Arrive On Green	0.00	0.29	0.00	0.13	0.49	0.00				0.36	0.00	0.36
Sat Flow, veh/h	0	5274	1585	3456	3647	0				3456	0	2790
Grp Volume(v), veh/h	0	1263	0	361	802	0				867	0	958
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1728	1777	0				1728	0	1395
Q Serve(g_s), s	0.0	14.0	0.0	6.1	8.9	0.0				12.9	0.0	20.1
Cycle Q Clear(g_c), s	0.0	14.0	0.0	6.1	8.9	0.0				12.9	0.0	20.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1487		432	1745	0				1240	0	1001
V/C Ratio(X)	0.00	0.85		0.84	0.46	0.00				0.70	0.00	0.96
Avail Cap(c_a), veh/h	0	1532		432	1777	0				1240	0	1001
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.0	0.0	25.6	10.0	0.0				16.5	0.0	18.8
Incr Delay (d2), s/veh	0.0	4.6	0.0	13.3	0.2	0.0				1.8	0.0	18.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.6	0.0	3.2	2.9	0.0				4.8	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.7	0.0	39.0	10.2	0.0				18.2	0.0	37.7
LnGrp LOS	A	C		D	B	A				B	A	D
Approach Vol, veh/h	1263			A			1163			1825		
Approach Delay, s/veh	24.7			19.1			28.4					
Approach LOS	C			B			C					
Timer - Assigned Phs	3			4			6			8		
Phs Duration (G+Y+Rc), s	12.0			22.0			26.0			34.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	7.5			18.0			21.0			30.0		
Max Q Clear Time (g_c+I1), s	8.1			16.0			22.1			10.9		
Green Ext Time (p_c), s	0.0			1.5			0.0			5.5		
Intersection Summary												
HCM 6th Ctrl Delay	24.8											
HCM 6th LOS	C											
Notes												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

2: I-5 NB Ramps & Ortega

06/06/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑↑					↑↑		↑↑
Traffic Volume (veh/h)	40	1396	605	0	1834	46	181	35	590	27	0	82
Future Volume (veh/h)	40	1396	605	0	1834	46	181	35	590	27	0	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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		
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	1635	526	0	1931	48	191	332	424	28	0	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	59	2383	673	0	1798	45	256	445	605	126	133	113
Arrive On Green	0.03	0.42	0.42	0.00	0.35	0.35	0.38	0.38	0.38	0.07	0.00	0.07
Sat Flow, veh/h	1781	5611	1585	0	5293	127	671	1166	1585	1781	1870	1585
Grp Volume(v), veh/h	42	1635	526	0	1282	697	523	0	424	28	0	86
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	0	1702	1847	1837	0	1585	1781	1870	1585
Q Serve(g_s), s	2.6	26.0	31.4	0.0	38.6	38.6	27.1	0.0	24.8	1.6	0.0	5.9
Cycle Q Clear(g_c), s	2.6	26.0	31.4	0.0	38.6	38.6	27.1	0.0	24.8	1.6	0.0	5.9
Prop In Lane	1.00		1.00	0.00		0.07	0.37		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	2383	673	0	1195	648	701	0	605	126	133	113
V/C Ratio(X)	0.72	0.69	0.78	0.00	1.07	1.07	0.75	0.00	0.70	0.22	0.00	0.76
Avail Cap(c_a), veh/h	83	2459	695	0	1195	648	701	0	605	293	308	261
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	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.7	25.7	27.2	0.0	35.7	35.7	29.4	0.0	28.7	48.2	0.0	50.2
Incr Delay (d2), s/veh	15.9	0.8	5.6	0.0	48.1	57.2	7.1	0.0	6.6	0.9	0.0	10.2
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	1.4	11.5	12.6	0.0	23.6	27.2	13.1	0.0	10.4	0.8	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.6	26.5	32.8	0.0	83.8	92.9	36.5	0.0	35.4	49.1	0.0	60.4
LnGrp LOS	E	C	C	A	F	F	D	A	D	D	A	E
Approach Vol, veh/h	2203			1979			947			114		
Approach Delay, s/veh	28.8			87.0			36.0			57.6		
Approach LOS	C			F			D			E		
Timer - Assigned Phs	2			4			6			7		
Phs Duration (G+Y+Rc), s	46.5			51.2			12.3			8.1		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	30.2			48.2			18.1			5.1		
Max Q Clear Time (g_c+I1), s	29.1			33.4			7.9			4.6		
Green Ext Time (p_c), s	0.6			11.2			0.2			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	52.7											
HCM 6th LOS	D											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary

3: Rancho Viejo & Ortega

06/06/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔	↔	↔	↔↔↔	↔	↔	↔↔	↔	↔	↔↔	↔
Traffic Volume (veh/h)	185	1182	600	63	1503	416	266	93	56	221	103	142
Future Volume (veh/h)	185	1182	600	63	1503	416	266	93	56	221	103	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	195	1244	632	66	1582	438	280	98	59	163	206	149
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	227	1368	1010	85	1557	483	899	276	166	240	279	192
Arrive On Green	0.13	0.38	0.38	0.05	0.31	0.31	0.25	0.25	0.25	0.14	0.14	0.14
Sat Flow, veh/h	1781	3554	1585	1781	5106	1585	3563	1094	658	1781	2066	1420
Grp Volume(v), veh/h	195	1244	632	66	1582	438	280	0	157	163	186	169
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1585	1781	0	1752	1781	1870	1615
Q Serve(g_s), s	10.7	33.1	24.1	3.7	30.5	26.5	6.4	0.0	7.4	8.7	9.5	10.1
Cycle Q Clear(g_c), s	10.7	33.1	24.1	3.7	30.5	26.5	6.4	0.0	7.4	8.7	9.5	10.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		0.88
Lane Grp Cap(c), veh/h	227	1368	1010	85	1557	483	899	0	442	240	253	218
V/C Ratio(X)	0.86	0.91	0.63	0.78	1.02	0.91	0.31	0.00	0.36	0.68	0.73	0.78
Avail Cap(c_a), veh/h	258	1368	1010	123	1557	483	899	0	442	321	337	291
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	29.1	10.9	47.1	34.7	33.4	30.3	0.0	30.7	41.2	41.5	41.8
Incr Delay (d2), s/veh	21.9	9.2	1.2	17.3	26.8	20.6	0.9	0.0	2.2	3.5	5.6	9.2
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	6.1	15.4	15.3	2.0	16.1	12.7	2.8	0.0	3.4	4.0	4.7	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	38.3	12.2	64.4	61.6	54.0	31.2	0.0	32.9	44.7	47.1	51.0
LnGrp LOS	E	D	B	E	F	D	C	A	C	D	D	D
Approach Vol, veh/h	2071			2086			437			518		
Approach Delay, s/veh	32.8			60.1			31.8			47.6		
Approach LOS	C			E			C			D		
Timer - Assigned Phs	2	3	4	6			7	8				
Phs Duration (G+Y+Rc), s	29.7	9.3	43.0	18.0			17.3	35.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5			4.5	4.5				
Max Green Setting (Gmax), s	19.0	6.9	38.1	18.0			14.5	30.5				
Max Q Clear Time (g_c+I1), s	9.4	5.7	35.1	12.1			12.7	32.5				
Green Ext Time (p_c), s	1.4	0.0	2.5	1.4			0.1	0.0				

Intersection Summary		
HCM 6th Ctrl Delay	45.4	
HCM 6th LOS	D	

Notes
User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

4: La Novia & Ortega

06/06/2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔↔	↔	↔	↔↔	↔↔	↔
Traffic Volume (veh/h)	1059	272	206	1656	404	212
Future Volume (veh/h)	1059	272	206	1656	404	212
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1115	286	217	1743	425	223
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1218	543	262	1986	1046	480
Arrive On Green	0.34	0.34	0.15	0.56	0.30	0.30
Sat Flow, veh/h	3647	1585	1781	3647	3456	1585
Grp Volume(v), veh/h	1115	286	217	1743	425	223
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1728	1585
Q Serve(g_s), s	19.5	9.4	7.7	27.6	6.4	7.4
Cycle Q Clear(g_c), s	19.5	9.4	7.7	27.6	6.4	7.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1218	543	262	1986	1046	480
V/C Ratio(X)	0.92	0.53	0.83	0.88	0.41	0.46
Avail Cap(c_a), veh/h	1230	549	288	2050	1046	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	17.1	26.9	12.4	18.0	18.4
Incr Delay (d2), s/veh	10.6	0.9	16.8	4.6	1.2	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	3.3	4.3	10.0	2.5	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.1	18.0	43.8	17.0	19.2	21.6
LnGrp LOS	C	B	D	B	B	C
Approach Vol, veh/h	1401		1960		648	
Approach Delay, s/veh	28.4		20.0		20.0	
Approach LOS	C		B		C	
Timer - Assigned Phs	2	3	4	8		
Phs Duration (G+Y+Rc), s	24.2	14.1	26.8	40.8		
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		
Max Green Setting (Gmax), s	18.5	10.5	22.5	37.5		
Max Q Clear Time (g_c+I1), s	9.4	9.7	21.5	29.6		
Green Ext Time (p_c), s	1.7	0.1	0.8	6.4		

Intersection Summary		
HCM 6th Ctrl Delay	22.9	
HCM 6th LOS	C	

HCM 6th Signalized Intersection Summary

5: Reata Rd & Ortega Hwy

06/06/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	90	1081	8	1	1546	23	3	0	1	19	1	204
Future Volume (veh/h)	90	1081	8	1	1546	23	3	0	1	19	1	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	95	1138	8	1	1627	24	3	0	1	20	1	215
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	1942	866	3	1704	760	268	0	410	469	2	408
Arrive On Green	0.07	0.55	0.55	0.00	0.48	0.48	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1165	0	1585	1416	7	1579
Grp Volume(v), veh/h	95	1138	8	1	1627	24	3	0	1	20	0	216
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1165	0	1585	1416	0	1586
Q Serve(g_s), s	3.7	14.9	0.2	0.0	30.6	0.6	0.2	0.0	0.0	0.7	0.0	8.1
Cycle Q Clear(g_c), s	3.7	14.9	0.2	0.0	30.6	0.6	8.3	0.0	0.0	0.8	0.0	8.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	1942	866	3	1704	760	268	0	410	469	0	410
V/C Ratio(X)	0.78	0.59	0.01	0.39	0.95	0.03	0.01	0.00	0.00	0.04	0.00	0.53
Avail Cap(c_a), veh/h	128	1942	866	128	1709	762	268	0	410	469	0	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.9	10.5	7.2	34.7	17.4	9.6	25.7	0.0	19.2	19.4	0.0	22.2
Incr Delay (d2), s/veh	25.1	0.5	0.0	76.3	12.7	0.0	0.1	0.0	0.0	0.2	0.0	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.0	0.0	0.1	13.8	0.2	0.0	0.0	0.0	0.3	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.0	11.0	7.2	111.1	30.1	9.6	25.8	0.0	19.2	19.6	0.0	27.0
LnGrp LOS	E	B	A	F	C	A	C	A	B	B	A	C
Approach Vol, veh/h	1241			1652			4			236		
Approach Delay, s/veh	14.5			29.9			24.1			26.3		
Approach LOS	B			C			C			C		
Timer - Assigned Phs	2	3	4	6			7	8				
Phs Duration (G+Y+Rc), s	22.5	4.6	42.6	22.5			9.3	37.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5			4.5	4.5				
Max Green Setting (Gmax), s	18.0	5.0	33.5	18.0			5.0	33.5				
Max Q Clear Time (g_c+I1), s	10.3	2.0	16.9	10.1			5.7	32.6				
Green Ext Time (p_c), s	0.0	0.0	7.7	0.8			0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay	23.5											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

6: Av. La Pata/Antonio Pkwy & Ortega Hwy

06/06/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	481	167	437	165	576	296	351	704	45	76	1104	709
Future Volume (veh/h)	481	167	437	165	576	296	351	704	45	76	1104	709
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	506	176	460	174	606	312	369	741	47	80	1162	746
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	585	975	435	212	796	355	457	1623	504	103	1244	1152
Arrive On Green	0.17	0.27	0.27	0.12	0.22	0.22	0.13	0.32	0.32	0.06	0.24	0.24
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	5106	1585	1781	5106	2790
Grp Volume(v), veh/h	506	176	460	174	606	312	369	741	47	80	1162	746
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1702	1585	1781	1702	1395
Q Serve(g_s), s	11.1	2.9	21.4	7.4	12.4	14.8	8.1	9.0	1.6	3.5	17.4	16.7
Cycle Q Clear(g_c), s	11.1	2.9	21.4	7.4	12.4	14.8	8.1	9.0	1.6	3.5	17.4	16.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	585	975	435	212	796	355	457	1623	504	103	1244	1152
V/C Ratio(X)	0.86	0.18	1.06	0.82	0.76	0.88	0.81	0.46	0.09	0.77	0.93	0.65
Avail Cap(c_a), veh/h	598	975	435	254	820	366	510	1623	504	196	1244	1152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	21.6	28.3	33.5	28.3	29.2	32.9	21.2	18.7	36.2	28.9	18.3
Incr Delay (d2), s/veh	12.4	0.1	59.4	16.3	4.1	20.5	8.6	0.9	0.4	11.6	13.9	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	1.2	14.9	4.1	5.5	7.4	3.8	3.6	0.6	1.8	8.4	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	21.7	87.7	49.8	32.4	49.7	41.5	22.2	19.1	47.8	42.8	21.2
LnGrp LOS	D	C	F	D	C	D	D	C	B	D	D	C
Approach Vol, veh/h	1142			1092			1157			1988		
Approach Delay, s/veh	58.1			40.1			28.2			34.9		
Approach LOS	E			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	29.3	13.8	25.9	14.8	23.5	17.7	22.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.6	21.9	11.1	20.4	11.5	19.0	13.5	18.0				
Max Q Clear Time (g_c+I1), s	5.5	11.0	9.4	23.4	10.1	19.4	13.1	16.8				
Green Ext Time (p_c), s	0.0	3.9	0.1	0.0	0.2	0.0	0.1	0.6				
Intersection Summary												
HCM 6th Ctrl Delay	39.4											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary

7: Av. La Pata & Stallion Ridge

06/06/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑		↑	↑		↑	↑↑		↑	↑↑↑	↑
Traffic Volume (veh/h)	479	0	119	2	1	6	203	607	0	4	790	812
Future Volume (veh/h)	479	0	119	2	1	6	203	607	0	4	790	812
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	504	0	125	2	1	6	214	639	0	4	832	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	630	0	281	125	15	90	255	1759	0	10	1824	0
Arrive On Green	0.18	0.00	0.18	0.07	0.07	0.07	0.14	0.50	0.00	0.01	0.36	0.00
Sat Flow, veh/h	3456	0	1585	1781	231	1389	1781	3647	0	1781	5106	1585
Grp Volume(v), veh/h	504	0	125	2	0	7	214	639	0	4	832	0
Grp Sat Flow(s), veh/h/ln	1728	0	1585	1781	0	1620	1781	1777	0	1781	1702	1585
Q Serve(g_s), s	10.0	0.0	5.0	0.1	0.0	0.3	8.4	7.9	0.0	0.2	8.9	0.0
Cycle Q Clear(g_c), s	10.0	0.0	5.0	0.1	0.0	0.3	8.4	7.9	0.0	0.2	8.9	0.0
Prop In Lane	1.00		1.00	1.00		0.86	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	630	0	281	125	0	106	255	1759	0	10	1824	0
V/C Ratio(X)	0.80	0.00	0.44	0.02	0.00	0.07	0.84	0.36	0.00	0.42	0.46	0.00
Avail Cap(c_a), veh/h	872	0	400	449	0	409	262	1759	0	132	1824	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.9	0.0	26.2	30.9	0.0	31.3	29.8	11.1	0.0	35.4	17.6	0.0
Incr Delay (d2), s/veh	3.7	0.0	1.1	0.1	0.0	0.3	20.5	0.6	0.0	26.9	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	1.9	0.0	0.0	0.1	4.9	2.9	0.0	0.1	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	0.0	27.3	30.9	0.0	31.6	50.3	11.7	0.0	62.3	18.4	0.0
LnGrp LOS	C	A	C	C	A	C	D	B	A	E	B	
Approach Vol, veh/h	629			9			853			836		
Approach Delay, s/veh	30.8			31.4			21.4			18.6		
Approach LOS	C			C			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.9	39.8	9.5	17.2	14.7	30.0	17.5	9.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.3	30.7	18.0	18.0	10.5	25.5	18.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	9.9	2.1	7.0	10.4	10.9	12.0	2.3				
Green Ext Time (p_c), s	0.0	4.4	0.0	0.4	0.0	5.0	1.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay	23.0											
HCM 6th LOS	C											

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: Ortega & I-5 SB Off-Ramp

06/06/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑	↑↑					↑↑		↑↑
Traffic Volume (veh/h)	0	1107	151	438	723	0	0	0	0	915	0	736
Future Volume (veh/h)	0	1107	151	438	723	0	0	0	0	915	0	736
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	0	1870
Adj Flow Rate, veh/h	0	1165	0	461	761	0				963	0	775
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	0	2
Cap, veh/h	0	1369		505	1718	0				1307	0	1055
Arrive On Green	0.00	0.27	0.00	0.15	0.48	0.00				0.38	0.00	0.38
Sat Flow, veh/h	0	5274	1585	3456	3647	0				3456	0	2790
Grp Volume(v), veh/h	0	1165	0	461	761	0				963	0	775
Grp Sat Flow(s),veh/h/ln	0	1702	1585	1728	1777	0				1728	0	1395
Q Serve(g_s), s	0.0	14.1	0.0	8.5	9.1	0.0				15.6	0.0	15.6
Cycle Q Clear(g_c), s	0.0	14.1	0.0	8.5	9.1	0.0				15.6	0.0	15.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1369		505	1718	0				1307	0	1055
V/C Ratio(X)	0.00	0.85		0.91	0.44	0.00				0.74	0.00	0.73
Avail Cap(c_a), veh/h	0	1414		505	1750	0				1307	0	1055
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.6	0.0	27.3	11.0	0.0				17.4	0.0	17.4
Incr Delay (d2), s/veh	0.0	5.1	0.0	21.0	0.2	0.0				2.2	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.8	0.0	4.8	3.2	0.0				6.0	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.6	0.0	48.3	11.2	0.0				19.7	0.0	20.1
LnGrp LOS	A	C		D	B	A				B	A	C
Approach Vol, veh/h	1165			A			1222			1738		
Approach Delay, s/veh	27.6			25.2			19.9			50.3		
Approach LOS	C			C			B			D		
Timer - Assigned Phs	3			4			6			8		
Phs Duration (G+Y+Rc), s	14.0			21.9			29.1			35.9		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	9.5			18.0			24.0			32.0		
Max Q Clear Time (g_c+I1), s	10.5			16.1			17.6			11.1		
Green Ext Time (p_c), s	0.0			1.4			3.9			5.4		
Intersection Summary												
HCM 6th Ctrl Delay	23.6									33.1		
HCM 6th LOS	C									C		
Notes												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

2: I-5 NB Ramps & Ortega

06/06/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑↑					↑	↑	↑
Traffic Volume (veh/h)	48	1418	491	0	1644	66	163	38	423	39	0	140
Future Volume (veh/h)	48	1418	491	0	1644	66	163	38	423	39	0	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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		
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1515	502	0	1731	69	172	215	328	41	0	147
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	67	2590	732	0	1908	76	236	295	460	201	211	179
Arrive On Green	0.04	0.46	0.46	0.00	0.38	0.38	0.29	0.29	0.29	0.11	0.00	0.11
Sat Flow, veh/h	1781	5611	1585	0	5206	201	813	1017	1585	1781	1870	1585
Grp Volume(v), veh/h	51	1515	502	0	1169	631	387	0	328	41	0	147
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	0	1702	1834	1830	0	1585	1781	1870	1585
Q Serve(g_s), s	2.8	19.9	25.0	0.0	32.5	32.6	19.0	0.0	18.5	2.1	0.0	9.1
Cycle Q Clear(g_c), s	2.8	19.9	25.0	0.0	32.5	32.6	19.0	0.0	18.5	2.1	0.0	9.1
Prop In Lane	1.00		1.00	0.00		0.11	0.44		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	67	2590	732	0	1289	695	531	0	460	201	211	179
V/C Ratio(X)	0.76	0.58	0.69	0.00	0.91	0.91	0.73	0.00	0.71	0.20	0.00	0.82
Avail Cap(c_a), veh/h	94	2710	766	0	1311	706	531	0	460	322	339	287
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	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.6	19.9	21.2	0.0	29.4	29.4	31.9	0.0	31.8	40.3	0.0	43.4
Incr Delay (d2), s/veh	19.6	0.3	2.4	0.0	9.3	15.5	8.5	0.0	9.1	0.5	0.0	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	8.4	9.4	0.0	14.5	16.8	9.5	0.0	8.1	0.9	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.2	20.2	23.6	0.0	38.6	44.9	40.4	0.0	40.8	40.8	0.0	53.0
LnGrp LOS	E	C	C	A	D	D	D	A	D	D	A	D
Approach Vol, veh/h	2068			1800			715			188		
Approach Delay, s/veh	22.2			40.8			40.6			50.3		
Approach LOS	C			D			D			D		
Timer - Assigned Phs	2			4			6			7		
Phs Duration (G+Y+Rc), s	33.5			50.7			15.8			8.3		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	20.1			48.3			18.1			5.3		
Max Q Clear Time (g_c+I1), s	21.0			27.0			11.1			4.8		
Green Ext Time (p_c), s	0.0			13.8			0.3			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	33.1									C		
HCM 6th LOS	C									C		
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary

3: Rancho Viejo & Ortega

06/06/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔	↔	↔	↔↔↔	↔	↔	↔↔	↔	↔	↔↔	↔
Traffic Volume (veh/h)	122	1288	439	65	1111	213	417	89	103	275	116	185
Future Volume (veh/h)	122	1288	439	65	1111	213	417	89	103	275	116	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	128	1356	462	68	1169	224	439	94	108	202	244	195
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	1431	973	87	1852	575	753	168	193	280	308	236
Arrive On Green	0.09	0.40	0.40	0.05	0.36	0.36	0.21	0.21	0.21	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1585	1781	5106	1585	3563	794	912	1781	1965	1505
Grp Volume(v), veh/h	128	1356	462	68	1169	224	439	0	202	232	207	207
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1702	1585	1781	0	1706	1781	1870	1599
Q Serve(g_s), s	7.1	36.9	15.9	3.8	18.9	10.5	11.1	0.0	10.6	10.8	11.9	12.5
Cycle Q Clear(g_c), s	7.1	36.9	15.9	3.8	18.9	10.5	11.1	0.0	10.6	10.8	11.9	12.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.53	1.00		0.94
Lane Grp Cap(c), veh/h	159	1431	973	87	1852	575	753	0	361	280	294	251
V/C Ratio(X)	0.81	0.95	0.47	0.78	0.63	0.39	0.58	0.00	0.56	0.72	0.79	0.83
Avail Cap(c_a), veh/h	237	1439	977	89	1852	575	753	0	361	321	337	288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	28.8	10.5	47.0	26.3	23.6	35.5	0.0	35.3	40.1	40.6	40.8
Incr Delay (d2), s/veh	11.7	13.2	0.4	34.0	0.7	0.4	3.3	0.0	6.2	6.7	10.6	15.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	17.7	9.0	2.5	7.6	3.9	5.1	0.0	5.0	5.2	6.3	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	42.1	10.9	81.1	27.0	24.1	38.8	0.0	41.4	46.8	51.2	56.7
LnGrp LOS	E	D	B	F	C	C	D	A	D	D	D	E
Approach Vol, veh/h	1946			1461			641			641		
Approach Delay, s/veh	35.6			29.1			39.6			51.6		
Approach LOS	D			C			D			D		
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+Rc), s	25.6	9.4	44.8		20.2	13.4	40.8					
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s	18.5	5.0	40.5		18.0	13.3	32.2					
Max Q Clear Time (g_c+I1), s	13.1	5.8	38.9		14.5	9.1	20.9					
Green Ext Time (p_c), s	1.5	0.0	1.4		1.1	0.1	6.6					

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

Notes
User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

4: La Novia & Ortega

06/06/2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔↔	↔	↔	↔↔	↔↔	↔
Traffic Volume (veh/h)	1442	170	144	1072	275	242
Future Volume (veh/h)	1442	170	144	1072	275	242
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1518	179	152	1128	289	255
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1695	756	187	2268	862	395
Arrive On Green	0.48	0.48	0.10	0.64	0.25	0.25
Sat Flow, veh/h	3647	1585	1781	3647	3456	1585
Grp Volume(v), veh/h	1518	179	152	1128	289	255
Grp Sat Flow(s),veh/h/ln	1777	1585	1781	1777	1728	1585
Q Serve(g_s), s	31.2	5.3	6.7	13.5	5.5	11.5
Cycle Q Clear(g_c), s	31.2	5.3	6.7	13.5	5.5	11.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1695	756	187	2268	862	395
V/C Ratio(X)	0.90	0.24	0.81	0.50	0.34	0.65
Avail Cap(c_a), veh/h	1755	783	189	2332	862	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	12.3	35.0	7.7	24.6	26.9
Incr Delay (d2), s/veh	6.3	0.2	22.9	0.2	1.1	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.1	1.8	4.0	4.3	2.3	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.4	12.5	58.0	7.8	25.6	34.7
LnGrp LOS	C	B	E	A	C	C
Approach Vol, veh/h	1697		1280		544	
Approach Delay, s/veh	24.1		13.8		29.9	
Approach LOS	C		B		C	
Timer - Assigned Phs	2	3	4			8
Phs Duration (G+Y+Rc), s	24.4	12.9	42.7			55.6
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5
Max Green Setting (Gmax), s	18.5	8.5	39.5			52.5
Max Q Clear Time (g_c+I1), s	13.5	8.7	33.2			15.5
Green Ext Time (p_c), s	1.0	0.0	5.0			10.6

Intersection Summary		
HCM 6th Ctrl Delay	21.2	
HCM 6th LOS	C	

HCM 6th Signalized Intersection Summary

5: Reata Rd & Ortega Hwy

06/06/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔	↔	↔	↔↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	105	1518	5	10	1080	34	2	2	4	36	0	114
Future Volume (veh/h)	105	1518	5	10	1080	34	2	2	4	36	0	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	111	1598	5	11	1137	36	2	2	4	38	0	120
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	1780	794	25	1547	690	388	154	309	498	0	439
Arrive On Green	0.08	0.50	0.50	0.01	0.44	0.44	0.28	0.28	0.28	0.28	0.00	0.28
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1272	557	1113	1410	0	1585
Grp Volume(v), veh/h	111	1598	5	11	1137	36	2	0	6	38	0	120
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1272	0	1670	1410	0	1585
Q Serve(g_s), s	4.0	26.5	0.1	0.4	17.3	0.9	0.1	0.0	0.2	1.3	0.0	3.8
Cycle Q Clear(g_c), s	4.0	26.5	0.1	0.4	17.3	0.9	3.9	0.0	0.2	1.5	0.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	142	1780	794	25	1547	690	388	0	463	498	0	439
V/C Ratio(X)	0.78	0.90	0.01	0.45	0.74	0.05	0.01	0.00	0.01	0.08	0.00	0.27
Avail Cap(c_a), veh/h	167	1834	818	137	1773	791	388	0	463	498	0	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	14.7	8.1	31.8	15.2	10.6	19.9	0.0	17.0	17.6	0.0	18.3
Incr Delay (d2), s/veh	18.2	6.2	0.0	12.1	1.4	0.0	0.0	0.0	0.1	0.3	0.0	1.5
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	2.3	10.4	0.0	0.2	6.4	0.3	0.0	0.0	0.1	0.4	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	20.9	8.1	43.8	16.6	10.6	19.9	0.0	17.1	17.9	0.0	19.9
LnGrp LOS	D	C	A	D	B	B	B	A	B	B	A	B
Approach Vol, veh/h	1714			1184			8			158		
Approach Delay, s/veh	22.6			16.7			17.8			19.4		
Approach LOS	C			B			B			B		
Timer - Assigned Phs	2	3	4	6			7	8				
Phs Duration (G+Y+Rc), s	22.5	5.4	37.0	22.5			9.7	32.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5			4.5	4.5				
Max Green Setting (Gmax), s	18.0	5.0	33.5	18.0			6.1	32.4				
Max Q Clear Time (g_c+I1), s	5.9	2.4	28.5	5.8			6.0	19.3				
Green Ext Time (p_c), s	0.0	0.0	4.1	0.6			0.0	6.8				
Intersection Summary												
HCM 6th Ctrl Delay	20.1											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

6: Av. La Pata/Antonio Pkwy & Ortega Hwy

06/06/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔	↔	↔	↔↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	506	782	273	92	246	104	335	760	212	239	583	532
Future Volume (veh/h)	506	782	273	92	246	104	335	760	212	239	583	532
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	533	823	287	97	259	109	353	800	223	252	614	560
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	624	1034	461	124	638	285	448	1288	400	295	1472	1308
Arrive On Green	0.18	0.29	0.29	0.07	0.18	0.18	0.13	0.25	0.25	0.17	0.29	0.29
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	5106	1585	1781	5106	2790
Grp Volume(v), veh/h	533	823	287	97	259	109	353	800	223	252	614	560
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1702	1585	1781	1702	1395
Q Serve(g_s), s	12.1	17.4	12.7	4.4	5.2	4.9	8.0	11.3	9.9	11.2	7.9	10.8
Cycle Q Clear(g_c), s	12.1	17.4	12.7	4.4	5.2	4.9	8.0	11.3	9.9	11.2	7.9	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	624	1034	461	124	638	285	448	1288	400	295	1472	1308
V/C Ratio(X)	0.85	0.80	0.62	0.78	0.41	0.38	0.79	0.62	0.56	0.85	0.42	0.43
Avail Cap(c_a), veh/h	702	1221	545	145	788	351	600	1288	400	406	1472	1308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	26.6	24.9	37.2	29.5	29.3	34.2	26.9	26.4	32.9	23.4	14.3
Incr Delay (d2), s/veh	9.2	3.2	1.6	20.9	0.4	0.8	5.0	2.3	5.5	12.2	0.9	1.0
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	5.7	7.5	4.8	2.6	2.2	1.9	3.6	4.7	4.2	5.7	3.2	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	29.8	26.6	58.1	29.9	30.2	39.2	29.2	31.9	45.1	24.3	15.4
LnGrp LOS	D	C	C	E	C	C	D	C	C	D	C	B
Approach Vol, veh/h	1643			465			1376			1426		
Approach Delay, s/veh	33.0			35.8			32.2			24.4		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	25.0	10.1	28.1	15.0	27.9	19.2	19.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	18.5	19.0	6.6	27.9	14.1	23.4	16.5	18.0				
Max Q Clear Time (g_c+I1), s	13.2	13.3	6.4	19.4	10.0	12.8	14.1	7.2				
Green Ext Time (p_c), s	0.3	3.0	0.0	4.3	0.5	4.9	0.5	1.5				
Intersection Summary												
HCM 6th Ctrl Delay	30.6											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

7: Av. La Pata & Stallion Ridge

06/06/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔↔	↔		↔	↔		↔	↔↔		↔	↔↔↔	↔	
Traffic Volume (veh/h)	346	0	81	2	0	5	93	903	1	0	580	325	
Future Volume (veh/h)	346	0	81	2	0	5	93	903	1	0	580	325	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
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	364	0	85	2	0	5	98	951	1	0	611	0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	533	0	209	163	0	110	127	1923	2	3	1910	0	
Arrive On Green	0.15	0.00	0.13	0.09	0.00	0.07	0.07	0.53	0.53	0.00	0.37	0.00	
Sat Flow, veh/h	3456	0	1585	1781	0	1585	1781	3643	4	1781	5106	1585	
Grp Volume(v), veh/h	364	0	85	2	0	5	98	464	488	0	611	0	
Grp Sat Flow(s),veh/h/ln	1728	0	1585	1781	0	1585	1781	1777	1870	1781	1702	1585	
Q Serve(g_s), s	5.4	0.0	2.7	0.1	0.0	0.2	2.9	9.1	9.1	0.0	4.6	0.0	
Cycle Q Clear(g_c), s	5.4	0.0	2.7	0.1	0.0	0.2	2.9	9.1	9.1	0.0	4.6	0.0	
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00	
Lane Grp Cap(c), veh/h	533	0	209	163	0	110	127	938	987	3	1910	0	
V/C Ratio(X)	0.68	0.00	0.41	0.01	0.00	0.05	0.77	0.49	0.49	0.00	0.32	0.00	
Avail Cap(c_a), veh/h	1146	0	526	591	0	526	187	938	987	164	1910	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	
Uniform Delay (d), s/veh	21.7	0.0	21.6	22.4	0.0	23.6	24.8	8.2	8.2	0.0	12.1	0.0	
Incr Delay (d2), s/veh	1.6	0.0	1.3	0.0	0.0	0.2	11.1	1.9	1.8	0.0	0.4	0.0	
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	2.1	0.0	1.0	0.0	0.0	0.1	1.5	3.2	3.3	0.0	1.6	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	23.3	0.0	22.9	22.4	0.0	23.8	35.9	10.0	10.0	0.0	12.5	0.0	
LnGrp LOS	C	A	C	C	A	C	D	B	A	A	B		
Approach Vol, veh/h	449			7			1050			611			A
Approach Delay, s/veh	23.2			23.4			12.4			12.5			
Approach LOS	C			C			B			B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	0.0	33.2	9.5	11.6	8.4	24.8	12.9	8.3					
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s	5.0	21.0	18.0	18.0	5.7	20.3	18.0	18.0					
Max Q Clear Time (g_c+I1), s	0.0	11.1	2.1	4.7	4.9	6.6	7.4	2.2					
Green Ext Time (p_c), s	0.0	4.3	0.0	0.3	0.0	3.5	1.0	0.0					

Intersection Summary		
HCM 6th Ctrl Delay	14.8	
HCM 6th LOS	B	

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.