

Appendix N Traffic Study

Appendices

This page intentionally left blank.

TRAFFIC IMPACT ANALYSIS

**NOHL RANCH CONDOMINIUMS
ANAHEIM, ORANGE COUNTY, CALIFORNIA**

LSA

June 2019

N-1

TRAFFIC IMPACT ANALYSIS

NOHL RANCH CONDOMINIUMS ANAHEIM, ORANGE COUNTY, CALIFORNIA

Submitted to:

6509 Serrano L.P.
4040 MacArthur Boulevard, Suite 300
Newport Beach, California 92660

Prepared by:

LSA
20 Executive Park, Suite 200
Irvine, California 92614
(949) 553-0666

Project No. SRR1801



June 2019

N-2

TABLE OF CONTENTS

TABLE OF CONTENTS	i
LIST OF ABBREVIATIONS AND ACRONYMS.....	iv
INTRODUCTION	1
Project Description.....	1
METHODOLOGY.....	4
EXISTING (2018) CONDITIONS	9
Existing Circulation System	9
Existing (2018) Intersection Level of Service Analysis.....	10
Existing (2018) Roadway Segment Level of Service Analysis	11
PROJECT OPENING YEAR (2022) BASELINE CONDITIONS	13
Project Opening Year (2022) Baseline Intersection Level of Service Analysis	13
Project Opening Year (2022) Baseline Roadway Segment Level of Service Analysis	13
GENERAL PLAN BUILDOUT (2035).....	13
General Plan Buildout (2035) Intersection Level of Service Analysis.....	15
General Plan Buildout (2035) Roadway Segment Level of Service Analysis	16
EFFECTS OF THE PROJECT	18
Trip Generation	18
Trip Distribution and Assignment.....	19
EXISTING PLUS PROJECT CONDITION.....	23
Existing Plus Project Intersection Level of Service Analysis	23
Existing Plus Project Roadway Segment Level of Service Analysis.....	23
PROJECT OPENING YEAR (2022) PLUS PROJECT CONDITION	25
Project Opening Year (2022) Plus Project Intersection Level of Service Summary Analysis.....	25
Project Opening Year (2022) Plus Project Roadway Segment Level of Service Analysis	27
GENERAL PLAN BUILDOUT (2035) PLUS PROJECT CONDITION.....	27
General Plan Buildout (2035) Plus Project Intersection Level of Service Summary Analysis.....	27
General Plan (2035) Plus Project Roadway Segment Level of Service Analysis	30
SPECIAL CONSIDERATIONS.....	30
Access Analysis	30
Neighborhood Traffic	31
School Parking	33
Vehicle Miles Traveled	35
CONCLUSION	35
REFERENCES	36

FIGURES

Figure 1: Project Location.....	2
Figure 2: Site Plan	3
Figure 3: Study Area	5
Figure 4: Existing Geometrics	6
Figure 5: Existing (2018) Volumes	12
Figure 6: Project Opening Year (2022) Baseline Volumes.....	14
Figure 7: General Plan (2035) Traffic Volume	17
Figure 8a: Serrano Center Trip Assignment	20
Figure 8b: Residential Project Trip Assignment	21
Figure 8c: Net Project Trip Assignment.....	22
Figure 9: Existing Plus Project Volumes.....	24
Figure 10: Project Opening Year (2022) Plus Project Volumes	26
Figure 11: General Plan (2035) Plus Project Volumes	28
Figure 12: Travel Paths to and from the Project Site	32

TABLES

Table A: Existing (2018) Intersection LOS Summary	11
Table B: Existing (2018) Roadway LOS Comparison	13
Table C: Project Opening Year (2022) Intersection LOS Summary.....	15
Table D: Project Opening Year (2022) Roadway LOS Comparison	15
Table E: General Plan Buildout (2035) Intersection LOS Summary.....	16
Table F: General Plan Buildout (2035) Roadway LOS Comparison.....	18
Table G: Existing Trips and Trip Generation	18
Table H: Existing Plus Project Intersection LOS Summary.....	23
Table I: Existing Plus Project Roadway LOS Comparison.....	25
Table J: Project Opening Year (2022) Plus Project Intersection LOS Summary.....	25
Table K: Project Opening Year (2022) Plus Project Roadway LOS Comparison	27
Table L: General Plan Buildout Trip Generation Comparison	29
Table M: General Plan (2035) Plus Project Intersection LOS Summary	29
Table N: General Plan (2035) Plus Project Roadway LOS Comparison	30
Table O: Project Opening Year (2022) With Worst-Case Neighborhood Traffic Intersection LOS Summary	31
Table P: Project Opening Year (2022) With Worst-Case Neighborhood Traffic Roadway LOS Comparison	33
Table Q: Project Effect on Vehicle Miles Traveled	35

APPENDICES

- A: Traffic Volume Data
- B: ICU Level of Service Worksheets
- C: HCM Level of Service Worksheets

LIST OF ABBREVIATIONS AND ACRONYMS

ATAM	Anaheim Traffic Analysis Model
CalEEMod	California Emission Estimator Model
CEQA	California Environmental Quality Act
City	City of Anaheim
CMP	Congestion Management Program
ft	foot/feet
ICU	intersection capacity utilization
ITE	Institute of Transportation Engineers
LOS	level of service
mph	miles per hour
SEIR	Supplemental Environmental Impact Report
SWITRS	Statewide Integrated Traffic Records System
TIMS	Transportation Injury Mapping System
v/c	volume-to-capacity [ratio]
VMT	vehicle miles traveled

INTRODUCTION

LSA has prepared the following analysis to identify the potential traffic impacts resulting from the development of 60 townhome dwelling units on approximately 3 acres in an area currently occupied by the Serrano Center retail center in the Anaheim Hills neighborhood of Anaheim. LSA has prepared this analysis consistent with the requirements of the City of Anaheim (City) *Criteria for Preparation of Traffic Impact Studies* and applicable provisions of the California Environmental Quality Act (CEQA).

Figure 1 shows the location of the project site. The Serrano Center is currently leasing space to a variety of commercial uses, including a dry cleaner, professional services, professional offices, retail, a children's swim school, a children's dance school, after-school tutoring, and a children's day care. Conversion of the site usage from commercial to residential would require a change to the site's General Plan land use designation. The traffic analysis for the proposed project examines six scenarios:

1. Existing (2018) Conditions
2. Existing (2018) Plus Project Conditions
3. Project Opening Year (2022) Baseline Conditions
4. Project Opening Year (2022) Plus Project Conditions
5. General Plan Buildout (2035) Baseline Conditions
6. General Plan Buildout (2035) Plus Project Conditions

This report addresses special considerations, including the potential for cut-through traffic within residential neighborhoods, driveway access, and school proximity.

Project Description

As shown on Figure 1, the existing site is bordered by Nohl Ranch Road to the west, Serrano Avenue to the south, and residential uses to the north and east. The site is accessed by one driveway on Nohl Ranch Road and two driveways on Serrano Avenue.

The proposed project will demolish the existing uses and construct up to 60 townhome dwelling units. The driveway on Nohl Ranch Road will be moved south of its existing location. The eastern driveway on Serrano Avenue will remain in its current location and the western driveway on Serrano Avenue will be closed as part of the project. These driveways are further analyzed in the Access Analysis section of this report. A site plan of the proposed project is illustrated on Figure 2.

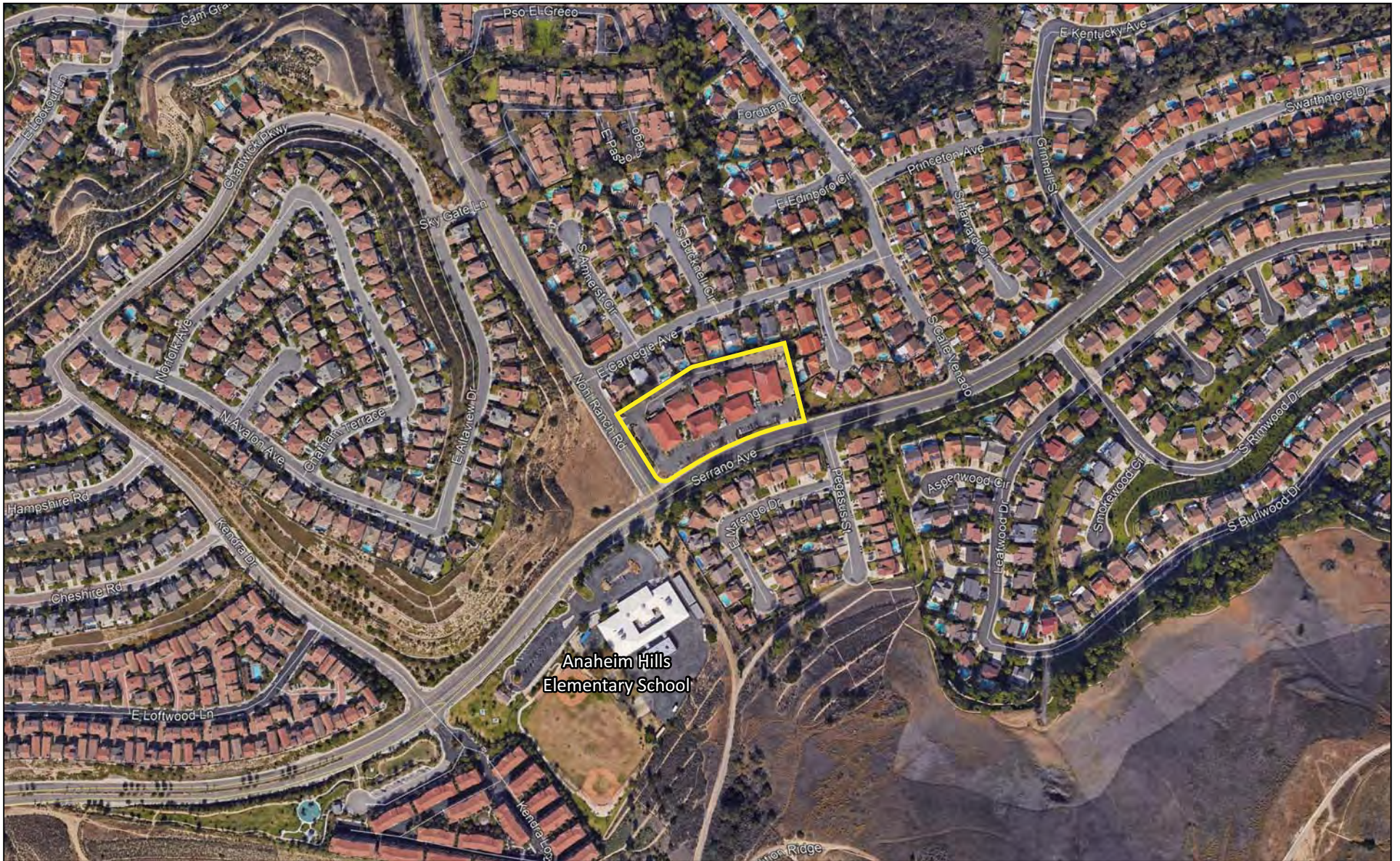


FIGURE 1

LSA

LEGEND
Project Location



0 250 500
FEET

SOURCE: Google Earth, 2018

I:\SRR1801\G\Project_Location.cdr (7/11/2018)

Nohl Ranch Condominiums
Project Location

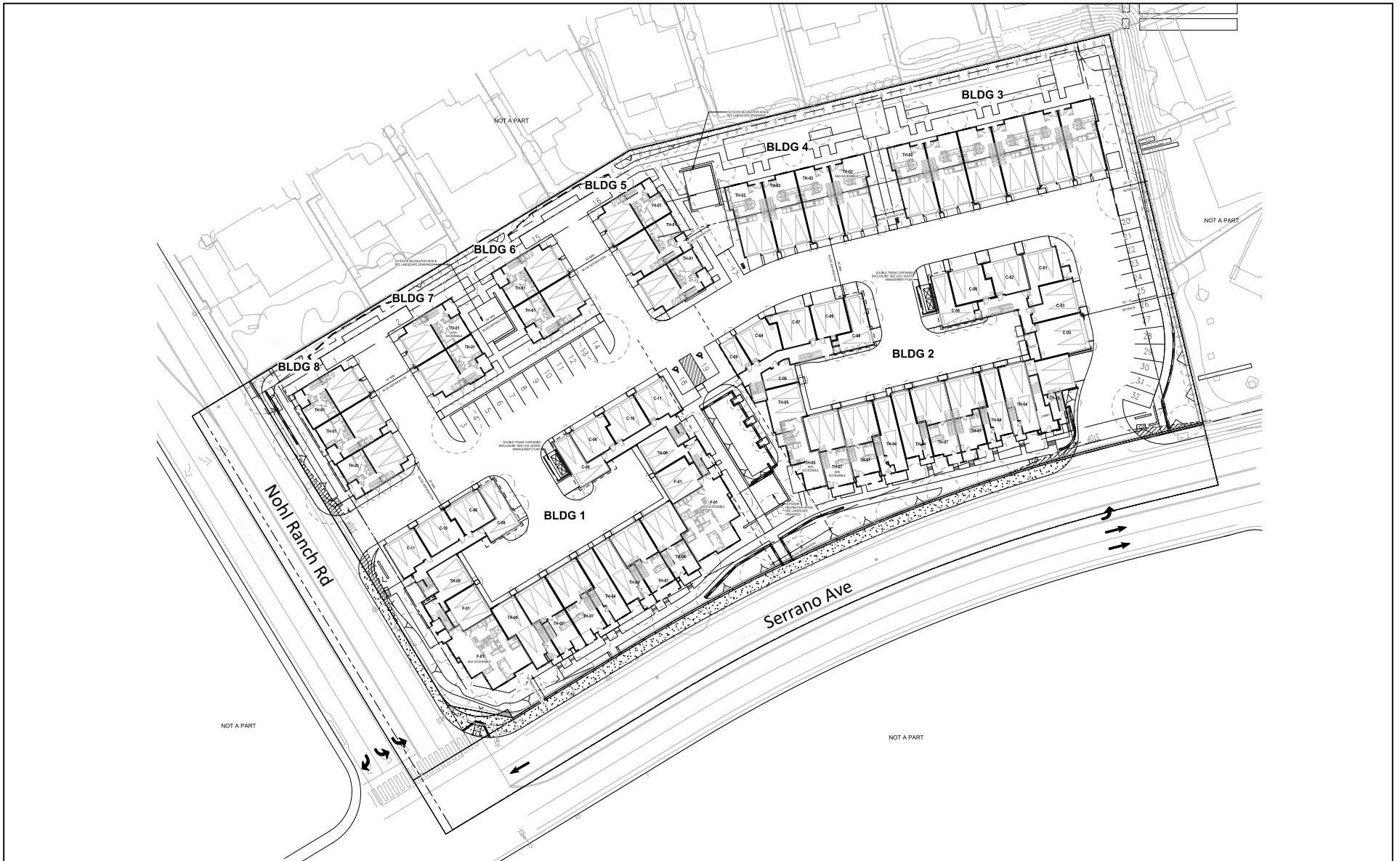


FIGURE 2

LSA



0 50 100

FEET

SOURCE: MVE Partners

I:\SRR1801\G\Site_Plan.cdr (7/11/2018)

Nohl Ranch Condominiums

Site Plan

METHODOLOGY

The City's *Criteria for Preparation of Traffic Impact Studies* requires a capacity analysis at intersections and roadway segments where the project contributes at least 51 trips. As demonstrated later in this report, the project is not anticipated to contribute 51 or more trips to any intersection or roadway segment. However, as requested by the City's Traffic Engineering staff, the study area analyzed in this report includes the following intersections and roadway segments. Figure 3 illustrates the locations of the intersections and roadway segments included in the study area. Figure 4 provides the existing geometrics and traffic control devices at each study area intersection.

Study Area Intersections	Roadway Segments
1. Nohl Ranch Road/Stage Coach Road (traffic signal)	1. Nohl Ranch Road (Stage Coach Road to Serrano Avenue)
2. Nohl Ranch Road/Carnegie Avenue (side-street stop)	2. Serrano Avenue (Kendra Drive to Nohl Ranch Road)
3. Nohl Ranch Road/Project Driveway (side-street stop)	3. Serrano Avenue (Nohl Ranch Road to Canyon Rim Road)
4. Kendra Drive/Serrano Avenue (Orange) (traffic signal)	4. Carnegie Avenue (Nohl Ranch Road to Calle Venado)
5. Nohl Ranch Road/Serrano Avenue (traffic signal)	5. Calle Venado (Carnegie Avenue to Serrano Avenue)
6. Project Driveway/Serrano Avenue (side-street stop)	
7. Pegasus Street/Serrano Avenue (side-street stop)	
8. Calle Venado/Serrano Avenue (side-street stop)	
9. Canyon Rim Road/Serrano Avenue (traffic signal)	
10. Cannon Street/Serrano Avenue (Orange) (traffic signal)	
11. Cannon Street/Taft Avenue (Orange) (traffic signal)	
12. Cannon Street/Santiago Canyon Road (Orange) (traffic signal)	

Intersection Level of Service Methodology

In accordance with the City's *Criteria for Preparation of Traffic Impact Studies* and the City of Orange *Traffic Impact Analysis Guidelines*, the study area intersections were analyzed using intersection capacity utilization (ICU) methodology for signalized intersections (i.e., study area intersections) and *Highway Capacity Manual* (HCM), 6th Edition methodology for unsignalized intersections (i.e., project driveways). Traffix (Version 8.0) and Synchro 10 are the software applications utilized to determine the levels of service (LOS) for signalized and unsignalized intersections, respectively. These programs calculate LOS based on traffic volume and intersection geometry inputs.

The ICU methodology compares the amount of traffic an intersection is able to process (capacity) to the level of traffic during peak hours (volume). The resulting volume-to-capacity (v/c) ratio is expressed in terms of LOS. The HCM methodology calculates the delay experienced by all movements through an intersection. At a two-way, stop-controlled intersection (i.e., an unsignalized intersection where the main street is uncontrolled and traffic on the minor street has to stop before finding a gap to enter the main street), delay is reported for the most delayed approach. LOS criteria for intersections are presented as follows.

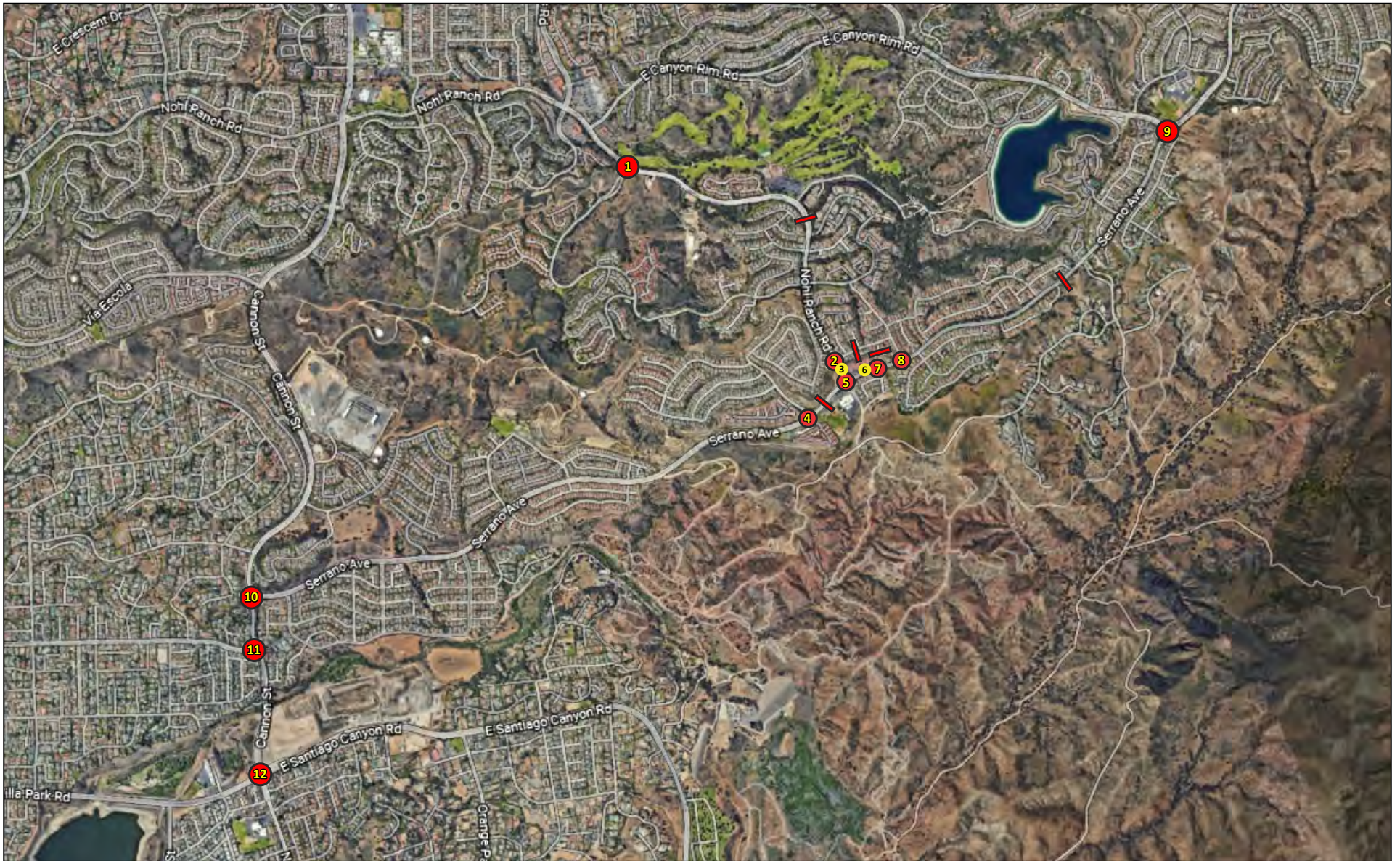


FIGURE 3

LSA



0 1200 2400

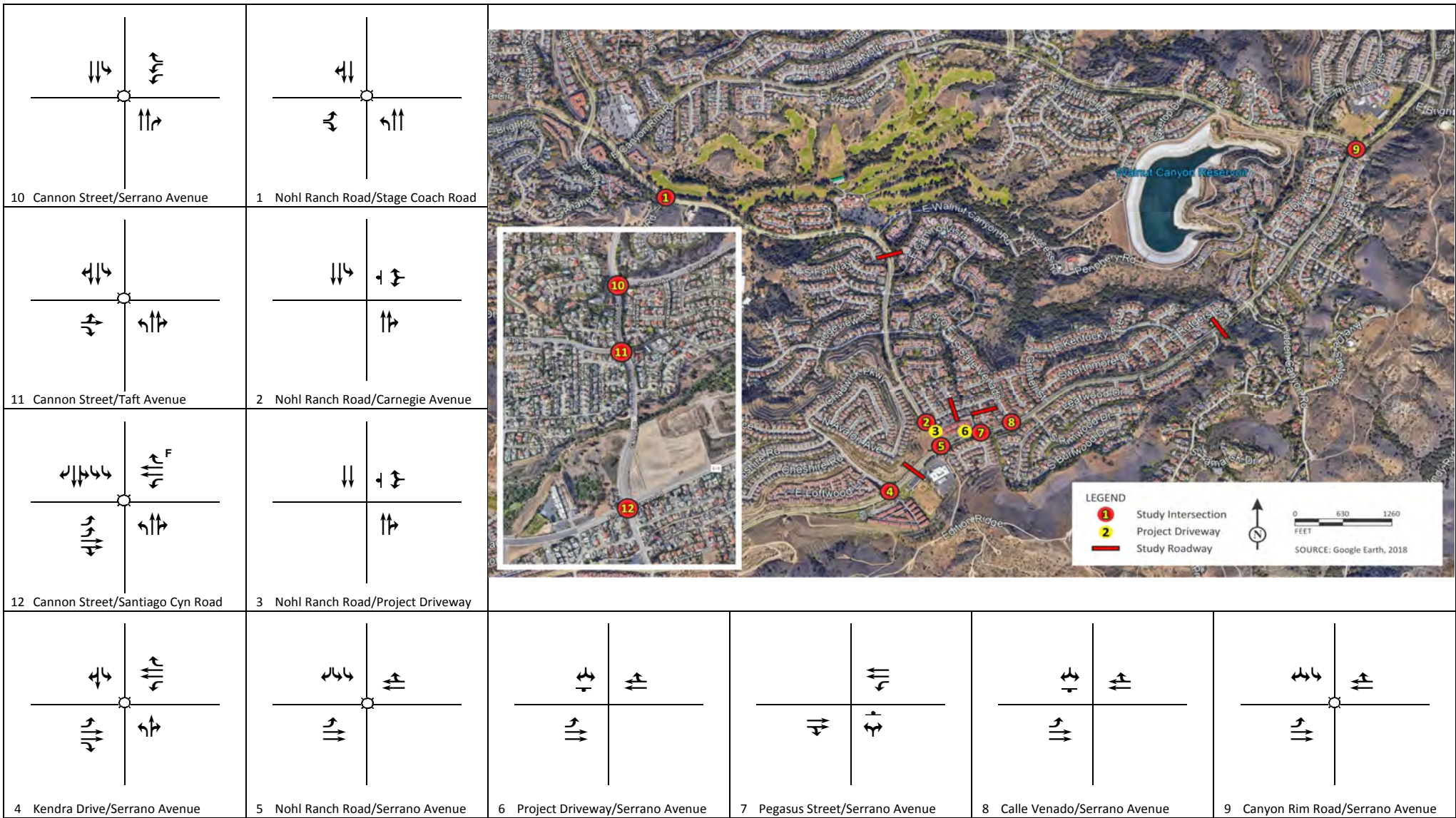
FEET

SOURCE: Google Earth, 2018

I:\SRR1801\G\Study_Area.cdr (2/22/2019)

LEGEND

- ① Study Intersection
- ② Project Driveway
- ▬ Study Roadway



LSA

LEGEND

- Signal
- ⊥ Stop Sign
- F Free Right Turn

FIGURE 4

Nohl Ranch Condominiums
Existing Geometrics

Level of Service Descriptions

LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. LOS is assigned along the following letter gradient where LOS A represents free-flow activity, and LOS F represents overcapacity operation:

- **LOS A:** No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
- **LOS B:** This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
- **LOS C:** This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
- **LOS D:** This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
- **LOS E:** Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained no matter how great the demand.
- **LOS F:** This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, speed can drop to zero.

The relationship between LOS and the delay (in seconds) or v/c ratio at unsignalized and signalized intersections is as follows:

Level of Service	Delay (seconds) (HCM Methodology)	Volume-to-Capacity Ratio (ICU Methodology)
A	≤10.0	< 0.60
B	>10.0 and ≤15.0	0.61–0.70
C	>15.0 and ≤25.0	0.71–0.80
D	>25.0 and ≤35.0	0.81–0.90
E	>35.0 and ≤50.0	0.91–1.00
F	>50.0	> 1.00

HCM = *Highway Capacity Manual*
ICU = intersection capacity utilization

Both the City’s guidelines and City of Orange guidelines specify the use of a saturation flow rate of 1,700 vehicles per lane per hour and a clearance interval factor of 5 percent. These guidelines have been applied in the analysis of all signalized study area intersections.

Roadway Segment Level of Service Methodology

Using the same v/c methodology discussed above, daily roadway link v/c ratios were determined using roadway volume data and the theoretical daily capacities provided by the City of Anaheim. The theoretical daily capacity of a roadway is dependent on roadway classification, as shown in the table below.

Type of Arterial	Daily Capacity
Eight Lanes Divided	75,000
Six Lanes Divided	56,300
Four Lanes Divided	37,500
Four Lanes (Undivided)	25,000
Two Lanes (Undivided)	12,500

Source: City of Anaheim.

For roadway segments, the City’s General Plan establishes a target of LOS C. If a segment is found to operate at LOS D, E, or F under daily conditions, its operation is also analyzed under peak-hour conditions. If the roadway segment also operates at LOS D, E, or F under peak-hour conditions and project traffic increases the daily v/c ratio by 0.01 or greater, then the project is determined to have a significant impact. The relationship between LOS and the v/c ratio for roadways is shown in the following table.

Level of Service	V/C Ratio
A	≤ 0.60
B	0.61–0.70
C	0.71–0.80
D	0.81–0.90
E	0.91–1.00
F	> 1.00

V/C = volume-to-capacity

Significance Criteria

A transportation impact on an intersection is considered significant in accordance with the following table. The “Final V/C Ratio” includes the future v/c ratio at an intersection, considering traffic from existing conditions, ambient growth, approved/related projects, and the proposed project but without any proposed mitigation. Mitigation is required for any intersection where project traffic is considered to have a significant impact.

Level of Service	Final V/C Ratio	Project-Related Increase in V/C Ratio
C	> 0.701–0.800	≥ 0.050
D	> 0.801–0.900	≥ 0.030
E, F	> 0.901	≥ 0.010

Source: City of Anaheim, *Criteria for Preparation of Traffic Impact Studies*.
V/C = volume-to-capacity

For intersections within the jurisdiction of the City of Orange, a v/c ratio of 0.90 (LOS D) is considered the upper limit of satisfactory operations. The City of Orange *Traffic Impact Analysis Guidelines* state that a transportation impact on an intersection shall be deemed significant and require mitigation if the final v/c ratio exceeds 0.90 and the project-related increase in v/c is equal to or greater than 0.01.

The Orange County Congestion Management Program (CMP) stipulates the requirements for maintaining LOS E at CMP intersections. However, no CMP intersections are located near the project.

Project Fair Share

Based on the City’s *Criteria for Preparation of Traffic Impact Studies*, for cumulative long-range analysis (i.e., General Plan Build Out), the project participates in future improvements on a fair-share basis. A project’s equitable share is to be calculated using the following equation:

$$P = \frac{T}{T_B - T_E}$$

Where:

- P = the equitable share for the proposed project’s traffic impact
- T = the vehicle trips generated by the project during the peak hour of the adjacent street, vehicles per hour at the impacted location
- T_B = the General Plan Build Out forecast traffic volume (i.e., the 20-year model or the furthest future model date feasible), vehicles per hour at the impacted location
- T_E = the existing traffic volumes plus approved projects that have not been constructed or occupied, vehicles per hour at the impacted location

EXISTING (2018) CONDITIONS

Existing Circulation System

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

- **Nohl Ranch Road:** Nohl Ranch Road, a north-south roadway located west of and adjacent to the project site, is classified as a Hillside Secondary Arterial by the City’s General Plan Circulation Element. Nohl Ranch Road, which is adjacent to the project site, is a four-lane roadway divided by a two-way left-turn lane that acts as a median. Nohl Ranch Road provides direct access to the project site at an unsignalized driveway. The posted speed limit on Nohl Ranch Road is 45 miles

per hour (mph). There are sidewalks provided on both sides of the street. There are no bike lanes, and on-street parking is prohibited.

- **Serrano Avenue:** Serrano Avenue is an east-west roadway located south of the project that provides access to the project site at unsignalized driveways. The route is designated as a Hillside Secondary Arterial by the City's General Plan Circulation Element. The posted speed limit on Serrano Avenue is 45 mph. In the vicinity of the project site, the roadway has four lanes and a two-way left-turn lane that acts as a median. There are sidewalks provided on both sides of the street. There are Class II bike lanes, and on-street parking is prohibited.
- **Carnegie Avenue:** Carnegie Avenue is a local road that is not included in the City's General Plan Circulation Element. Carnegie Avenue has two undivided lanes and provides direct access to residences within the neighborhood. Sidewalks are provided on both sides of the street, and on-street parking is permitted.
- **Calle Venado:** Calle Venado is a local road that is not included in the City's General Plan Circulation Element. Calle Venado has two undivided lanes and provides direct access to residences within the neighborhood. Sidewalks are provided on both sides of the street, and on-street parking is permitted.
- **Cannon Street:** Between the northern city limits and Santiago Canyon Road, the City of Orange Master Plan of Streets and Highways classifies Cannon Street as a Major Arterial. Cannon Street has a posted speed limit of 45 mph. The roadway has four lanes and a striped median becoming a left-turn lane at intersections. A continuous sidewalk is provided on the east side of the roadway, while portions of the west side of the roadway have an interrupted sidewalk. Narrow Class II bike lanes are provided on both sides of the street. The City of Orange Master Plan of Streets and Highways indicates this roadway will be six lanes at General Plan buildout.
- **Santiago Canyon Road:** The City of Orange Master Plan of Streets and Highways classifies Santiago Canyon Road as a Major Arterial. Santiago Canyon Road has a posted speed limit of 50 mph. The roadway has four lanes and a two-way left-turn lane that acts as a median. A continuous sidewalk is provided on the south side of the roadway, while portions of the north side of the roadway have an interrupted sidewalk. Class II bike lanes are provided on both sides of the street. The City of Orange Master Plan of Streets and Highways indicates this roadway will be six lanes at General Plan buildout.

Existing (2018) Intersection Level of Service Analysis

Vehicle turning volumes were collected for the study area intersections during the peak morning (7:00 a.m.–9:00 a.m.) and evening (4:00 p.m.–6:00 p.m.) commute periods. Peak-hour intersection turn volumes were surveyed at the study area intersections in Anaheim on a typical weekday (Wednesday, May 16, 2018) while schools were in session. After a request from the City of Orange, additional turn volumes were collected at intersections in Orange on a typical weekday (Thursday, February 7, 2019) while schools were in session. These volumes were taken in 15-minute increments and then totaled as hourly volumes, which is the standard procedure for volume data collection.

Figure 5 presents the existing a.m. and p.m. peak-hour turn movement volumes for the study area intersections. The traffic volume data sheets are provided in Appendix A.

Table A summarizes the results of the existing a.m. and p.m. peak-hour LOS analysis for the study area intersections. The intersection of Nohl Ranch Road/Serrano Avenue is located adjacent to Anaheim Hills Elementary School and experiences a surge in traffic immediately prior to school start time during the a.m. peak hour. At this intersection, the peak-hour factor (i.e., the concentration of peak-hour traffic volume during the busiest 15 minutes) identified in existing conditions was applied for all a.m. peak-period analyses. School departure occurs outside of the p.m. peak hour, and no peak-hour factors were applied during the p.m. peak hour. All ICU analysis worksheets are provided in Appendix B. All HCM analysis worksheets are provided in Appendix C. As Table A indicates, all study area intersections operate at an acceptable LOS (i.e., LOS D or better) in the a.m. and p.m. peak hours, except for the intersections of Cannon Street/Serrano Avenue (Orange) and Cannon Street/Taft Avenue (Orange).

Table A: Existing (2018) Intersection LOS Summary

Study Area No.	Intersections	AM Peak Hour		PM Peak Hour	
		V/C or Delay	LOS	V/C or Delay	LOS
1	Nohl Ranch Road/Stage Coach Road	0.319	A	0.274	A
2	Nohl Ranch Road/Carnegie Avenue (u)	11.3 sec	B	10.4 sec	B
3	Nohl Ranch Road/Project Driveway (u)	9.2 sec	A	9.2 sec	A
4	Kendra Drive/Serrano Avenue	0.411	A	0.440	A
5	Nohl Ranch Road/Serrano Avenue	0.593	A	0.427	A
6	Project Driveway/Serrano Avenue (u)	11.9 sec	B	9.9 sec	A
7	Pegasus Street/Serrano Avenue (u)	12.3 sec	B	23.0 sec	C
8	Calle Venado/Serrano Avenue (u)	11.7 sec	B	17.6 sec	C
9	Canyon Rim Road/Serrano Avenue	0.488	A	0.420	A
10	Cannon Street/Serrano Avenue (o)	0.816	D	0.991	E
11	Cannon Street/Taft Avenue (o)	0.946	E	0.957	E
12	Cannon Street/Santiago Canyon Road (o)	0.761	C	0.774	C

☐ Unsatisfactory LOS

LOS = level of service

sec = seconds

(o) = City of Orange jurisdiction

(u) = unsignalized, worst approach delay shown

V/C = volume-to-capacity

Existing (2018) Roadway Segment Level of Service Analysis

Roadway LOS is calculated by comparing the daily traffic volume to the theoretical daily capacity of that roadway. Existing daily traffic volumes were collected on a typical weekday (Wednesday, May 16, 2018). Table B summarizes the daily traffic volumes and v/c ratios for the five study area roadway segments in the existing condition. As Table B illustrates, all study area roadway segments operate at an acceptable LOS (i.e., LOS C or better).

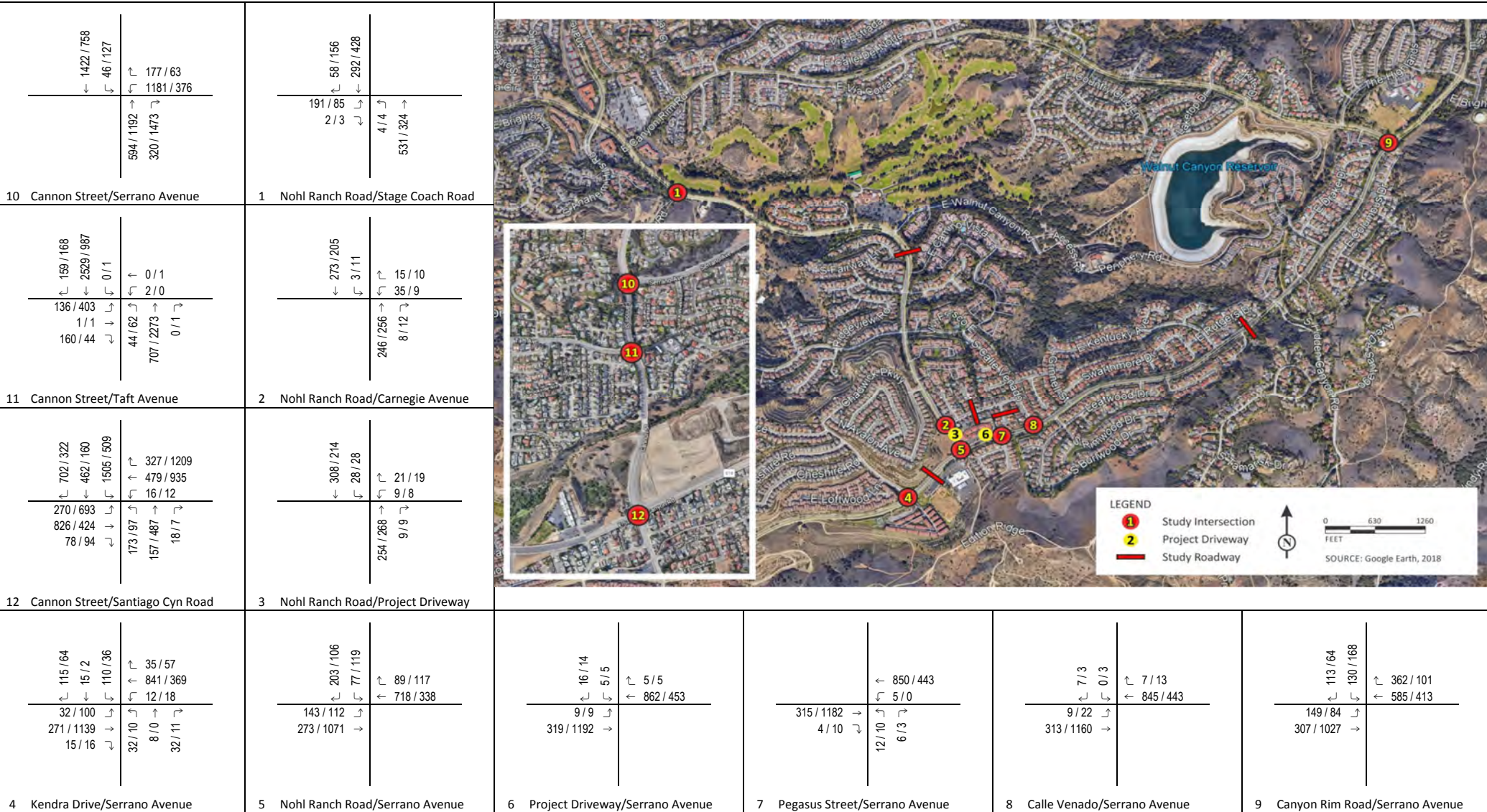


FIGURE 5



LEGEND
xxx / yyy AM / PM Volume

Nohl Ranch Condominiums
Existing Volume

Table B: Existing (2018) Roadway LOS Comparison

Roadway Segment	Mid-Block Lanes	Capacity	Existing	V/C	LOS
Nohl Ranch Road (Stage Coach Road to Serrano Avenue)	4D	37,500	5,599	0.15	A
Serrano Avenue (Kendra Drive to Nohl Ranch Road)	4D	37,500	14,121	0.38	A
Serrano Avenue (Nohl Ranch Road to Canyon Rim Road)	4D	37,500	14,013	0.37	A
Carnegie Avenue (Nohl Ranch Road to Calle Venado)	2U	12,500	695	0.06	A
Calle Venado (Carnegie Avenue to Serrano Avenue)	2U	12,500	424	0.03	A

LOS = level of service

V/C = volume-to-capacity

PROJECT OPENING YEAR (2022) BASELINE CONDITIONS

The proposed project is anticipated to be completed by 2022. LSA queried the City’s development records and planning staff and identified no nearby (i.e., within 2 miles) approved or pending projects that could be completed and thereby contribute traffic to the study area by 2022. LSA also reviewed the pending land use applications for the City of Orange. Although the Santiago Hills II project is listed as delayed by the City of Orange, LSA added traffic volumes at the study intersections consistent with the project volumes reported in the *Santiago Hills II Traffic Study* (Stantec 2016). In addition to this specific development project, LSA escalated existing roadway and intersection volumes by 1 percent per year, for a total of 4 percent over the next 4 years, in order to account for ambient traffic growth from existing traffic volumes collected in 2018 and early 2019.

Project Opening Year (2022) Baseline Intersection Level of Service Analysis

Intersection geometrics at the study area intersections are not anticipated to change by the project opening year. The future a.m. and p.m. peak-hour traffic volumes are shown on Figure 6. Table C summarizes the results of the future a.m. and p.m. peak-hour LOS analysis for the study area intersections. As indicated in Table C, all study area intersections operate at an acceptable LOS in the a.m. and p.m. peak hours in the Project Opening Year (2022) Baseline condition except for the intersections of Cannon Street/Serrano Avenue (Orange) and Cannon Street/Taft Avenue (Orange), which operate at unacceptable LOS in existing conditions.

Project Opening Year (2022) Baseline Roadway Segment Level of Service Analysis

Similar to the intersection analysis, an ambient traffic growth rate of 4 percent (1 percent per year) was applied to daily roadway traffic volumes. Table D summarizes the daily traffic volumes and v/c ratios for the five study area roadway segments in the Future (2022) condition. As Table D illustrates, all study area roadway segments operate at an acceptable LOS (i.e., LOS C or better).

GENERAL PLAN BUILDOUT (2035)

The City performed a citywide analysis of intersections and roadway segments included in the General Plan Circulation Element using the Anaheim Traffic Analysis Model (ATAM) with the certified Housing Opportunities Rezoning Project (Supplemental Environmental Impact Report [SEIR] 346). The City of Anaheim *Housing Opportunities Rezoning Project SEIR 346 Technical Traffic Study* (Iteris 2013) included three of the intersections included in the project’s study area but none of the roadway segments.

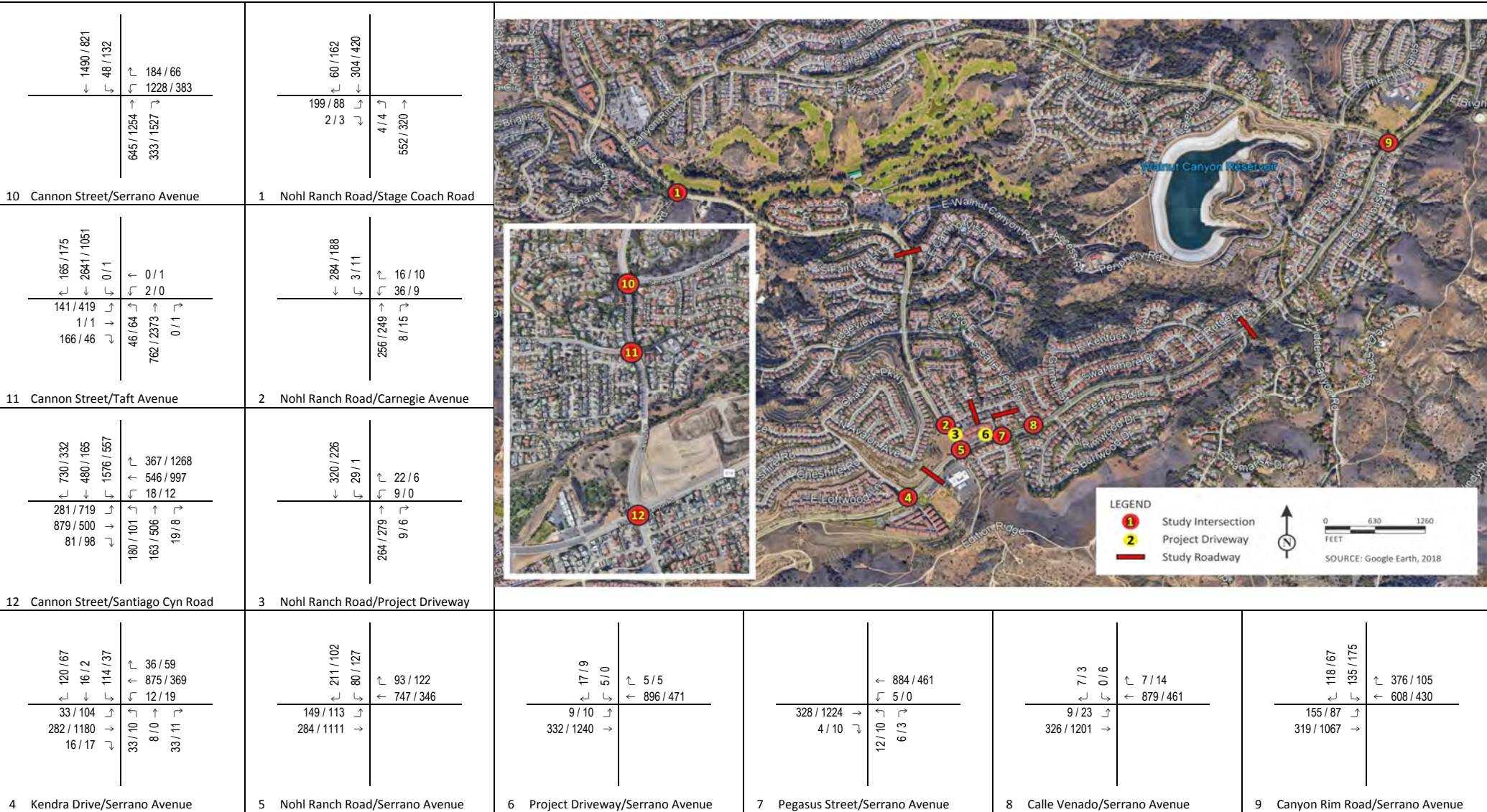


FIGURE 6



LEGEND
xxx / yyy AM / PM Volume

Nohl Ranch Condominiums
Project Opening Year (2022) Volume

Table C: Project Opening Year (2022) Intersection LOS Summary

Study Area No.	Intersections	AM Peak Hour		PM Peak Hour	
		V/C or Delay	LOS	V/C or Delay	LOS
1	Nohl Ranch Road/Stage Coach Road	0.329	A	0.276	A
2	Nohl Ranch Road/Carnegie Avenue (u)	11.4 sec	B	13.8 sec	B
3	Nohl Ranch Road/Project Driveway (u)	9.2 sec	A	9.3 sec	A
4	Kendra Drive/Serrano Avenue	0.426	A	0.454	A
5	Nohl Ranch Road/Serrano Avenue	0.615	B	0.437	A
6	Project Driveway/Serrano Avenue (u)	12.1 sec	B	10.0 sec	B
7	Pegasus Street/Serrano Avenue (u)	12.5 sec	B	24.2 sec	C
8	Calle Venado/Serrano Avenue (u)	11.9 sec	B	18.3 sec	C
9	Canyon Rim Road/Serrano Avenue	0.505	A	0.435	A
10	Cannon Street/Serrano Avenue (o)	0.849	D	1.026	F
11	Cannon Street/Taft Avenue (o)	0.986	E	0.996	E
12	Cannon Street/Santiago Canyon Road (o)	0.795	C	0.815	D

☐ Unsatisfactory LOS

LOS = level of service

sec = seconds

(o) = City of Orange jurisdiction

(u) = unsignalized, worst approach delay shown

V/C = volume-to-capacity

Table D: Project Opening Year (2022) Roadway LOS Comparison

Roadway Segment	Mid-Block Lanes	Capacity	Opening Year	V/C	LOS
Nohl Ranch Road (Stage Coach Road to Serrano Avenue)	4D	37,500	5,823	0.16	A
Serrano Avenue (Kendra Drive to Nohl Ranch Road)	4D	37,500	14,686	0.39	A
Serrano Avenue (Nohl Ranch Road to Canyon Rim Road)	4D	37,500	14,574	0.39	A
Carnegie Avenue (Nohl Ranch Road to Calle Venado)	2U	12,500	723	0.06	A
Calle Venado (Carnegie Avenue to Serrano Avenue)	2U	12,500	441	0.04	A

LOS = level of service

V/C = volume-to-capacity

General Plan Buildout (2035) Intersection Level of Service Analysis

The City applied the ATAM traffic growth rates to the existing turn volume data collected for this analysis and provided General Plan horizon traffic volumes for the three study intersections included in the traffic model (Nohl Ranch Road/Stage Coach Road, Nohl Ranch Road/Serrano Avenue, and Canyon Rim Road/Serrano Avenue). The *Santiago Hills II Traffic Study* (Stantec 2016) included one additional study intersection and provided City of Orange General Plan horizon traffic volumes for that intersection (Canon Street/Santiago Canyon Road). LSA compared the General Plan horizon traffic volumes at these intersections to the existing traffic volumes and identified the growth in traffic volume passing through the intersections. This same growth in traffic was then applied to study intersections adjacent to the intersections for which General Plan horizon traffic volumes were provided.

As noted previously, the City of Orange Master Plan of Streets and Highways indicates that the roadways of Cannon Street and Santiago Canyon Road will be six lanes at General Plan buildout. Through traffic lanes at the intersections of Cannon Street/Serrano Avenue (Orange), Cannon Street/Taft Avenue (Orange), and Cannon Street/Santiago Canyon Road (Orange) were adjusted in the General Plan Buildout (2035) analysis to account for the wider roadways. The City of Orange also reported that a project to add a second northbound right-turn lane at Cannon Street/Serrano Avenue (Orange) is in process but may not be completed by the 2022 opening year for the proposed project. This improvement was also included in the General Plan (2035) analysis.

Figure 7 displays the resulting General Plan Buildout (2035) traffic volumes at all study intersections. Table E summarizes the results of the a.m. and p.m. peak-hour LOS analysis for the study area intersections. As indicated in Table E, all study area intersections operate at an acceptable LOS in the a.m. and p.m. peak hours in the General Plan Buildout (2035) condition with planned improvements.

Table E: General Plan Buildout (2035) Intersection LOS Summary

Study Area No.	Intersections	AM Peak Hour		PM Peak Hour	
		V/C or Delay	LOS	V/C or Delay	LOS
1	Nohl Ranch Road/Stage Coach Road	0.316	A	0.261	A
2	Nohl Ranch Road/Carnegie Avenue (u)	11.9 sec	B	10.2 sec	B
3	Nohl Ranch Road/Project Driveway (u)	9.4 sec	A	9.2 sec	A
4	Kendra Drive/Serrano Avenue	0.478	A	0.463	A
5	Nohl Ranch Road/Serrano Avenue	0.714	C	0.439	A
6	Project Driveway/Serrano Avenue (u)	13.3 sec	B	10.1 sec	B
7	Pegasus Street/Serrano Avenue (u)	13.2 sec	B	25.8 sec	D
8	Calle Venado/Serrano Avenue (u)	13.0 sec	B	19.7 sec	C
9	Canyon Rim Road/Serrano Avenue	0.535	A	0.487	A
10	Cannon Street/Serrano Avenue (o)	0.746	C	0.558	A
11	Cannon Street/Taft Avenue (o)	0.753	C	0.801	D
12	Cannon Street/Santiago Canyon Road (o)	0.795	C	0.818	D

☐ Unsatisfactory LOS

LOS = level of service

sec = seconds

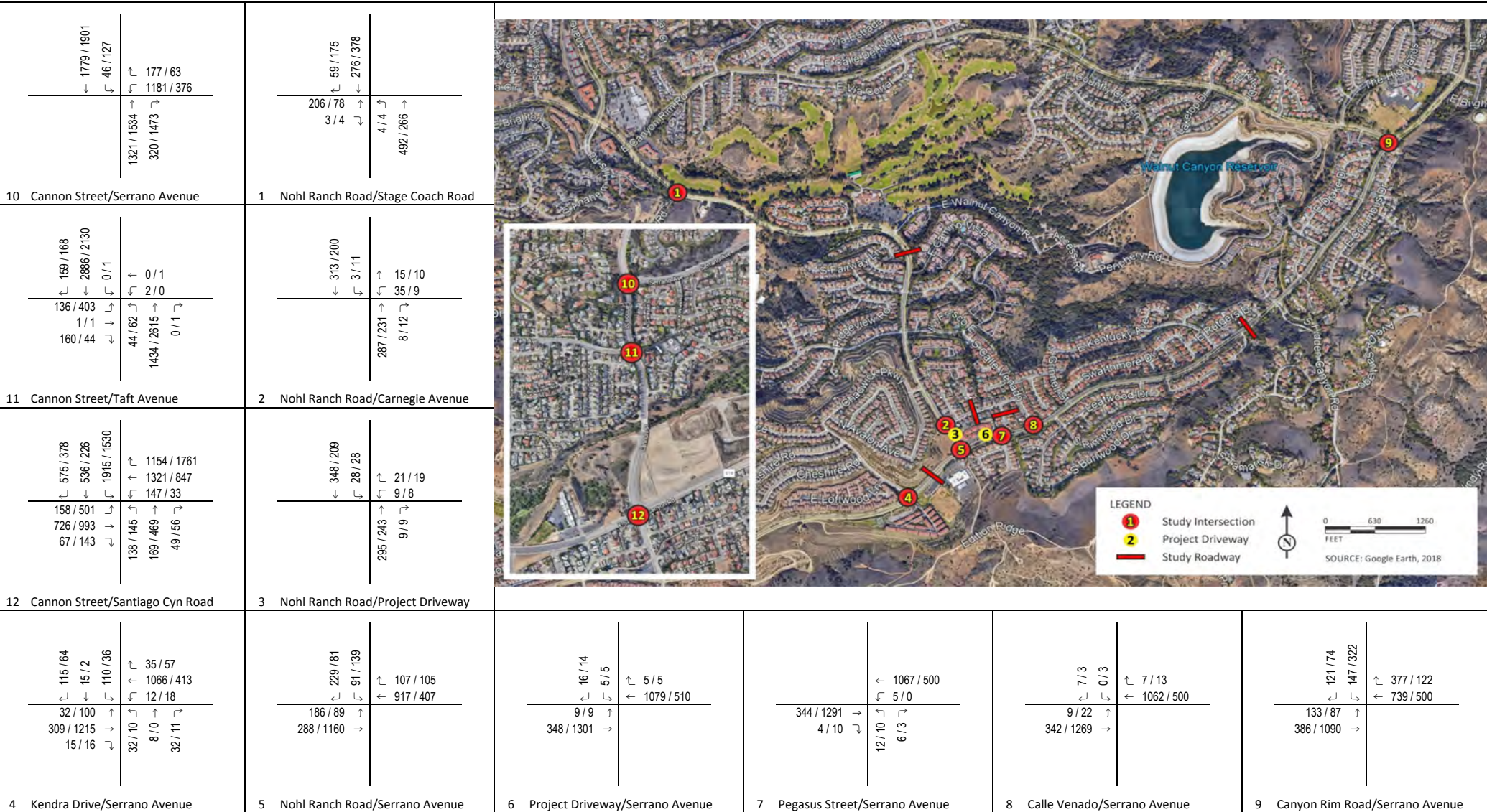
(o) = City of Orange jurisdiction

(u) = unsignalized, worst approach delay shown

V/C = volume-to-capacity

General Plan Buildout (2035) Roadway Segment Level of Service Analysis

To calculate daily roadway volumes for segments not included in the previous General Plan forecasting, LSA determined the ratio between daily and peak-hour roadway volumes in the existing condition and applied that ratio to peak-hour roadway volumes evident from intersection turn volumes. Table F summarizes the daily traffic volumes and v/c ratios for the five study area roadway segments in the General Plan Buildout (2035) condition. As Table F illustrates, all study area roadway segments operate at an acceptable LOS (i.e., LOS C or better).



LSA

LEGEND
xxx / yyy AM / PM Volume

FIGURE 7

Nohl Ranch Condominiums
General Plan (2035) Volume

Table F: General Plan Buildout (2035) Roadway LOS Comparison

Roadway Segment	Mid-Block Lanes	Capacity	General Plan Buildout	V/C	LOS
Nohl Ranch Road (Stage Coach Road to Serrano Avenue)	4D	37,500	4,954	0.13	A
Serrano Avenue (Kendra Drive to Nohl Ranch Road)	4D	37,500	17,891	0.48	A
Serrano Avenue (Nohl Ranch Road to Canyon Rim Road)	4D	37,500	17,407	0.46	A
Carnegie Avenue (Nohl Ranch Road to Calle Venado)	2U	12,500	693	0.06	A
Calle Venado (Carnegie Avenue to Serrano Avenue)	2U	12,500	422	0.03	A

LOS = level of service

V/C = volume-to-capacity

EFFECTS OF THE PROJECT

Trip Generation

The Nohl Ranch Condominiums project considers the demolition of the Serrano Center and construction of up to 60 residential dwelling units on the approximately 3-acre site. The daily and peak-hour trips for the project were generated using trip rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, Tenth Edition (2017). The project trip generation being added to the roadway network is presented in Table G. As Table G shows, the 60 dwelling units are anticipated to generate 439 trips per day, of which 28 would occur in the a.m. peak hour and 34 would occur in the p.m. peak hour.

Table G: Existing Trips and Trip Generation

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates (Land Use Code)									
Multifamily Housing (220) ¹		DU	7.32	0.11	0.35	0.46	0.35	0.21	0.56
Project Trip Generation									
Nohl Ranch Condominiums (220)	60	DU	439	7	21	28	21	13	34
Existing Trip Generation to be Replaced²									
Serrano Center	Surveyed		(1,003)	(51)	(51)	(102)	(51)	(46)	(97)
School Traffic Diverted to Adjacent Intersections³									
Drop-off/Pick-up	Observed		126	20	20	40	0	0	0
Net New Trip Generation			(438)	(24)	(10)	(34)	(30)	(33)	(63)

¹ Trip rates referenced from the ITE *Trip Generation Manual*, 10th Edition (2017)

² Total trips observed at shopping center driveways

³ Trips observed at shopping center driveways that would remain on the roadways with closure of the shopping center

ADT = average daily trips ITE = Institute of Transportation Engineers

DU = dwelling unit TSF = thousand square feet

Table G also shows the existing trips generated by the Serrano Center that will be removed from the roadway network. The Serrano Center is currently leasing space to a variety of commercial uses, including a grocery store, dry cleaner, professional services, professional offices, children’s swim school, children’s dance school, after-school tutoring, and children’s day care. Rather than using ITE trip generation rates to estimate the trip generation for these various uses, LSA determined trip generation by counting vehicles entering and exiting the Serrano Center driveways. Driveway

surveys were conducted on a typical weekday (Wednesday, May 16, 2018) for a 24-hour period. The results of these surveys showed that the Serrano Center currently generates 1,003 trips per day, of which 102 occur in the a.m. peak hour and 97 occur in the p.m. peak hour, which is about 75 percent of the trips (i.e., compared to the trips estimated by ITE trip rates) that would be generated if the shopping center were fully occupied. It should be noted that the surveys revealed that the western driveway on Serrano Avenue (which would be closed by the proposed project) is used infrequently during the a.m. and p.m. peak hours.

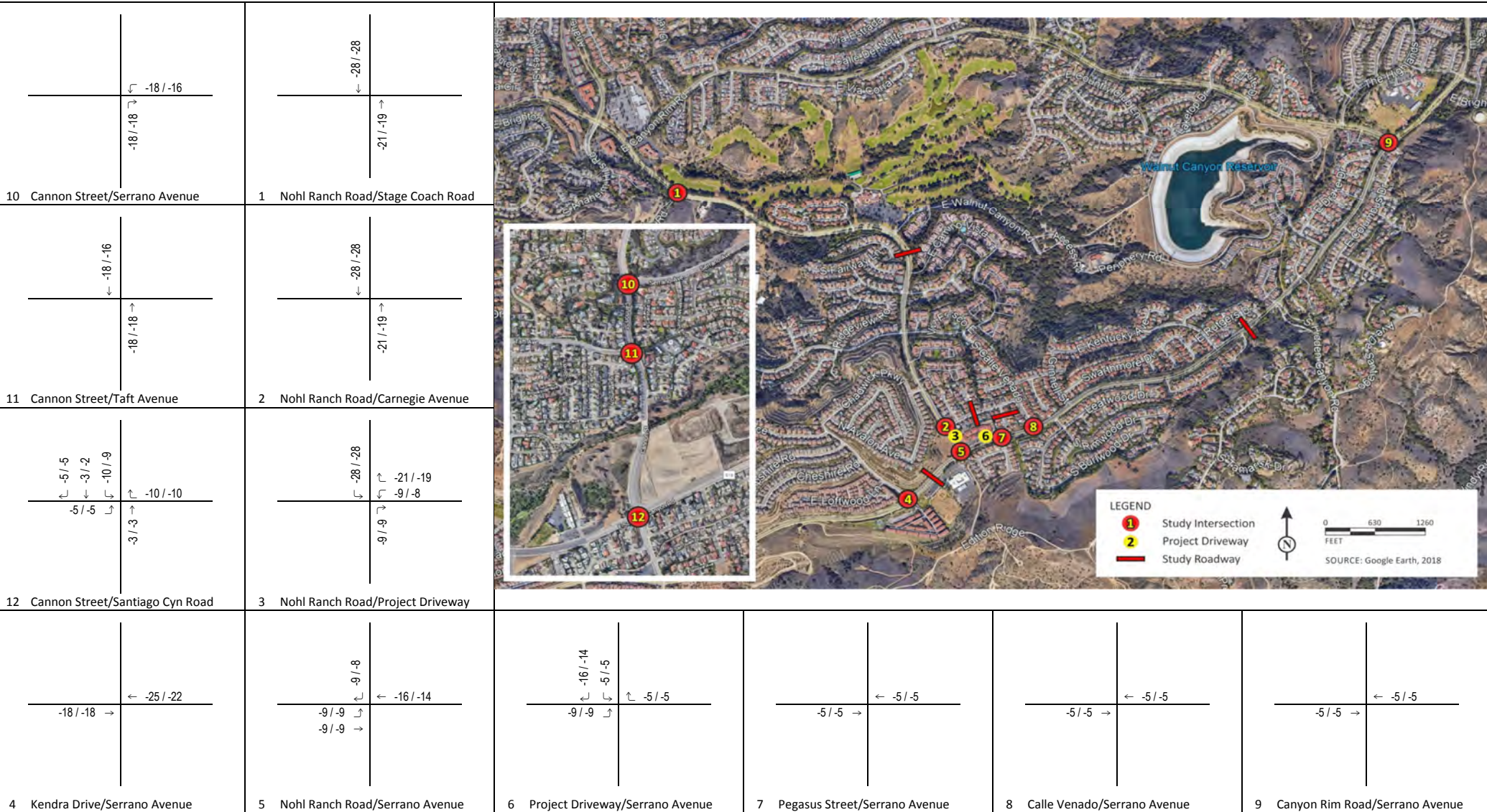
As noted previously, some of the trips into and out of the Serrano Center driveways in the existing condition are the result of parents dropping off and picking up students of Anaheim Hills Elementary School. These trips will not be eliminated from the roadway network with the closure of the Serrano Center. In order to determine how many of the trips into the Serrano Center driveways will be redirected rather than eliminated, LSA conducted site visits and observed the Serrano Center at times of school drop-off and pick-up. Based on these observations, LSA estimated that approximately 20 vehicles were using the Serrano Center parking lot to drop off students (which occurs during the a.m. peak hour) and approximately 43 vehicles were using the Serrano Center parking lot to pick up students (which occurs outside of the p.m. peak hour). Because each vehicle generates both an inbound and outbound trip, school trips account for 126 trips per day, of which 40 occur in the a.m. peak hour, 86 occur outside of the peak commute hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.), and none occur in the p.m. peak hour.

As Table G shows, the townhome project trip generation would be less than the observed trip generation of the existing Serrano Center, even when taking into account school drop-off and pick-up trips into the shopping center. As such, the daily and peak-hour trip generation for the project is negative.

Trip Distribution and Assignment

Trip distribution defines the regional percentage origins/destinations for a project. To determine trip distribution for the proposed project, LSA considered the existing traffic patterns adjacent to the project site. The land uses surrounding the project site are largely residential, and residents of the proposed project are likely to have similar traffic patterns. Traffic from the project site was distributed 15 percent north, 60 percent west (and then south on Cannon Street), and 25 percent east.

Trips were assigned to travel paths based on accessibility of the site. As discussed in the Access Analysis section later in this report, left-turn movements will be prohibited in or out of the project driveway on Nohl Ranch Road with implementation of the project. As also discussed in the Access Analysis section, left-turn movements will be permitted at the project driveway on Serrano Avenue. Figure 8a illustrates the project trip assignment resulting from the subtraction of existing traffic generated by the Serrano Center and redirecting school trips currently terminating at the Serrano Center to terminate at the school instead. Figure 8b illustrates the project trip assignment for residential project trips accounting for future turn restrictions. Figure 8c illustrates the net trips resulting from the project. As Figure 8c shows, eliminating Serrano Center traffic and adding project traffic results in lower traffic volumes for most turn movements.



LSA

LEGEND
xxx / yyy AM / PM Volume

FIGURE 8a

Nohl Ranch Condominiums
Serrano Center Trip Assignment

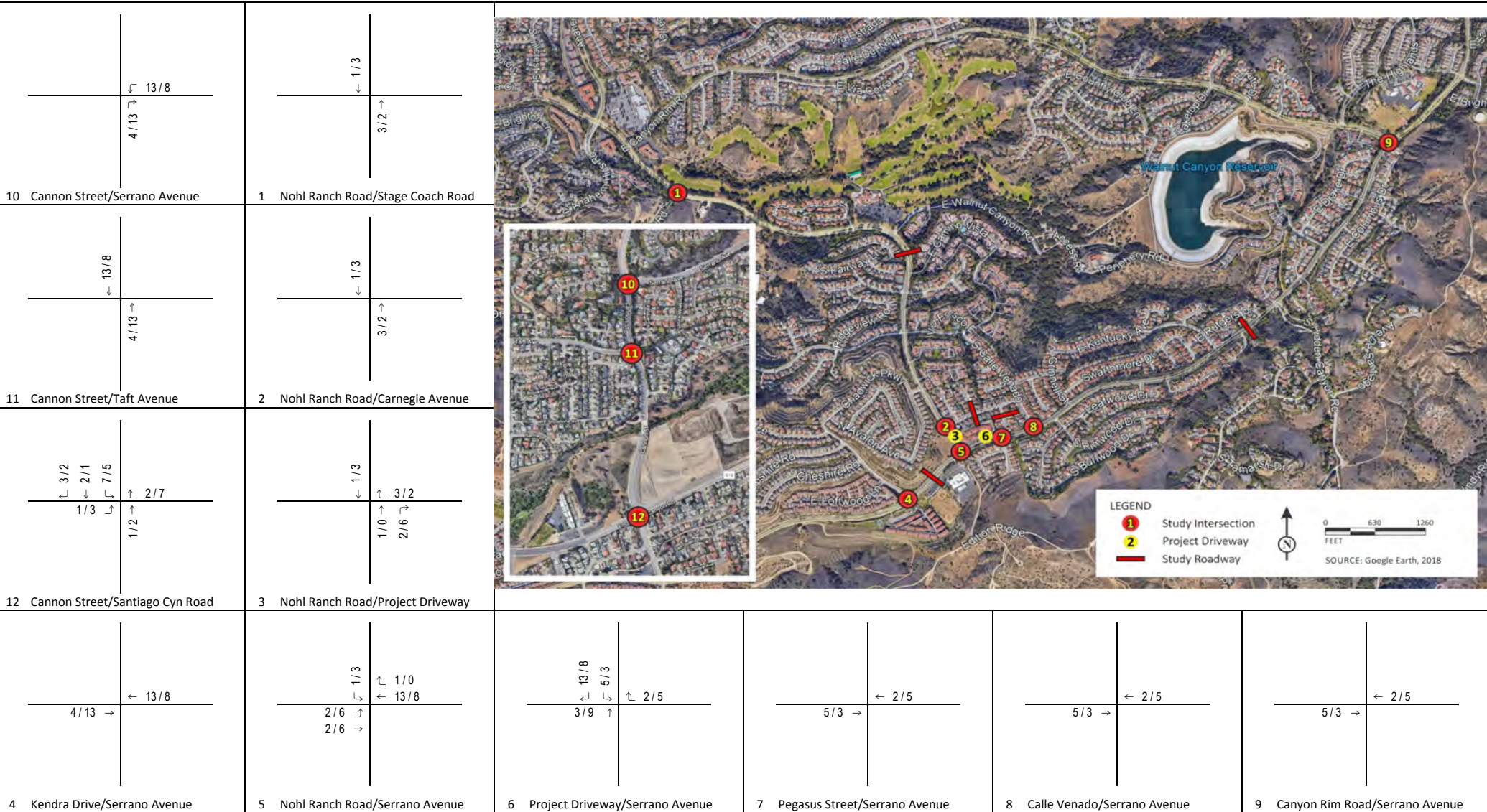
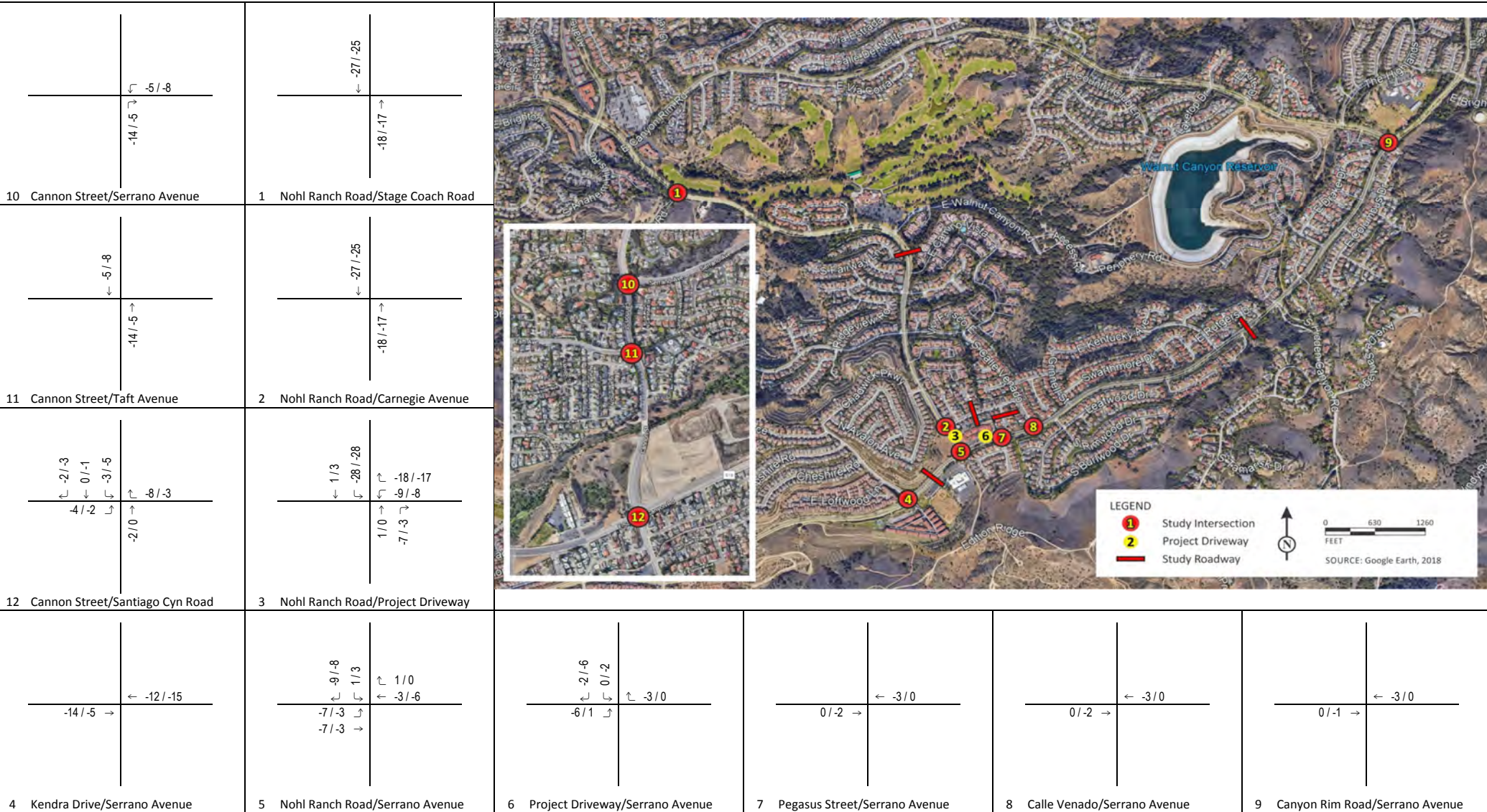


FIGURE 8b



LEGEND
 xxx / yyy AM / PM Volume

Nohl Ranch Condominiums
 Residential Project Trip Assignment



LSA

LEGEND
xxx / yyy AM / PM Volume

FIGURE 8c

Nohl Ranch Condominiums
Net Project Trip Assignment

EXISTING PLUS PROJECT CONDITION

The project trips were added to the existing traffic volumes at the study intersections and roadway segments. Figure 9 shows the resulting Existing Plus Project a.m. and p.m. peak-hour traffic volumes.

Existing Plus Project Intersection Level of Service Analysis

Table H summarizes the results of the Existing Plus Project a.m. and p.m. peak-hour LOS analysis for all study area intersections. As Table H indicates, all study area intersections are anticipated to operate at an acceptable LOS (i.e., LOS D or better) in the a.m. and p.m. peak hours except for the intersections of Cannon Street/Serrano Avenue (Orange) and Cannon Street/Taft Avenue (Orange), which operate at unacceptable LOS in existing conditions.

Table H: Existing Plus Project Intersection LOS Summary

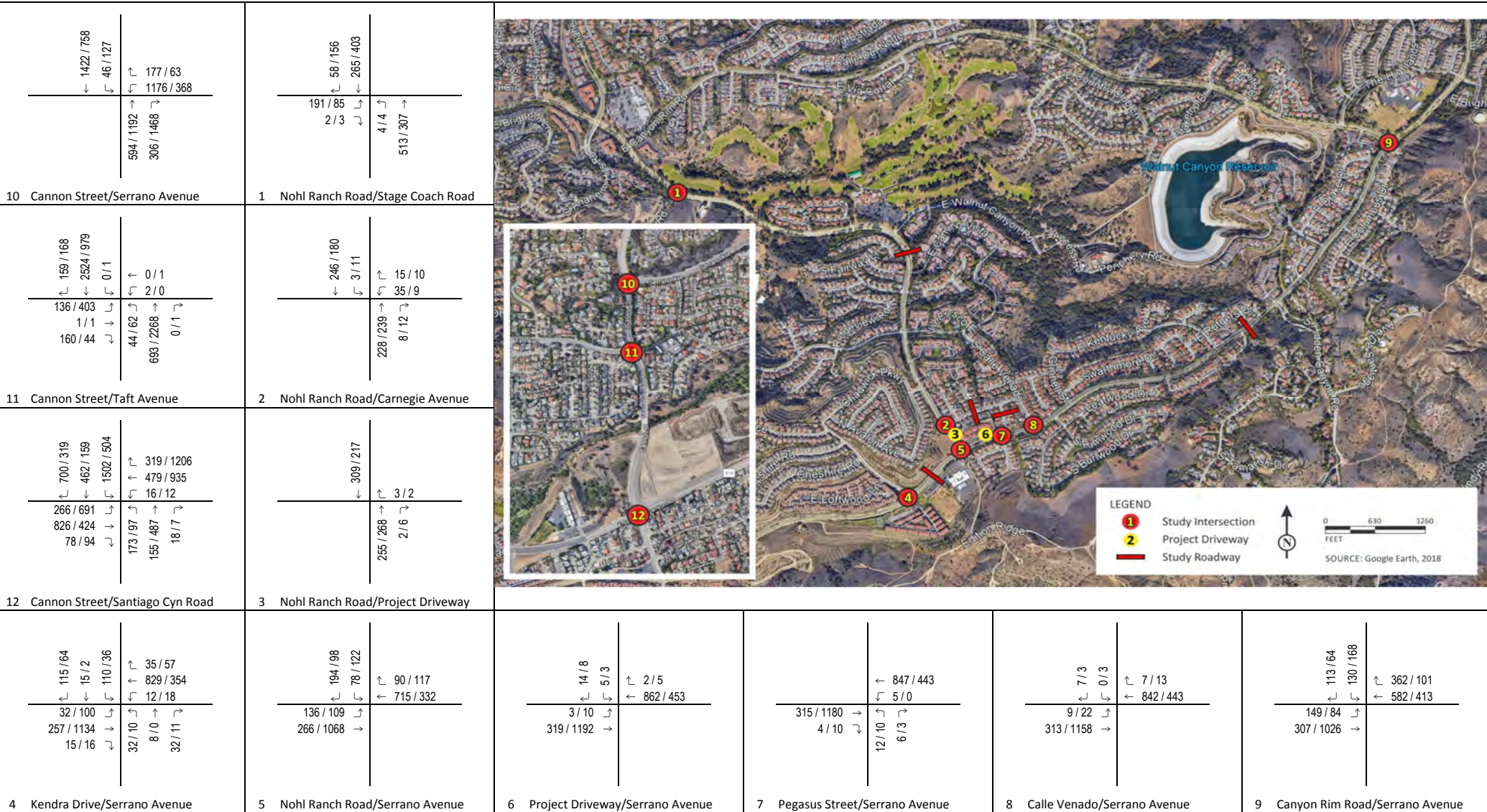
Study Area No.	Intersections	Existing				Plus Project				Change	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		V/C or Delay	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	AM	PM
1	Nohl Ranch Rd./Stage Coach Rd.	0.319	A	0.274	A	0.313	A	0.267	A	(0.006)	(0.007)
2	Nohl Ranch Rd./Carnegie Ave. (u)	11.3 sec	B	10.4 sec	B	11.0 sec	B	10.2 sec	B	(0.3) sec	(0.2) sec
3	Nohl Ranch Rd./Project Dwy. (u)	9.2 sec	A	9.2 sec	A	9.1 sec	A	9.1 sec	A	(0.1) sec	(0.1) sec
4	Kendra Dr./Serrano Ave.	0.411	A	0.440	A	0.408	A	0.439	A	(0.003)	(0.001)
5	Nohl Ranch Rd./Serrano Ave.	0.593	A	0.427	A	0.581	A	0.422	A	(0.012)	(0.005)
6	Project Dwy./Serrano Ave. (u)	11.9 sec	B	9.9 sec	A	11.9 sec	B	9.9 sec	A	0.0 sec	0.0 sec
7	Pegasus St./Serrano Ave. (u)	12.3 sec	B	23.0 sec	C	12.3 sec	B	22.9 sec	C	0.0 sec	(0.1) sec
8	Calle Venado/Serrano Ave. (u)	11.7 sec	B	17.6 sec	C	11.7 sec	B	17.5 sec	C	0.0 sec	(0.1)sec
9	Canyon Rim Rd./Serrano Ave.	0.488	A	0.420	A	0.487	A	0.420	A	(0.001)	0.000
10	Cannon St./Serrano Ave. (o)	0.816	D	0.991	E	0.814	D	0.988	E	(0.002)	(0.003)
11	Cannon St./Taft Ave. (o)	0.946	E	0.957	E	0.945	E	0.956	E	(0.001)	(0.001)
12	Cannon St./Santiago Cyn Rd. (o)	0.761	C	0.774	C	0.761	C	0.772	C	0.000	(0.002)

LOS = level of service (u) = unsignalized, worst approach delay shown
 sec = seconds V/C = volume-to-capacity
 (o) = City of Orange jurisdiction

Based on empirical data collected at the driveways of the existing retail center, the project is forecast to generate less traffic. As a result of generating less traffic, the project is forecast to reduce v/c ratios and delay at the intersections included in the study area. Based on the City’s criteria for determining significant traffic impacts (i.e., City of Anaheim criteria for intersections in Anaheim and City of Orange criteria for intersections in Orange as described in the Methodology section of this report), the proposed project is not expected to result in a significant impact at any of the study area intersections.

Existing Plus Project Roadway Segment Level of Service Analysis

Table I summarizes the daily traffic volumes and v/c ratios for the five study area roadway segments with the addition of project traffic. As Table I illustrates, all study area roadway segments operate at an acceptable LOS (i.e., LOS C or better).



LSA

LEGEND
xxx / yyy AM / PM Volume

FIGURE 9

Nohl Ranch Condominiums
Existing Plus Project Volume

Table I: Existing Plus Project Roadway LOS Comparison

Roadway Segment	Mid-Block Lanes	Capacity	Existing	V/C	LOS	Plus Project	V/C	LOS	Change
Nohl Ranch Road (Stage Coach Road to Serrano Avenue)	4D	37,500	5,599	0.15	A	5,182	0.14	A	(0.01)
Serrano Avenue (Kendra Drive to Nohl Ranch Road)	4D	37,500	14,121	0.38	A	14,196	0.38	A	0.00
Serrano Avenue (Nohl Ranch Road to Canyon Rim Road)	4D	37,500	14,013	0.37	A	14,023	0.37	A	0.00
Carnegie Avenue (Nohl Ranch Road to Calle Venado)	2U	12,500	695	0.06	A	695	0.06	A	0.00
Calle Venado (Carnegie Avenue to Serrano Avenue)	2U	12,500	424	0.03	A	424	0.03	A	0.00

LOS = level of service

V/C = volume-to-capacity ratio

PROJECT OPENING YEAR (2022) PLUS PROJECT CONDITION

Traffic generated by the project was added to the Project Opening Year (2022) traffic volumes at each study area intersection and roadway segment. Figure 10 illustrates the resulting Project Opening Year (2022) plus project a.m. and p.m. peak-hour traffic volumes.

Project Opening Year (2022) Plus Project Intersection Level of Service Summary Analysis

Table J summarizes the results of the Project Opening Year (2022) plus project a.m. and p.m. peak-hour LOS analysis for all study area intersections. As Table J indicates, all study area intersections are anticipated to operate at an acceptable LOS (i.e., LOS D or better) in the a.m. and p.m. peak hours except for the intersections of Cannon Street/Serrano Avenue (Orange) and Cannon Street/Taft Avenue (Orange), which operate at unacceptable LOS in existing conditions.

Table J: Project Opening Year (2022) Plus Project Intersection LOS Summary

Study Area No.	Intersections	Baseline				Plus Project				Change	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		V/C or Delay	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	AM	PM
1	Nohl Ranch Rd./Stage Coach Rd.	0.329	A	0.276	A	0.324	A	0.276	A	(0.005)	0.000
2	Nohl Ranch Rd./Carnegie Ave. (u)	11.4 sec	B	13.8 sec	B	11.2 sec	B	10.3 sec	B	(0.2) sec	(3.5) sec
3	Nohl Ranch Rd./Project Dwy. (u)	9.2 sec	A	9.3 sec	A	9.1 sec	A	9.2 sec	A	(0.1) sec	(0.1) sec
4	Kendra Dr./Serrano Ave.	0.426	A	0.454	A	0.422	A	0.454	A	(0.004)	0.000
5	Nohl Ranch Rd./Serrano Ave.	0.615	B	0.437	A	0.602	B	0.437	A	(0.013)	0.000
6	Project Dwy./Serrano Ave. (u)	12.1 sec	B	10.0 sec	B	12.1 sec	B	9.9 sec	A	0.0 sec	(0.1) sec
7	Pegasus St./Serrano Ave. (u)	12.5 sec	B	24.2 sec	C	12.5 sec	B	24.1 sec	C	0.0 sec	(0.1) sec
8	Calle Venado/Serrano Ave. (u)	11.9 sec	B	18.3 sec	C	11.9 sec	B	18.3 sec	C	0.0 sec	0.0 sec
9	Canyon Rim Rd./Serrano Ave.	0.505	A	0.435	A	0.504	A	0.435	A	(0.001)	0.000
10	Cannon St./Serrano Ave. (o)	0.849	D	1.026	F	0.848	D	1.026	F	(0.001)	0.000
11	Cannon St./Taft Ave. (o)	0.986	E	0.996	E	0.984	E	0.996	E	(0.002)	0.000
12	Cannon St./Santiago Cyn Rd. (o)	0.795	C	0.815	D	0.795	C	0.815	D	0.000	0.000

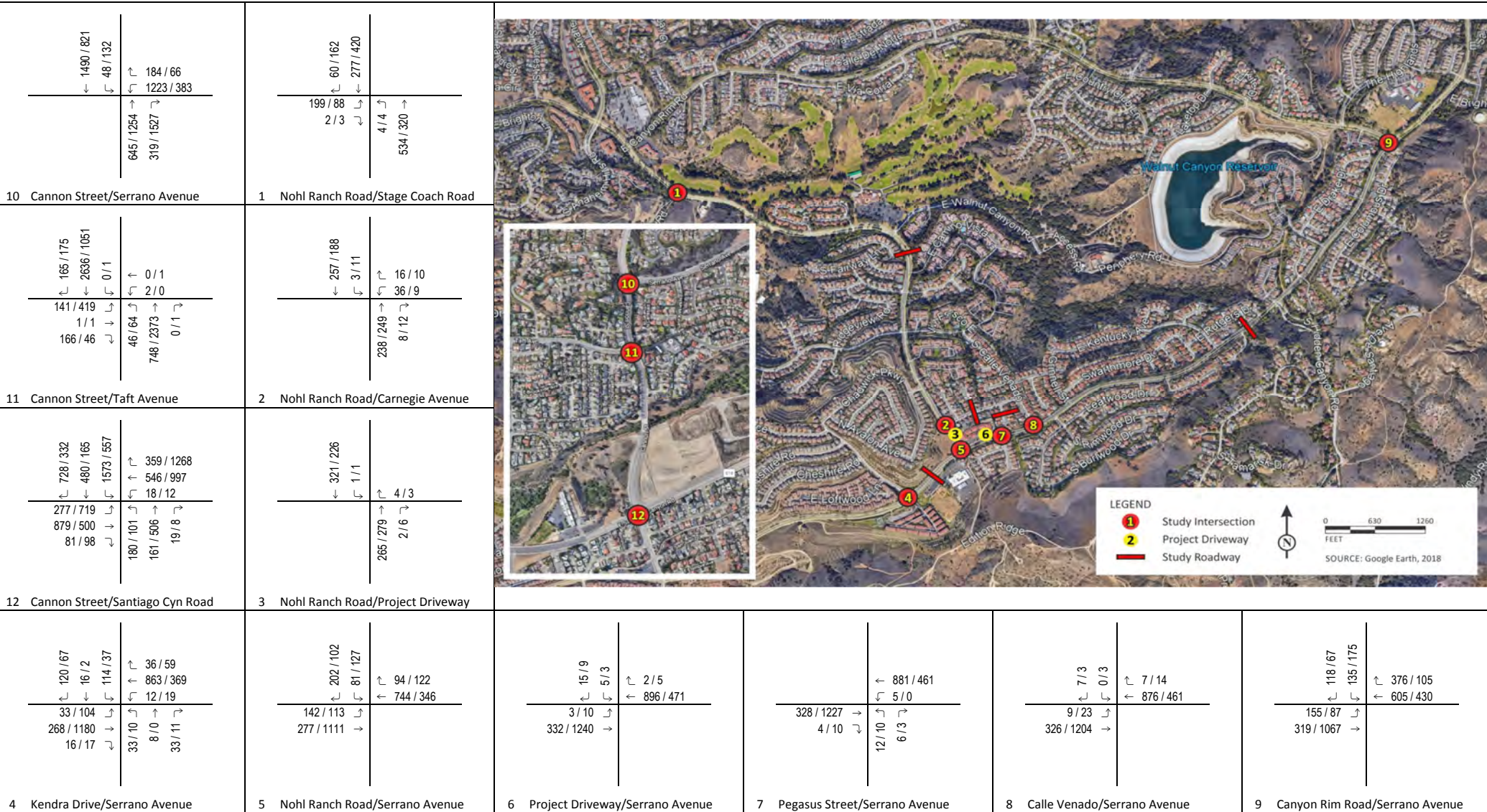
LOS = level of service

sec = seconds

(o) = City of Orange jurisdiction

(u) = unsignalized, worst approach delay shown

V/C = volume-to-capacity



LSA

LEGEND
xxx / yyy AM / PM Volume

FIGURE 10

Nohl Ranch Condominiums
Project Opening Year (2022) Plus Project Volume

Based on empirical data collected at the driveways of the existing retail center, the project is forecast to generate less traffic. As a result of generating less traffic, the project is forecast to reduce v/c ratios and delay at the intersections included in the study area. Based on the City’s criteria for determining significant traffic impacts (i.e., City of Anaheim criteria for intersections in Anaheim and City of Orange criteria for intersections in Orange), the proposed project is not expected to result in a significant impact at any of the study area intersections.

Project Opening Year (2022) Plus Project Roadway Segment Level of Service Analysis

Table K summarizes the daily traffic volumes and v/c ratios for the five study area roadway segments with the addition of project traffic. As Table K illustrates, all study area roadway segments operate at an acceptable LOS (i.e., LOS C or better).

Table K: Project Opening Year (2022) Plus Project Roadway LOS Comparison

Roadway Segment	Mid-Block Lanes	Capacity	Baseline	V/C	LOS	Plus Project	V/C	LOS	Change
Nohl Ranch Road (Stage Coach Road to Serrano Avenue)	4D	37,500	5,823	0.16	A	5,406	0.14	A	(0.02)
Serrano Avenue (Kendra Drive to Nohl Ranch Road)	4D	37,500	14,686	0.39	A	14,761	0.39	A	0.00
Serrano Avenue (Nohl Ranch Road to Canyon Rim Road)	4D	37,500	14,574	0.39	A	14,584	0.39	A	0.00
Carnegie Avenue (Nohl Ranch Road to Calle Venado)	2U	12,500	723	0.06	A	723	0.06	A	0.00
Calle Venado (Carnegie Avenue to Serrano Avenue)	2U	12,500	441	0.04	A	441	0.04	A	0.00

LOS = level of service

V/C = volume-to-capacity ratio

GENERAL PLAN BUILDOUT (2035) PLUS PROJECT CONDITION

This study found that that the Serrano Center experiences additional a.m. peak-hour trips due to its proximity to a school and that the Serrano Center generates approximately 75 percent of the p.m. peak-hour trip generation of a fully occupied center (i.e., when empirical trip generation data are compared to the trip generation predicted by ITE trip rates) in the existing condition. However, in ATAM and General Plan conditions, the Serrano Center would have the potential to generate traffic as a fully occupied shopping center. Table L presents the trip generation comparison under these conditions. Net project trips were added to the study area resulting in the General Plan (2035) Plus Project traffic volumes illustrated on Figure 11.

General Plan Buildout (2035) Plus Project Intersection Level of Service Summary Analysis

Table M summarizes the results of the General Plan (2035) plus project a.m. and p.m. peak-hour LOS analysis for all study area intersections. As Table M indicates, all study area intersections are anticipated to operate at an acceptable LOS (i.e., LOS D or better) in the a.m. and p.m. peak hours with roadway improvements planned by General Plan Buildout.

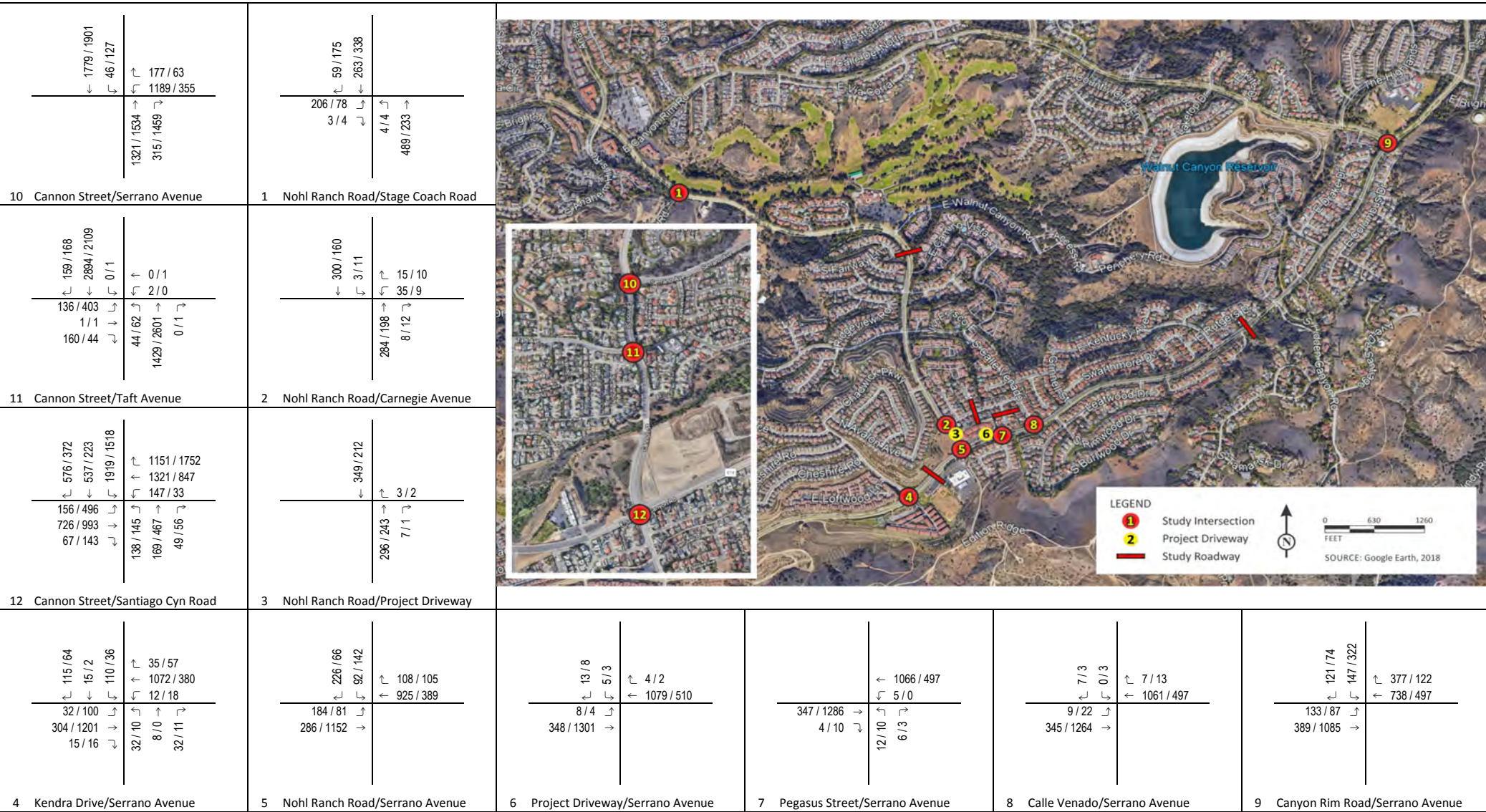


FIGURE 11

LSA

LEGEND

xxx / yyy AM / PM Volume

Nohl Ranch Condominiums
General Plan (2035) Plus Project Volume

Table L: General Plan Buildout Trip Generation Comparison

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates (Land Use Code)									
Multifamily Housing (220) ¹		DU	7.32	0.11	0.35	0.46	0.35	0.21	0.56
Shopping Center (820) ¹		TSF	37.75	0.58	0.36	0.94	1.83	1.98	3.81
Project Trip Generation									
Nohl Ranch Condominiums (220)	60	DU	439	7	21	28	21	13	34
Existing Trip Generation to Be Replaced									
Serrano Center (820)	42,526	TSF	1,605	25	15	40	78	84	162
Net New Trip Generation			(1,166)	(18)	6	(12)	(57)	(71)	(128)

¹ Trip rates referenced from the ITE *Trip Generation Manual*, 10th Edition (2017).

ADT = average daily trips ITE = Institute of Transportation Engineers
DU = dwelling unit TSF = thousand square feet

Table M: General Plan (2035) Plus Project Intersection LOS Summary

Study Area No.	Intersections	Baseline				Plus Project				Change	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		V/C or Delay	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	AM	PM
1	Nohl Ranch Rd./Stage Coach Rd.	0.316	A	0.261	A	0.315	A	0.249	A	(0.001)	(0.012)
2	Nohl Ranch Rd./Carnegie Ave. (u)	11.9 sec	B	10.2 sec	B	11.8 sec	B	9.9 sec	A	(0.1) sec	(1.6) sec
3	Nohl Ranch Rd./Project Dwy. (u)	9.4 sec	A	9.2 sec	A	9.3 sec	A	9.0 sec	A	(0.1) sec	(0.2) sec
4	Kendra Dr./Serrano Ave.	0.478	A	0.463	A	0.479	A	0.459	A	0.001	(0.004)
5	Nohl Ranch Rd./Serrano Ave.	0.714	C	0.439	A	0.714	C	0.431	A	0.000	(0.008)
6	Project Dwy./Serrano Ave. (u)	13.3 sec	B	10.1 sec	B	13.2 sec	B	10.1 sec	B	(0.1) sec	0.0 sec
7	Pegasus St./Serrano Ave. (u)	13.2 sec	B	25.8 sec	D	13.2 sec	B	25.7 sec	D	0.0 sec	(0.1) sec
8	Calle Venado/Serrano Ave. (u)	13.0 sec	B	19.7 sec	C	11.1 sec	B	19.7 sec	C	(1.9) sec	0.0 sec
9	Canyon Rim Rd./Serrano Ave.	0.535	A	0.487	A	0.535	A	0.486	A	0.000	(0.001)
10	Cannon St./Serrano Ave. (o)	0.746	C	0.558	A	0.749	C	0.554	A	0.003	(0.004)
11	Cannon St./Taft Ave. (o)	0.753	C	0.801	D	0.755	C	0.798	C	0.002	(0.003)
12	Cannon St./Santiago Cyn Rd. (o)	0.795	C	0.818	D	0.795	C	0.813	D	0.000	(0.005)

LOS = level of service (u) = unsignalized, worst approach delay shown
sec = seconds V/C = volume-to-capacity
(o) = City of Orange jurisdiction

Based on empirical data collected at the driveways of the existing retail center, the project is forecast to generate less traffic. As a result of generating less traffic, the project is forecast to reduce v/c ratios and delay at the intersections included in the study area. Based on the City's criteria for determining significant traffic impacts (i.e., City of Anaheim criteria for intersections in Anaheim and City of Orange criteria for intersections in Orange), the proposed project is not expected to result in a significant impact at any of the study area intersections.

General Plan (2035) Plus Project Roadway Segment Level of Service Analysis

Daily roadway traffic volumes were developed from intersection turn movements using the same methodology discussed for General Plan (2035) roadway volumes. Table N summarizes the daily traffic volumes and v/c ratios for the five study area roadway segments, with the addition of project traffic. As Table N illustrates, all study area roadway segments operate at an acceptable LOS (i.e., LOS C or better).

Table N: General Plan (2035) Plus Project Roadway LOS Comparison

Roadway Segment	Mid-Block Lanes	Capacity	Baseline	V/C	LOS	Plus Project	V/C	LOS	Change
Nohl Ranch Road (Stage Coach Road to Serrano Avenue)	4D	37,500	4,954	0.13	A	4,202	0.11	A	(0.02)
Serrano Avenue (Kendra Drive to Nohl Ranch Road)	4D	37,500	17,891	0.48	A	17,386	0.46	A	(0.02)
Serrano Avenue (Nohl Ranch Road to Canyon Rim Road)	4D	37,500	17,407	0.46	A	17,325	0.46	A	0.00
Carnegie Avenue (Nohl Ranch Road to Calle Venado)	2U	12,500	693	0.06	A	693	0.06	A	0.00
Calle Venado (Carnegie Avenue to Serrano Avenue)	2U	12,500	422	0.03	A	422	0.03	A	0.00

LOS = level of service

V/C = volume-to-capacity ratio

SPECIAL CONSIDERATIONS

Access Analysis

Serrano Avenue Driveway

Figure 2 shows that the project would close the western driveway on Serrano Avenue and would not alter the location of the eastern driveway. Left-turn movements into and out of the driveways on Serrano Avenue are supported by a two-way left-turn median on Serrano Avenue. The two-way left-turn median provides a space for vehicles turning into a driveway to wait out of the flow of traffic before turning into the driveway. Similarly, vehicles turning left out of a driveway can complete their turn in two parts: (1) entering the two-way left-turn median during an appropriate gap in westbound traffic, and (2) exiting the two-way left-turn median into travel lanes during an appropriate gap in eastbound traffic.

At the eastern driveway, however, the two-way left-turn median is also used by vehicles turning left out of Pegasus Street. The distance between the eastern driveway and Pegasus Street is approximately 75 ft. This is sufficient distance to accommodate two vehicles, but it is also close enough to warrant considering the likelihood that two vehicles would enter at the same time from opposite directions. Adequate sight distance is provided at this location, and vehicles exiting Pegasus Street and vehicles exiting the project driveway can see each other.

Pegasus Street serves a neighborhood of 33 homes. The traffic volume generated by 33 homes is relatively low as evidenced from the existing traffic volume data. The existing traffic data showed a maximum of 12 left-turns from this neighborhood in the busiest hour (i.e., the a.m. peak hour). This equates to one vehicle every 5 minutes entering the two-way left-turn median during the highest 1-hour period of the day. The analysis presented above estimated that during the a.m. peak hour, the proposed project would generate five outbound trips headed eastbound on Serrano Avenue.

This equates to one vehicle every 12 minutes entering the two-way left-turn median. The infrequency of use by vehicles in either direction makes it less likely that two vehicles would use the lane simultaneously.

The use of the two-way left-turn median by vehicles coming from Pegasus Street would not change as a result of the project. The estimated volume of vehicles that would enter the two-way left-turn median from the project driveway is similar to the existing volume. LSA queried collision statistics to determine whether the spacing between the two points accessing the two-way left-turn median presents an issue. LSA examined the Statewide Integrated Traffic Records System (SWITRS) data within the Transportation Injury Mapping System (TIMS) for 2011–2017. During this period, there were no reported collisions at Pegasus Street or the Serrano Center driveway. Given the low frequency of use of the two-way left-turn median and the lack of collisions historically from similar traffic volumes, LSA recommends that full access at the eastern driveway remain as it is in the existing condition and as analyzed in this report.

Neighborhood Traffic

Access to the driveway on Nohl Ranch Road is to be limited to right-in/right-out with implementation of the project. Left turns out of the project driveway on Serrano Avenue could continue as they do in the existing condition. Figure 12 illustrates the paths of travel possible to and from the project site. As Figure 12 shows, travel to and from the site would not require travel through residential neighborhoods except in one scenario. The analysis above demonstrates that the project driveway on Serrano Avenue is anticipated to operate at a satisfactory level of service. Because excess delay for exiting vehicles is not anticipated at this driveway, it is anticipated that most drivers traveling east on Serrano Avenue would choose the shorter path and turn left out of the driveway. However, in a worst case where residents choose to not turn left out of the project driveway onto Serrano Avenue, then travel along Carnegie Avenue and Calle Venado would be necessary to travel eastbound on Serrano Avenue because no westbound left-turn lane is provided at the intersection of Nohl Ranch Road/Serrano Avenue, and U-turns are explicitly prohibited at this location. All other movements to or from the project site would occur along arterial roadways.

Table O compares intersection performance in the project opening year under a theoretical condition where traffic exiting the project and traveling east uses Carnegie Avenue and Calle Venado. Table P presents roadway v/c ratios under the same theoretical condition.

Table O: Project Opening Year (2022) With Worst-Case Neighborhood Traffic Intersection LOS Summary

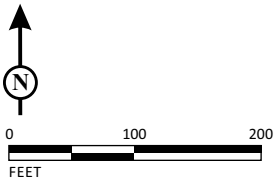
Study Area No.	Intersections	Baseline				Plus Project				Change	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		V/C or Delay	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	AM	PM
2	Nohl Ranch Road/Carnegie Avenue (u)	11.4 sec	B	13.8 sec	B	11.2 sec	B	10.3 sec	B	(0.2) sec	(3.5) sec
8	Calle Venado/Serrano Avenue (u)	11.9 sec	B	18.3 sec	C	17.5 sec	C	21.3 sec	C	5.6 sec	3.0 sec

LOS = level of service (u) = unsignalized, worst approach delay shown
sec = seconds V/C = volume-to-capacity



FIGURE 12

LSA



- LEGEND
- Inbound Access from East
 - Inbound Access from West
 - Inbound Access from North
 - Outbound Access to East
 - Outbound Access to West
 - Outbound Access to North

Table P: Project Opening Year (2022) With Worst-Case Neighborhood Traffic Roadway LOS Comparison

Roadway Segment	Mid-Block Lanes	Capacity	Baseline	V/C	LOS	Plus Project	V/C	LOS	Change
Carnegie Avenue (Nohl Ranch Road to Calle Venado)	2U	12,500	723	0.06	A	778	0.06	A	0.00
Calle Venado (Carnegie Avenue to Serrano Avenue)	2U	12,500	441	0.04	A	496	0.04	A	0.00

LOS = level of service

V/C = volume-to-capacity ratio

The analysis above demonstrates that with the addition of project trips using Carnegie Avenue and Calle Venado to travel eastbound on Serrano Avenue, the intersections of Nohl Ranch Road/ Carnegie Avenue and Calle Venado/Serrano Avenue would operate at an acceptable LOS. The analysis also showed that daily traffic volume on Carnegie Avenue and Calle Venado would be well below the capacity of a two-lane undivided roadway. However, these would still represent trips through a neighborhood that neither originate from nor are destined to the neighborhood.

The City's *Criteria for Preparation of Traffic Impact Studies* do not provide thresholds for determining when traffic added to neighborhood streets represents an impact. In the worst-case scenario where all outbound trips traveling eastbound on Serrano Avenue use Carnegie Avenue and Calle Venado, Table P shows that the project would result in potentially up to 55 additional daily trips. This represents less 0.5 percent of the capacity of the roadway. During the peak hour, the project would result in five additional trips, again representing less than 0.5 percent of the capacity of a travel lane. Given the low capacity of use by the project, it appears that the potential to impact the roadways is low.

School Parking

As Figure 1 shows, the project site is located near Anaheim Hills Elementary School. The Serrano Center parking lot is currently used by some parents to park while dropping off or picking up students at Anaheim Hills Elementary School. While the Serrano Center is not obligated to provide parking for off-site uses and signs are posted at the parking lot entrances indicating that parking is for the Serrano Center only, the public parks within this lot under the assumption they are visiting businesses within the Serrano Center as well. As the public will not be permitted to park within the Nohl Ranch Condominiums, the school drop-off/pick-up activity occurring today will not continue in the future. This report analyzes the special consideration of the elimination of school parking on the site.

Similar to many areas adjacent to schools, Serrano Avenue experiences brief periods of high traffic volume and queueing around the beginning and end of the school day. LSA performed site visits at the beginning and end of the school day to identify how many school trips would need to be accounted for in the analysis of project traffic conditions. During those site visits, LSA also made notes on school conditions. This section presents those observations for informational purposes because the school is an adjacent land use.

Anaheim Hills Elementary School has a driveway on Serrano Avenue approximately 310 ft west of the intersection of Nohl Ranch Road/Serrano Avenue. The school provides approximately 900 ft of queuing space (holding approximately 36 vehicles) inside the property for vehicles dropping off or picking up students. When queues exceed the internal storage, vehicles begin to queue on Serrano Avenue. Eastbound Serrano Avenue has a right-turn pocket leading to the school driveway that has approximately 180 ft of storage, which is enough room for seven cars. Westbound Serrano Avenue has a two-way left-turn median with sufficient room for six vehicles. When queues exceed this storage outside of travel lanes, vehicles begin to impact other movements. Eastbound traffic on Serrano Avenue has approximately 485 ft from the school driveway to Kendra Drive. This provides space for an additional 12 vehicles that would block one of the two through lanes. On westbound Serrano Avenue, an additional 2 vehicles cross the double yellow lines of the two-way left-turn median (an area normally functioning as the bay taper for eastbound left turns onto Nohl Ranch Road), then 4 more vehicles could queue in one of the two through lanes before reaching the intersection of Nohl Ranch Road/Serrano Avenue.

Some vehicles were observed traveling westbound on Serrano Avenue, then making a U-turn at Kendra Drive to join the eastbound right-turn queue into the school. This may have been because the eastbound direction has more space for vehicles to queue. It may also be because right-turning vehicles are not delayed by through traffic and the eastbound right-turn queue moves with greater frequency than the westbound left-turn queue.

Anaheim Hills Elementary School begins instruction for all K-6 students at 8:00 a.m. At 7:40 a.m., a maximum of three vehicles were waiting in the westbound left-turn queue on Serrano Avenue. Between 7:45 a.m. and 7:55 a.m., the westbound left-turn queue filled all available space in the two-way left-turn median with one vehicle extending into the through travel lane. By 8:00 a.m., however, this queue had receded to a single vehicle waiting to turn left. A queue for eastbound right-turning traffic was observed but not quantified. Some vehicles arrived and parked at the Serrano Center before school started. About half of the vehicles using the Serrano Center parking lot arrived between 7:50 a.m. and 7:55 a.m. The remainder of the arrivals were evenly split between the 5-minute period before and the 5-minute period after this.

Instruction ends at 2:20 p.m. for all K-6 students. By 2:20 p.m., the queues on Serrano Avenue were 4 vehicles in the westbound direction and 6 vehicles in the eastbound direction. By 2:25 p.m., the queues reached their peak at 9 vehicles in the westbound direction (i.e., 1 vehicle extending into the through travel lane) and 10 vehicles in the eastbound direction (i.e., at least 3 vehicles extending into the through travel lane). Queues were contained within the turn lanes by 2:30 p.m., and no vehicles were queued onto Serrano Avenue by 2:35 p.m. More vehicles parked at the Serrano Center after school than before school. Some vehicles had arrived by 2:05 p.m., and vehicles continued to arrive until 2:30 p.m. It should be noted that some of the parents who parked at the Serrano Center may have picked up students from the school and walked them to the Serrano Center to one of the children-oriented businesses located in the shopping center.

The traffic impact analysis for the project (i.e., the construction of 60 residential dwelling units) took into account the redirection of school traffic volume from the Serrano Center to the school. The LOS analysis concluded that the study intersections would function at acceptable levels with project traffic and the redirection of school traffic. It is difficult, however, to quantify the effects on

queueing because drop-off and pick-up activity can redistribute itself temporally. Drivers typically arriving at a particular time may choose to arrive earlier or later in response to queueing and time spent waiting. Queues may rebalance to existing levels.

Vehicle Miles Traveled

On December 28, 2018, the California Office of Administrative Law cleared the revised CEQA Guidelines for use. Among the changes to the guidelines was the removal of vehicle delay and LOS from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project’s effect on vehicle miles traveled (VMT). Lead agencies are allowed to opt-in to the revised transportation guidelines, but the new guidelines must be used starting July 1, 2020. The City has not adopted revised traffic impact analysis guidelines, and analysis of vehicle LOS, as provided above, remains the appropriate method for determining a project’s transportation impact. However, a disclosure of the project’s effect on VMT is provided here for informational purposes.

The California Emissions Estimator Model (CalEEMod) is a sketch model used statewide to estimate pollutant and greenhouse gas emissions for various aspects of construction and operation of a proposed project. The *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Governor’s Office of Planning and Research 2018) identifies sketch models (and CalEEMod specifically) as potential tools for analyzing a project’s VMT. The air quality analysis used the trip generation identified in Table G to analyze the emissions produced by vehicles traveling to/from the Serrano Center and the emissions produced by vehicles traveling to/from the project. These calculations include estimates of VMT in existing conditions and with the project. Table Q provides a comparison of VMT.

Table Q: Project Effect on Vehicle Miles Traveled

	Annual VMT
Existing Serrano Center	3,130,943
Proposed Nohl Ranch Condominiums	1,325,859
Net Change	(1,805,084)

VMT = vehicle miles traveled

As Table Q shows, the project is anticipated to produce lower VMT than the existing land use. California Public Resources Code Section 15064.3(b)(1) states that projects that decrease VMT compared to existing conditions would be presumed to have a less than significant transportation impact. While significance criteria for impacts related to VMT are not yet adopted by the City, when significance criteria are adopted, and if those significance criteria are consistent with State law, then the proposed project would likely be determined to have a less than significant impact.

CONCLUSION

This traffic analysis considered the effects of closing the Serrano Center and constructing in its place 60 townhome dwelling units on nine intersections and five roadway segments near the project site. The analysis also considered the effect of redirecting school drop-off and pick-up parking that occurs

on the site. Serrano Center trip generation was calculated from traffic volume observed at the center's driveways. School-related activity at the Serrano Center was observed. Even accounting for the number of school trips, which would be redirected along and not eliminated from the roadway network, the proposed project would generate fewer trips than the existing uses.

The impact analysis concluded that the project is not anticipated to result in a significant traffic impact at any study intersection or roadway segment. No CMP facilities are located in the vicinity of the project.

The traffic analysis further examined access to the site. Full access is currently provided onto Serrano Avenue. Some vehicles exiting the eastern driveway on Serrano Avenue would likely be destined for eastbound Serrano Avenue and would turn left if full access is preserved. Traffic volume turning left from the adjacent Pegasus Street is low, and left-turning traffic from the project driveway is anticipated to be similar to existing conditions. The opportunity for conflict from these two low-volume movements is low. This is supported by the lack of reported collision data at this location. Given the absence of reported collisions at this location, this traffic analysis recommended preserving full access on Serrano Avenue.

If left turns from the project driveway onto Serrano Avenue are prohibited, this could result in some traffic traveling through the neighborhood along Carnegie Avenue and Calle Venado to travel eastbound on Serrano Avenue. This traffic volume would use less than 0.5 percent of the capacity of the roadways. Intersection performance that was analyzed using this scenario determined that the intersections would continue to function at a satisfactory LOS.

The traffic analysis provided an informational item describing queuing on Serrano Avenue during school start and end times. School queues extend off site and can temporarily block one of the two through lanes in either direction. Existing queuing is limited to approximately 15 minutes before or after school. Redirecting school traffic from the Serrano Center to the school may extend the amount of time queuing occurs, or vehicles may spread out their arrival times to readjust queues.

The traffic analysis included an assessment of project-generated VMT. The analysis found that the proposed project is estimated to generate lower VMT than the Serrano Center it would replace. Because the project would result in decreased VMT, the CEQA Guidelines suggest that if VMT-based significance criteria were adopted by the City, the project would be found to have a less than significant impact.

REFERENCES

City of Anaheim. *Criteria for Preparation of Traffic Impact Studies*.

City of Orange. 2007. *Traffic Impact Analysis Guidelines*. August 15.

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

Institute of Transportation Engineers (ITE). 2017. *ITE Trip Generation*, 10th Edition.

Iteris. 2013. *Housing Opportunities Rezoning Project SEIR 346 Technical Traffic Study*.

Stantec. 2016. *Santiago Hills II Traffic Study*.

State of California, Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December.

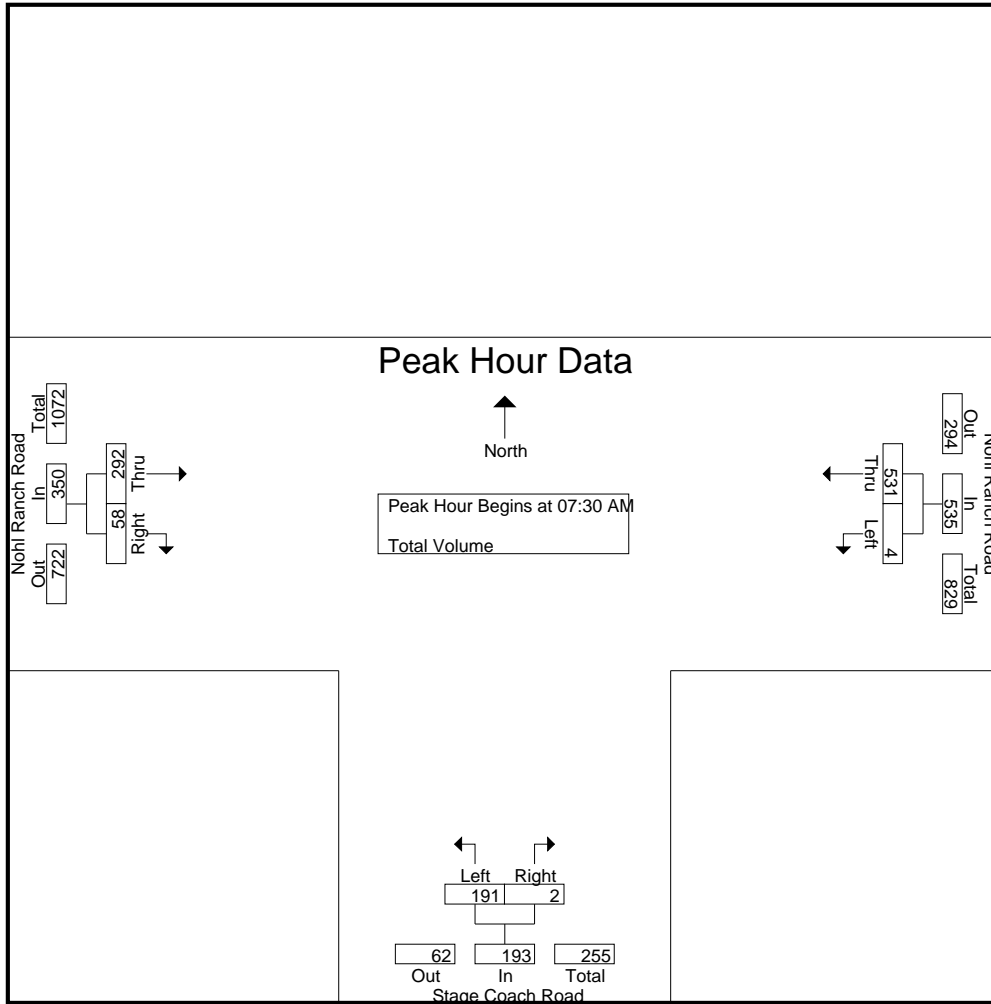
Transportation Research Board of the National Academies. 2016. *HCM 6 Highway Capacity Manual*.

APPENDIX A

TRAFFIC VOLUME DATA

City of Anaheim
 N/S: Stage Coach Road
 E/W: Nohl Ranch Road
 Weather: Clear

File Name : 08_ANA_Stage Coach Road_Nohl Ranch AM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

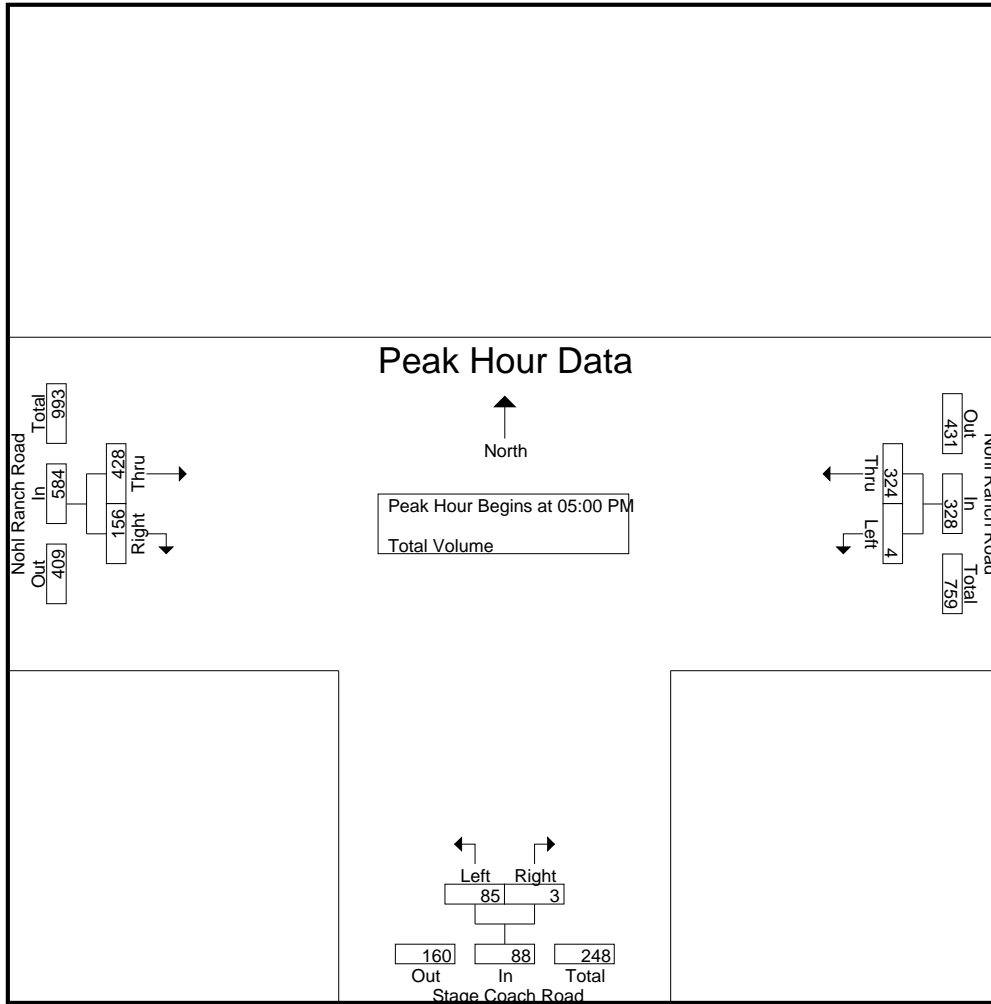


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			07:30 AM		
+0 mins.	1	150	151	39	1	40	67	10	77
+15 mins.	1	118	119	43	1	44	83	14	97
+30 mins.	2	149	151	64	1	65	66	16	82
+45 mins.	0	114	114	51	1	52	76	18	94
Total Volume	4	531	535	197	4	201	292	58	350
% App. Total	0.7	99.3		98	2		83.4	16.6	
PHF	.500	.885	.886	.770	1.000	.773	.880	.806	.902

City of Anaheim
 N/S: Stage Coach Road
 E/W: Nohl Ranch Road
 Weather: Clear

File Name : 08_ANA_Stage Coach Road_Nohl Ranch PM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

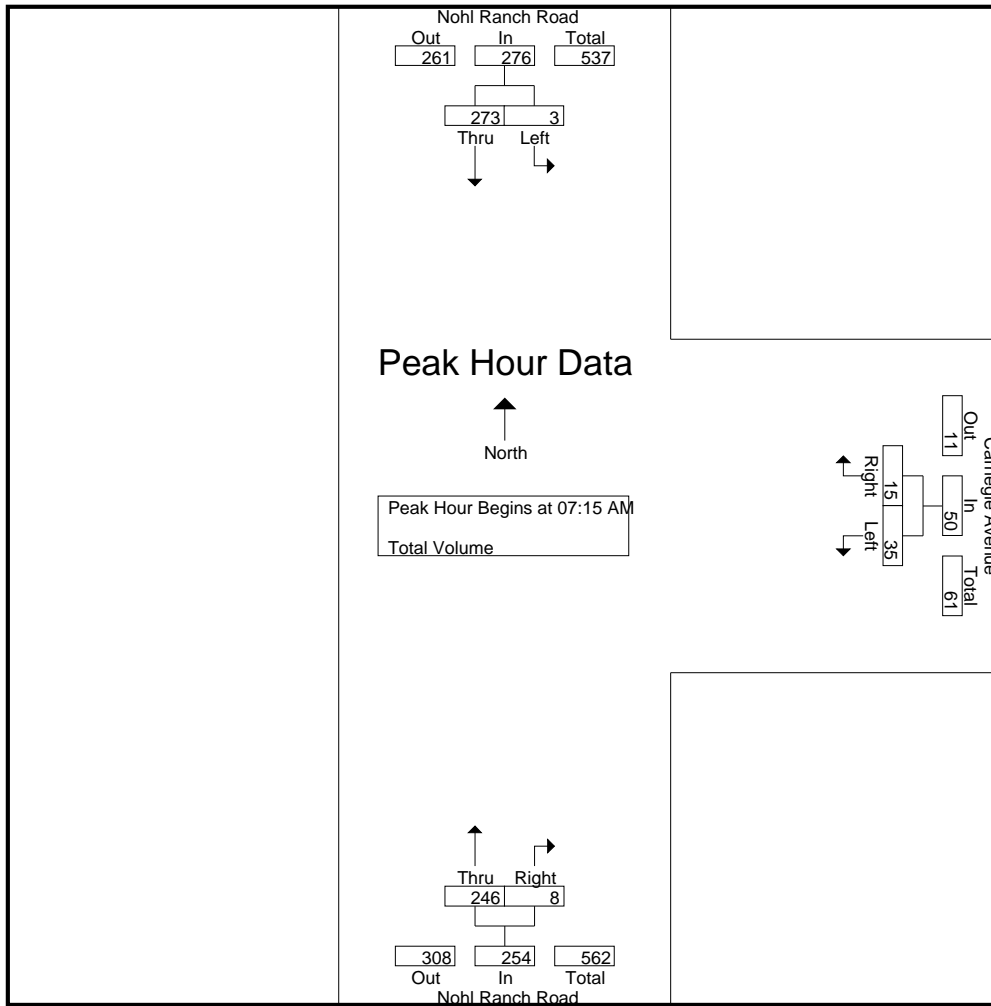


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM			04:15 PM			05:00 PM		
+0 mins.	2	101	103	18	1	19	89	30	119
+15 mins.	0	81	81	26	2	28	106	46	152
+30 mins.	2	81	83	14	0	14	110	42	152
+45 mins.	2	88	90	30	1	31	123	38	161
Total Volume	6	351	357	88	4	92	428	156	584
% App. Total	1.7	98.3		95.7	4.3		73.3	26.7	
PHF	.750	.869	.867	.733	.500	.742	.870	.848	.907

City of Anaheim
 N/S: Nohl Ranch Road
 E/W: Carnegie Avenue
 Weather: Clear

File Name : 02_ANA_Nohl Ranch_Carnegie AM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

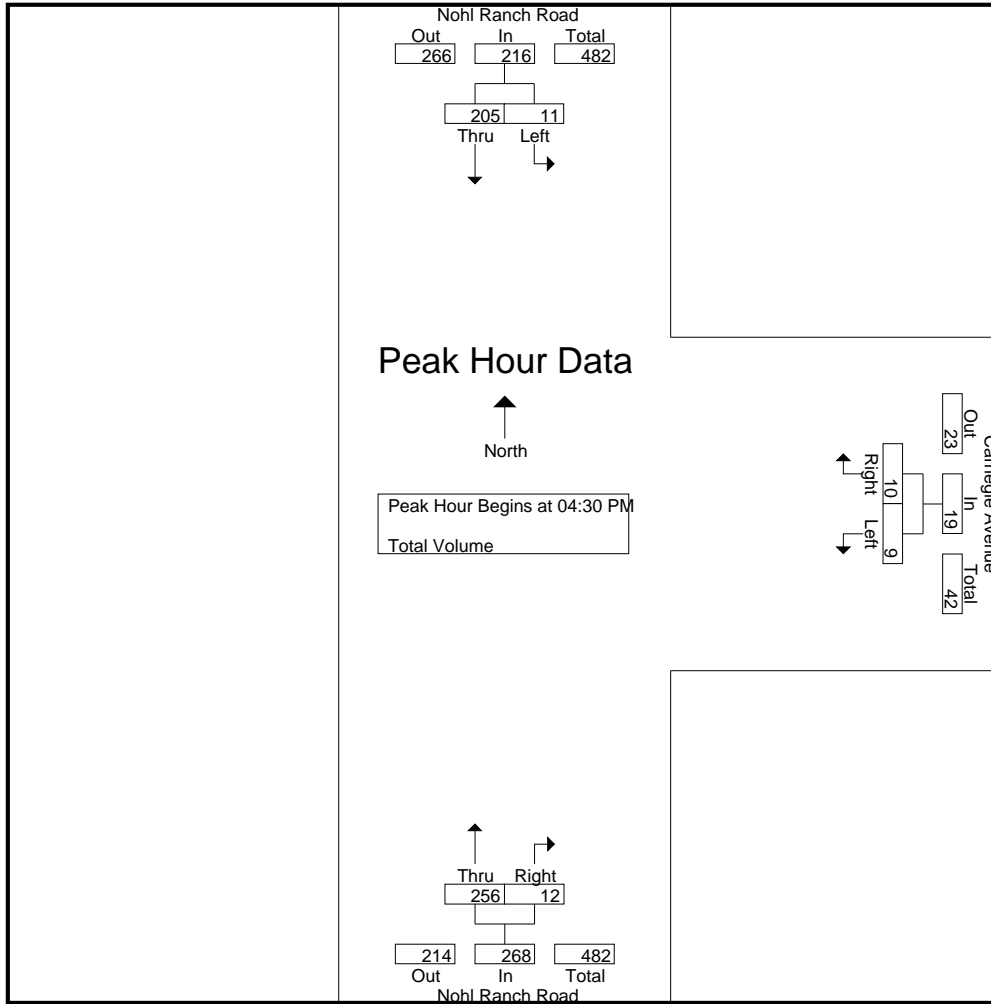


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM			07:15 AM			07:30 AM		
+0 mins.	2	44	46	4	4	8	45	0	45
+15 mins.	0	50	50	10	4	14	84	7	91
+30 mins.	2	77	79	16	4	20	75	1	76
+45 mins.	1	100	101	5	3	8	43	0	43
Total Volume	5	271	276	35	15	50	247	8	255
% App. Total	1.8	98.2		70	30		96.9	3.1	
PHF	.625	.678	.683	.547	.938	.625	.735	.286	.701

City of Anaheim
 N/S: Nohl Ranch Road
 E/W: Carnegie Avenue
 Weather: Clear

File Name : 02_ANA_Nohl Ranch_Carnegie PM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

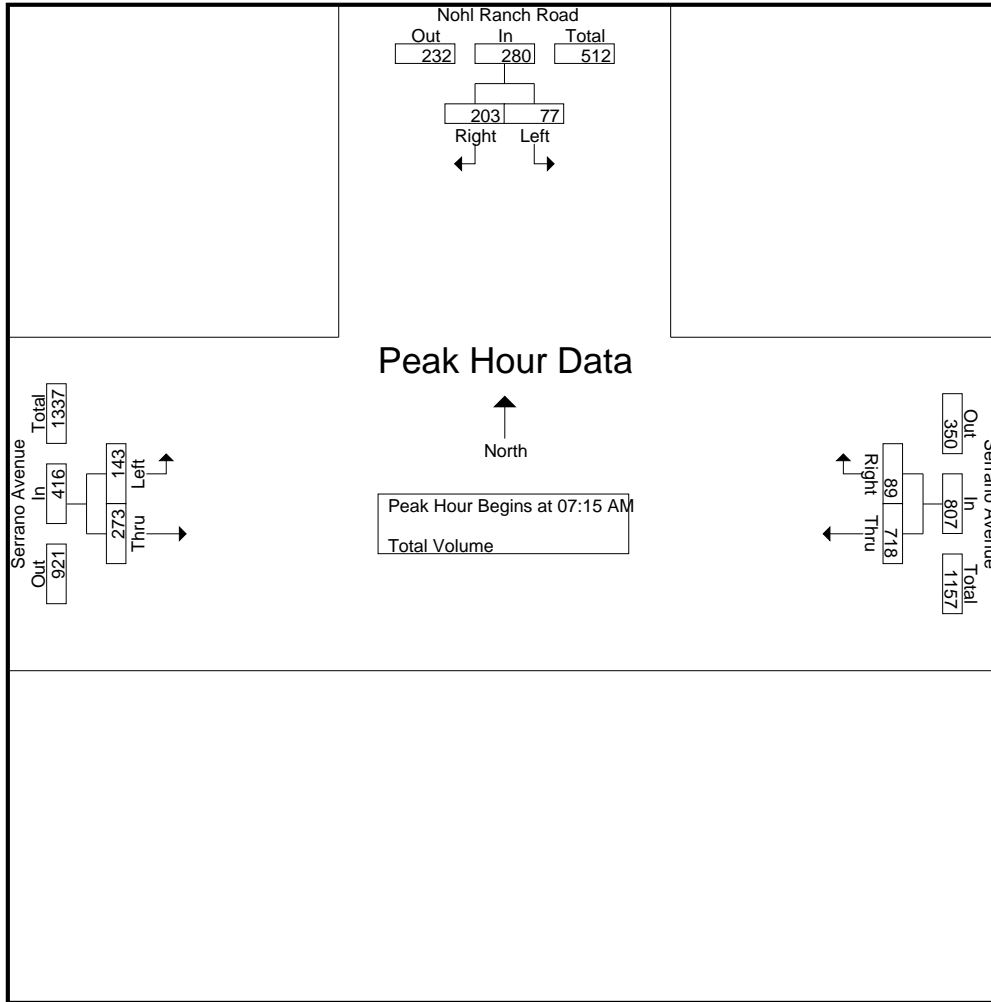


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			04:30 PM		
+0 mins.	3	48	51	2	5	7	60	2	62
+15 mins.	4	66	70	1	2	3	66	4	70
+30 mins.	4	60	64	1	2	3	63	5	68
+45 mins.	2	59	61	3	4	7	67	1	68
Total Volume	13	233	246	7	13	20	256	12	268
% App. Total	5.3	94.7		35	65		95.5	4.5	
PHF	.813	.883	.879	.583	.650	.714	.955	.600	.957

City of Anaheim
 N/S: Nohl Ranch Road
 E/W: Serrano Avenue
 Weather: Clear

File Name : 03_ANA_Nohl Ranch_Serrano AM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

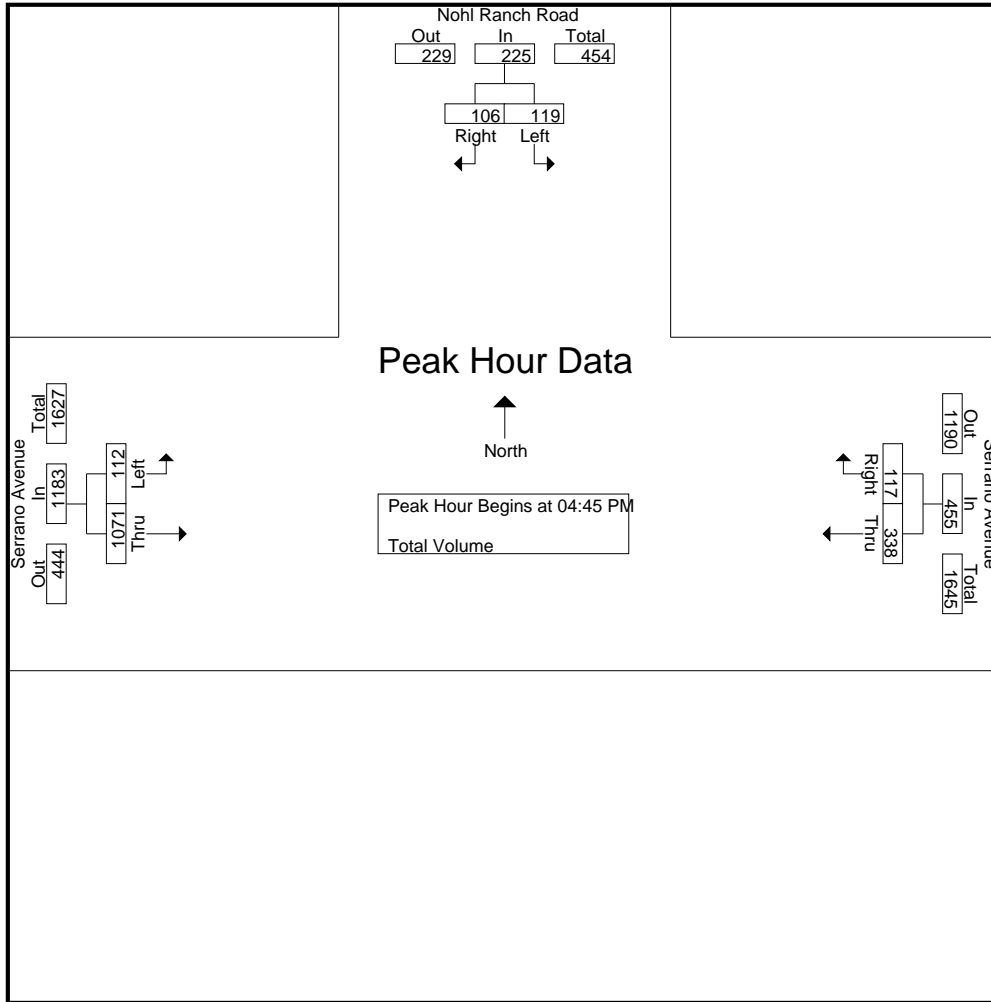


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			07:15 AM		
+0 mins.	16	38	54	213	28	241	26	41	67
+15 mins.	23	56	79	166	22	188	25	70	95
+30 mins.	26	71	97	183	22	205	53	98	151
+45 mins.	12	38	50	193	22	215	39	64	103
Total Volume	77	203	280	755	94	849	143	273	416
% App. Total	27.5	72.5		88.9	11.1		34.4	65.6	
PHF	.740	.715	.722	.886	.839	.881	.675	.696	.689

City of Anaheim
 N/S: Nohl Ranch Road
 E/W: Serrano Avenue
 Weather: Clear

File Name : 03_ANA_Nohl Ranch_Serrano PM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2



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

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	23	27	50	82	39	121	25	272	297
+15 mins.	34	20	54	71	31	102	27	255	282
+30 mins.	36	28	64	104	25	129	39	257	296
+45 mins.	26	31	57	81	22	103	21	287	308
Total Volume	119	106	225	338	117	455	112	1071	1183
% App. Total	52.9	47.1		74.3	25.7		9.5	90.5	
PHF	.826	.855	.879	.813	.750	.882	.718	.933	.960

Location: Anaheim
 N/S: Nohl Ranch Road
 E/W: Serrano Avenue



Date: 5/16/2018
 Day: Wednesday

PEDESTRIANS

	North Leg Nohl Ranch Road	East Leg Serrano Avenue	South Leg Dead End	West Leg Serrano Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	2	3	0	5
7:45 AM	0	75	59	0	134
8:00 AM	0	8	8	0	16
8:15 AM	0	4	2	0	6
8:30 AM	0	0	2	0	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	89	74	0	163

	North Leg Nohl Ranch Road	East Leg Serrano Avenue	South Leg Dead End	West Leg Serrano Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	2	2	0	4
4:15 PM	0	0	1	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	2	2	0	4
5:30 PM	0	0	0	0	0
5:45 PM	0	1	1	0	2
TOTAL VOLUMES:	0	5	6	0	11

Location: Anaheim
 N/S: Nohl Ranch Road
 E/W: Serrano Avenue



Date: 5/16/2018
 Day: Wednesday

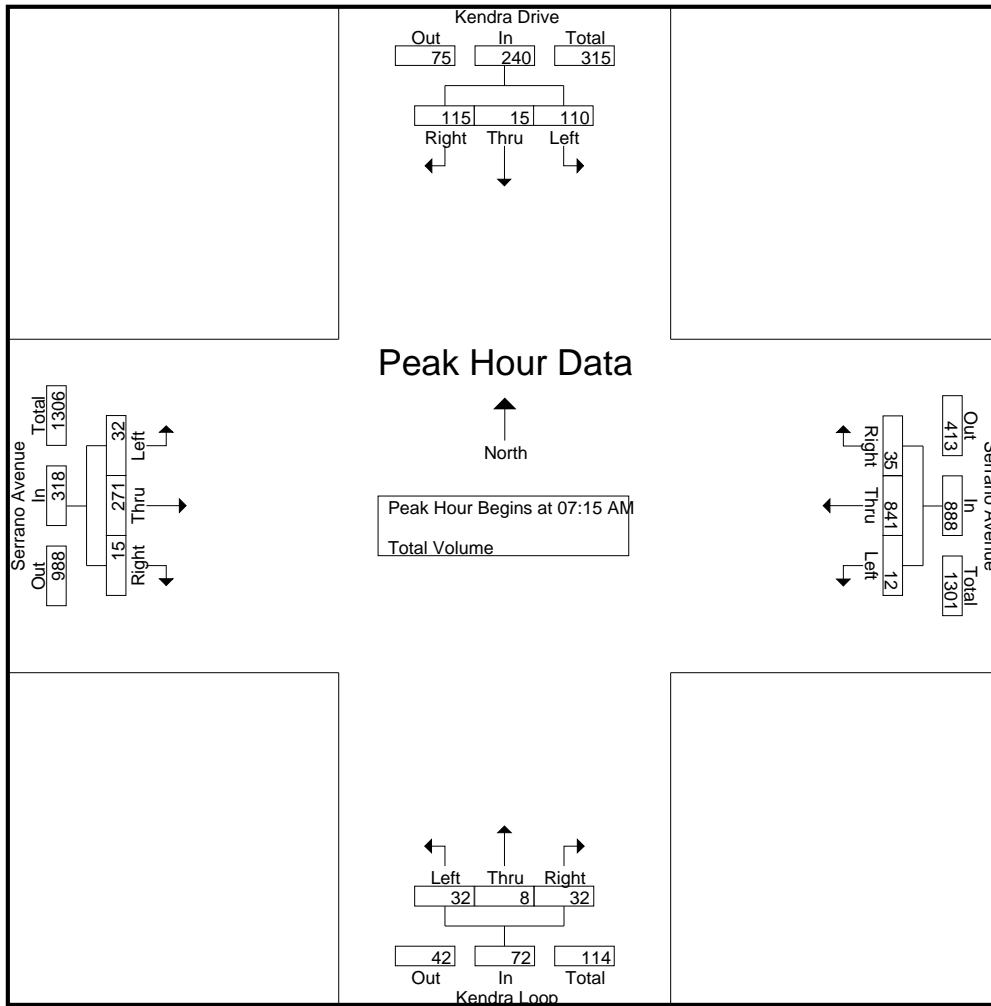
BICYCLES

	Southbound Nohl Ranch Road			Westbound Serrano Avenue			Northbound Dead End			Eastbound Serrano Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	1	0	0	1

	Southbound Nohl Ranch Road			Westbound Serrano Avenue			Northbound Dead End			Eastbound Serrano Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	2	0	0	0	0	0	0	2

City of Orange
 N/S: Kendra Drive/Kendra Loop
 E/W: Serrano Avenue
 Weather: Clear

File Name : 01_ORN_Kendra_Serrano AM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

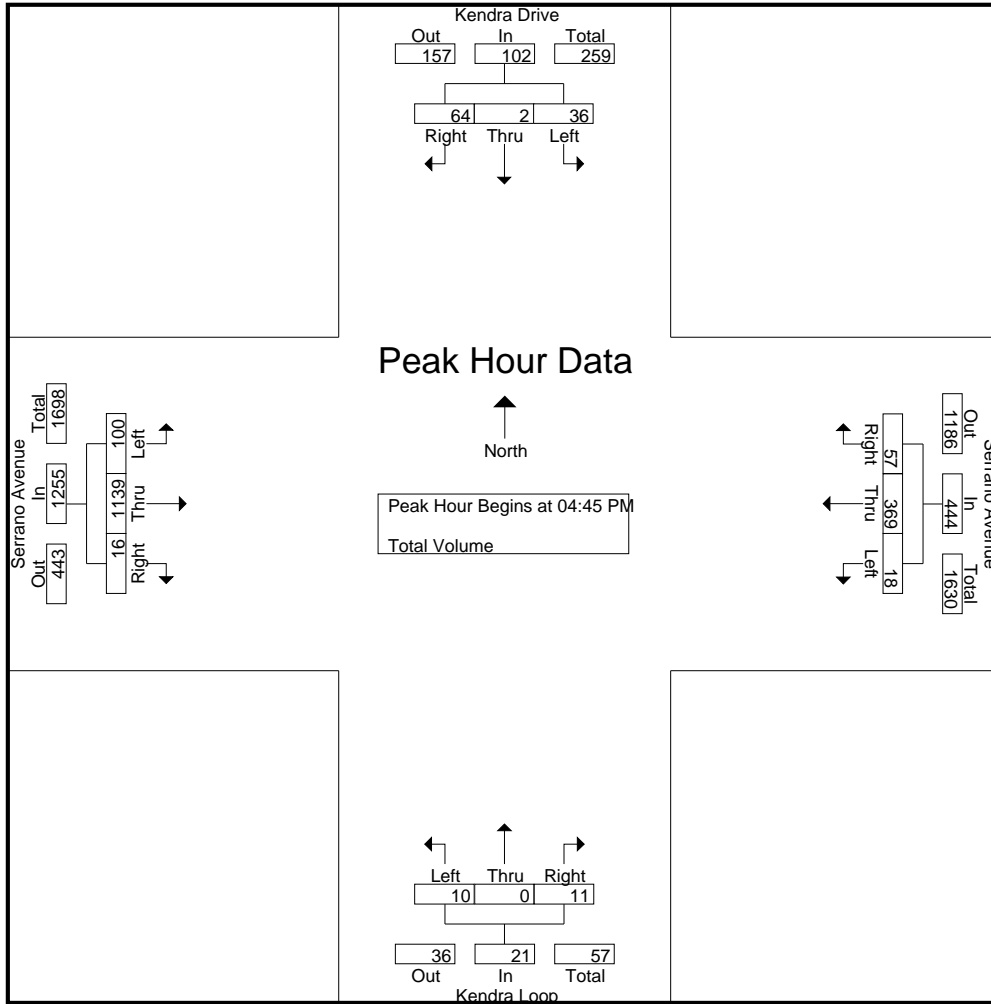


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:30 AM			
+0 mins.	15	0	32	47	1	238	3	242	7	0	12	19	10	80	0	90
+15 mins.	9	0	28	37	0	190	2	192	5	0	4	9	8	80	10	98
+30 mins.	30	0	37	67	3	199	5	207	5	0	6	11	11	52	4	67
+45 mins.	62	15	22	99	8	225	17	250	15	7	14	36	14	42	8	64
Total Volume	116	15	119	250	12	852	27	891	32	7	36	75	43	254	22	319
% App. Total	46.4	6	47.6		1.3	95.6	3		42.7	9.3	48		13.5	79.6	6.9	
PHF	.468	.250	.804	.631	.375	.895	.397	.891	.533	.250	.643	.521	.768	.794	.550	.814

City of Orange
 N/S: Kendra Drive/Kendra Loop
 E/W: Serrano Avenue
 Weather: Clear

File Name : 01_ORN_Kendra_Serrano PM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

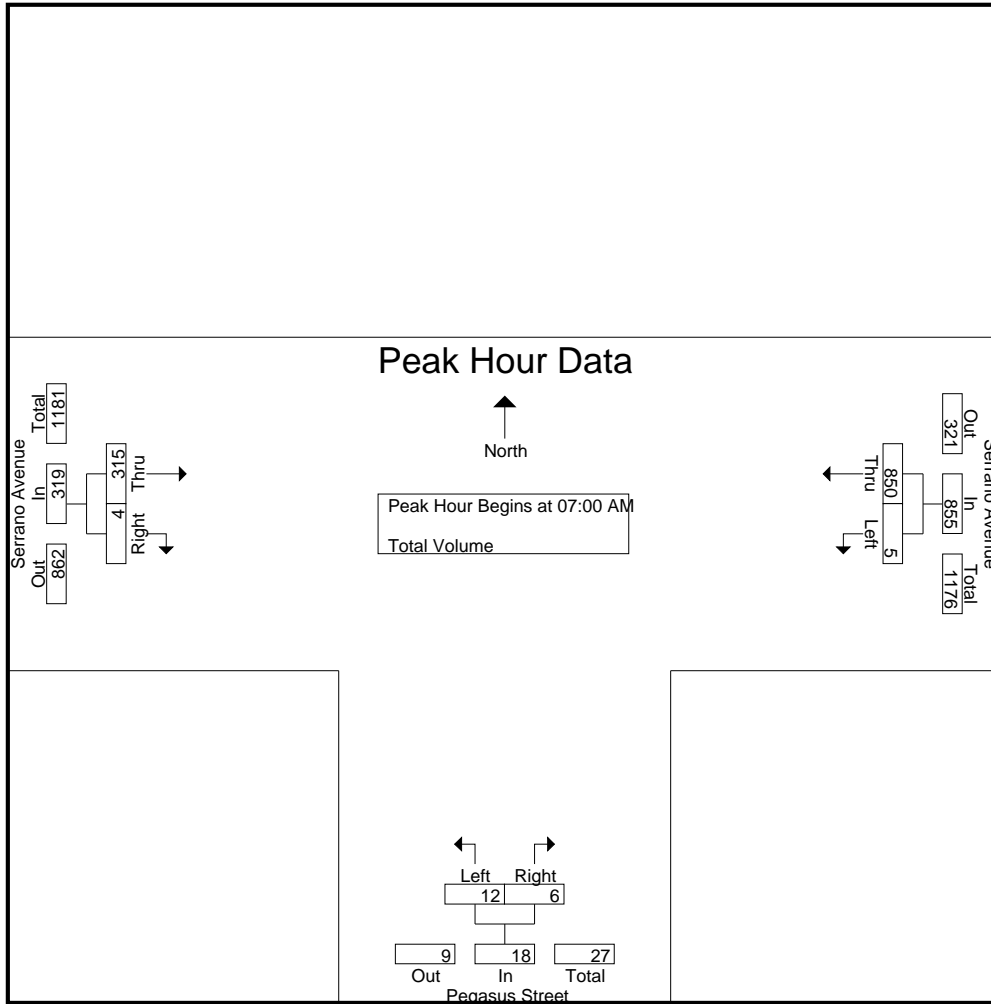


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM				05:00 PM				04:45 PM				04:45 PM			
+0 mins.	7	0	12	19	2	82	6	90	4	0	1	5	22	286	3	311
+15 mins.	14	0	15	29	5	114	16	135	3	0	3	6	24	257	1	282
+30 mins.	11	0	18	29	4	88	19	111	2	0	3	5	19	295	4	318
+45 mins.	15	2	20	37	4	95	14	113	1	0	4	5	35	301	8	344
Total Volume	47	2	65	114	15	379	55	449	10	0	11	21	100	1139	16	1255
% App. Total	41.2	1.8	57		3.3	84.4	12.2		47.6	0	52.4		8	90.8	1.3	
PHF	.783	.250	.813	.770	.750	.831	.724	.831	.625	.000	.688	.875	.714	.946	.500	.912

City of Anaheim
 N/S: Pegasus Street
 E/W: Serrano Avenue
 Weather: Clear

File Name : 04_ANA_Pegasus_Serrano AM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

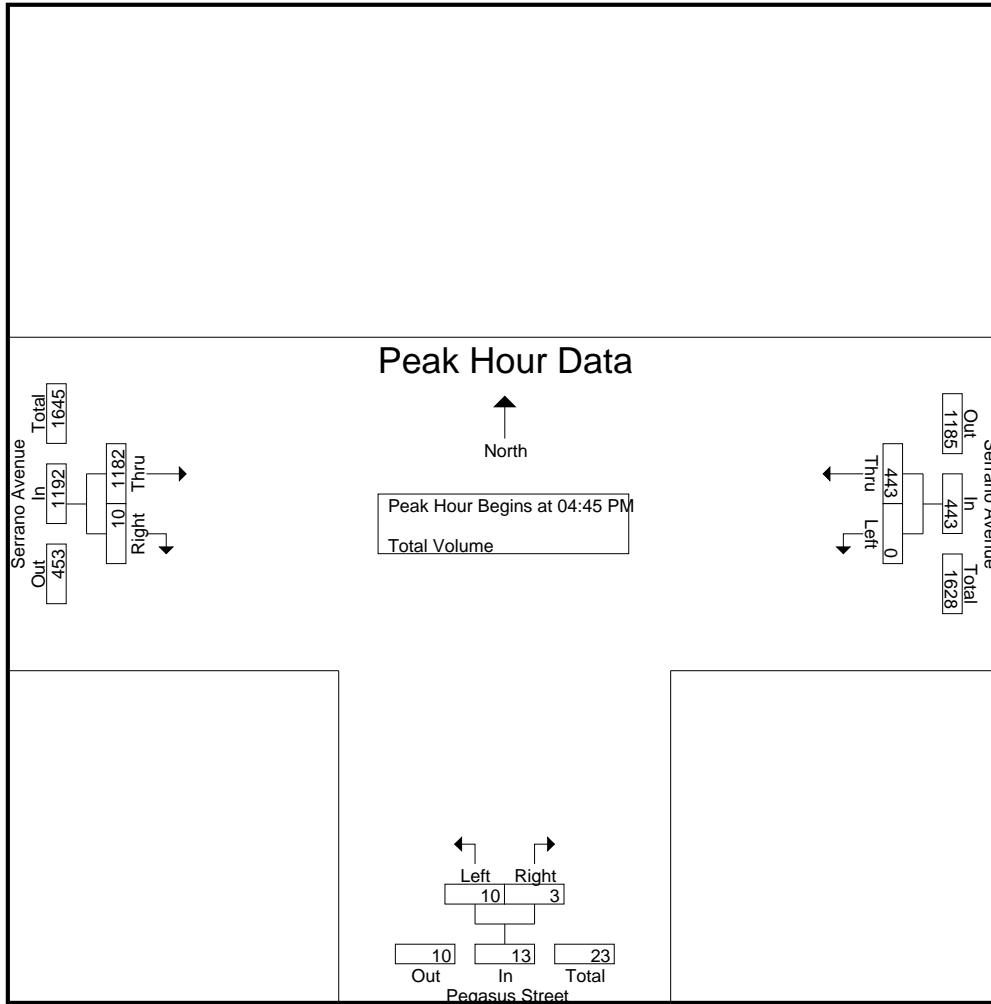


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:30 AM		
+0 mins.	2	239	241	5	3	8	99	2	101
+15 mins.	1	188	189	3	1	4	116	0	116
+30 mins.	1	204	205	2	0	2	81	1	82
+45 mins.	1	219	220	7	0	7	55	1	56
Total Volume	5	850	855	17	4	21	351	4	355
% App. Total	0.6	99.4		81	19		98.9	1.1	
PHF	.625	.889	.887	.607	.333	.656	.756	.500	.765

City of Anaheim
 N/S: Pegasus Street
 E/W: Serrano Avenue
 Weather: Clear

File Name : 04_ANA_Pegasus_Serrano PM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

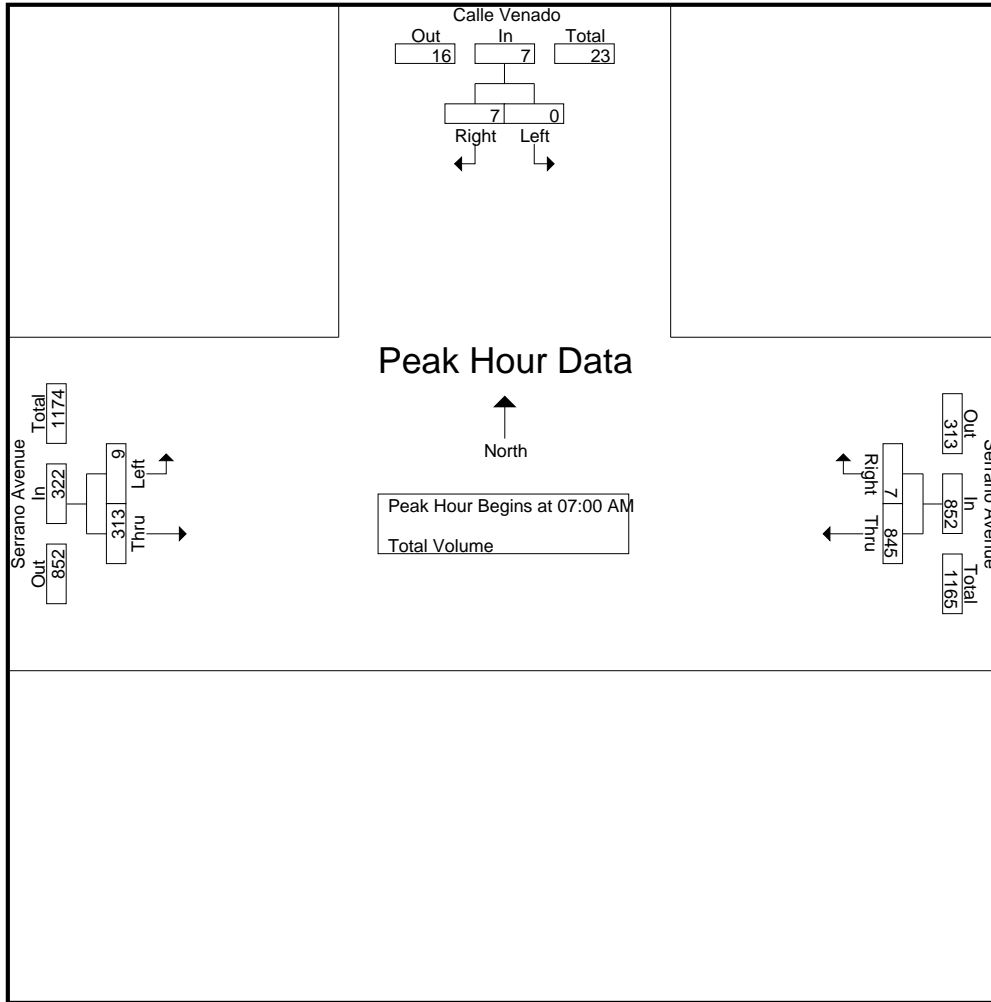


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM			04:45 PM			04:45 PM		
+0 mins.	0	103	103	2	0	2	283	1	284
+15 mins.	0	116	116	2	1	3	296	2	298
+30 mins.	0	96	96	4	1	5	288	2	290
+45 mins.	0	133	133	2	1	3	315	5	320
Total Volume	0	448	448	10	3	13	1182	10	1192
% App. Total	0	100		76.9	23.1		99.2	0.8	
PHF	.000	.842	.842	.625	.750	.650	.938	.500	.931

City of Anaheim
 N/S: Pegasus Street
 E/W: Serrano Avenue
 Weather: Clear

File Name : 05_ANA_Calle Venado_Serrano AM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

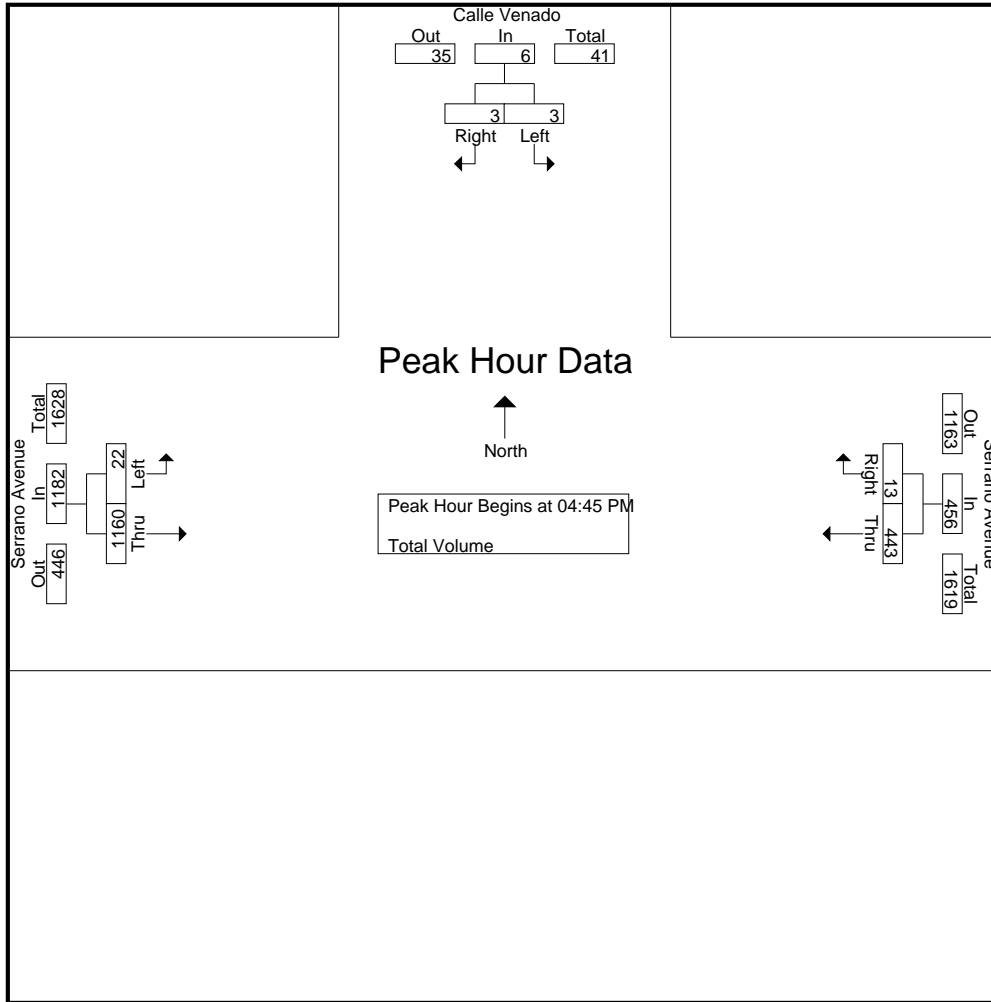


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			07:15 AM		
+0 mins.	0	3	3	238	0	238	1	55	56
+15 mins.	0	4	4	190	0	190	1	102	103
+30 mins.	0	5	5	199	1	200	6	109	115
+45 mins.	0	3	3	218	6	224	4	77	81
Total Volume	0	15	15	845	7	852	12	343	355
% App. Total	0	100		99.2	0.8		3.4	96.6	
PHF	.000	.750	.750	.888	.292	.895	.500	.787	.772

City of Anaheim
 N/S: Pegasus Street
 E/W: Serrano Avenue
 Weather: Clear

File Name : 05_ANA_Calle Venado_Serrano PM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

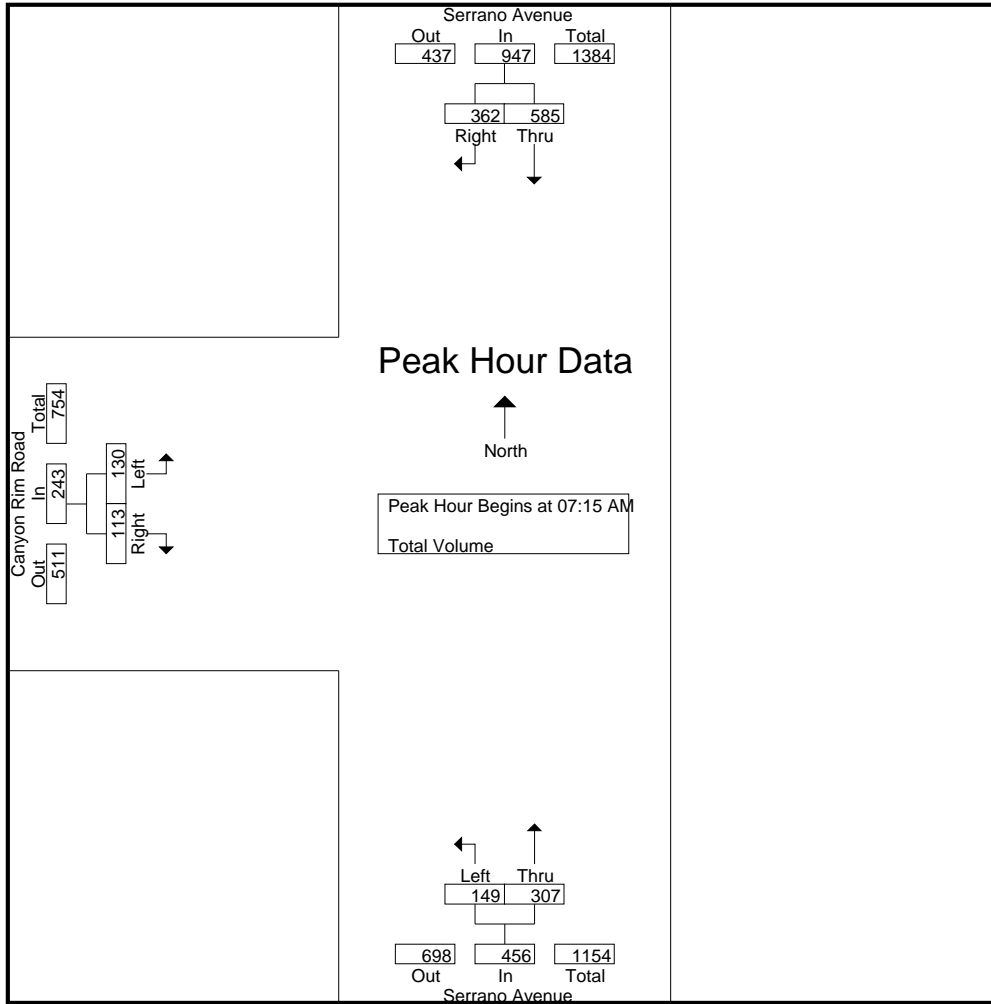


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			04:45 PM		
+0 mins.	1	2	3	104	8	112	3	277	280
+15 mins.	0	1	1	114	1	115	8	290	298
+30 mins.	0	1	1	101	2	103	2	287	289
+45 mins.	1	2	3	129	2	131	9	306	315
Total Volume	2	6	8	448	13	461	22	1160	1182
% App. Total	25	75		97.2	2.8		1.9	98.1	
PHF	.500	.750	.667	.868	.406	.880	.611	.948	.938

City of Anaheim
 N/S: Serrano Avenue
 E/W: Canyon Rim Road
 Weather: Clear

File Name : 09_ANA_Serrano_Canyon Rim AM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2

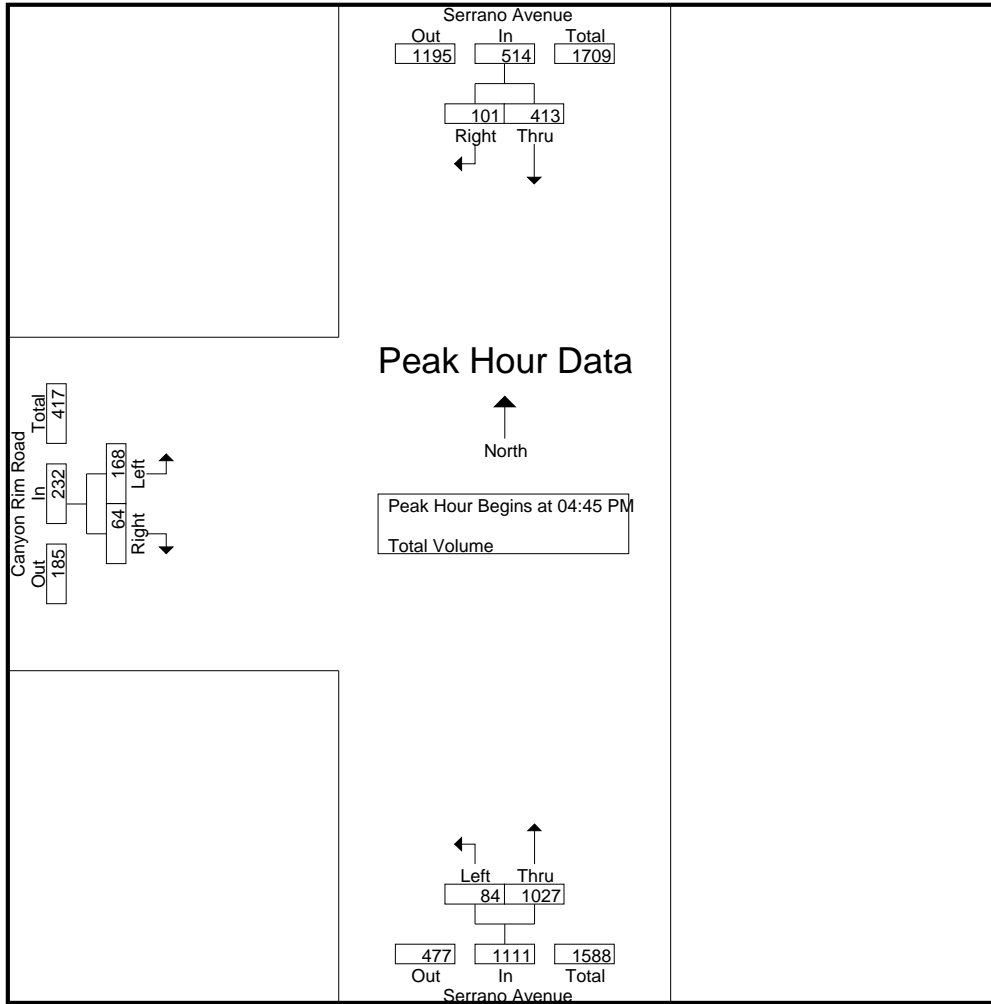


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:30 AM		
+0 mins.	127	55	182	36	56	92	38	29	67
+15 mins.	145	103	248	68	75	143	56	42	98
+30 mins.	165	89	254	29	95	124	21	25	46
+45 mins.	148	115	263	16	81	97	32	18	50
Total Volume	585	362	947	149	307	456	147	114	261
% App. Total	61.8	38.2		32.7	67.3		56.3	43.7	
PHF	.886	.787	.900	.548	.808	.797	.656	.679	.666

City of Anaheim
 N/S: Serrano Avenue
 E/W: Canyon Rim Road
 Weather: Clear

File Name : 09_ANA_Serrano_Canyon Rim PM
 Site Code : 00318390
 Start Date : 5/16/2018
 Page No : 2



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

	04:30 PM			04:45 PM			05:00 PM		
+0 mins.	102	29	131	20	257	277	42	19	61
+15 mins.	103	35	138	14	261	275	39	19	58
+30 mins.	107	18	125	15	244	259	49	15	64
+45 mins.	105	25	130	35	265	300	34	20	54
Total Volume	417	107	524	84	1027	1111	164	73	237
% App. Total	79.6	20.4		7.6	92.4		69.2	30.8	
PHF	.974	.764	.949	.600	.969	.926	.837	.913	.926

National Data & Surveying Services

Intersection Turning Movement Count

Location: Cannon St & Serrano Ave
City: Orange
Control: Signalized

Project ID: 19-01025-001
Date: 2/7/2019

Total

NS/EW Streets:	Cannon St				Cannon St				Serrano Ave				Serrano Ave				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	2	1	0	1	2	0	0	0	0	0	0	2	0	1	0	673
7:15 AM	0	67	37	0	5	317	0	0	0	0	0	0	221	0	26	0	928
7:30 AM	0	104	48	0	7	381	0	0	0	0	0	0	334	0	54	0	997
7:45 AM	0	156	63	0	13	378	0	0	0	0	0	0	340	0	47	0	923
7:45 AM	0	132	74	0	13	370	0	0	0	0	0	0	294	0	40	0	879
8:00 AM	0	145	89	0	9	310	0	0	0	0	0	0	286	0	40	0	941
8:15 AM	0	161	94	0	11	364	0	0	0	0	0	0	261	0	50	0	711
8:30 AM	0	115	64	0	14	292	0	0	0	0	0	0	204	0	22	0	707
8:45 AM	0	118	58	0	8	274	0	0	0	0	0	0	236	0	13	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	998	527	0	80	2686	0	0	0	0	0	0	2176	0	292	0	6759
	0.00%	65.44%	34.56%	0.00%	2.89%	97.11%	0.00%	0.00%					88.17%	0.00%	11.83%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	594	320	0	46	1422	0	0	0	0	0	0	1181	0	177	0	3740
PEAK HR FACTOR :	0.000	0.922	0.851	0.000	0.885	0.940	0.000	0.000	0.000	0.000	0.000	0.000	0.868	0.000	0.885	0.000	0.938
	0.896				0.939								0.877				
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	2	1	0	1	2	0	0	0	0	0	0	2	0	1	0	712
4:15 PM	0	196	281	0	24	118	0	0	0	0	0	0	78	0	15	0	909
4:30 PM	0	278	316	0	23	159	0	0	0	0	0	0	113	0	20	0	914
4:30 PM	0	287	325	0	24	157	0	0	0	0	0	0	109	0	12	0	963
4:45 PM	0	260	362	0	20	194	0	0	0	0	0	0	114	0	13	0	946
5:00 PM	0	291	386	0	29	143	0	0	0	0	0	0	83	0	14	0	992
5:15 PM	0	311	368	0	27	191	0	0	0	0	0	0	85	0	10	0	1048
5:30 PM	0	307	369	0	37	224	0	0	0	0	0	0	97	0	14	0	1003
5:45 PM	0	283	350	0	34	200	0	0	0	0	0	0	111	0	25	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	2213	2757	0	218	1386	0	0	0	0	0	0	790	0	123	0	7487
	0.00%	44.53%	55.47%	0.00%	13.59%	86.41%	0.00%	0.00%					86.53%	0.00%	13.47%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	1192	1473	0	127	758	0	0	0	0	0	0	376	0	63	0	3989
PEAK HR FACTOR :	0.000	0.958	0.954	0.000	0.858	0.846	0.000	0.000	0.000	0.000	0.000	0.000	0.847	0.000	0.630	0.000	0.952
	0.981				0.848								0.807				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Cannon St & Taft Ave
City: Orange
Control: Signalized

Project ID: 19-01025-002
Date: 2/7/2019

Total

NS/EW Streets:	Cannon St				Cannon St				Taft Ave				Taft Ave				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	2	0	0	1	2	0	0	0.5	0.5	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	1	87	0	0	1	520	36	0	16	0	19	0	0	0	0	0	680
7:15 AM	5	145	0	0	0	667	36	0	26	1	26	0	0	0	0	0	906
7:30 AM	10	176	0	0	0	686	51	0	28	0	33	0	2	0	0	0	986
7:45 AM	12	180	0	0	0	607	38	0	42	0	51	0	0	0	0	0	930
8:00 AM	17	206	0	0	0	569	34	0	40	0	50	0	0	0	0	0	916
8:15 AM	12	204	0	0	0	572	31	0	34	0	47	0	0	0	0	0	900
8:30 AM	17	169	0	0	0	470	43	0	23	1	27	0	0	0	0	0	750
8:45 AM	14	145	0	0	0	449	37	0	23	0	20	0	0	0	0	0	688
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	88	1312	0	0	1	4540	306	0	232	2	273	0	2	0	0	0	6756
	6.29%	93.71%	0.00%	0.00%	0.02%	93.67%	6.31%	0.00%	45.76%	0.39%	53.85%	0.00%	100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	44	707	0	0	0	2529	159	0	136	1	160	0	2	0	0	0	3738
PEAK HR FACTOR :	0.647	0.858	0.000	0.000	0.000	0.922	0.779	0.000	0.810	0.250	0.784	0.000	0.250	0.000	0.000	0.000	0.948
	0.842				0.912				0.798				0.250				
PM	1	2	0	0	1	2	0	0	0.5	0.5	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	28	445	0	0	0	169	42	0	49	0	12	0	0	0	0	0	745
4:15 PM	41	511	1	0	0	207	53	0	69	1	9	0	0	1	0	0	893
4:30 PM	37	542	0	0	0	225	46	0	65	0	8	0	0	2	0	0	925
4:45 PM	31	543	0	0	0	248	40	0	89	0	12	0	0	0	0	0	963
5:00 PM	25	583	0	0	1	206	38	0	87	1	12	0	0	0	0	0	953
5:15 PM	17	588	0	0	0	259	37	0	111	0	9	0	0	1	0	0	1022
5:30 PM	7	541	0	0	0	251	42	0	114	0	11	0	0	0	0	0	966
5:45 PM	13	561	1	0	0	271	51	0	91	0	12	0	0	0	0	0	1000
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	199	4314	2	0	1	1836	349	0	675	2	85	0	0	4	0	0	7467
	4.41%	95.55%	0.04%	0.00%	0.05%	83.99%	15.97%	0.00%	88.58%	0.26%	11.15%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	62	2273	1	0	1	987	168	0	403	1	44	0	0	1	0	0	3941
PEAK HR FACTOR :	0.620	0.966	0.250	0.000	0.250	0.911	0.824	0.000	0.884	0.250	0.917	0.000	0.000	0.250	0.000	0.000	0.964
	0.961				0.898				0.896				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Cannon St & Santiago Canyon Rd
City: Orange
Control: Signalized

Project ID: 19-01025-003
Date: 2/7/2019

Total

NS/EW Streets:	Cannon St				Cannon St				Santiago Canyon Rd				Santiago Canyon Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	2 NT	0 NR	0 NU	2.5 SL	1.5 ST	1 SR	0 SU	2 EL	2 ET	0 ER	0 EU	1 WL	2 WT	1 WR	0 WU	
7:00 AM	18	14	2	0	326	96	155	0	33	148	10	0	5	58	51	0	
7:15 AM	31	33	3	0	346	128	190	0	63	186	13	0	3	100	52	0	
7:30 AM	40	44	5	0	407	119	196	0	59	210	18	0	4	117	88	0	
7:45 AM	46	36	2	0	355	105	188	0	63	189	34	0	8	149	83	0	
8:00 AM	56	44	8	0	397	110	128	0	85	241	13	0	1	113	104	0	
8:15 AM	25	20	3	0	380	92	141	0	61	163	8	0	2	129	115	0	
8:30 AM	29	23	2	0	295	103	106	0	51	173	15	0	2	113	87	0	
8:45 AM	21	22	3	0	258	89	131	0	55	139	11	0	3	102	99	0	
TOTAL VOLUMES :	NL 266	NT 236	NR 28	NU 0	SL 2764	ST 842	SR 1235	SU 0	EL 470	ET 1449	ER 122	EU 0	WL 28	WT 881	WR 679	WU 0	
APPROACH %'s :	50.19%	44.53%	5.28%	0.00%	57.10%	17.39%	25.51%	0.00%	23.03%	70.99%	5.98%	0.00%	1.76%	55.48%	42.76%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																
PEAK HR VOL :	173	157	18	0	1505	462	702	0	270	826	78	0	16	479	327	0	
PEAK HR FACTOR :	0.772	0.892	0.563	0.000	0.924	0.902	0.895	0.000	0.794	0.857	0.574	0.000	0.500	0.804	0.786	0.000	
	0.806				0.924				0.866				0.856				0.959

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	2.5 SL	1.5 ST	1 SR	0 SU	2 EL	2 ET	0 ER	0 EU	1 WL	2 WT	1 WR	0 WU	
4:00 PM	16	63	2	0	88	38	77	0	141	80	14	0	1	199	262	0	
4:15 PM	16	63	3	0	106	39	98	0	148	96	15	0	1	201	359	1	
4:30 PM	21	90	1	0	106	27	85	0	136	88	9	0	1	215	340	0	
4:45 PM	15	100	3	0	117	36	97	0	210	88	24	0	1	233	296	0	
5:00 PM	27	117	1	0	106	36	66	0	158	106	16	0	5	247	322	0	
5:15 PM	28	133	2	0	137	45	72	0	154	119	22	0	3	236	340	0	
5:30 PM	27	137	1	0	149	43	87	0	171	111	32	0	2	219	251	1	
5:45 PM	22	125	1	0	146	45	82	0	143	114	23	0	3	227	283	0	
TOTAL VOLUMES :	NL 172	NT 828	NR 14	NU 0	SL 955	ST 309	SR 664	SU 0	EL 1261	ET 802	ER 155	EU 0	WL 17	WT 1777	WR 2453	WU 2	
APPROACH %'s :	16.96%	81.66%	1.38%	0.00%	49.53%	16.03%	34.44%	0.00%	56.85%	36.16%	6.99%	0.00%	0.40%	41.82%	57.73%	0.05%	
PEAK HR :	04:45 PM - 05:45 PM																
PEAK HR VOL :	97	487	7	0	509	160	322	0	693	424	94	0	11	935	1209	1	
PEAK HR FACTOR :	0.866	0.889	0.583	0.000	0.854	0.889	0.830	0.000	0.825	0.891	0.734	0.000	0.550	0.946	0.889	0.250	
	0.895				0.888				0.940				0.931				0.958

Counts Unlimited, Inc.

City of Anaheim
 Nohl Ranch Road
 B/ Carnegie Avenue - Serrano Avenue
 24 Hour Directional Volume Count

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

ANA001
 Site Code: 003-18390

Start Time	16-May-18 Wed	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		8	39			8	40				
12:15		8	29			5	33				
12:30		5	32			1	51				
12:45		2	36	23	136	2	39	16	163	39	299
01:00		6	44			2	41				
01:15		4	44			2	41				
01:30		0	36			0	32				
01:45		4	42	14	166	1	48	5	162	19	328
02:00		2	42			1	55				
02:15		2	40			5	59				
02:30		3	62			1	55				
02:45		4	43	11	187	3	98	10	267	21	454
03:00		3	49			1	104				
03:15		3	34			3	68				
03:30		1	34			4	57				
03:45		4	33	11	150	5	56	13	285	24	435
04:00		3	33			5	68				
04:15		1	32			6	68				
04:30		11	44			15	54				
04:45		3	34	18	143	10	85	36	275	54	418
05:00		10	39			24	89				
05:15		8	36			23	62				
05:30		6	41			16	74				
05:45		22	43	46	159	29	62	92	287	138	446
06:00		11	43			29	80				
06:15		8	36			27	61				
06:30		17	36			35	55				
06:45		18	30	54	145	46	38	137	234	191	379
07:00		31	33			44	41				
07:15		42	36			57	33				
07:30		70	30			69	48				
07:45		48	33	191	132	118	25	288	147	479	279
08:00		56	17			48	27				
08:15		30	15			64	24				
08:30		31	36			48	19				
08:45		23	20	140	88	43	34	203	104	343	192
09:00		16	30			39	14				
09:15		31	30			27	20				
09:30		14	27			38	18				
09:45		16	23	77	110	32	11	136	63	213	173
10:00		20	16			34	14				
10:15		29	18			35	11				
10:30		20	12			34	15				
10:45		22	11	91	57	31	7	134	47	225	104
11:00		26	23			32	8				
11:15		23	14			38	5				
11:30		24	11			41	8				
11:45		32	16	105	64	41	4	152	25	257	89
Total		781	1537	781	1537	1222	2059	1222	2059	2003	3596
Combined Total		2318		2318		3281		3281		5599	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	216	-	-	-	299	-	-	-	-	-
P.H.F.	-	0.771	-	-	-	0.633	-	-	-	-	-
PM Peak	-	-	02:15	-	-	-	02:45	-	-	-	-
Vol.	-	-	194	-	-	-	327	-	-	-	-
P.H.F.	-	-	0.782	-	-	-	0.786	-	-	-	-
Percentage		33.7%	66.3%			37.2%	62.8%				
ADT/AADT		ADT 5,599	AADT 5,599								

Counts Unlimited, Inc.

City of Anaheim
 Serrano Avenue
 B/ Kendra Drive - Nohl Ranch Road
 24 Hour Directional Volume Count

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

ANA002
 Site Code: 003-18390

Start Time	16-May-18 Wed	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		7	63			3	73				
12:15		5	100			1	107				
12:30		4	117			2	112				
12:45		6	64	22	344	3	83	9	375	31	719
01:00		2	48			2	75				
01:15		3	84			0	79				
01:30		3	74			4	70				
01:45		2	81	10	287	1	59	7	283	17	570
02:00		2	88			3	63				
02:15		0	107			1	74				
02:30		5	106			0	76				
02:45		1	145	8	446	3	80	7	293	15	739
03:00		0	177			2	76				
03:15		1	201			1	82				
03:30		4	201			0	100				
03:45		1	266	6	845	0	81	3	339	9	1184
04:00		3	233			9	96				
04:15		4	277			14	92				
04:30		5	293			18	91				
04:45		6	297	18	1100	13	109	54	388	72	1488
05:00		6	282			21	91				
05:15		11	296			34	132				
05:30		8	308			62	112				
05:45		19	257	44	1143	72	122	189	457	233	1600
06:00		16	232			120	89				
06:15		14	248			148	68				
06:30		31	248			174	73				
06:45		36	205	97	933	177	62	619	292	716	1225
07:00		57	115			254	62				
07:15		67	141			204	58				
07:30		95	96			239	54				
07:45		151	102	370	454	264	52	961	226	1331	680
08:00		103	78			214	60				
08:15		51	84			124	48				
08:30		65	65			147	41				
08:45		61	57	280	284	117	27	602	176	882	460
09:00		62	63			102	46				
09:15		43	47			114	42				
09:30		49	43			88	27				
09:45		54	40	208	193	89	26	393	141	601	334
10:00		51	30			77	13				
10:15		50	22			63	14				
10:30		47	2			79	6				
10:45		42	0	190	54	87	0	306	33	496	87
11:00		69	13			70	15				
11:15		53	16			79	11				
11:30		56	11			77	7				
11:45		61	5	239	45	86	3	312	36	551	81
Total		1492	6128	1492	6128	3462	3039	3462	3039	4954	9167
Combined Total		7620		7620		6501		6501		14121	
AM Peak	-	07:15	-	-	-	07:00	-	-	-	-	-
Vol.	-	416	-	-	-	961	-	-	-	-	-
P.H.F.	-	0.689	-	-	-	0.910	-	-	-	-	-
PM Peak	-	-	04:45	-	-	-	05:00	-	-	-	-
Vol.	-	-	1183	-	-	-	457	-	-	-	-
P.H.F.	-	-	0.960	-	-	-	0.866	-	-	-	-
Percentage		19.6%	80.4%			53.3%	46.7%				
ADT/AADT		ADT 14,121	AADT 14,121								

Counts Unlimited, Inc.

City of Anaheim
 Serrano Avenue
 B/ Nohl Ranch Road - Calle Venado
 24 Hour Directional Volume Count

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

ANA003
 Site Code: 003-18390

Start Time	16-May-18 Wed	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		9	63			2	74				
12:15		4	91			2	99				
12:30		7	95			2	127				
12:45		7	66	27	315	2	78	8	378	35	693
01:00		2	50			3	77				
01:15		2	86			1	70				
01:30		2	78			5	71				
01:45		3	92	9	306	1	57	10	275	19	581
02:00		2	88			1	76				
02:15		0	118			1	77				
02:30		3	115			0	79				
02:45		0	160	5	481	3	79	5	311	10	792
03:00		1	188			2	85				
03:15		0	199			4	82				
03:30		3	197			0	95				
03:45		3	270	7	854	1	76	7	338	14	1192
04:00		4	229			7	85				
04:15		5	281			17	93				
04:30		3	283			18	96				
04:45		4	295	16	1088	11	121	53	395	69	1483
05:00		2	289			21	102				
05:15		8	293			34	129				
05:30		9	313			60	103				
05:45		15	254	34	1149	69	120	184	454	218	1603
06:00		13	220			116	97				
06:15		11	244			133	78				
06:30		26	232			164	79				
06:45		36	219	86	915	155	68	568	322	654	1237
07:00		46	120			241	61				
07:15		57	138			188	56				
07:30		93	107			205	57				
07:45		124	97	320	462	215	53	849	227	1169	689
08:00		76	86			199	55				
08:15		53	89			133	46				
08:30		62	64			147	42				
08:45		80	58	271	297	117	30	596	173	867	470
09:00		63	69			103	42				
09:15		47	52			121	36				
09:30		57	42			76	27				
09:45		53	43	220	206	89	25	389	130	609	336
10:00		51	27			76	20				
10:15		56	23			71	16				
10:30		47	1			66	7				
10:45		52	0	206	51	84	0	297	43	503	94
11:00		70	15			81	17				
11:15		52	20			91	8				
11:30		67	9			82	7				
11:45		65	7	254	51	80	5	334	37	588	88
Total		1455	6175	1455	6175	3300	3083	3300	3083	4755	9258
Combined Total		7630		7630		6383		6383		14013	
AM Peak	-	07:15	-	-	-	07:00	-	-	-	-	-
Vol.	-	350	-	-	-	849	-	-	-	-	-
P.H.F.	-	0.706	-	-	-	0.881	-	-	-	-	-
PM Peak	-	-	04:45	-	-	-	04:45	-	-	-	-
Vol.	-	-	1190	-	-	-	455	-	-	-	-
P.H.F.	-	-	0.950	-	-	-	0.882	-	-	-	-
Percentage		19.1%	80.9%			51.7%	48.3%				
ADT/AADT		ADT 14,013	AADT 14,013								

Counts Unlimited, Inc.

City of Anaheim
 Carnegie Avenue
 B/ Nohl Ranch Road - Calle Venado
 24 Hour Directional Volume Count

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

ANA004
 Site Code: 003-18390

Start Time	16-May-18 Wed	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		1	6			1	2				
12:15		0	1			0	6				
12:30		1	5			1	4				
12:45		1	1	3	13	0	2	2	14	5	27
01:00		0	6			0	1				
01:15		2	5			1	3				
01:30		1	5			2	5				
01:45		0	12	3	28	0	7	3	16	6	44
02:00		0	7			0	12				
02:15		0	10			1	13				
02:30		0	7			0	9				
02:45		0	9	0	33	1	6	2	40	2	73
03:00		1	8			0	5				
03:15		0	6			1	5				
03:30		0	4			0	7				
03:45		1	8	2	26	0	4	1	21	3	47
04:00		0	6			1	6				
04:15		0	6			0	4				
04:30		0	8			1	2				
04:45		1	9	1	29	1	2	3	14	4	43
05:00		2	8			7	4				
05:15		0	3			1	8				
05:30		0	11			4	5				
05:45		1	6	3	28	1	6	13	23	16	51
06:00		0	9			6	10				
06:15		1	6			7	4				
06:30		1	8			4	1				
06:45		5	4	7	27	9	6	26	21	33	48
07:00		1	8			6	6				
07:15		9	7			3	5				
07:30		8	2			9	4				
07:45		6	6	24	23	5	5	23	20	47	43
08:00		6	1			13	0				
08:15		9	6			7	2				
08:30		6	5			8	6				
08:45		3	3	24	15	3	1	31	9	55	24
09:00		0	5			5	2				
09:15		3	5			5	3				
09:30		1	5			6	1				
09:45		4	1	8	16	3	2	19	8	27	24
10:00		4	2			2	1				
10:15		5	3			4	0				
10:30		0	0			2	0				
10:45		0	6	9	11	2	2	10	3	19	14
11:00		2	4			3	1				
11:15		3	0			4	1				
11:30		7	3			4	2				
11:45		2	3	14	10	1	0	12	4	26	14
Total		98	259	98	259	145	193	145	193	243	452
Combined Total		357		357		338		338		695	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	29	-	-	-	34	-	-	-	-	-
P.H.F.	-	0.806	-	-	-	0.654	-	-	-	-	-
PM Peak	-	-	01:45	-	-	-	01:45	-	-	-	-
Vol.	-	-	36	-	-	-	41	-	-	-	-
P.H.F.	-	-	0.750	-	-	-	0.788	-	-	-	-
Percentage		27.5%	72.5%			42.9%	57.1%				
ADT/AADT		ADT 695	AADT 695								

Counts Unlimited, Inc.

City of Anaheim
 Calle Venado
 B/ Carnegie Avenue - Serrano Avenue
 24 Hour Directional Volume Count

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

ANA005
 Site Code: 003-18390

Start Time	16-May-18 Wed	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		1	0			0	0				
12:15		0	7			0	2				
12:30		0	7			0	0				
12:45		1	7	2	21	0	3	0	5	2	26
01:00		1	2			0	0				
01:15		0	5			0	1				
01:30		0	2			0	1				
01:45		1	5	2	14	0	0	0	2	2	16
02:00		0	3			0	2				
02:15		0	6			0	2				
02:30		0	5			0	2				
02:45		0	4	0	18	0	2	0	8	0	26
03:00		1	8			0	3				
03:15		0	11			0	1				
03:30		0	5			0	0				
03:45		0	6	1	30	0	2	0	6	1	36
04:00		0	7			1	3				
04:15		0	7			0	1				
04:30		0	15			0	1				
04:45		0	4	0	33	0	3	1	8	1	41
05:00		0	8			1	1				
05:15		0	4			0	0				
05:30		0	21			0	3				
05:45		0	7	0	40	1	2	2	6	2	46
06:00		1	12			1	2				
06:15		1	5			1	1				
06:30		1	10			1	1				
06:45		2	10	5	37	0	0	3	4	8	41
07:00		1	5			0	1				
07:15		0	6			0	1				
07:30		1	7			3	1				
07:45		13	6	15	24	4	1	7	4	22	28
08:00		6	9			5	1				
08:15		2	5			3	0				
08:30		3	2			2	2				
08:45		1	7	12	23	0	1	10	4	22	27
09:00		1	6			1	0				
09:15		0	1			4	1				
09:30		4	3			3	0				
09:45		0	3	5	13	0	1	8	2	13	15
10:00		2	3			1	0				
10:15		7	1			0	0				
10:30		2	2			2	1				
10:45		2	1	13	7	1	0	4	1	17	8
11:00		1	1			2	0				
11:15		3	2			0	1				
11:30		3	1			2	0				
11:45		6	1	13	5	1	0	5	1	18	6
Total		68	265	68	265	40	51	40	51	108	316
Combined Total		333		333		91		91		424	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	24	-	-	-	15	-	-	-	-	-
P.H.F.		0.462				0.750					
PM Peak	-	-	05:30	-	-	-	02:15	-	-	-	-
Vol.	-	-	45	-	-	-	9	-	-	-	-
P.H.F.			0.536				0.750				
Percentage		20.4%	79.6%			44.0%	56.0%				
ADT/AADT		ADT 424		AADT 424							



City: Anaheim
 Location: Nohl Ranch Road/Driveway
 Date: 5/16/2018
 Count Type: Driveway Count

	Entering	Exiting	Total
0:00	0	0	0
0:15	0	0	0
0:30	0	0	0
0:45	0	0	0
1:00	0	0	0
1:15	0	0	0
1:30	0	0	0
1:45	0	0	0
2:00	0	0	0
2:15	0	0	0
2:30	0	0	0
2:45	0	0	0
3:00	0	0	0
3:15	0	0	0
3:30	0	0	0
3:45	0	0	0
4:00	0	0	0
4:15	0	0	0
4:30	0	0	0
4:45	0	0	0
5:00	0	0	0
5:15	0	2	2
5:30	0	0	0
5:45	1	1	2
6:00	0	2	2
6:15	1	1	2
6:30	3	1	4
6:45	0	3	3
7:00	3	3	6
7:15	2	5	7
7:30	1	5	6
7:45	24	17	41
8:00	14	3	17
8:15	4	3	7
8:30	3	4	7
8:45	1	4	5
9:00	1	5	6
9:15	1	4	5
9:30	1	8	9
9:45	3	6	9
10:00	1	1	2
10:15	2	2	4
10:30	3	6	9
10:45	6	1	7
11:00	1	1	2
11:15	1	4	5
11:30	7	3	10
11:45	1	4	5
12:00	4	7	11
12:15	25	21	46
12:30	12	7	19
12:45	3	5	8
13:00	2	4	6
13:15	3	3	6
13:30	4	5	9
13:45	3	3	6
14:00	3	5	8
14:15	1	4	5
14:30	1	4	5
14:45	5	9	14
15:00	2	9	11
15:15	8	15	23
15:30	7	4	11
15:45	8	5	13
16:00	7	4	11
16:15	8	7	15
16:30	2	3	5
16:45	11	2	13
17:00	11	3	14
17:15	11	7	18
17:30	3	8	11
17:45	15	14	29
18:00	11	8	19
18:15	3	2	5
18:30	9	6	15
18:45	13	6	19
19:00	5	2	7
19:15	9	11	20
19:30	11	2	13
19:45	5	6	11
20:00	8	8	16
20:15	9	10	19
20:30	20	2	22
20:45	4	1	5
21:00	7	1	8
21:15	1	0	1
21:30	0	0	0
21:45	0	0	0
22:00	0	1	1
22:15	1	1	2
22:30	1	0	1
22:45	0	0	0
23:00	0	0	0
23:15	0	0	0
23:30	0	0	0
23:45	0	0	0
TOTAL	361	324	685

City: Anaheim
 Location: West Driveway/Serrano Avenue
 Date: 5/16/2018
 Count Type: Driveway Count

	Entering	Exiting	Total
0:00	0	0	0
0:15	0	0	0
0:30	0	0	0
0:45	0	0	0
1:00	0	0	0
1:15	0	0	0
1:30	0	0	0
1:45	0	0	0
2:00	0	0	0
2:15	0	0	0
2:30	0	0	0
2:45	0	0	0
3:00	0	0	0
3:15	0	0	0
3:30	0	0	0
3:45	0	0	0
4:00	0	0	0
4:15	0	0	0
4:30	0	0	0
4:45	0	0	0
5:00	0	0	0
5:15	0	0	0
5:30	0	0	0
5:45	0	0	0
6:00	0	0	0
6:15	0	0	0
6:30	0	0	0
6:45	0	0	0
7:00	0	0	0
7:15	0	0	0
7:30	0	0	0
7:45	0	0	0
8:00	0	0	0
8:15	0	0	0
8:30	0	0	0
8:45	0	0	0
9:00	0	0	0
9:15	0	0	0
9:30	0	0	0
9:45	0	0	0
10:00	0	0	0
10:15	0	0	0
10:30	0	0	0
10:45	0	0	0
11:00	0	0	0
11:15	0	0	0
11:30	0	0	0
11:45	0	0	0
12:00	0	0	0
12:15	0	0	0
12:30	0	0	0
12:45	0	0	0
13:00	0	0	0
13:15	0	0	0
13:30	0	0	0
13:45	0	0	0
14:00	0	0	0
14:15	0	0	0
14:30	0	0	0
14:45	0	0	0
15:00	0	0	0
15:15	0	0	0
15:30	0	0	0
15:45	0	0	0
16:00	0	0	0
16:15	0	0	0
16:30	0	0	0
16:45	0	0	0
17:00	0	1	1
17:15	0	0	0
17:30	0	0	0
17:45	0	0	0
18:00	0	0	0
18:15	1	1	2
18:30	1	0	1
18:45	0	0	0
19:00	1	2	3
19:15	4	3	7
19:30	7	13	20
19:45	4	3	7
20:00	0	1	1
20:15	2	0	2
20:30	3	9	12
20:45	2	2	4
21:00	1	2	3
21:15	3	5	8
21:30	3	3	6
21:45	2	0	2
22:00	0	2	2
22:15	2	7	9
22:30	4	2	6
22:45	3	2	5
23:00	2	3	5
23:15	9	2	11
23:30	8	2	10
23:45	0	9	9
TOTAL	62	74	136

City: Anaheim
 Location: East Driveway /Serrano Avenue
 Date: 5/16/2018
 Count Type: Driveway Count

	Entering	Exiting	Total
0:00	0	0	0
0:15	0	0	0
0:30	0	0	0
0:45	0	0	0
1:00	0	0	0
1:15	0	0	0
1:30	0	0	0
1:45	0	0	0
2:00	0	0	0
2:15	0	0	0
2:30	0	0	0
2:45	0	0	0
3:00	0	0	0
3:15	0	0	0
3:30	0	0	0
3:45	0	0	0
4:00	0	0	0
4:15	0	0	0
4:30	0	0	0
4:45	0	0	0
5:00	0	0	0
5:15	0	0	0
5:30	0	1	1
5:45	0	0	0
6:00	0	1	1
6:15	1	0	1
6:30	0	2	2
6:45	1	0	1
7:00	2	2	4
7:15	3	5	8
7:30	3	13	16
7:45	3	1	4
8:00	1	2	3
8:15	1	0	1
8:30	1	3	4
8:45	3	2	5
9:00	1	2	3
9:15	2	1	3
9:30	2	1	3
9:45	0	0	0
10:00	1	0	1
10:15	1	2	3
10:30	3	1	4
10:45	0	3	3
11:00	1	0	1
11:15	0	5	5
11:30	2	2	4
11:45	3	0	3
12:00	2	1	3
12:15	2	1	3
12:30	0	2	2
12:45	0	1	1
13:00	1	2	3
13:15	0	1	1
13:30	0	1	1
13:45	1	1	2
14:00	0	3	3
14:15	6	3	9
14:30	0	1	1
14:45	2	0	2
15:00	0	1	1
15:15	0	0	0
15:30	0	0	0
15:45	2	3	5
16:00	4	2	6
16:15	1	3	4
16:30	4	4	8
16:45	1	2	3
17:00	2	6	8
17:15	4	2	6
17:30	2	2	4
17:45	3	3	6
18:00	3	2	5
18:15	4	0	4
18:30	3	2	5
18:45	0	1	1
19:00	0	1	1
19:15	0	0	0
19:30	0	0	0
19:45	0	0	0
20:00	0	0	0
20:15	0	0	0
20:30	0	0	0
20:45	0	0	0
21:00	0	0	0
21:15	0	0	0
21:30	0	0	0
21:45	0	0	0
22:00	0	0	0
22:15	0	0	0
22:30	0	0	0
22:45	0	0	0
23:00	0	0	0
23:15	0	0	0
23:30	0	0	0
23:45	0	0	0
TOTAL	82	100	182

APPENDIX B

ICU LEVEL OF SERVICE WORKSHEETS

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.319
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 18 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns representing saturation flow and adjustment factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns representing capacity analysis. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.411
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 20 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 13 columns representing different volume and adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 13 columns representing saturation flow and adjustment factors like Sat/Lane, Adjustment, Lanes, etc.

Capacity Analysis Module: Table with 13 columns representing capacity analysis factors like Vol/Sat, Crit Moves, etc.

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.593
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 Level Of Service: A

Street Name: Serrano Ave Nohl Ranch Rd
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 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 1 1 0 2 0 0 0 0 0 1 1 0

Volume Module:
Base Vol: 0 0 0 77 0 203 143 273 0 0 718 89
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 77 0 203 143 273 0 0 718 89
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 77 0 203 143 273 0 0 718 89
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
PHF Volume: 0 0 0 95 0 250 176 336 0 0 884 110
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 95 0 250 176 336 0 0 884 110
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: 0 0 0 95 0 250 176 336 0 0 884 110

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 1.00 1.00 2.00 0.00 0.00 1.78 0.22
Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 3025 375

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.15 0.10 0.10 0.00 0.00 0.29 0.29
Crit Moves: *****

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.488
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns representing saturation flow and adjustment factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns representing capacity analysis factors. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.816
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: D

Table with columns for Street Name (Cannon Street, Serrano Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Ovl, Include), and various timing parameters like Min. Green, Y+R, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol across different approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves for each approach.

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.946
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 126 Level Of Service: E

Table with columns for Street Name (Cannon Street, Taft Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and various timing parameters like Min. Green, Y+R, and Lanes.

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol across different movements.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each movement.

Capacity Analysis Module: Table showing Vol/Sat, OvlAdjV/S, and Crit Moves for each movement.

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.761
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: C

Street Name: Cannon Street E Santiago Canyon Road

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 Ovl Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 2 1 1 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 173 157 18 1505 462 702 270 826 78 16 479 327

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: 173 157 18 1505 462 702 270 826 78 16 479 327

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 173 157 18 1505 462 702 270 826 78 16 479 327

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Volume: 173 157 18 1505 462 702 270 826 78 16 479 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 173 157 18 1505 462 702 270 826 78 16 479 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 0.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

FinalVolume: 173 157 18 1505 462 702 270 826 78 16 479 0

OvlAdjVol: 567

-----|-----|-----|-----|

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 1.79 0.21 3.00 1.00 1.00 2.00 1.83 0.17 1.00 2.00 1.00

Final Sat.: 1700 3050 350 5100 1700 1700 3400 3107 293 1700 3400 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.10 0.05 0.05 0.30 0.27 0.41 0.08 0.27 0.27 0.01 0.14 0.00

OvlAdjV/S: 0.33

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.274
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 17 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume metrics and 13 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 13 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.440
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different traffic flow metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns representing saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns representing capacity analysis metrics. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.427
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Street Name: Serrano Ave Nohl Ranch Rd
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 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 1 1 0 2 0 0 0 0 1 1 0

Volume Module:
Base Vol: 0 0 0 119 0 106 112 1071 0 0 338 117
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 0 119 0 106 112 1071 0 0 338 117
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 119 0 106 112 1071 0 0 338 117
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 119 0 106 112 1071 0 0 338 117
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 119 0 106 112 1071 0 0 338 117
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: 0 0 0 119 0 106 112 1071 0 0 338 117

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 1.00 1.00 2.00 0.00 0.00 1.49 0.51
Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 2526 874

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.06 0.07 0.32 0.00 0.00 0.13 0.13
Crit Moves: **** *

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.420
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns representing saturation flow factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns representing capacity analysis factors. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.991
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Street Name: Cannon Street Serrano Avenue

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: Ovl Include Include Ovl

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 0 1192 1473 127 758 0 0 0 0 376 0 63

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 1192 1473 127 758 0 0 0 0 376 0 63

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 1192 1473 127 758 0 0 0 0 376 0 63

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 1192 1473 127 758 0 0 0 0 376 0 63

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 1192 1473 127 758 0 0 0 0 376 0 63

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 1192 1473 127 758 0 0 0 0 376 0 63

OvlAdjVol: 1285 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 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00

Final Sat.: 0 3400 1700 1700 3400 0 0 0 0 3400 0 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.35 0.87 0.07 0.22 0.00 0.00 0.00 0.00 0.11 0.00 0.04

OvlAdjV/S: 0.76 0.00

Crit Moves: **** **** ****

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.957
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 140 Level Of Service: E

Street Name: Cannon Street Taft Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 0 1 0 0 0 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 62 2273 1 1 987 168 403 1 44 0 1 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: 62 2273 1 1 987 168 403 1 44 0 1 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 62 2273 1 1 987 168 403 1 44 0 1 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: 62 2273 1 1 987 168 403 1 44 0 1 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 62 2273 1 1 987 168 403 1 44 0 1 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: 62 2273 1 1 987 168 403 1 44 0 1 0

OvlAdjVol: 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: 1.00 1.99 0.01 1.00 1.71 0.29 0.99 0.01 1.00 0.00 1.00 0.00

Final Sat.: 1700 3399 1 1700 2905 495 1696 4 1700 0 1700 0

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.67 0.67 0.00 0.34 0.34 0.24 0.24 0.03 0.00 0.00 0.00

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.774
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 47 Level Of Service: C

Street Name: Cannon Street E Santiago Canyon Road

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 Ovl Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 2 1 1 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 97 487 7 509 160 322 693 424 94 12 935 1209

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: 97 487 7 509 160 322 693 424 94 12 935 1209

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 97 487 7 509 160 322 693 424 94 12 935 1209

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Volume: 97 487 7 509 160 322 693 424 94 12 935 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 97 487 7 509 160 322 693 424 94 12 935 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 0.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

FinalVolume: 97 487 7 509 160 322 693 424 94 12 935 0

OvlAdjVol: 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: 1.00 1.97 0.03 3.00 1.00 1.00 2.00 1.64 0.36 1.00 2.00 1.00

Final Sat.: 1700 3352 48 5100 1700 1700 3400 2783 617 1700 3400 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.06 0.15 0.15 0.10 0.09 0.19 0.20 0.15 0.15 0.01 0.28 0.00

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.329
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	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			Permitted			Permitted										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	1	0	2	0	0	0	0	1	1	0	1	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	4	531	0	0	292	58	191	0	2	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	4	552	0	0	304	60	199	0	2	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	552	0	0	304	60	199	0	2	0	0	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:	4	552	0	0	304	60	199	0	2	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	552	0	0	304	60	199	0	2	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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:	4	552	0	0	304	60	199	0	2	0	0	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:	1.00	2.00	0.00	0.00	1.67	0.33	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1700	3400	0	0	2837	563	1700	0	1700	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.00	0.00	0.11	0.11	0.12	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****			****			****					

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.426
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 13 columns representing different traffic movements and 13 rows of volume-related metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 13 columns and 5 rows showing saturation flow rates and adjustments for different lanes.

Capacity Analysis Module: Table with 13 columns and 3 rows showing capacity analysis metrics like Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.615
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 30 Level Of Service: B

Street Name: Serrano Ave Nohl Ranch Rd

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 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 1 1 0 2 0 0 0 0 0 1 1 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 0 0 0 77 0 203 143 273 0 0 718 89

Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Initial Bse: 0 0 0 80 0 211 149 284 0 0 747 93

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 80 0 211 149 284 0 0 747 93

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81

PHF Volume: 0 0 0 99 0 260 183 350 0 0 920 114

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 99 0 260 183 350 0 0 920 114

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: 0 0 0 99 0 260 183 350 0 0 920 114

-----|-----|-----|-----|-----|

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 1.00 1.00 2.00 0.00 0.00 1.78 0.22

Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 3025 375

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.15 0.11 0.10 0.00 0.00 0.30 0.30

Crit Moves: *****

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.505
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	130	0	113	149	307	0	0	585	362
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	0	0	135	0	118	155	319	0	0	608	376
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	135	0	118	155	319	0	0	608	376
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	135	0	118	155	319	0	0	608	376
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	135	0	118	155	319	0	0	608	376
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:	0	0	0	135	0	118	155	319	0	0	608	376

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	1.07	xxxx	0.93	1.00	2.00	0.00	0.00	1.24	0.76
Final Sat.:	0	0	0	1819	0	1581	1700	3400	0	0	2100	1300

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.07	0.09	0.09	0.00	0.00	0.29	0.29
Crit Moves:				****			****			****		

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec):	100	Critical Vol./Cap.(X):	0.849
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	D

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

Volume Module:

Base Vol:	0	594	320	46	1422	0	0	0	0	0	1181	0	177
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	618	333	48	1479	0	0	0	0	0	1228	0	184
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Ser. Hills2:	0	27	0	0	11	0	0	0	0	0	0	0	0
Initial Fut:	0	645	333	48	1490	0	0	0	0	0	1228	0	184
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	645	333	48	1490	0	0	0	0	0	1228	0	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	645	333	48	1490	0	0	0	0	0	1228	0	184
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	645	333	48	1490	0	0	0	0	0	1228	0	184
OvlAdjVol:			0										136

Saturation Flow Module:

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

Capacity Analysis Module:

Vol/Sat:	0.00	0.19	0.20	0.03	0.44	0.00	0.00	0.00	0.00	0.36	0.00	0.11	0.11
OvlAdjV/S:			0.00										0.08
Crit Moves:	****				****						****		

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.986
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Street Name: Cannon Street Taft Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 0 1 0 1 1 0 0 1 0 0 0 0 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 44 707 0 0 2529 159 136 1 160 2 0 0

Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Initial Bse: 46 735 0 0 2630 165 141 1 166 2 0 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Ser. Hills2: 0 27 0 0 11 0 0 0 0 0 0 0

Initial Fut: 46 762 0 0 2641 165 141 1 166 2 0 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: 46 762 0 0 2641 165 141 1 166 2 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 46 762 0 0 2641 165 141 1 166 2 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 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: 46 762 0 0 2641 165 141 1 166 2 0 0

OvlAdjVol: 121

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 0.00 1.00 1.88 0.12 0.99 0.01 1.00 1.00 0.00 0.00

Final Sat.: 1700 3400 0 1700 3200 200 1688 12 1700 1700 0 0

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.22 0.00 0.00 0.83 0.83 0.08 0.08 0.10 0.00 0.00 0.00

OvlAdjV/S: 0.07

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.795
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 51 Level Of Service: C

Street Name: Cannon Street E Santiago Canyon Road

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 Ovl Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 2 1 1 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 173 157 18 1505 462 702 270 826 78 16 479 327

Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Initial Bse: 180 163 19 1565 480 730 281 859 81 17 498 340

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Ser. Hills2: 0 0 0 11 0 0 0 20 0 1 48 27

Initial Fut: 180 163 19 1576 480 730 281 879 81 18 546 367

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Volume: 180 163 19 1576 480 730 281 879 81 18 546 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 180 163 19 1576 480 730 281 879 81 18 546 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 0.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

FinalVolume: 180 163 19 1576 480 730 281 879 81 18 546 0

OvlAdjVol: 590

-----|-----|-----|-----|

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 1.79 0.21 3.00 1.00 1.00 2.00 1.83 0.17 1.00 2.00 1.00

Final Sat.: 1700 3050 350 5100 1700 1700 3400 3113 287 1700 3400 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.11 0.05 0.05 0.31 0.28 0.43 0.08 0.28 0.28 0.01 0.16 0.00

OvlAdjV/S: 0.35

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.276
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 17 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume metrics and 13 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 13 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.454
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different traffic scenarios. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.437
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Street Name: Serrano Ave Nohl Ranch Rd
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 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 1 1 0 2 0 0 0 0 1 1 0

Volume Module:

Base Vol: 0 0 0 119 0 106 112 1071 0 0 338 117
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 124 0 110 116 1114 0 0 352 122
Added Vol: 0 0 0 3 0 -8 -3 -3 0 0 -6 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 127 0 102 113 1111 0 0 346 122
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 127 0 102 113 1111 0 0 346 122
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 127 0 102 113 1111 0 0 346 122
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: 0 0 0 127 0 102 113 1111 0 0 346 122

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 1.00 1.00 2.00 0.00 0.00 1.48 0.52
Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 2514 886

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.06 0.07 0.33 0.00 0.00 0.14 0.14
Crit Moves: **** *

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.435
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume metrics and 13 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 13 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 1.026
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Cannon Street, Serrano Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, Ser. Hills2, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

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

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

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.996
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Street Name: Cannon Street Taft Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 0 1 0 0 0 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 62 2273 1 1 987 168 403 1 44 0 1 0

Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Initial Bse: 64 2364 1 1 1026 175 419 1 46 0 1 0

Added Vol: 0 -5 0 0 -8 0 0 0 0 0 0 0

Ser. Hills2: 0 14 0 0 33 0 0 0 0 0 0 0

Initial Fut: 64 2373 1 1 1051 175 419 1 46 0 1 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: 64 2373 1 1 1051 175 419 1 46 0 1 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 64 2373 1 1 1051 175 419 1 46 0 1 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: 64 2373 1 1 1051 175 419 1 46 0 1 0

OvlAdjVol: 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: 1.00 1.99 0.01 1.00 1.72 0.28 0.99 0.01 1.00 0.00 1.00 0.00

Final Sat.: 1700 3399 1 1700 2916 484 1696 4 1700 0 1700 0

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.70 0.70 0.00 0.36 0.36 0.25 0.25 0.03 0.00 0.00 0.00

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.815
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: D

Street Name: Cannon Street E Santiago Canyon Road

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 Ovl Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 2 1 1 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 97 487 7 509 160 322 693 424 94 12 935 1209

Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Initial Bse: 101 506 7 529 166 335 721 441 98 12 972 1257

Added Vol: 0 0 0 -5 -1 -3 -2 0 0 0 0 -3

Ser. Hills2: 0 0 1 33 0 0 0 59 0 0 25 14

Initial Fut: 101 506 8 557 165 332 719 500 98 12 997 1268

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Volume: 101 506 8 557 165 332 719 500 98 12 997 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 101 506 8 557 165 332 719 500 98 12 997 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 0.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

FinalVolume: 101 506 8 557 165 332 719 500 98 12 997 0

OvlAdjVol: 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: 1.00 1.97 0.03 3.00 1.00 1.00 2.00 1.67 0.33 1.00 2.00 1.00

Final Sat.: 1700 3345 55 5100 1700 1700 3400 2844 556 1700 3400 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.06 0.15 0.15 0.11 0.10 0.20 0.21 0.18 0.18 0.01 0.29 0.00

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.316
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 18 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 13 columns representing different volume components like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 13 columns representing saturation flow values and adjustments.

Capacity Analysis Module: Table with 13 columns representing capacity analysis metrics like Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.478
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns representing saturation flow factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns representing capacity analysis factors. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.714
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: C

Street Name: Serrano Ave Nohl Ranch Rd
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 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 1 1 0 2 0 0 0 0 0 1 1 0

Volume Module:
Base Vol: 0 0 0 91 0 229 186 288 0 0 917 107
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 91 0 229 186 288 0 0 917 107
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 91 0 229 186 288 0 0 917 107
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82
PHF Volume: 0 0 0 111 0 279 227 351 0 0 1117 130
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 111 0 279 227 351 0 0 1117 130
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: 0 0 0 111 0 279 227 351 0 0 1117 130

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 1.00 1.00 2.00 0.00 0.00 1.79 0.21
Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 3045 355

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.16 0.13 0.10 0.00 0.00 0.37 0.37
Crit Moves: *****

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.535
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1	0	0	0	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	147	0	121	133	386	0	0	739	377
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	147	0	121	133	386	0	0	739	377
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	147	0	121	133	386	0	0	739	377
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	147	0	121	133	386	0	0	739	377
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	147	0	121	133	386	0	0	739	377
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:	0	0	0	147	0	121	133	386	0	0	739	377

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
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	1.10	0.00	0.90	1.00	2.00	0.00	0.00	1.32	0.68
Final Sat.:	0	0	0	1865	0	1535	1700	3400	0	0	2251	1149

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.08	0.08	0.11	0.00	0.00	0.33	0.33
Crit Moves:				****			****			****		

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.746
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: C

Street Name: Cannon Street Serrano Avenue

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: Ovl Include Include Ovl

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 3 0 2 1 0 3 0 0 0 0 0 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 0 1321 320 46 1779 0 0 0 0 1181 0 177

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 1321 320 46 1779 0 0 0 0 1181 0 177

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 1321 320 46 1779 0 0 0 0 1181 0 177

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 1321 320 46 1779 0 0 0 0 1181 0 177

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 1321 320 46 1779 0 0 0 0 1181 0 177

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: 0 1321 320 46 1779 0 0 0 0 1181 0 177

OvlAdjVol: 0 131

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 3.00 2.00 1.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00

Final Sat.: 0 5100 3400 1700 5100 0 0 0 0 3400 0 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.26 0.09 0.03 0.35 0.00 0.00 0.00 0.00 0.35 0.00 0.10

OvlAdjV/S: 0.00 0.08

Crit Moves: **** **** ****

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.753
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: C

Table with columns for Street Name (Cannon Street, Taft Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and various timing parameters like Min. Green, Y+R, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol across different movements.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each movement.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves for each movement.

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.795
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 51 Level Of Service: C

Street Name: Cannon Street E Santiago Canyon Road

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 Ignore Include Ignore
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 1 1 0 3 0 3 0 1 2 0 3 0 1

Volume Module:

Base Vol: 138 169 49 1915 536 575 158 726 67 147 1321 1154
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: 138 169 49 1915 536 575 158 726 67 147 1321 1154
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 138 169 49 1915 536 575 158 726 67 147 1321 1154
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 138 169 49 1915 536 0 158 726 67 147 1321 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 138 169 49 1915 536 0 158 726 67 147 1321 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 138 169 49 1915 536 0 158 726 67 147 1321 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 1.55 0.45 3.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
Final Sat.: 3400 2636 764 5100 5100 1700 3400 5100 1700 3400 5100 1700

Capacity Analysis Module:

Vol/Sat: 0.04 0.06 0.06 0.38 0.11 0.00 0.05 0.14 0.04 0.04 0.26 0.00
Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.261
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 16 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns representing saturation flow factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns representing capacity analysis factors. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.463
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.439
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Street Name: Serrano Ave Nohl Ranch Rd
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 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 1 1 0 2 0 0 0 0 1 1 0

Volume Module:

Base Vol: 0 0 0 139 0 81 89 1160 0 0 407 105
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 0 139 0 81 89 1160 0 0 407 105
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 139 0 81 89 1160 0 0 407 105
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 139 0 81 89 1160 0 0 407 105
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 139 0 81 89 1160 0 0 407 105
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: 0 0 0 139 0 81 89 1160 0 0 407 105

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 1.00 1.00 2.00 0.00 0.00 1.59 0.41
Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 2703 697

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.05 0.05 0.34 0.00 0.00 0.15 0.15
Crit Moves: **** *

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.487
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	23	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	322	0	74	87	1090	0	0	500	122
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	322	0	74	87	1090	0	0	500	122
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	322	0	74	87	1090	0	0	500	122
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	322	0	74	87	1090	0	0	500	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	322	0	74	87	1090	0	0	500	122
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:	0	0	0	322	0	74	87	1090	0	0	500	122

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	1.63	0.00	0.37	1.00	2.00	0.00	0.00	1.61	0.39
Final Sat.:	0	0	0	2765	0	635	1700	3400	0	0	2733	667

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.12	0.05	0.32	0.00	0.00	0.18	0.18
Crit Moves:				****			****			****		

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.558
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 26 Level Of Service: A

Street Name: Cannon Street Serrano Avenue

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: Ovl Include Include Ovl

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 3 0 2 1 0 3 0 0 0 0 0 0 0 1

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 0 1534 1473 127 1901 0 0 0 0 376 0 63

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 1534 1473 127 1901 0 0 0 0 376 0 63

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 1534 1473 127 1901 0 0 0 0 376 0 63

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 1534 1473 127 1901 0 0 0 0 376 0 63

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 1534 1473 127 1901 0 0 0 0 376 0 63

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 1534 1473 127 1901 0 0 0 0 376 0 63

OvlAdjVol: 1097 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 3.00 2.00 1.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00

Final Sat.: 0 5100 3400 1700 5100 0 0 0 0 3400 0 1700

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.30 0.43 0.07 0.37 0.00 0.00 0.00 0.00 0.11 0.00 0.04

OvlAdjV/S: 0.32 0.00

Crit Moves: **** **** ****

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.801
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: D

Street Name: Cannon Street Taft Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 1 0 1 0 2 1 0 0 1 0 0 0 0 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 62 2615 1 1 2130 168 403 1 44 0 1 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: 62 2615 1 1 2130 168 403 1 44 0 1 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 62 2615 1 1 2130 168 403 1 44 0 1 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: 62 2615 1 1 2130 168 403 1 44 0 1 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 62 2615 1 1 2130 168 403 1 44 0 1 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: 62 2615 1 1 2130 168 403 1 44 0 1 0

OvlAdjVol: 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: 1.00 2.99 0.01 1.00 2.78 0.22 0.99 0.01 1.00 0.00 1.00 0.00

Final Sat.: 1700 5098 2 1700 4727 373 1696 4 1700 0 1700 0

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.51 0.51 0.00 0.45 0.45 0.24 0.24 0.03 0.00 0.00 0.00

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.818
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 56 Level Of Service: D

Street Name: Cannon Street E Santiago Canyon Road

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 Ignore Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 1 1 0 3 0 3 0 1 2 0 3 0 1

Volume Module:

Base Vol: 145 469 56 1530 226 378 501 993 143 33 847 1761
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: 145 469 56 1530 226 378 501 993 143 33 847 1761
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 145 469 56 1530 226 378 501 993 143 33 847 1761
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 145 469 56 1530 226 0 501 993 143 33 847 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 145 469 56 1530 226 0 501 993 143 33 847 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 145 469 56 1530 226 0 501 993 143 33 847 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 1.79 0.21 3.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
Final Sat.: 3400 3037 363 5100 5100 1700 3400 5100 1700 3400 5100 1700

Capacity Analysis Module:

Vol/Sat: 0.04 0.15 0.15 0.30 0.04 0.00 0.15 0.19 0.08 0.01 0.17 0.00
Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.313
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 18 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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	0	1	1	0	0	0	0	0

Volume Module:

Base Vol:	4	531	0	0	292	58	191	0	2	0	0	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:	4	531	0	0	292	58	191	0	2	0	0	0
Added Vol:	0	-18	0	0	-27	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	513	0	0	265	58	191	0	2	0	0	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:	4	513	0	0	265	58	191	0	2	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	513	0	0	265	58	191	0	2	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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:	4	513	0	0	265	58	191	0	2	0	0	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:	1.00	2.00	0.00	0.00	1.64	0.36	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1700	3400	0	0	2789	611	1700	0	1700	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.15	0.00	0.00	0.10	0.09	0.11	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****			****			****					

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.408
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 20 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	1	0	2

Volume Module:

Base Vol:	32	8	32	110	15	115	32	271	15	12	841	35
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:	32	8	32	110	15	115	32	271	15	12	841	35
Added Vol:	0	0	0	0	0	0	0	-14	0	0	-12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	8	32	110	15	115	32	257	15	12	829	35
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:	32	8	32	110	15	115	32	257	15	12	829	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	8	32	110	15	115	32	257	15	12	829	35
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:	32	8	32	110	15	115	32	257	15	12	829	35

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	0.20	0.80	1.00	0.12	0.88	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	340	1360	1700	196	1504	1700	3400	1700	1700	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.02	0.02	0.02	0.06	0.08	0.08	0.02	0.08	0.01	0.01	0.24	0.02
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.581
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 28 Level Of Service: A

Street Name: Serrano Ave Nohl Ranch Rd
 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:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:												
Base Vol:	0	0	0	77	0	203	143	273	0	0	718	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	77	0	203	143	273	0	0	718	89
Added Vol:	0	0	0	1	0	-9	-7	-7	0	0	-3	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	78	0	194	136	266	0	0	715	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
PHF Volume:	0	0	0	96	0	239	167	328	0	0	881	111
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	96	0	239	167	328	0	0	881	111
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:	0	0	0	96	0	239	167	328	0	0	881	111

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	1.00	1.00	2.00	0.00	0.00	1.78	0.22
Final Sat.:	0	0	0	3400	0	1700	1700	3400	0	0	3020	380

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.14	0.10	0.10	0.00	0.00	0.29	0.29
Crit Moves:						****	****			****		

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.487
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 23 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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	130	0	113	149	307	0	0	585	362
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	130	0	113	149	307	0	0	585	362
Added Vol:	0	0	0	0	0	0	0	0	0	0	-3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	130	0	113	149	307	0	0	582	362
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	130	0	113	149	307	0	0	582	362
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	130	0	113	149	307	0	0	582	362
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:	0	0	0	130	0	113	149	307	0	0	582	362

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	1.07	0.00	0.93	1.00	2.00	0.00	0.00	1.23	0.77
Final Sat.:	0	0	0	1819	0	1581	1700	3400	0	0	2096	1304

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.07	0.09	0.09	0.00	0.00	0.28	0.28
Crit Moves:				****			****			****		

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.814
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 55 Level Of Service: D

Street Name:	Cannon Street						Serrano Avenue					
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:	Ovl			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	0	1	0	2	0	0	1

Volume Module:

Base Vol:	0	594	320	46	1422	0	0	0	0	1181	0	177
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	594	320	46	1422	0	0	0	0	1181	0	177
Added Vol:	0	0	-14	0	0	0	0	0	0	-5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	594	306	46	1422	0	0	0	0	1176	0	177
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	594	306	46	1422	0	0	0	0	1176	0	177
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	594	306	46	1422	0	0	0	0	1176	0	177
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:	0	594	306	46	1422	0	0	0	0	1176	0	177
OvlAdjVol:	0									131		

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	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3400	1700	1700	3400	0	0	0	0	3400	0	1700

Capacity Analysis Module:

Vol/Sat:	0.00	0.17	0.18	0.03	0.42	0.00	0.00	0.00	0.00	0.35	0.00	0.10
OvlAdjV/S:	0.00									0.08		

Crit Moves: ****

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.945
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 124 Level Of Service: E

Street Name: Cannon Street Taft Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Permitted Permitted

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 0 1 0 1 1 0 0 1 0 0 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 44 707 0 0 2529 159 136 1 160 2 0 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: 44 707 0 0 2529 159 136 1 160 2 0 0

Added Vol: 0 -14 0 0 -5 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 44 693 0 0 2524 159 136 1 160 2 0 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: 44 693 0 0 2524 159 136 1 160 2 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 44 693 0 0 2524 159 136 1 160 2 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 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: 44 693 0 0 2524 159 136 1 160 2 0 0

OvlAdjVol: 116

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 0.00 1.00 1.88 0.12 0.99 0.01 1.00 1.00 0.00 0.00

Final Sat.: 1700 3400 0 1700 3199 201 1688 12 1700 1700 0 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.20 0.00 0.00 0.79 0.79 0.08 0.08 0.09 0.00 0.00 0.00

OvlAdjV/S: 0.07

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.761
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 45 Level Of Service: C

Street Name:		Cannon Street						E Santiago Canyon Road												
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			Ovl			Include			Ignore										
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	2	1	1	0	1	2	0	1	1	0	1	0	2	0	1

Volume Module:

Base Vol:	173	157	18	1505	462	702	270	826	78	16	479	327	
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:	173	157	18	1505	462	702	270	826	78	16	479	327	
Added Vol:	0	-2	0	-3	0	-2	-4	0	0	0	0	-8	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	173	155	18	1502	462	700	266	826	78	16	479	319	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	
PHF Volume:	173	155	18	1502	462	700	266	826	78	16	479	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	173	155	18	1502	462	700	266	826	78	16	479	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	0.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	
FinalVolume:	173	155	18	1502	462	700	266	826	78	16	479	0	
OvlAdjVol:							567						

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	1.79	0.21	3.00	1.00	1.00	2.00	1.83	0.17	1.00	2.00	1.00
Final Sat.:	1700	3046	354	5100	1700	1700	3400	3107	293	1700	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.10	0.05	0.05	0.29	0.27	0.41	0.08	0.27	0.27	0.01	0.14	0.00	
OvlAdjV/S:							0.33						
Crit Moves:	****			****			****			****			

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.267
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 17 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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	0	1	1	0	0	0	0	0

Volume Module:

Base Vol:	4	324	0	0	428	156	85	0	3	0	0	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:	4	324	0	0	428	156	85	0	3	0	0	0
Added Vol:	0	-17	0	0	-25	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	307	0	0	403	156	85	0	3	0	0	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:	4	307	0	0	403	156	85	0	3	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	307	0	0	403	156	85	0	3	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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:	4	307	0	0	403	156	85	0	3	0	0	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:	1.00	2.00	0.00	0.00	1.44	0.56	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1700	3400	0	0	2451	949	1700	0	1700	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.09	0.00	0.00	0.16	0.16	0.05	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****			****			****					

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.439
 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:	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	1	0	2

Volume Module:

Base Vol:	10	0	11	36	2	64	100	1139	16	18	369	57
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:	10	0	11	36	2	64	100	1139	16	18	369	57
Added Vol:	0	0	0	0	0	0	0	-5	0	0	-15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	0	11	36	2	64	100	1134	16	18	354	57
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:	10	0	11	36	2	64	100	1134	16	18	354	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	0	11	36	2	64	100	1134	16	18	354	57
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:	10	0	11	36	2	64	100	1134	16	18	354	57

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	0.03	0.97	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	0	1700	1700	52	1648	1700	3400	1700	1700	3400	1700

Capacity Analysis Module:

Vol/Sat:	0.01	0.00	0.01	0.02	0.04	0.04	0.06	0.33	0.01	0.01	0.10	0.03
Crit Moves:	****				****			****		****		

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.422
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 21 Level Of Service: A

Street Name: Serrano Ave Nohl Ranch Rd

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 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 1 1 0 2 0 0 0 0 0 1 1 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 0 0 0 119 0 106 112 1071 0 0 338 117

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 0 119 0 106 112 1071 0 0 338 117

Added Vol: 0 0 0 3 0 -8 -3 -3 0 0 -6 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 122 0 98 109 1068 0 0 332 117

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 122 0 98 109 1068 0 0 332 117

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 122 0 98 109 1068 0 0 332 117

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: 0 0 0 122 0 98 109 1068 0 0 332 117

-----|-----|-----|-----|-----|

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 1.00 1.00 2.00 0.00 0.00 1.48 0.52

Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 2514 886

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.06 0.06 0.31 0.00 0.00 0.13 0.13

Crit Moves: ****

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.420
 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:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	168	0	64	84	1027	0	0	413	101
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	168	0	64	84	1027	0	0	413	101
Added Vol:	0	0	0	0	0	0	0	-1	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	168	0	64	84	1026	0	0	413	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	168	0	64	84	1026	0	0	413	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	168	0	64	84	1026	0	0	413	101
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:	0	0	0	168	0	64	84	1026	0	0	413	101

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	1.45	0.00	0.55	1.00	2.00	0.00	0.00	1.61	0.39
Final Sat.:	0	0	0	2462	0	938	1700	3400	0	0	2732	668

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.07	0.05	0.30	0.00	0.00	0.15	0.15
Crit Moves:				****			****			****		

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.988
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: E

Street Name:	Cannon Street						Serrano Avenue					
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:	Ovl			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	0	1	0	2	0	0	1

Volume Module:

Base Vol:	0	1192	1473	127	758	0	0	0	0	376	0	63
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	1192	1473	127	758	0	0	0	0	376	0	63
Added Vol:	0	0	-5	0	0	0	0	0	0	-8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1192	1468	127	758	0	0	0	0	368	0	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1192	1468	127	758	0	0	0	0	368	0	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1192	1468	127	758	0	0	0	0	368	0	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1192	1468	127	758	0	0	0	0	368	0	63
OvlAdjVol:			1284									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	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3400	1700	1700	3400	0	0	0	0	3400	0	1700

Capacity Analysis Module:

Vol/Sat:	0.00	0.35	0.86	0.07	0.22	0.00	0.00	0.00	0.00	0.11	0.00	0.04
OvlAdjV/S:			0.76									0.00
Crit Moves:			****		****						****	

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.956
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 138 Level Of Service: E

Street Name:	Cannon Street						Taft Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			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	0	1	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	62	2273	1	1	987	168	403	1	44	0	1	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:	62	2273	1	1	987	168	403	1	44	0	1	0
Added Vol:	0	-5	0	0	-8	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	2268	1	1	979	168	403	1	44	0	1	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:	62	2268	1	1	979	168	403	1	44	0	1	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	2268	1	1	979	168	403	1	44	0	1	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:	62	2268	1	1	979	168	403	1	44	0	1	0
OvlAdjVol:	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:	1.00	1.99	0.01	1.00	1.71	0.29	0.99	0.01	1.00	0.00	1.00	0.00
Final Sat.:	1700	3399	1	1700	2902	498	1696	4	1700	0	1700	0

Capacity Analysis Module:

Vol/Sat:	0.04	0.67	0.67	0.00	0.34	0.34	0.24	0.24	0.03	0.00	0.00	0.00
OvlAdjV/S:	0.00											

Crit Moves: ****

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.772
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 47 Level Of Service: C

Street Name: Cannon Street E Santiago Canyon Road

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 Ovl Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 2 1 1 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 97 487 7 509 160 322 693 424 94 12 935 1209

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: 97 487 7 509 160 322 693 424 94 12 935 1209

Added Vol: 0 0 0 -5 -1 -3 -2 0 0 0 0 0 -3

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 97 487 7 504 159 319 691 424 94 12 935 1206

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Volume: 97 487 7 504 159 319 691 424 94 12 935 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 97 487 7 504 159 319 691 424 94 12 935 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 0.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

FinalVolume: 97 487 7 504 159 319 691 424 94 12 935 0

OvlAdjVol: 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: 1.00 1.97 0.03 3.00 1.00 1.00 2.00 1.64 0.36 1.00 2.00 1.00

Final Sat.: 1700 3352 48 5100 1700 1700 3400 2783 617 1700 3400 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.06 0.15 0.15 0.10 0.09 0.19 0.20 0.15 0.15 0.01 0.28 0.00

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.324
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 18 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume metrics and 13 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 13 columns for saturation flow metrics and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.422
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume metrics and 13 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 13 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.602
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 29 Level Of Service: B

Street Name: Serrano Ave Nohl Ranch Rd
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 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 1 1 0 2 0 0 0 0 0 1 1 0

Volume Module:
Base Vol: 0 0 0 77 0 203 143 273 0 0 718 89
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 80 0 211 149 284 0 0 747 93
Added Vol: 0 0 0 1 0 -9 -7 -7 0 0 -3 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 81 0 202 142 277 0 0 744 94
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
PHF Volume: 0 0 0 100 0 249 175 341 0 0 916 115
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 100 0 249 175 341 0 0 916 115
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: 0 0 0 100 0 249 175 341 0 0 916 115

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 1.00 1.00 2.00 0.00 0.00 1.78 0.22
Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 3020 380

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.15 0.10 0.10 0.00 0.00 0.30 0.30
Crit Moves: *****

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.504
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 24 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat..

Capacity Analysis Module:

Table with 13 columns. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.848
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 64 Level Of Service: D

Table with columns for Street Name (Cannon Street, Serrano Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, Ser. Hills2, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume, and OvlAdjVol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, OvlAdjV/S, and Crit Moves.

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.984
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Street Name: Cannon Street Taft Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 0 0 1 0 1 1 0 0 1 0 0 0 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 44 707 0 0 2529 159 136 1 160 2 0 0

Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Initial Bse: 46 735 0 0 2630 165 141 1 166 2 0 0

Added Vol: 0 -14 0 0 -5 0 0 0 0 0 0 0

Ser. Hills2: 0 27 0 0 11 0 0 0 0 0 0 0

Initial Fut: 46 748 0 0 2636 165 141 1 166 2 0 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: 46 748 0 0 2636 165 141 1 166 2 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 46 748 0 0 2636 165 141 1 166 2 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 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: 46 748 0 0 2636 165 141 1 166 2 0 0

OvlAdjVol: 121

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 0.00 1.00 1.88 0.12 0.99 0.01 1.00 1.00 0.00 0.00

Final Sat.: 1700 3400 0 1700 3199 201 1688 12 1700 1700 0 0

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.22 0.00 0.00 0.82 0.82 0.08 0.08 0.10 0.00 0.00 0.00

OvlAdjV/S: 0.07

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.795
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 51 Level Of Service: C

Street Name: Cannon Street E Santiago Canyon Road

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 Ovl Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 2 1 1 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 173 157 18 1505 462 702 270 826 78 16 479 327

Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Initial Bse: 180 163 19 1565 480 730 281 859 81 17 498 340

Added Vol: 0 -2 0 -3 0 -2 -4 0 0 0 0 -8

Ser. Hills2: 0 0 0 11 0 0 0 20 0 1 48 27

Initial Fut: 180 161 19 1573 480 728 277 879 81 18 546 359

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Volume: 180 161 19 1573 480 728 277 879 81 18 546 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 180 161 19 1573 480 728 277 879 81 18 546 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 0.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

FinalVolume: 180 161 19 1573 480 728 277 879 81 18 546 0

OvlAdjVol: 590

-----|-----|-----|-----|

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 1.79 0.21 3.00 1.00 1.00 2.00 1.83 0.17 1.00 2.00 1.00

Final Sat.: 1700 3046 354 5100 1700 1700 3400 3113 287 1700 3400 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.11 0.05 0.05 0.31 0.28 0.43 0.08 0.28 0.28 0.01 0.16 0.00

OvlAdjV/S: 0.35

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.276
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 17 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume metrics and 13 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 13 columns for saturation flow metrics and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.454
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different traffic flow metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns representing saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns representing capacity analysis metrics. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.437
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Street Name: Serrano Ave Nohl Ranch Rd

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 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 1 1 0 2 0 0 0 0 0 1 1 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 0 0 0 119 0 106 112 1071 0 0 338 117

Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Initial Bse: 0 0 0 124 0 110 116 1114 0 0 352 122

Added Vol: 0 0 0 3 0 -8 -3 -3 0 0 -6 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 127 0 102 113 1111 0 0 346 122

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 127 0 102 113 1111 0 0 346 122

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 127 0 102 113 1111 0 0 346 122

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: 0 0 0 127 0 102 113 1111 0 0 346 122

-----|-----|-----|-----|-----|

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 1.00 1.00 2.00 0.00 0.00 1.48 0.52

Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 2514 886

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.06 0.07 0.33 0.00 0.00 0.14 0.14

Crit Moves: **** *

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.435
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns representing saturation flow factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat..

Capacity Analysis Module:

Table with 13 columns representing capacity analysis factors. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 1.026
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Cannon Street, Serrano Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Ovl, Include), and various timing parameters like Min. Green, Y+R, and Lanes.

Volume Module:

Table showing volume calculations including Base Vol, Growth Adj, Initial Bse, Added Vol, Ser. Hills2, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume, and OvlAdjVol.

Saturation Flow Module:

Table showing saturation flow parameters: Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table showing capacity analysis parameters: Vol/Sat, OvlAdjV/S, and Crit Moves.

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.996
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Street Name: Cannon Street Taft Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 0 1 0 0 0 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 62 2273 1 1 987 168 403 1 44 0 1 0

Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04

Initial Bse: 64 2364 1 1 1026 175 419 1 46 0 1 0

Added Vol: 0 -5 0 0 -8 0 0 0 0 0 0 0

Ser. Hills2: 0 14 0 0 33 0 0 0 0 0 0 0

Initial Fut: 64 2373 1 1 1051 175 419 1 46 0 1 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: 64 2373 1 1 1051 175 419 1 46 0 1 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 64 2373 1 1 1051 175 419 1 46 0 1 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: 64 2373 1 1 1051 175 419 1 46 0 1 0

OvlAdjVol: 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: 1.00 1.99 0.01 1.00 1.72 0.28 0.99 0.01 1.00 0.00 1.00 0.00

Final Sat.: 1700 3399 1 1700 2916 484 1696 4 1700 0 1700 0

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.70 0.70 0.00 0.36 0.36 0.25 0.25 0.03 0.00 0.00 0.00

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.815
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: D

Street Name: Cannon Street E Santiago Canyon Road
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 Ovl Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 2 1 1 0 1 2 0 1 1 0 1 0 2 0 1

Volume Module:

Base Vol: 97 487 7 509 160 322 693 424 94 12 935 1209
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 101 506 7 529 166 335 721 441 98 12 972 1257
Added Vol: 0 0 0 -5 -1 -3 -2 0 0 0 0 -3
Ser. Hills2: 0 0 1 33 0 0 0 59 0 0 25 14
Initial Fut: 101 506 8 557 165 332 719 500 98 12 997 1268
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 101 506 8 557 165 332 719 500 98 12 997 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 101 506 8 557 165 332 719 500 98 12 997 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 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 101 506 8 557 165 332 719 500 98 12 997 0
OvlAdjVol: 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: 1.00 1.97 0.03 3.00 1.00 1.00 2.00 1.67 0.33 1.00 2.00 1.00
Final Sat.: 1700 3345 55 5100 1700 1700 3400 2844 556 1700 3400 1700

Capacity Analysis Module:

Vol/Sat: 0.06 0.15 0.15 0.11 0.10 0.20 0.21 0.18 0.18 0.01 0.29 0.00
OvlAdjV/S: 0.00
Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.315
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 18 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume metrics and 13 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 13 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.479
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 13 columns for different volume metrics across four approaches.

Saturation Flow Module: Table with 13 columns for saturation flow metrics across four approaches.

Capacity Analysis Module: Table with 13 columns for capacity analysis metrics across four approaches.

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.714
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: C

Street Name: Serrano Ave Nohl Ranch Rd
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 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 1 1 0 2 0 0 0 0 0 1 1 0

-----|-----|-----|-----|-----|

Volume Module:
Base Vol: 0 0 0 92 0 226 184 286 0 0 925 108
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 92 0 226 184 286 0 0 925 108
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 92 0 226 184 286 0 0 925 108
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82
PHF Volume: 0 0 0 112 0 275 224 348 0 0 1127 132
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 112 0 275 224 348 0 0 1127 132
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: 0 0 0 112 0 275 224 348 0 0 1127 132

-----|-----|-----|-----|-----|

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 1.00 1.00 2.00 0.00 0.00 1.79 0.21
Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 3045 355

-----|-----|-----|-----|-----|

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.16 0.13 0.10 0.00 0.00 0.37 0.37
Crit Moves: *****

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.535
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	147	0	121	133	389	0	0	738	377
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	147	0	121	133	389	0	0	738	377
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	147	0	121	133	389	0	0	738	377
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	147	0	121	133	389	0	0	738	377
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	147	0	121	133	389	0	0	738	377
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:	0	0	0	147	0	121	133	389	0	0	738	377

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	1.10	0.00	0.90	1.00	2.00	0.00	0.00	1.32	0.68
Final Sat.:	0	0	0	1865	0	1535	1700	3400	0	0	2250	1150

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.08	0.08	0.11	0.00	0.00	0.33	0.33
Crit Moves:				****			****			****		

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.749
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: C

Table with columns for Street Name (Cannon Street, Serrano Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

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

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

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.755
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: C

Street Name: Cannon Street Taft Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 3 0 0 1 0 2 1 0 0 1 0 0 0 0 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 44 1429 0 0 2894 159 136 1 160 2 0 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: 44 1429 0 0 2894 159 136 1 160 2 0 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 44 1429 0 0 2894 159 136 1 160 2 0 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: 44 1429 0 0 2894 159 136 1 160 2 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 44 1429 0 0 2894 159 136 1 160 2 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 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: 44 1429 0 0 2894 159 136 1 160 2 0 0

OvlAdjVol: 116

-----|-----|-----|-----|-----|

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 3.00 0.00 1.00 2.84 0.16 0.99 0.01 1.00 1.00 0.00 0.00

Final Sat.: 1700 5100 0 1700 4834 266 1688 12 1700 1700 0 0

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.28 0.00 0.00 0.60 0.60 0.08 0.08 0.09 0.00 0.00 0.00

OvlAdjV/S: 0.07

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.795
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 51 Level Of Service: C

Street Name: Cannon Street E Santiago Canyon Road

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 Ignore Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 2 0 1 1 0 3 0 3 0 1 2 0 3 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 138 169 49 1919 537 576 156 726 67 147 1321 1151

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: 138 169 49 1919 537 576 156 726 67 147 1321 1151

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 138 169 49 1919 537 576 156 726 67 147 1321 1151

User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Volume: 138 169 49 1919 537 0 156 726 67 147 1321 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 138 169 49 1919 537 0 156 726 67 147 1321 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00

FinalVolume: 138 169 49 1919 537 0 156 726 67 147 1321 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 1.55 0.45 3.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00

Final Sat.: 3400 2636 764 5100 5100 1700 3400 5100 1700 3400 5100 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.06 0.06 0.38 0.11 0.00 0.05 0.14 0.04 0.04 0.26 0.00

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #1 Nohl Ranch Rd/Stage Coach Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.249
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 16 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns representing saturation flow and adjustment factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns representing capacity analysis factors. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #4 Kendra Dr/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.459
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns representing saturation flow factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 13 columns representing capacity analysis factors. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #5 Nohl Ranch Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.431
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Street Name: Serrano Ave Nohl Ranch Rd

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 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 1 1 0 2 0 0 0 0 0 1 1 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 0 0 0 142 0 66 81 1152 0 0 389 105

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 0 142 0 66 81 1152 0 0 389 105

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 142 0 66 81 1152 0 0 389 105

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 142 0 66 81 1152 0 0 389 105

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 142 0 66 81 1152 0 0 389 105

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: 0 0 0 142 0 66 81 1152 0 0 389 105

-----|-----|-----|-----|-----|

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 1.00 1.00 2.00 0.00 0.00 1.57 0.43

Final Sat.: 0 0 0 3400 0 1700 1700 3400 0 0 2677 723

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.04 0.05 0.34 0.00 0.00 0.15 0.15

Crit Moves: **** **** ****

Level Of Service Computation Report

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

Intersection #9 Canyon Rim Rd/Serrano Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.486
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 13 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat..

Capacity Analysis Module:

Table with 13 columns. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

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

Intersection #10 Cannon Street/Serrano Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.554
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 26 Level Of Service: A

Street Name: Cannon Street Serrano Avenue

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: Ovl Include Include Ovl

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 3 0 2 1 0 3 0 0 0 0 0 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 0 1534 1459 127 1901 0 0 0 0 355 0 63

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 1534 1459 127 1901 0 0 0 0 355 0 63

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 1534 1459 127 1901 0 0 0 0 355 0 63

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 1534 1459 127 1901 0 0 0 0 355 0 63

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 1534 1459 127 1901 0 0 0 0 355 0 63

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 1534 1459 127 1901 0 0 0 0 355 0 63

OvlAdjVol: 1104 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 3.00 2.00 1.00 3.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00

Final Sat.: 0 5100 3400 1700 5100 0 0 0 0 3400 0 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.30 0.43 0.07 0.37 0.00 0.00 0.00 0.00 0.10 0.00 0.04

OvlAdjV/S: 0.32 0.00

Crit Moves: **** **** ****

Level Of Service Computation Report

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

Intersection #11 Cannon Street/ Taft Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.798
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: C

Street Name: Cannon Street Taft Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted

Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 2 1 0 1 0 2 1 0 0 1 0 0 1 0 0 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 62 2601 1 1 2109 168 403 1 44 0 1 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: 62 2601 1 1 2109 168 403 1 44 0 1 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 62 2601 1 1 2109 168 403 1 44 0 1 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: 62 2601 1 1 2109 168 403 1 44 0 1 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 62 2601 1 1 2109 168 403 1 44 0 1 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: 62 2601 1 1 2109 168 403 1 44 0 1 0

OvlAdjVol: 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: 1.00 2.99 0.01 1.00 2.78 0.22 0.99 0.01 1.00 0.00 1.00 0.00

Final Sat.: 1700 5098 2 1700 4724 376 1696 4 1700 0 1700 0

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.51 0.51 0.00 0.45 0.45 0.24 0.24 0.03 0.00 0.00 0.00

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

Level Of Service Computation Report

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

Intersection #12 Cannon Street/E Santiago Canyon Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.813
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: D

Street Name: Cannon Street E Santiago Canyon Road

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 Ignore Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 2 0 1 1 0 3 0 3 0 1 2 0 3 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 145 467 56 1518 223 372 496 993 143 33 847 1752

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: 145 467 56 1518 223 372 496 993 143 33 847 1752

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 145 467 56 1518 223 372 496 993 143 33 847 1752

User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Volume: 145 467 56 1518 223 0 496 993 143 33 847 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 145 467 56 1518 223 0 496 993 143 33 847 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00

FinalVolume: 145 467 56 1518 223 0 496 993 143 33 847 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 1.79 0.21 3.00 3.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00

Final Sat.: 3400 3036 364 5100 5100 1700 3400 5100 1700 3400 5100 1700

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.15 0.15 0.30 0.04 0.00 0.15 0.19 0.08 0.01 0.17 0.00

Crit Moves: **** **** **** ****

APPENDIX C

HCM LEVEL OF SERVICE WORKSHEETS

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

07/14/2018

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	35	15	246	8	3	273
Future Vol, veh/h	35	15	246	8	3	273
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	16	267	9	3	297

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	427	138	0	0	276
Stage 1	272	-	-	-	-
Stage 2	155	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	556	885	-	-	1284
Stage 1	749	-	-	-	-
Stage 2	857	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	555	885	-	-	1284
Mov Cap-2 Maneuver	555	-	-	-	-
Stage 1	748	-	-	-	-
Stage 2	857	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	625	1284
HCM Lane V/C Ratio	-	-	0.087	0.003
HCM Control Delay (s)	-	-	11.3	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕↗
Traffic Vol, veh/h	9	21	254	9	28	308
Future Vol, veh/h	9	21	254	9	28	308
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	23	276	10	30	335

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	475	143	0	0	286
Stage 1	281	-	-	-	-
Stage 2	194	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22
Pot Cap-1 Maneuver	540	879	-	-	1273
Stage 1	715	-	-	-	-
Stage 2	781	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	524	879	-	-	1273
Mov Cap-2 Maneuver	524	-	-	-	-
Stage 1	694	-	-	-	-
Stage 2	781	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	879	1273
HCM Lane V/C Ratio	-	-	0.026	0.024
HCM Control Delay (s)	-	-	9.2	7.9
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗			↘
Traffic Vol, veh/h	9	319	862	5	5	16
Future Vol, veh/h	9	319	862	5	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	347	937	5	5	17

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	942	0	0	1134	471
Stage 1	-	-	-	940	-
Stage 2	-	-	-	194	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	724	-	-	196	539
Stage 1	-	-	-	340	-
Stage 2	-	-	-	820	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	724	-	-	193	539
Mov Cap-2 Maneuver	-	-	-	282	-
Stage 1	-	-	-	335	-
Stage 2	-	-	-	820	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	724	-	-	-	539
HCM Lane V/C Ratio	0.014	-	-	-	0.032
HCM Control Delay (s)	10	-	-	-	11.9
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	315	4	5	850	12	6
Future Vol, veh/h	315	4	5	850	12	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	342	4	5	924	13	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	346	0	816
Stage 1	-	-	-	-	344
Stage 2	-	-	-	-	472
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	1210	-	315
Stage 1	-	-	-	-	689
Stage 2	-	-	-	-	594
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1210	-	314
Mov Cap-2 Maneuver	-	-	-	-	431
Stage 1	-	-	-	-	686
Stage 2	-	-	-	-	594

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	515	-	-	1210	-
HCM Lane V/C Ratio	0.038	-	-	0.004	-
HCM Control Delay (s)	12.3	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗		↘	
Traffic Vol, veh/h	9	313	845	7	0	7
Future Vol, veh/h	9	313	845	7	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	340	918	8	0	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	926	0	-	0	1112 463
Stage 1	-	-	-	-	922 -
Stage 2	-	-	-	-	190 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	734	-	-	-	203 546
Stage 1	-	-	-	-	348 -
Stage 2	-	-	-	-	823 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	734	-	-	-	200 546
Mov Cap-2 Maneuver	-	-	-	-	200 -
Stage 1	-	-	-	-	343 -
Stage 2	-	-	-	-	823 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	734	-	-	-	546
HCM Lane V/C Ratio	0.013	-	-	-	0.014
HCM Control Delay (s)	10	-	-	-	11.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

07/14/2018

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕↔		↕	↕↔
Traffic Vol, veh/h	9	10	256	12	11	205
Future Vol, veh/h	9	10	256	12	11	205
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	11	278	13	12	223

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	421	146	0	0	291
Stage 1	285	-	-	-	-
Stage 2	136	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	561	875	-	-	1268
Stage 1	738	-	-	-	-
Stage 2	876	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	556	875	-	-	1268
Mov Cap-2 Maneuver	556	-	-	-	-
Stage 1	731	-	-	-	-
Stage 2	876	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	688	1268
HCM Lane V/C Ratio	-	-	0.03	0.009
HCM Control Delay (s)	-	-	10.4	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↖↖
Traffic Vol, veh/h	8	19	268	9	28	214
Future Vol, veh/h	8	19	268	9	28	214
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	21	291	10	30	233

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	449	151	0	0	301
Stage 1	296	-	-	-	-
Stage 2	153	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22
Pot Cap-1 Maneuver	558	868	-	-	1257
Stage 1	703	-	-	-	-
Stage 2	820	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	543	868	-	-	1257
Mov Cap-2 Maneuver	543	-	-	-	-
Stage 1	684	-	-	-	-
Stage 2	820	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	868	1257
HCM Lane V/C Ratio	-	-	0.024	0.024
HCM Control Delay (s)	-	-	9.2	7.9
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗			↘
Traffic Vol, veh/h	9	1192	453	5	5	14
Future Vol, veh/h	9	1192	453	5	5	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	1296	492	5	5	15

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	497	0	-	0	1163 249
Stage 1	-	-	-	-	495 -
Stage 2	-	-	-	-	668 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1063	-	-	-	188 751
Stage 1	-	-	-	-	578 -
Stage 2	-	-	-	-	471 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1063	-	-	-	186 751
Mov Cap-2 Maneuver	-	-	-	-	317 -
Stage 1	-	-	-	-	573 -
Stage 2	-	-	-	-	471 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1063	-	-	-	751
HCM Lane V/C Ratio	0.009	-	-	-	0.02
HCM Control Delay (s)	8.4	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	1182	10	0	443	10	3
Future Vol, veh/h	1182	10	0	443	10	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1285	11	0	482	11	3

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1296	0	1532
Stage 1	-	-	-	-	1291
Stage 2	-	-	-	-	241
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	531	-	107
Stage 1	-	-	-	-	222
Stage 2	-	-	-	-	776
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	531	-	107
Mov Cap-2 Maneuver	-	-	-	-	187
Stage 1	-	-	-	-	222
Stage 2	-	-	-	-	776

Approach	EB	WB	NB
HCM Control Delay, s	0	0	23
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	214	-	-	531	-
HCM Lane V/C Ratio	0.066	-	-	-	-
HCM Control Delay (s)	23	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↕↕	↕↔		↕↘	
Traffic Vol, veh/h	22	1160	443	13	3	3
Future Vol, veh/h	22	1160	443	13	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	1261	482	14	3	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	496	0	-	0	1168 248
Stage 1	-	-	-	-	489 -
Stage 2	-	-	-	-	679 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1064	-	-	-	186 752
Stage 1	-	-	-	-	582 -
Stage 2	-	-	-	-	465 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1064	-	-	-	182 752
Mov Cap-2 Maneuver	-	-	-	-	182 -
Stage 1	-	-	-	-	569 -
Stage 2	-	-	-	-	465 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	17.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1064	-	-	-	293
HCM Lane V/C Ratio	0.022	-	-	-	0.022
HCM Control Delay (s)	8.5	-	-	-	17.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

07/14/2018

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	36	16	256	8	3	264
Future Vol, veh/h	36	16	256	8	3	264
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	17	278	9	3	287

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	433	144	0	0	287
Stage 1	283	-	-	-	-
Stage 2	150	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	551	877	-	-	1272
Stage 1	740	-	-	-	-
Stage 2	862	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	550	877	-	-	1272
Mov Cap-2 Maneuver	550	-	-	-	-
Stage 1	739	-	-	-	-
Stage 2	862	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	621	1272
HCM Lane V/C Ratio	-	-	0.091	0.003
HCM Control Delay (s)	-	-	11.4	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

HCM 6th TWSC
3: Nohl Ranch Rd & Project Dwy

07/14/2018

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕↗
Traffic Vol, veh/h	9	22	264	6	29	320
Future Vol, veh/h	9	22	264	6	29	320
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	24	287	7	32	348

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	494	147	0	0	294
Stage 1	291	-	-	-	-
Stage 2	203	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22
Pot Cap-1 Maneuver	527	873	-	-	1264
Stage 1	707	-	-	-	-
Stage 2	772	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	511	873	-	-	1264
Mov Cap-2 Maneuver	511	-	-	-	-
Stage 1	685	-	-	-	-
Stage 2	772	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	873	1264
HCM Lane V/C Ratio	-	-	0.027	0.025
HCM Control Delay (s)	-	-	9.2	7.9
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗			↘
Traffic Vol, veh/h	9	332	896	5	5	17
Future Vol, veh/h	9	332	896	5	5	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	361	974	5	5	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	979	0	-	0	1178 490
Stage 1	-	-	-	-	977 -
Stage 2	-	-	-	-	201 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	701	-	-	-	184 524
Stage 1	-	-	-	-	325 -
Stage 2	-	-	-	-	813 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	701	-	-	-	181 524
Mov Cap-2 Maneuver	-	-	-	-	269 -
Stage 1	-	-	-	-	320 -
Stage 2	-	-	-	-	813 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	701	-	-	-	524
HCM Lane V/C Ratio	0.014	-	-	-	0.035
HCM Control Delay (s)	10.2	-	-	-	12.1
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	328	4	5	884	12	6
Future Vol, veh/h	328	4	5	884	12	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	357	4	5	961	13	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	361	0	850
Stage 1	-	-	-	-	359
Stage 2	-	-	-	-	491
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	1194	-	300
Stage 1	-	-	-	-	677
Stage 2	-	-	-	-	581
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1194	-	299
Mov Cap-2 Maneuver	-	-	-	-	418
Stage 1	-	-	-	-	674
Stage 2	-	-	-	-	581

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	501	-	-	1194	-
HCM Lane V/C Ratio	0.039	-	-	0.005	-
HCM Control Delay (s)	12.5	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗		↘	
Traffic Vol, veh/h	9	326	879	7	0	7
Future Vol, veh/h	9	326	879	7	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	354	955	8	0	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	963	0	-	0	1156 482
Stage 1	-	-	-	-	959 -
Stage 2	-	-	-	-	197 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	711	-	-	-	190 530
Stage 1	-	-	-	-	333 -
Stage 2	-	-	-	-	817 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	711	-	-	-	187 530
Mov Cap-2 Maneuver	-	-	-	-	187 -
Stage 1	-	-	-	-	328 -
Stage 2	-	-	-	-	817 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	711	-	-	-	530
HCM Lane V/C Ratio	0.014	-	-	-	0.014
HCM Control Delay (s)	10.1	-	-	-	11.9
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

07/14/2018

Intersection						
Int Delay, s/veh	4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕↔		↔	↕↔
Traffic Vol, veh/h	9	10	266	12	213	11
Future Vol, veh/h	9	10	266	12	213	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	11	289	13	232	12

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	766	151	0	0	302	0
Stage 1	296	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	339	868	-	-	1256	-
Stage 1	729	-	-	-	-	-
Stage 2	595	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	276	868	-	-	1256	-
Mov Cap-2 Maneuver	276	-	-	-	-	-
Stage 1	594	-	-	-	-	-
Stage 2	595	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.8	0	8.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	431	1256
HCM Lane V/C Ratio	-	-	0.048	0.184
HCM Control Delay (s)	-	-	13.8	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.7

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↖↖↖
Traffic Vol, veh/h	8	20	279	6	29	223
Future Vol, veh/h	8	20	279	6	29	223
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	22	303	7	32	242

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	468	155	0	0	310
Stage 1	307	-	-	-	-
Stage 2	161	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22
Pot Cap-1 Maneuver	545	863	-	-	1247
Stage 1	694	-	-	-	-
Stage 2	812	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	529	863	-	-	1247
Mov Cap-2 Maneuver	529	-	-	-	-
Stage 1	673	-	-	-	-
Stage 2	812	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	863	1247
HCM Lane V/C Ratio	-	-	0.025	0.025
HCM Control Delay (s)	-	-	9.3	8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗			↘
Traffic Vol, veh/h	9	1240	471	5	5	15
Future Vol, veh/h	9	1240	471	5	5	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	1348	512	5	5	16

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	517	0	-	0	1209 259
Stage 1	-	-	-	-	515 -
Stage 2	-	-	-	-	694 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1045	-	-	-	175 740
Stage 1	-	-	-	-	565 -
Stage 2	-	-	-	-	457 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1045	-	-	-	173 740
Mov Cap-2 Maneuver	-	-	-	-	304 -
Stage 1	-	-	-	-	559 -
Stage 2	-	-	-	-	457 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1045	-	-	-	740
HCM Lane V/C Ratio	0.009	-	-	-	0.022
HCM Control Delay (s)	8.5	-	-	-	10
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	1229	10	0	461	10	3
Future Vol, veh/h	1229	10	0	461	10	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1336	11	0	501	11	3

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1347	0	1593
Stage 1	-	-	-	-	1342
Stage 2	-	-	-	-	251
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	507	-	98
Stage 1	-	-	-	-	208
Stage 2	-	-	-	-	768
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	507	-	98
Mov Cap-2 Maneuver	-	-	-	-	176
Stage 1	-	-	-	-	208
Stage 2	-	-	-	-	768

Approach	EB	WB	NB
HCM Control Delay, s	0	0	24.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	202	-	-	507	-
HCM Lane V/C Ratio	0.07	-	-	-	-
HCM Control Delay (s)	24.2	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↕	↕		↕	
Traffic Vol, veh/h	23	1206	461	14	3	3
Future Vol, veh/h	23	1206	461	14	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	1311	501	15	3	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	516	0	-	0	1215 258
Stage 1	-	-	-	-	509 -
Stage 2	-	-	-	-	706 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1046	-	-	-	174 741
Stage 1	-	-	-	-	569 -
Stage 2	-	-	-	-	450 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1046	-	-	-	170 741
Mov Cap-2 Maneuver	-	-	-	-	170 -
Stage 1	-	-	-	-	555 -
Stage 2	-	-	-	-	450 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1046	-	-	-	277
HCM Lane V/C Ratio	0.024	-	-	-	0.024
HCM Control Delay (s)	8.5	-	-	-	18.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

03/07/2019

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	35	15	287	8	3	313
Future Vol, veh/h	35	15	287	8	3	313
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	16	312	9	3	340

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	493	161	0	0	321
Stage 1	317	-	-	-	-
Stage 2	176	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	505	855	-	-	1236
Stage 1	711	-	-	-	-
Stage 2	837	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	504	855	-	-	1236
Mov Cap-2 Maneuver	504	-	-	-	-
Stage 1	710	-	-	-	-
Stage 2	837	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	575	1236
HCM Lane V/C Ratio	-	-	0.095	0.003
HCM Control Delay (s)	-	-	11.9	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↖↖
Traffic Vol, veh/h	9	21	295	9	28	348
Future Vol, veh/h	9	21	295	9	28	348
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	23	321	10	30	378

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	537	166	0	0	331
Stage 1	326	-	-	-	-
Stage 2	211	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22
Pot Cap-1 Maneuver	498	849	-	-	1225
Stage 1	679	-	-	-	-
Stage 2	765	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	483	849	-	-	1225
Mov Cap-2 Maneuver	483	-	-	-	-
Stage 1	658	-	-	-	-
Stage 2	765	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	849	1225
HCM Lane V/C Ratio	-	-	0.027	0.025
HCM Control Delay (s)	-	-	9.4	8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗			↘
Traffic Vol, veh/h	9	348	1079	5	5	16
Future Vol, veh/h	9	348	1079	5	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	378	1173	5	5	17

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1178	0	-	0	1385 589
Stage 1	-	-	-	-	1176 -
Stage 2	-	-	-	-	209 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	589	-	-	-	134 452
Stage 1	-	-	-	-	255 -
Stage 2	-	-	-	-	806 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	589	-	-	-	132 452
Mov Cap-2 Maneuver	-	-	-	-	213 -
Stage 1	-	-	-	-	251 -
Stage 2	-	-	-	-	806 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	589	-	-	-	452
HCM Lane V/C Ratio	0.017	-	-	-	0.038
HCM Control Delay (s)	11.2	-	-	-	13.3
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	344	4	5	1067	12	6
Future Vol, veh/h	344	4	5	1067	12	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	374	4	5	1160	13	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	378	0	966
Stage 1	-	-	-	-	376
Stage 2	-	-	-	-	590
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	1177	-	252
Stage 1	-	-	-	-	664
Stage 2	-	-	-	-	517
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1177	-	251
Mov Cap-2 Maneuver	-	-	-	-	375
Stage 1	-	-	-	-	661
Stage 2	-	-	-	-	517

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	458	-	-	1177	-
HCM Lane V/C Ratio	0.043	-	-	0.005	-
HCM Control Delay (s)	13.2	-	-	8.1	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↕↕	↕↔		↘	
Traffic Vol, veh/h	9	342	1062	7	0	7
Future Vol, veh/h	9	342	1062	7	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	372	1154	8	0	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1162	0	-	0	1364 581
Stage 1	-	-	-	-	1158 -
Stage 2	-	-	-	-	206 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	597	-	-	-	139 457
Stage 1	-	-	-	-	261 -
Stage 2	-	-	-	-	808 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	597	-	-	-	137 457
Mov Cap-2 Maneuver	-	-	-	-	137 -
Stage 1	-	-	-	-	257 -
Stage 2	-	-	-	-	808 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	597	-	-	-	457
HCM Lane V/C Ratio	0.016	-	-	-	0.017
HCM Control Delay (s)	11.1	-	-	-	13
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

03/07/2019

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	9	10	231	12	11	200
Future Vol, veh/h	9	10	231	12	11	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	11	251	13	12	217

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	391	132	0	0	264
Stage 1	258	-	-	-	-
Stage 2	133	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	585	893	-	-	1297
Stage 1	761	-	-	-	-
Stage 2	879	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	580	893	-	-	1297
Mov Cap-2 Maneuver	580	-	-	-	-
Stage 1	754	-	-	-	-
Stage 2	879	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	711	1297
HCM Lane V/C Ratio	-	-	0.029	0.009
HCM Control Delay (s)	-	-	10.2	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕↗
Traffic Vol, veh/h	8	19	243	9	28	209
Future Vol, veh/h	8	19	243	9	28	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	21	264	10	30	227

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	420	137	0	0	274
Stage 1	269	-	-	-	-
Stage 2	151	-	-	-	-
Critical Hdwy	6.29	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-
Follow-up Hdwy	3.67	3.32	-	-	2.22
Pot Cap-1 Maneuver	579	886	-	-	1286
Stage 1	725	-	-	-	-
Stage 2	822	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	563	886	-	-	1286
Mov Cap-2 Maneuver	563	-	-	-	-
Stage 1	705	-	-	-	-
Stage 2	822	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	886	1286
HCM Lane V/C Ratio	-	-	0.023	0.024
HCM Control Delay (s)	-	-	9.2	7.9
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↕	↕			↗
Traffic Vol, veh/h	9	1301	510	5	5	14
Future Vol, veh/h	9	1301	510	5	5	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	1414	554	5	5	15

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	559	0	-	0	1284 280
Stage 1	-	-	-	-	557 -
Stage 2	-	-	-	-	727 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1008	-	-	-	157 717
Stage 1	-	-	-	-	537 -
Stage 2	-	-	-	-	439 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1008	-	-	-	155 717
Mov Cap-2 Maneuver	-	-	-	-	286 -
Stage 1	-	-	-	-	532 -
Stage 2	-	-	-	-	439 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1008	-	-	-	717
HCM Lane V/C Ratio	0.01	-	-	-	0.021
HCM Control Delay (s)	8.6	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	1291	10	0	500	10	3
Future Vol, veh/h	1291	10	0	500	10	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1403	11	0	543	11	3

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1414	0	1681
Stage 1	-	-	-	-	1409
Stage 2	-	-	-	-	272
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	478	-	85
Stage 1	-	-	-	-	192
Stage 2	-	-	-	-	749
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	478	-	85
Mov Cap-2 Maneuver	-	-	-	-	162
Stage 1	-	-	-	-	192
Stage 2	-	-	-	-	749

Approach	EB	WB	NB
HCM Control Delay, s	0	0	25.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	187	-	-	478	-
HCM Lane V/C Ratio	0.076	-	-	-	-
HCM Control Delay (s)	25.8	-	-	0	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↕	↕		↘	
Traffic Vol, veh/h	22	1269	500	13	3	3
Future Vol, veh/h	22	1269	500	13	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	1379	543	14	3	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	557	0	-	0	1288 279
Stage 1	-	-	-	-	550 -
Stage 2	-	-	-	-	738 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1010	-	-	-	156 718
Stage 1	-	-	-	-	542 -
Stage 2	-	-	-	-	434 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1010	-	-	-	152 718
Mov Cap-2 Maneuver	-	-	-	-	152 -
Stage 1	-	-	-	-	529 -
Stage 2	-	-	-	-	434 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1010	-	-	-	251
HCM Lane V/C Ratio	0.024	-	-	-	0.026
HCM Control Delay (s)	8.7	-	-	-	19.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

05/24/2019

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	35	15	228	8	3	246
Future Vol, veh/h	35	15	228	8	3	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	16	248	9	3	267

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	393	129	0	0	257
Stage 1	253	-	-	-	-
Stage 2	140	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	584	897	-	-	1305
Stage 1	766	-	-	-	-
Stage 2	872	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	583	897	-	-	1305
Mov Cap-2 Maneuver	583	-	-	-	-
Stage 1	764	-	-	-	-
Stage 2	872	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	651	1305
HCM Lane V/C Ratio	-	-	0.083	0.002
HCM Control Delay (s)	-	-	11	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕↗
Traffic Vol, veh/h	0	3	255	2	0	327
Future Vol, veh/h	0	3	255	2	0	327
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	277	2	0	355

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	140	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	882	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	882	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	882
HCM Lane V/C Ratio	-	-	0.004
HCM Control Delay (s)	-	-	9.1
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗			↘
Traffic Vol, veh/h	3	319	862	2	5	14
Future Vol, veh/h	3	319	862	2	5	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	347	937	2	5	15

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	939	0	0	1118	470
Stage 1	-	-	-	938	-
Stage 2	-	-	-	180	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	726	-	-	201	540
Stage 1	-	-	-	341	-
Stage 2	-	-	-	833	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	726	-	-	200	540
Mov Cap-2 Maneuver	-	-	-	287	-
Stage 1	-	-	-	340	-
Stage 2	-	-	-	833	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	726	-	-	-	540
HCM Lane V/C Ratio	0.004	-	-	-	0.028
HCM Control Delay (s)	10	-	-	-	11.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	315	4	5	847	12	6
Future Vol, veh/h	315	4	5	847	12	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	342	4	5	921	13	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	346	0	815
Stage 1	-	-	-	-	344
Stage 2	-	-	-	-	471
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	1210	-	315
Stage 1	-	-	-	-	689
Stage 2	-	-	-	-	594
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1210	-	314
Mov Cap-2 Maneuver	-	-	-	-	431
Stage 1	-	-	-	-	686
Stage 2	-	-	-	-	594

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	515	-	-	1210	-
HCM Lane V/C Ratio	0.038	-	-	0.004	-
HCM Control Delay (s)	12.3	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↵	↕↕	↕↔		↵	
Traffic Vol, veh/h	9	313	842	7	0	7
Future Vol, veh/h	9	313	842	7	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	340	915	8	0	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	923	0	-	0	1109 462
Stage 1	-	-	-	-	919 -
Stage 2	-	-	-	-	190 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	736	-	-	-	204 547
Stage 1	-	-	-	-	349 -
Stage 2	-	-	-	-	823 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	736	-	-	-	201 547
Mov Cap-2 Maneuver	-	-	-	-	201 -
Stage 1	-	-	-	-	344 -
Stage 2	-	-	-	-	823 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	736	-	-	-	547
HCM Lane V/C Ratio	0.013	-	-	-	0.014
HCM Control Delay (s)	10	-	-	-	11.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

05/24/2019

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	9	10	239	12	11	180
Future Vol, veh/h	9	10	239	12	11	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	11	260	13	12	196

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	389	137	0	0	273
Stage 1	267	-	-	-	-
Stage 2	122	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	587	886	-	-	1287
Stage 1	754	-	-	-	-
Stage 2	890	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	582	886	-	-	1287
Mov Cap-2 Maneuver	582	-	-	-	-
Stage 1	747	-	-	-	-
Stage 2	890	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	710	1287
HCM Lane V/C Ratio	-	-	0.029	0.009
HCM Control Delay (s)	-	-	10.2	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕↗
Traffic Vol, veh/h	0	2	268	6	0	217
Future Vol, veh/h	0	2	268	6	0	217
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	291	7	0	236

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	149	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	871	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	871	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	871
HCM Lane V/C Ratio	-	-	0.002
HCM Control Delay (s)	-	-	9.1
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗			↗
Traffic Vol, veh/h	10	1192	453	5	3	8
Future Vol, veh/h	10	1192	453	5	3	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	1296	492	5	3	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	497	0	-	0	1165 249
Stage 1	-	-	-	-	495 -
Stage 2	-	-	-	-	670 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1063	-	-	-	187 751
Stage 1	-	-	-	-	578 -
Stage 2	-	-	-	-	470 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1063	-	-	-	185 751
Mov Cap-2 Maneuver	-	-	-	-	315 -
Stage 1	-	-	-	-	572 -
Stage 2	-	-	-	-	470 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1063	-	-	-	751
HCM Lane V/C Ratio	0.01	-	-	-	0.012
HCM Control Delay (s)	8.4	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↓		↘	↑↑	↘	
Traffic Vol, veh/h	1180	10	0	443	10	3
Future Vol, veh/h	1180	10	0	443	10	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1283	11	0	482	11	3

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1294	0	1530
Stage 1	-	-	-	-	1289
Stage 2	-	-	-	-	241
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	531	-	108
Stage 1	-	-	-	-	222
Stage 2	-	-	-	-	776
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	531	-	108
Mov Cap-2 Maneuver	-	-	-	-	188
Stage 1	-	-	-	-	222
Stage 2	-	-	-	-	776

Approach	EB	WB	NB
HCM Control Delay, s	0	0	22.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	215	-	-	531	-
HCM Lane V/C Ratio	0.066	-	-	-	-
HCM Control Delay (s)	22.9	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↕	↕		↘	
Traffic Vol, veh/h	22	1158	443	13	3	3
Future Vol, veh/h	22	1158	443	13	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	1259	482	14	3	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	496	0	-	0	1167 248
Stage 1	-	-	-	-	489 -
Stage 2	-	-	-	-	678 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1064	-	-	-	187 752
Stage 1	-	-	-	-	582 -
Stage 2	-	-	-	-	466 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1064	-	-	-	183 752
Mov Cap-2 Maneuver	-	-	-	-	183 -
Stage 1	-	-	-	-	569 -
Stage 2	-	-	-	-	466 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	17.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1064	-	-	-	294
HCM Lane V/C Ratio	0.022	-	-	-	0.022
HCM Control Delay (s)	8.5	-	-	-	17.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

05/24/2019

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	36	16	238	8	3	257
Future Vol, veh/h	36	16	238	8	3	257
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	17	259	9	3	279

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	410	134	0	0	268
Stage 1	264	-	-	-	-
Stage 2	146	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	570	890	-	-	1293
Stage 1	756	-	-	-	-
Stage 2	866	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	569	890	-	-	1293
Mov Cap-2 Maneuver	569	-	-	-	-
Stage 1	754	-	-	-	-
Stage 2	866	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	640	1293
HCM Lane V/C Ratio	-	-	0.088	0.003
HCM Control Delay (s)	-	-	11.2	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕↗
Traffic Vol, veh/h	0	4	265	2	0	339
Future Vol, veh/h	0	4	265	2	0	339
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	288	2	0	368

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	145	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	876	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	876	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	876
HCM Lane V/C Ratio	-	-	0.005
HCM Control Delay (s)	-	-	9.1
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗↗	↗↘			↗
Traffic Vol, veh/h	3	332	896	2	5	15
Future Vol, veh/h	3	332	896	2	5	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	361	974	2	5	16

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	976	0	-	0	1162 488
Stage 1	-	-	-	-	975 -
Stage 2	-	-	-	-	187 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	703	-	-	-	188 526
Stage 1	-	-	-	-	326 -
Stage 2	-	-	-	-	826 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	703	-	-	-	187 526
Mov Cap-2 Maneuver	-	-	-	-	274 -
Stage 1	-	-	-	-	325 -
Stage 2	-	-	-	-	826 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	703	-	-	-	526
HCM Lane V/C Ratio	0.005	-	-	-	0.031
HCM Control Delay (s)	10.1	-	-	-	12.1
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	328	4	5	881	12	6
Future Vol, veh/h	328	4	5	881	12	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	357	4	5	958	13	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	361	0	848
Stage 1	-	-	-	-	359
Stage 2	-	-	-	-	489
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	1194	-	300
Stage 1	-	-	-	-	677
Stage 2	-	-	-	-	582
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1194	-	299
Mov Cap-2 Maneuver	-	-	-	-	419
Stage 1	-	-	-	-	674
Stage 2	-	-	-	-	582

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	502	-	-	1194	-
HCM Lane V/C Ratio	0.039	-	-	0.005	-
HCM Control Delay (s)	12.5	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↵	↕↕	↕↔		↵	
Traffic Vol, veh/h	9	326	876	7	0	7
Future Vol, veh/h	9	326	876	7	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	354	952	8	0	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	960	0	-	0	1153 480
Stage 1	-	-	-	-	956 -
Stage 2	-	-	-	-	197 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	712	-	-	-	191 532
Stage 1	-	-	-	-	334 -
Stage 2	-	-	-	-	817 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	712	-	-	-	188 532
Mov Cap-2 Maneuver	-	-	-	-	188 -
Stage 1	-	-	-	-	329 -
Stage 2	-	-	-	-	817 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	712	-	-	-	532
HCM Lane V/C Ratio	0.014	-	-	-	0.014
HCM Control Delay (s)	10.1	-	-	-	11.9
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

05/24/2019

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	9	10	249	12	11	188
Future Vol, veh/h	9	10	249	12	11	188
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	11	271	13	12	204

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	404	142	0	0	284
Stage 1	278	-	-	-	-
Stage 2	126	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	575	880	-	-	1275
Stage 1	744	-	-	-	-
Stage 2	886	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	570	880	-	-	1275
Mov Cap-2 Maneuver	570	-	-	-	-
Stage 1	737	-	-	-	-
Stage 2	886	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	700	1275
HCM Lane V/C Ratio	-	-	0.03	0.009
HCM Control Delay (s)	-	-	10.3	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕↗
Traffic Vol, veh/h	0	3	279	6	0	226
Future Vol, veh/h	0	3	279	6	0	226
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	303	7	0	246

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	155	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	863	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	863	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	863
HCM Lane V/C Ratio	-	-	0.004
HCM Control Delay (s)	-	-	9.2
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↕	↕			↗
Traffic Vol, veh/h	10	1240	471	5	3	9
Future Vol, veh/h	10	1240	471	5	3	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	1348	512	5	3	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	517	0	-	0	1211 259
Stage 1	-	-	-	-	515 -
Stage 2	-	-	-	-	696 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1045	-	-	-	175 740
Stage 1	-	-	-	-	565 -
Stage 2	-	-	-	-	456 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1045	-	-	-	173 740
Mov Cap-2 Maneuver	-	-	-	-	304 -
Stage 1	-	-	-	-	559 -
Stage 2	-	-	-	-	456 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1045	-	-	-	740
HCM Lane V/C Ratio	0.01	-	-	-	0.013
HCM Control Delay (s)	8.5	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	1227	10	0	461	10	3
Future Vol, veh/h	1227	10	0	461	10	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1334	11	0	501	11	3

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1345	0	1591
Stage 1	-	-	-	-	1340
Stage 2	-	-	-	-	251
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	508	-	98
Stage 1	-	-	-	-	209
Stage 2	-	-	-	-	768
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	508	-	98
Mov Cap-2 Maneuver	-	-	-	-	177
Stage 1	-	-	-	-	209
Stage 2	-	-	-	-	768

Approach	EB	WB	NB
HCM Control Delay, s	0	0	24.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	203	-	-	508	-
HCM Lane V/C Ratio	0.07	-	-	-	-
HCM Control Delay (s)	24.1	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↕	↕		↕	
Traffic Vol, veh/h	23	1204	461	14	3	3
Future Vol, veh/h	23	1204	461	14	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	1309	501	15	3	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	516	0	-	0	1214 258
Stage 1	-	-	-	-	509 -
Stage 2	-	-	-	-	705 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1046	-	-	-	174 741
Stage 1	-	-	-	-	569 -
Stage 2	-	-	-	-	451 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1046	-	-	-	170 741
Mov Cap-2 Maneuver	-	-	-	-	170 -
Stage 1	-	-	-	-	555 -
Stage 2	-	-	-	-	451 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1046	-	-	-	277
HCM Lane V/C Ratio	0.024	-	-	-	0.024
HCM Control Delay (s)	8.5	-	-	-	18.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

05/24/2019

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	35	15	284	8	3	300
Future Vol, veh/h	35	15	284	8	3	300
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	16	309	9	3	326

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	483	159	0	0	318
Stage 1	314	-	-	-	-
Stage 2	169	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	513	858	-	-	1239
Stage 1	714	-	-	-	-
Stage 2	843	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	512	858	-	-	1239
Mov Cap-2 Maneuver	512	-	-	-	-
Stage 1	713	-	-	-	-
Stage 2	843	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	582	1239
HCM Lane V/C Ratio	-	-	0.093	0.003
HCM Control Delay (s)	-	-	11.8	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕↗
Traffic Vol, veh/h	0	3	296	7	0	349
Future Vol, veh/h	0	3	296	7	0	349
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	322	8	0	379

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	165	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	850	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	850	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	850
HCM Lane V/C Ratio	-	-	0.004
HCM Control Delay (s)	-	-	9.3
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↕	↕			↗
Traffic Vol, veh/h	8	348	1079	4	5	13
Future Vol, veh/h	8	348	1079	4	5	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	378	1173	4	5	14

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1177	0	-	0	1382 589
Stage 1	-	-	-	-	1175 -
Stage 2	-	-	-	-	207 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	589	-	-	-	135 452
Stage 1	-	-	-	-	256 -
Stage 2	-	-	-	-	807 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	589	-	-	-	133 452
Mov Cap-2 Maneuver	-	-	-	-	214 -
Stage 1	-	-	-	-	252 -
Stage 2	-	-	-	-	807 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	589	-	-	-	452
HCM Lane V/C Ratio	0.015	-	-	-	0.031
HCM Control Delay (s)	11.2	-	-	-	13.2
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	347	4	5	1066	12	6
Future Vol, veh/h	347	4	5	1066	12	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	377	4	5	1159	13	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	381	0	969
Stage 1	-	-	-	-	379
Stage 2	-	-	-	-	590
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	1174	-	251
Stage 1	-	-	-	-	662
Stage 2	-	-	-	-	517
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1174	-	250
Mov Cap-2 Maneuver	-	-	-	-	374
Stage 1	-	-	-	-	659
Stage 2	-	-	-	-	517

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	457	-	-	1174	-
HCM Lane V/C Ratio	0.043	-	-	0.005	-
HCM Control Delay (s)	13.2	-	-	8.1	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗		↘	
Traffic Vol, veh/h	9	345	1061	7	0	7
Future Vol, veh/h	9	345	1061	7	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	375	1153	8	0	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1161	0	-	0	1365 581
Stage 1	-	-	-	-	1157 -
Stage 2	-	-	-	-	208 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	597	-	-	-	139 457
Stage 1	-	-	-	-	261 -
Stage 2	-	-	-	-	807 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	597	-	-	-	137 457
Mov Cap-2 Maneuver	-	-	-	-	137 -
Stage 1	-	-	-	-	257 -
Stage 2	-	-	-	-	807 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	597	-	-	-	457
HCM Lane V/C Ratio	0.016	-	-	-	0.017
HCM Control Delay (s)	11.1	-	-	-	13
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
2: Nohl Ranch Rd & Carnegie Ave

05/24/2019

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕↔		↔	↕↔
Traffic Vol, veh/h	9	10	198	12	11	160
Future Vol, veh/h	9	10	198	12	11	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	11	215	13	12	174

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	333	114	0	0	228
Stage 1	222	-	-	-	-
Stage 2	111	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	636	917	-	-	1337
Stage 1	794	-	-	-	-
Stage 2	901	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	630	917	-	-	1337
Mov Cap-2 Maneuver	630	-	-	-	-
Stage 1	787	-	-	-	-
Stage 2	901	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	754	1337
HCM Lane V/C Ratio	-	-	0.027	0.009
HCM Control Delay (s)	-	-	9.9	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕↗
Traffic Vol, veh/h	0	2	243	1	0	212
Future Vol, veh/h	0	2	243	1	0	212
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	264	1	0	230

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	133	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	892	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	892	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	892
HCM Lane V/C Ratio	-	-	0.002
HCM Control Delay (s)	-	-	9
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗			↘
Traffic Vol, veh/h	4	1301	510	2	3	8
Future Vol, veh/h	4	1301	510	2	3	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	1414	554	2	3	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	556	0	-	0	1270 278
Stage 1	-	-	-	-	555 -
Stage 2	-	-	-	-	715 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1011	-	-	-	160 719
Stage 1	-	-	-	-	539 -
Stage 2	-	-	-	-	446 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1011	-	-	-	159 719
Mov Cap-2 Maneuver	-	-	-	-	293 -
Stage 1	-	-	-	-	537 -
Stage 2	-	-	-	-	446 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1011	-	-	-	719
HCM Lane V/C Ratio	0.004	-	-	-	0.012
HCM Control Delay (s)	8.6	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	1286	10	0	497	10	3
Future Vol, veh/h	1286	10	0	497	10	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1398	11	0	540	11	3

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1409	0	1674
Stage 1	-	-	-	-	1404
Stage 2	-	-	-	-	270
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	480	-	86
Stage 1	-	-	-	-	193
Stage 2	-	-	-	-	751
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	480	-	86
Mov Cap-2 Maneuver	-	-	-	-	163
Stage 1	-	-	-	-	193
Stage 2	-	-	-	-	751

Approach	EB	WB	NB
HCM Control Delay, s	0	0	25.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	188	-	-	480	-
HCM Lane V/C Ratio	0.075	-	-	-	-
HCM Control Delay (s)	25.7	-	-	0	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↕	↕		↕	
Traffic Vol, veh/h	22	1264	497	13	3	3
Future Vol, veh/h	22	1264	497	13	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	1374	540	14	3	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	554	0	-	0	1282 277
Stage 1	-	-	-	-	547 -
Stage 2	-	-	-	-	735 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	1012	-	-	-	157 720
Stage 1	-	-	-	-	544 -
Stage 2	-	-	-	-	435 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1012	-	-	-	153 720
Mov Cap-2 Maneuver	-	-	-	-	153 -
Stage 1	-	-	-	-	531 -
Stage 2	-	-	-	-	435 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1012	-	-	-	252
HCM Lane V/C Ratio	0.024	-	-	-	0.026
HCM Control Delay (s)	8.6	-	-	-	19.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1