

Appendix G

Traffic Analysis

Tawney Ridge Residential

Traffic Analysis

Prepared for:
GJH Development

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5694 Mission Center Road, #602-121
San Diego, CA 92108

September 2024

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1 INTRODUCTION

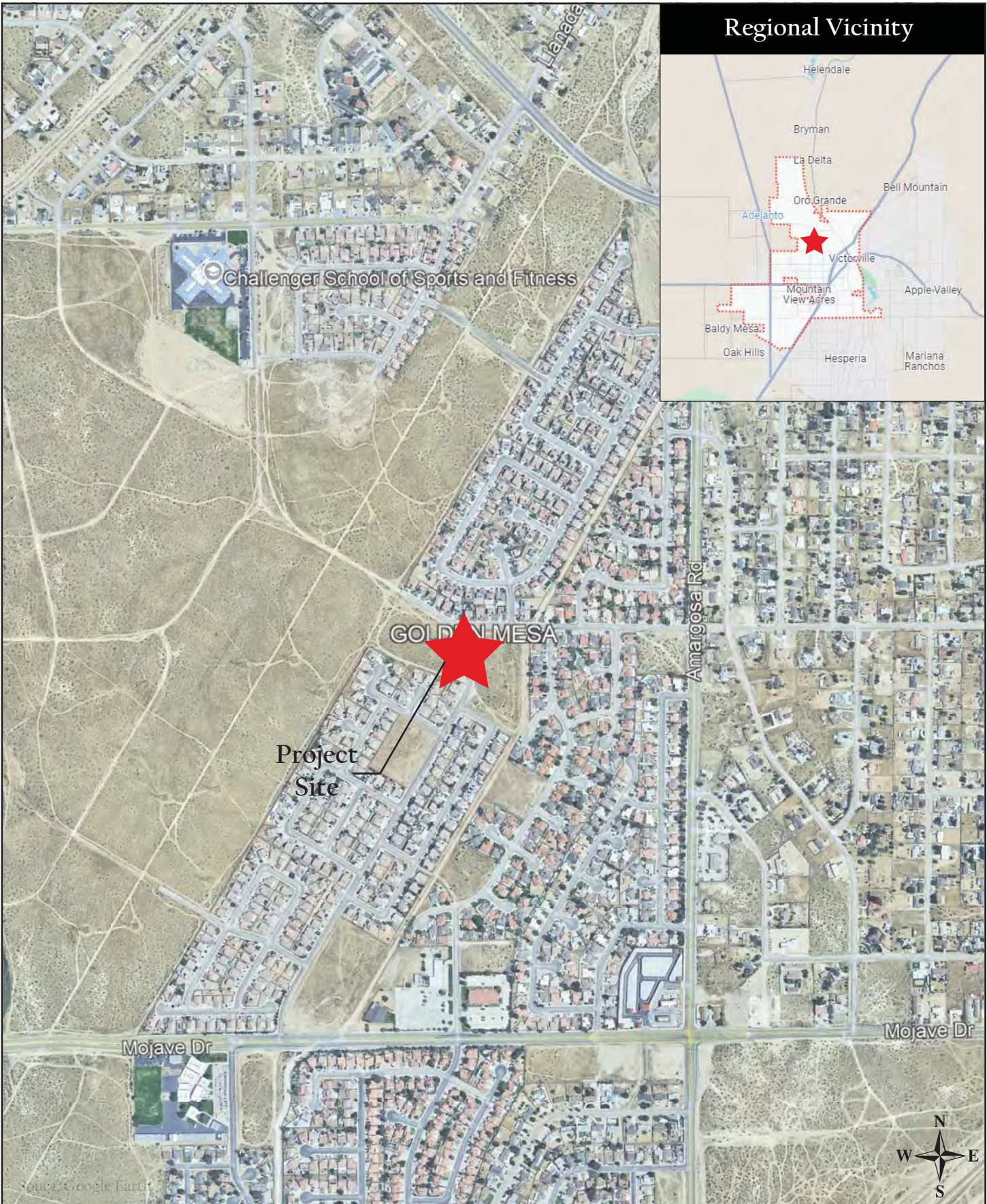
This traffic analysis evaluates the traffic conditions associated with the proposed Tawney Ridge Residential project (herein referred to as “the Project”). The traffic analyses have been prepared in accordance with the *City of Victorville’s General Guidelines for Conducting Traffic Studies and Determination of Intersection Level of Service and Improvement Needs*, January 20, 2005 (*City’s Guidelines*) and the *County of San Bernardino’s Transportation Impact Study Guidelines*, July 9, 2019 (*County’s Guidelines*).

1.1 Project Location

The Project site is located on a vacant 9.87-acre site located at the south side of Tawney Ridge Lane and east/west of Ferndale Road (Lots 116, 117, 136, and 137 of Tract No. 8399 of APNs 0395-211-01, 0395-211-02, 0395-211-04, and 0395-211-05). The Project is zoned as Single Family (R1). **Figure 1-1** shows the location of the project site within the study area.

1.2 Project Description

The Project proposes to construct 32 single family residential homes. Access to the site is being proposed off Ferndale Road and the extension of Shasta Avenue to the south. No driveway access is being provided off Tawney Ridge Lane. The Project is estimated to be constructed by 2026. **Figure 1-2** illustrates the Project site plan.



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CONTACT : WILFREDO S.D. VENTURA

BENCH MARK:

THE BASIS OF ELEVATIONS FOR THIS SURVEY IS ASSUMED ELEVATION ESTABLISHED BY GPS MEASUREMENT AT THE SOUTH EAST CORNER OF LOT 108.
FOUND 3/4" IRON PIPE WITH DISC MARKED RCE 10595 PER MAP NO 7274.
EL=74.46 NAVD 88

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED UPON THE STATE PLANE COORDINATE SYSTEM OF 1983 (NAD 83), CALIFORNIA ZONE 6.

REGULATED TREE NOTE:

NO REGULATED TREES NOTED ON THE SITE.

SITE DATA:

1. ASSESSOR PARCEL NUMBER:
0395-211-01, 0395-211-02
0395-211-04 & 0395-211-05
2. TOTAL GROSS AREA: 9.87 ACRES
TOTAL NET AREA: 6.32 ACRES
TOTAL AREA TO BE DEDICATED FOR R/W: 3.55 ACRES
3. PROPOSED RESIDENTIAL PARCEL: 32 LOTS

LAND USE INFORMATION:

EXISTING ZONING: R1 - SINGLE FAMILY
PROPOSED ZONING: R1 - SINGLE FAMILY (NO CHANGE)
ADJACENT EXISTING LAND USE:
NORTH = R-1
SOUTH = R-1
EAST = R-1
WEST = Q-1 (VACANT)
RESIDENTIAL LOTS: 1-32

IN THE CITY OF VICTORVILLE, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

TENTATIVE MAP-TRACT NO. _____

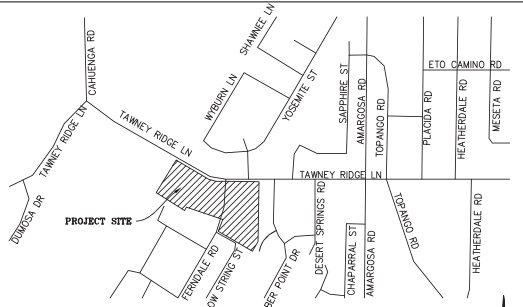
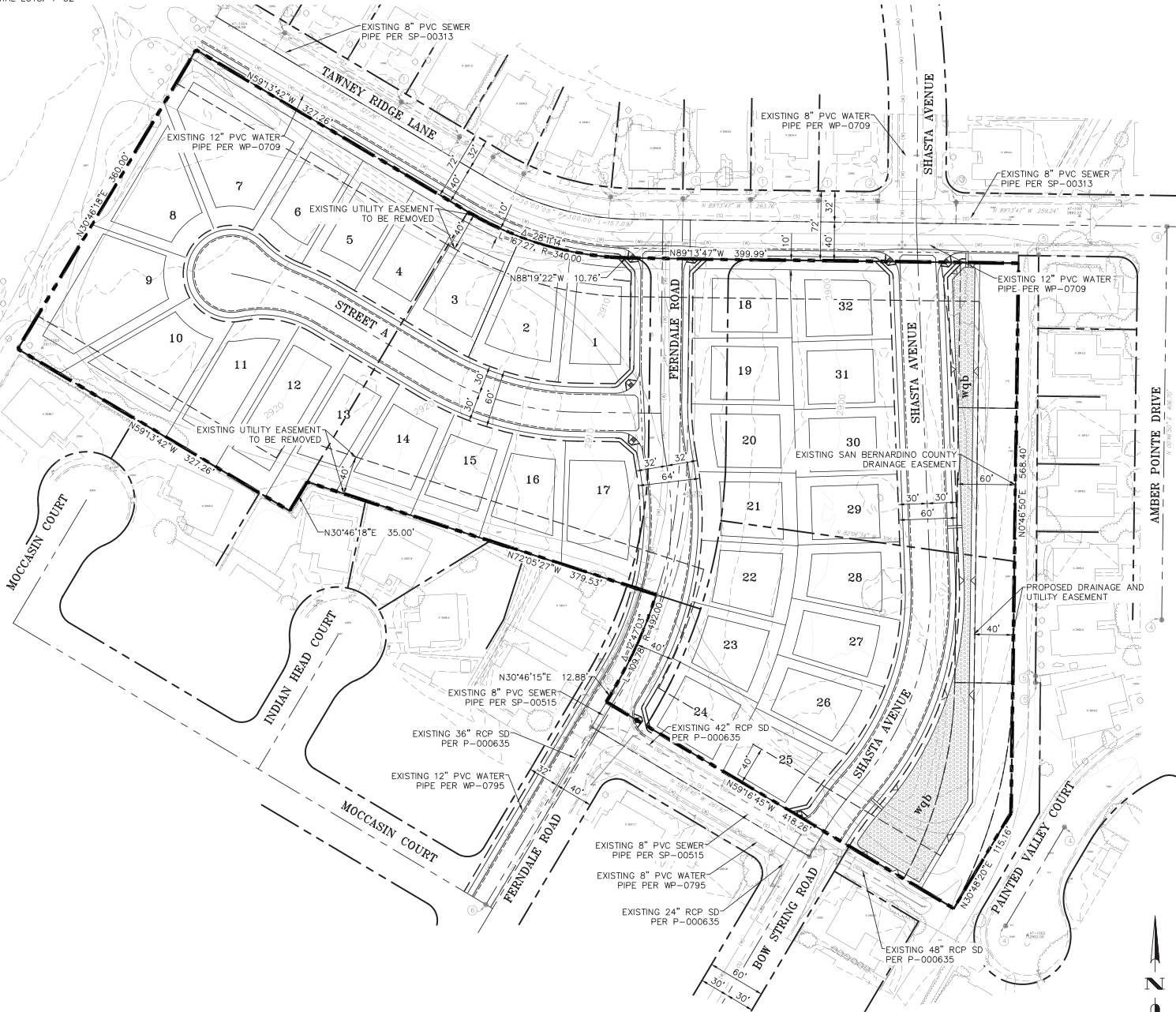
LOTS 116, 117, 136 AND 137 OF TRACT NO. 8399, IN THE CITY OF VICTORVILLE, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER PLAT RECORDED IN BOOK 115 OF MAPS, PAGES 83 THROUGH 97, INCLUSIVE, RECORDS OF SAID COUNTY.

APN: 0395-211-01 AND 0395-211-02 AND 0395-211-04 AND 0395-211-05

LOT SUMMARY TABLE			
LOTS	AREA (SQ-FT)	MINIMUM WIDTH	MINIMUM DEPTH
1	8,333	60'	100'
2	9,709	57	125'
3	8,274	60'	120'
4	7,320	61'	120'
5	7,388	61'	120'
6	7,526	61'	120'
7	15,195	60'	120'
8	9,895	60'	103'
9	14,612	60'	103'
10	12,124	60'	139'
11	9,463	60'	139'
12	10,195	60'	170'
13	9,014	60'	128'
14	8,630	65'	114'
15	7,731	64'	113'
16	8,495	55	113'
17	10,576	55'	127'
18	7,206	70'	103'
19	7,200	70'	103'
20	7,291	70'	100'
21	7,220	70'	100'
22	7,377	65'	100'
23	7,366	62'	100'
24	7,593	59'	87'
25	7,385	67'	77'
26	7,705	60'	105'
27	7,623	60'	115'
28	7,455	55'	105'
29	7,334	70'	104'
30	7,289	70'	104'
31	7,244	70'	103'
32	7,429	75'	103'

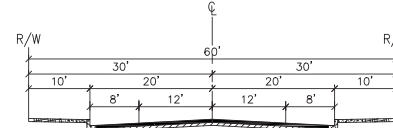
STREET LENGTH NOTE:

476 LF OF STREET A (PROPOSED)
515 LF OF FERNDAL ROAD (PROPOSED)
659 LF OF SHASTA AVENUE (PROPOSED)
884 LF OF TAWNEY RIDGE LANE (PROPOSED HALF-WIDTH)



VICINITY MAP

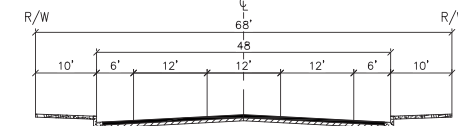
NOT TO SCALE
PTN. S.E.1/4, SEC. 7 T.5N., R.4W
M.B. 115/83-97



STREET A - SHASTA AVENUE (TYPICAL SECTION)

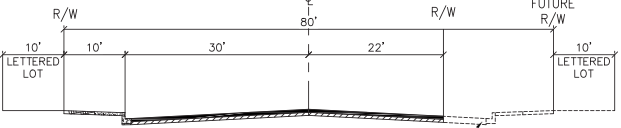
PER CITY STD S-21

NOT TO SCALE



FERNDAL ROAD (TYPICAL SECTION)

NOT TO SCALE



TAWNEY RIDGE LANE (TYPICAL SECTION)

NOT TO SCALE

LEGEND:

- PROPERTY LINE (SUBDIVISION BOUNDARY)
- CENTER LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING STORM DRAIN LINE
- LOT LINE
- EASEMENT
- RIGHT-OF-WAY
- (2905) --- EXISTING ELEVATION
- MH EXISTING MANHOLE
- M EXISTING WATER METER
- ⊗ F/H EXISTING FIRE HYDRANT
- V EXISTING WATER VALVE
- S EXISTING SIGN

PREPARATION DATED: 7/5/24

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2 ANALYSIS APPROACH AND METHODOLOGY

This section summarizes the analysis approach and methodology used to evaluate the study intersections associated with the Project.

2.1 Study Area

This traffic analysis addresses potential operational impacts that could result from the addition of the Project traffic to the local circulation system. According to the *City's and County's Guidelines*, the study area should include any intersection where the project would add 50 or more peak-hour trips. The Project trip generation shown in Table 4-1 shows that the Project would not generate more than 50 peak-hour trips. Although no intersections are required for analysis, the two main access points off Tawney Ridge Lane have been added to the study area to ensure adequate traffic operations.

The following intersections are included as part of the study area:

Intersections

1. Ferndale Road & Tawney Ridge Lane
2. Shasta Avenue & Tawney Ridge Lane (south leg constructed with project)

2.2 Analysis Scenarios

The following scenarios were evaluated as part of the project:

- Existing Conditions
- Opening Year 2026 Without Project
- Opening Year 2026 With Project
- Future Year 2036 Without Project
- Future Year 2036 With Project

The traditional weekday peak-hour coinciding with the highest volume of traffic between 7:00 and 9:00 AM and between 4:00 and 6:00 PM was evaluated for each analysis scenario.

2.3 Methodology

2.3.1 Intersection Level of Service Analysis

Signalized and unsignalized intersection operations were analyzed with Synchro 12 software (Trafficware), using the methodologies outlined in the *Highway Capacity Manual 7th Edition (HCM7)*. The HCM methodology calculates delay, which corresponds to a particular LOS, to describe the overall operation of an intersection. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time.

The LOS for unsignalized intersections is determined by the computed or measured control delay and is defined for each minor movement. At a one-way or two-way stop control intersection, the delay reported

represents the worst movement, which is typically the left-turns from the minor street approach. The criteria for the LOS grade designations are provided in Table 2-1.

Within the City of Victorville, the threshold for acceptable operating conditions for signalized and unsignalized intersections is LOS D or better.

Table 2-1
LOS Criteria for Intersections

LOS	LOS Criteria (sec/veh)		Description
	Signalized Intersections	Unsignalized Intersections	
A	≤10	≤10	EXCELLENT. Operations with very low delay and most vehicles do not stop.
B	>10 and ≤20	>10 and ≤15	VERY GOOD. Operations with good progression but with some restricted movements.
C	>20 and ≤35	>15 and ≤25	GOOD. Operations where a significant number of vehicles are stopping with some backup and light congestion.
D	>35 and ≤55	>25 and ≤35	FAIR. Operations where congestion is noticeable, longer delays occur, and many vehicles stop. The proportion of vehicles not stopping declines.
E	>55 and ≤80	>35 and ≤50	POOR. Operations where there is significant delay, extensive queuing, and poor progression.
F	>80	>50	FAILURE. Operations that are unacceptable to most drivers, when the arrival rates exceed the capacity of the intersection.

Source: *Highway Capacity Manual 7th Edition*

2.4 Deficiency Criteria

This section summarizes the methodology used to identify circulation system deficiencies. The following deficiency criteria has been adopted by the City of Victorville. To determine whether the addition of project-related traffic at a study intersection would result in a deficiency, the following criteria would be utilized:

- The project contributes measurable traffic to an intersection or roadway segment operating at LOS D or better for without project conditions and the addition of project trips causes intersection LOS to degrade to LOS E or worse.
- The project contributes measurable traffic to an intersection operating at a deficient LOS (LOS E or F) for without project conditions.

3 EXISTING CONDITIONS

This section describes the existing roadway network, peak hour traffic volumes, and operations at the study area intersections.

3.1 Roadway Network

Tawney Ridge Lane is an east-west roadway and classified as a collector in the study area. There is one travel lane in each direction. Parallel parking is allowed on both sides of the roadway. Curbs, gutters, and sidewalks are provided on both sides of the roadway except along the frontage of the Project. There are no posted speed limit signs in the study area.

Figure 3-1 illustrates the existing geometrics at the study area intersections. Figure 3-2 illustrates the City's circulation plan. Figure 3-3 illustrates the City's roadway cross sections.

Figure 3-1 Existing Intersection Geometrics

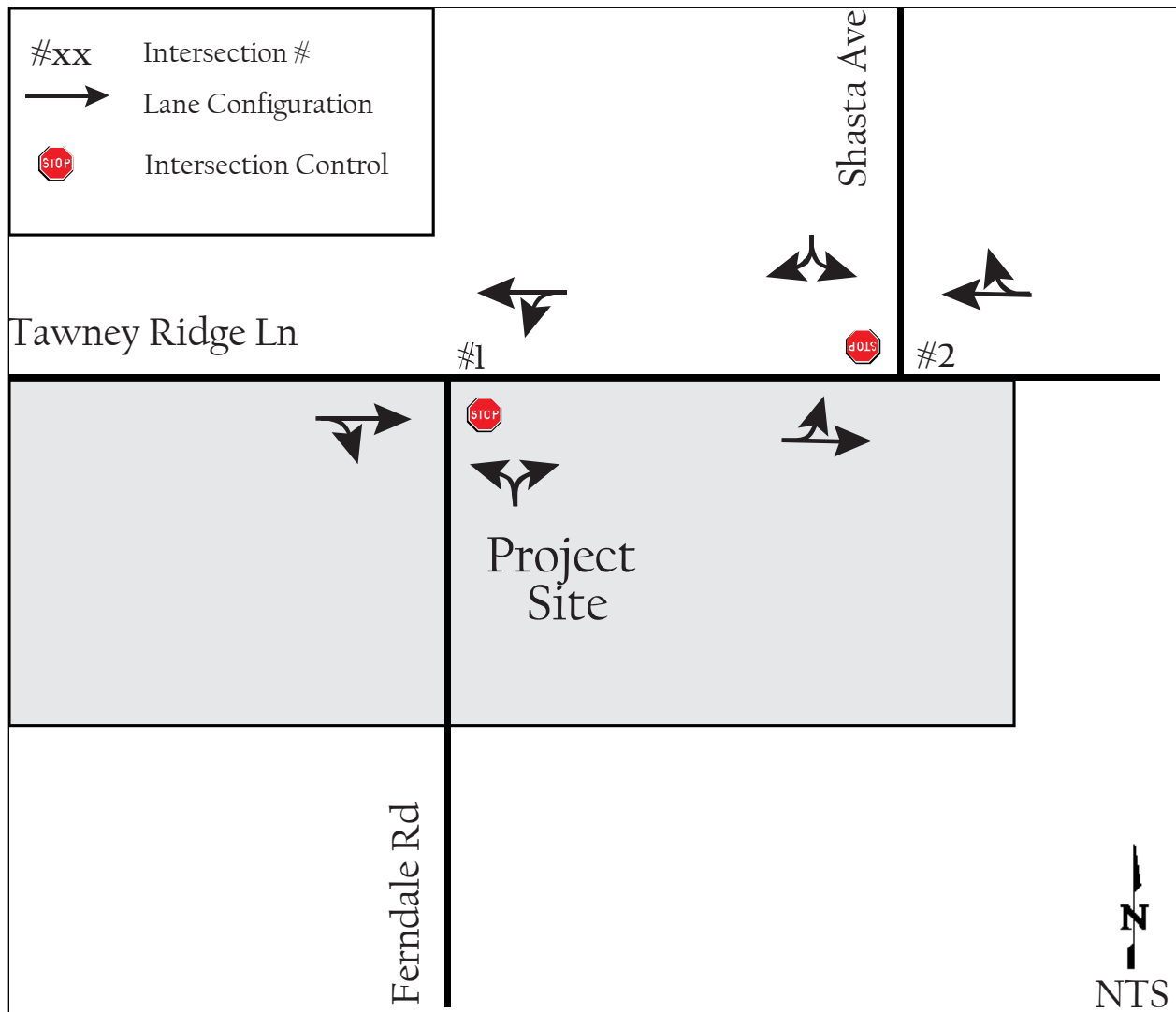


Figure 3-2 Circulation Plan

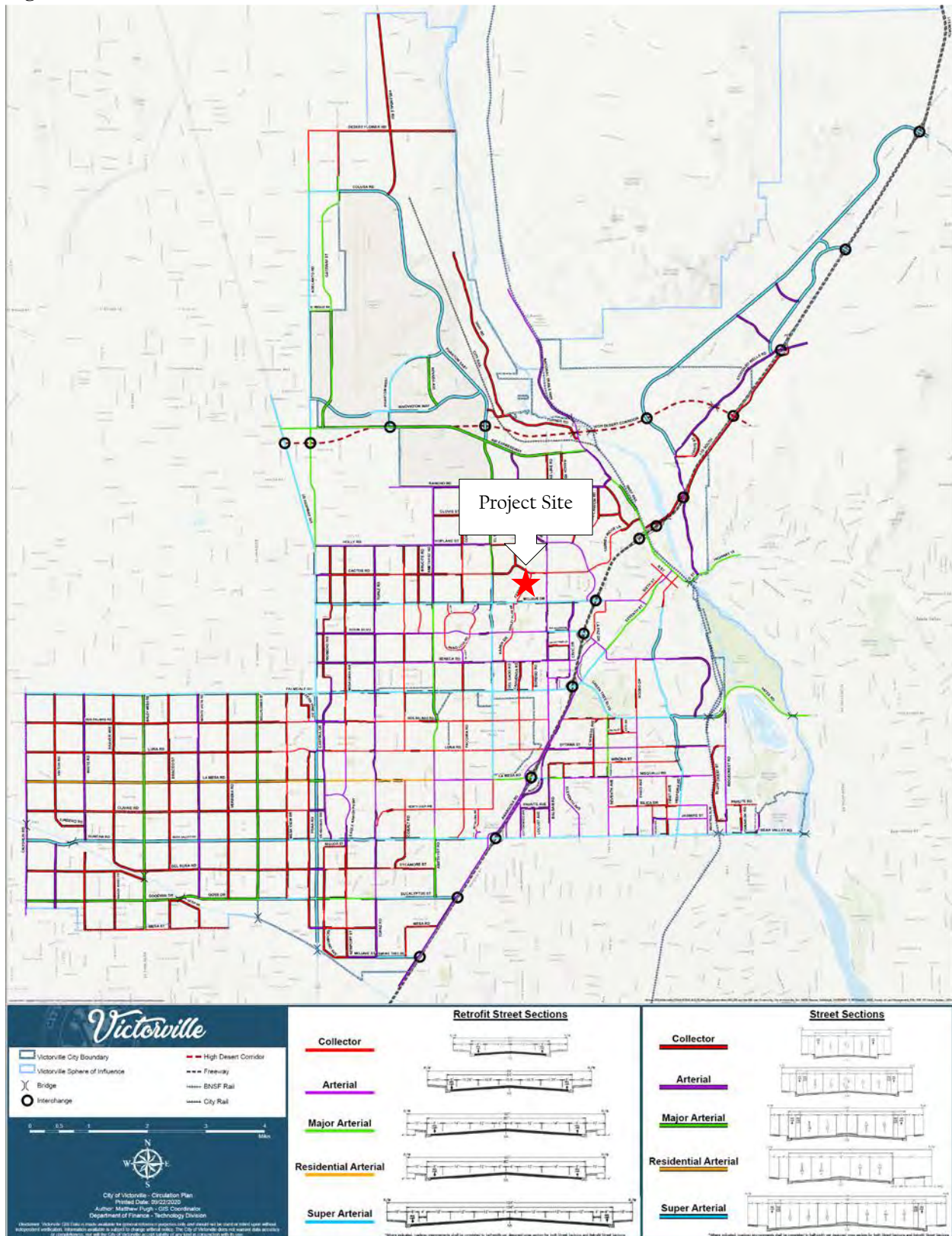


Figure 3-3 City of Victorville General Plan Roadway Cross Sections



3.2 Transit Service

The Victor Valley Transit Authority (VVTa) provides service to the study area with Routes 32 and 52. Route 32 provides daily service between the Victor Valley Transportation Center and near the intersection of Muskrat Avenue & El Mirage Road with the nearest stop located along Amargosa Road and south of Tawney Ridge Lane. Route 52 provides daily service between Victor Valley Transportation Center and Victor Valley Mall with the nearest stop located on the side of Mojave Drive just east of Jeraldo Drive.

The nearest transit stop to the Project is located along the east side of Amargosa Road and just south of Tawney Ridge Lane. This transit stop is approximately a 1,600-foot walk to the Project.

Figure 3-4 illustrates the transit routes within the study area.

3.3 Pedestrian and Bicycle Facilities

3.3.1 *Pedestrian Facilities*

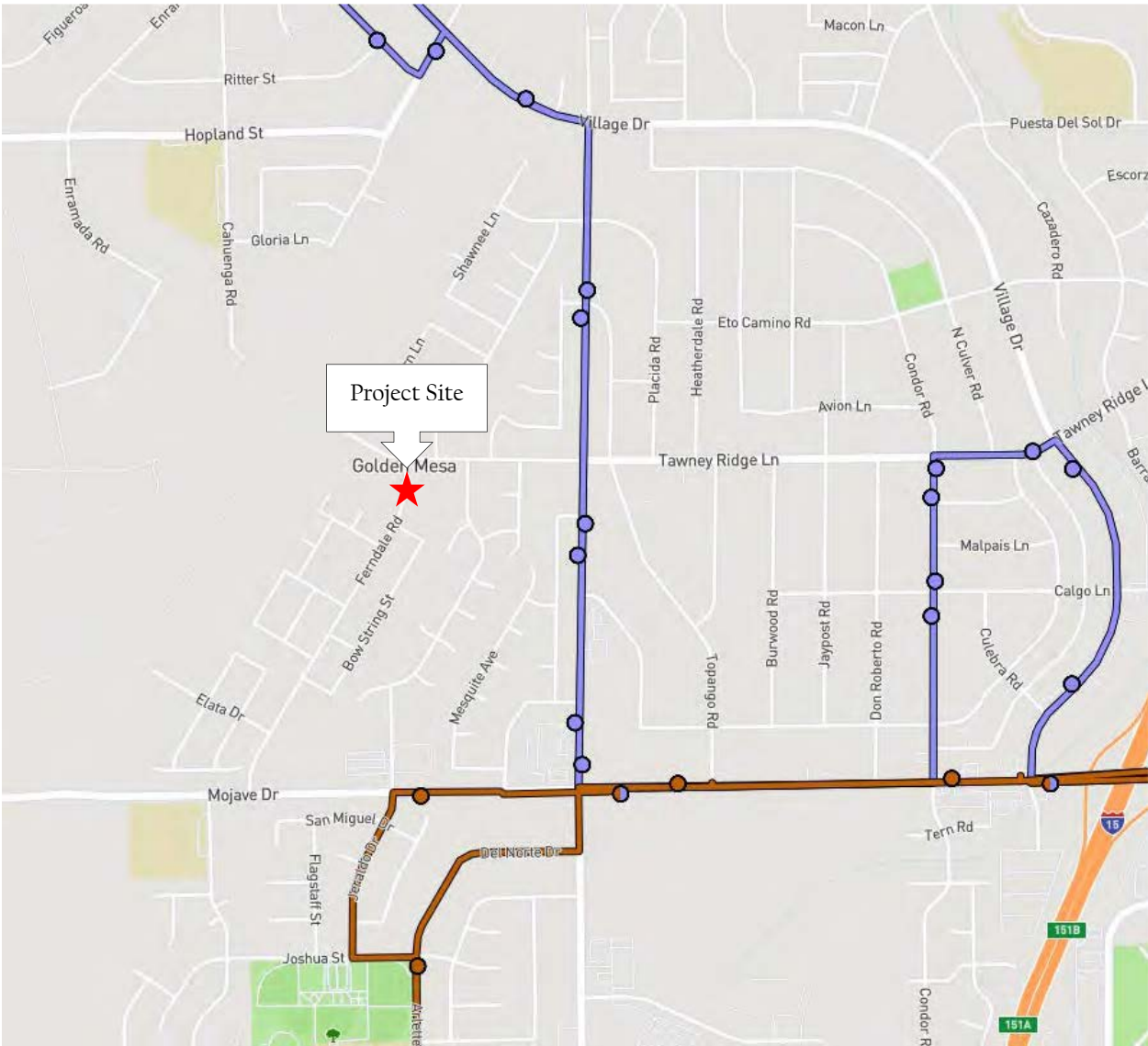
There are existing sidewalks along both sides of Tawney Ridge Lane. A sidewalk along the project's frontage of Tawney Ridge Lane and along both sides of Ferndale Road and Shasta Lane will be constructed as part of the Project.

3.3.2 *Bicycle and Trail Facilities*

There are no bicycle facilities in the immediate study area. However, a proposed Class 3 shared route is located along Tawney Ridge Lane in the study area.

Figure 3-5 illustrates the City's non-motorized transportation plan.

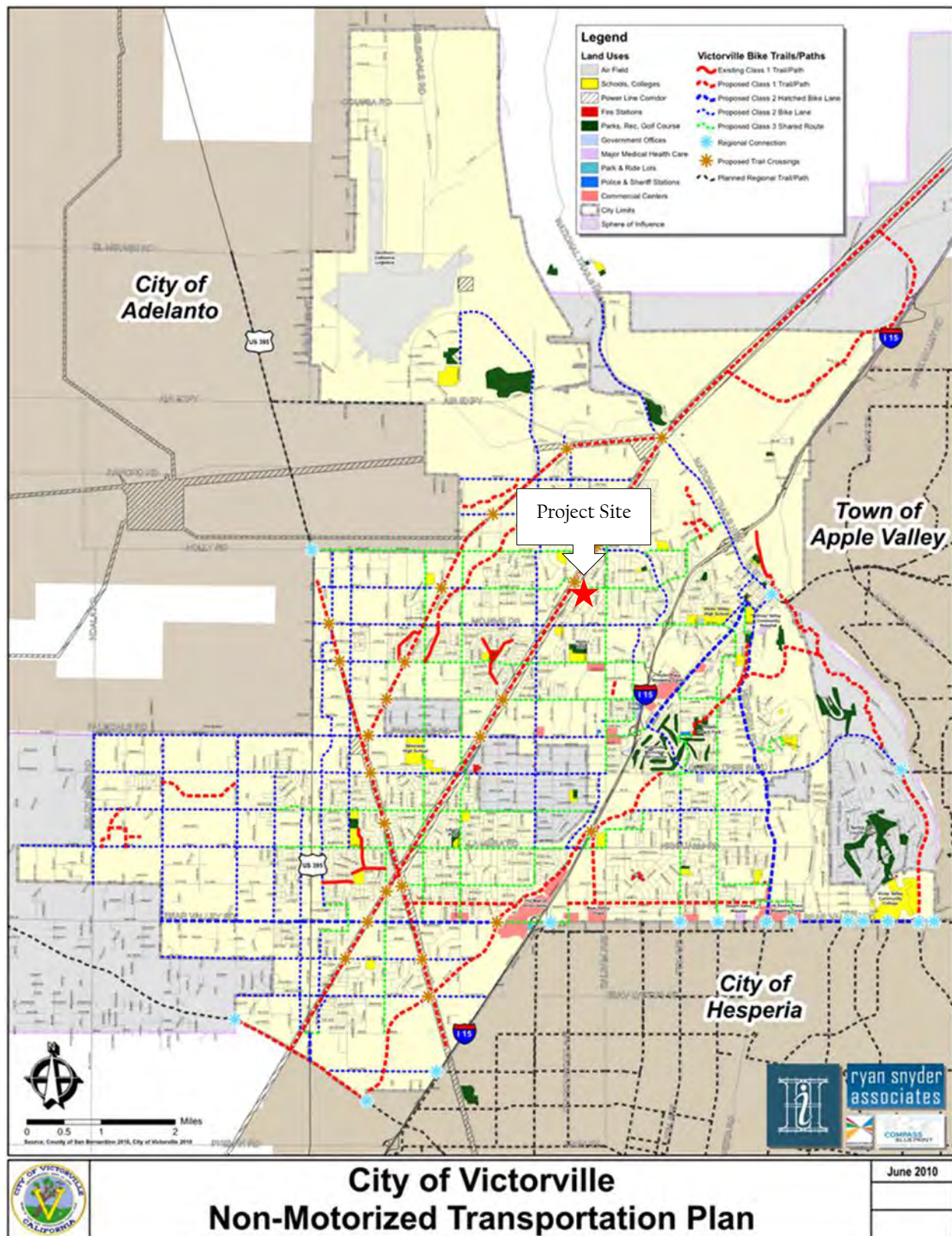
Figure 3-4 Victor Valley Transit Routes



Source: Victor Valley Transit

-  32: VVTC - North Adelanto
-  52: VVTC - Mall of Victor Valley

Figure 3-5 City of Victorville Non-Motorized Transportation Plan



Source: City of Victorville Circulation Element, Figure Circ-6

3.4 Traffic Volumes

Traffic volumes at the study area intersections were obtained on Thursday, August 15, 2024. Figure 3-6 illustrates the study area traffic volumes.

Appendix A contains a copy of the existing traffic volume data sheets.

3.5 Intersection Analysis

Table 3-1 summarizes the LOS analysis results for the study area intersections under Existing Conditions. As shown in the table, all intersections operate at LOS A during the weekday peak-hours.

Appendix B contains the intersection LOS worksheets.

Table 3-1
Existing Peak Hour Intersection LOS Summary

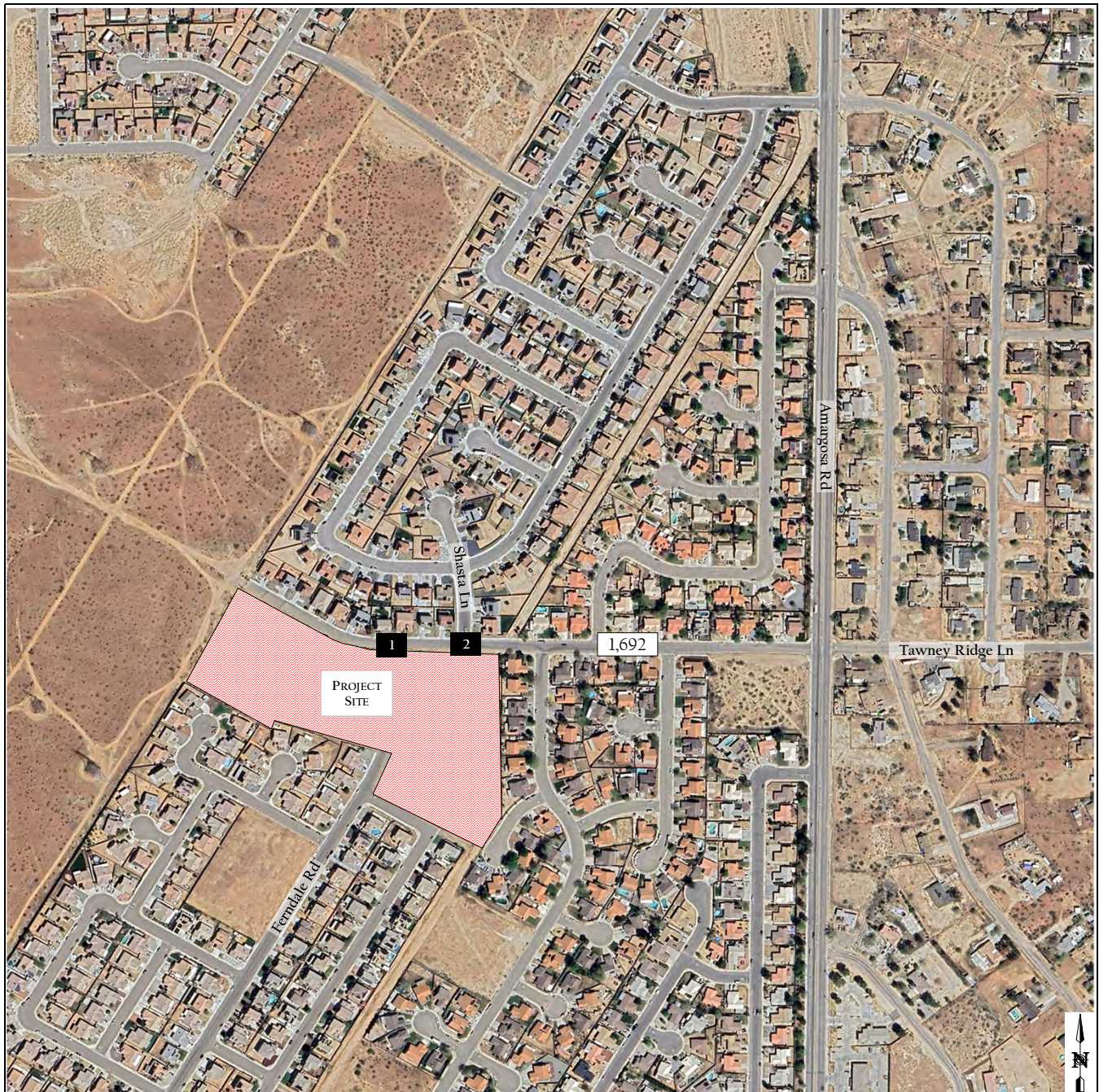
#	Intersection	Traffic Control	Peak Hour	Existing Conditions	
				Delay ¹	LOS ²
1	Ferndale Rd & Tawney Ridge Ln	OWSC	AM	8.5	A
			PM	8.5	A
2	Shasta Ln & Tawney Ridge Ln	OWSC	AM	9.5	A
			PM	8.9	A

Notes:

OWSC: One-Way Stopped Control

1. Delays are reported as the average control delay for the entire intersection at signalized intersections and the worst movement at unsignalized intersections.

2. LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 7th Edition (HCM7)* and performed using Synchro 12.



xx / yy - AM / PM Peak-Hour Turning Movement Volumes
 The naming convention for intersections is North / South & East / West

xx,xxx ADT

Ferndale Rd & Tawney Ridge Ln		Shasta Ave & Tawney Ridge Ln	
		Tawney Ridge Residential Existing Conditions Traffic Volumes	

Figure 3-6

4 PROJECT TRAFFIC

This section describes the estimated trip generation, trip distribution, and assignment of trips to the adjacent roadway network.

4.1 Trip Generation

The trip generation rate for the Project was based on the rates for the single-family residential land use contained in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition*. **Table 4-1** summarizes the weekday trip generation rates and calculations. As shown in the table, the Project is estimated to generate 302 daily trips (ADT) with 23 trips (6 inbound, 17 outbound) during the AM peak-hour and 31 trips (20 inbound, 11 outbound) in the PM peak-hour at the project driveways.

Table 4-1
Project Trip Generation

TRIP GENERATION RATES¹								
Land Use	ITE Code	Weekday Daily	AM PEAK		PM PEAK			
			Rate	In:Out Ratio	Rate	In:Out Ratio		
Single-Family Detached Housing	210	9.43 trips / du	0.70	0.26 : 0.74	0.94	0.63 : 0.37		
TRIP GENERATION CALCULATIONS								
Land Use	Amount	ADT	AM PEAK			PM PEAK		
			In	Out	Total	In	Out	Total
Single-Family Detached Housing	32 du	302	6	17	23	20	11	31
TOTAL		302	6	17	23	20	11	31

Notes:

du: dwelling units

1. The trip rates for the project's land use are based on the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition*.

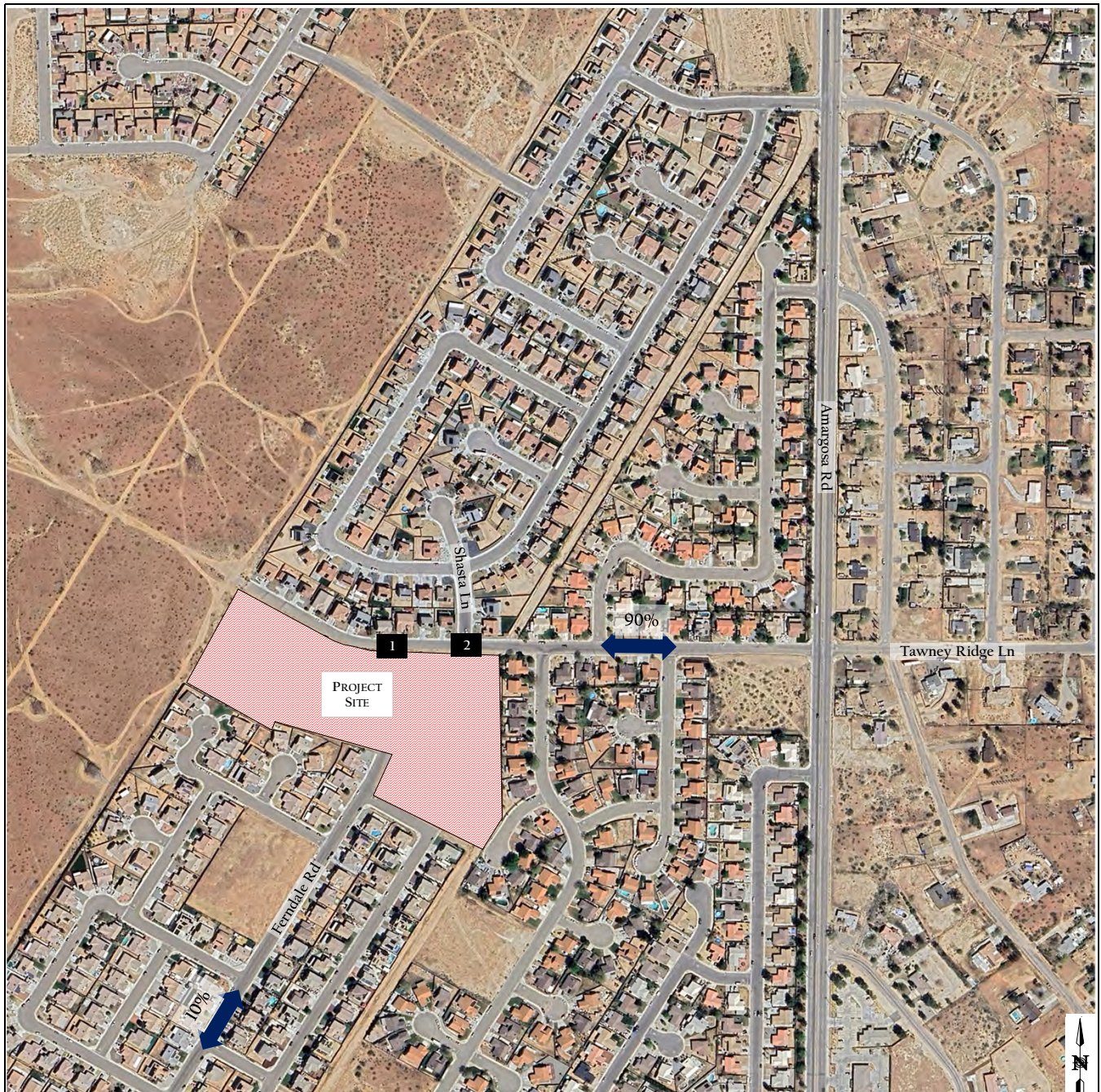
4.2 Trip Distribution and Assignment

The Project trip distribution was estimated based on existing travel patterns and/or on logical routes to regional facilities. It should be noted that project traffic to/from the east along Tawney Ridge Lane was distributed in a 70 percent/20 percent split between Shasta Lane and Ferndale Road, respectively. This split was based on the location of the homes along Shasta Lane and Ferndale Road.

The following list summarizes the overall trip distribution for the proposed Project:

- 10 percent to/from the south via Ferndale Road
- 90 percent to/from the east via Tawney Ridge Lane

Figure 4-1 displays the assumed Project trip distribution through the study intersections.



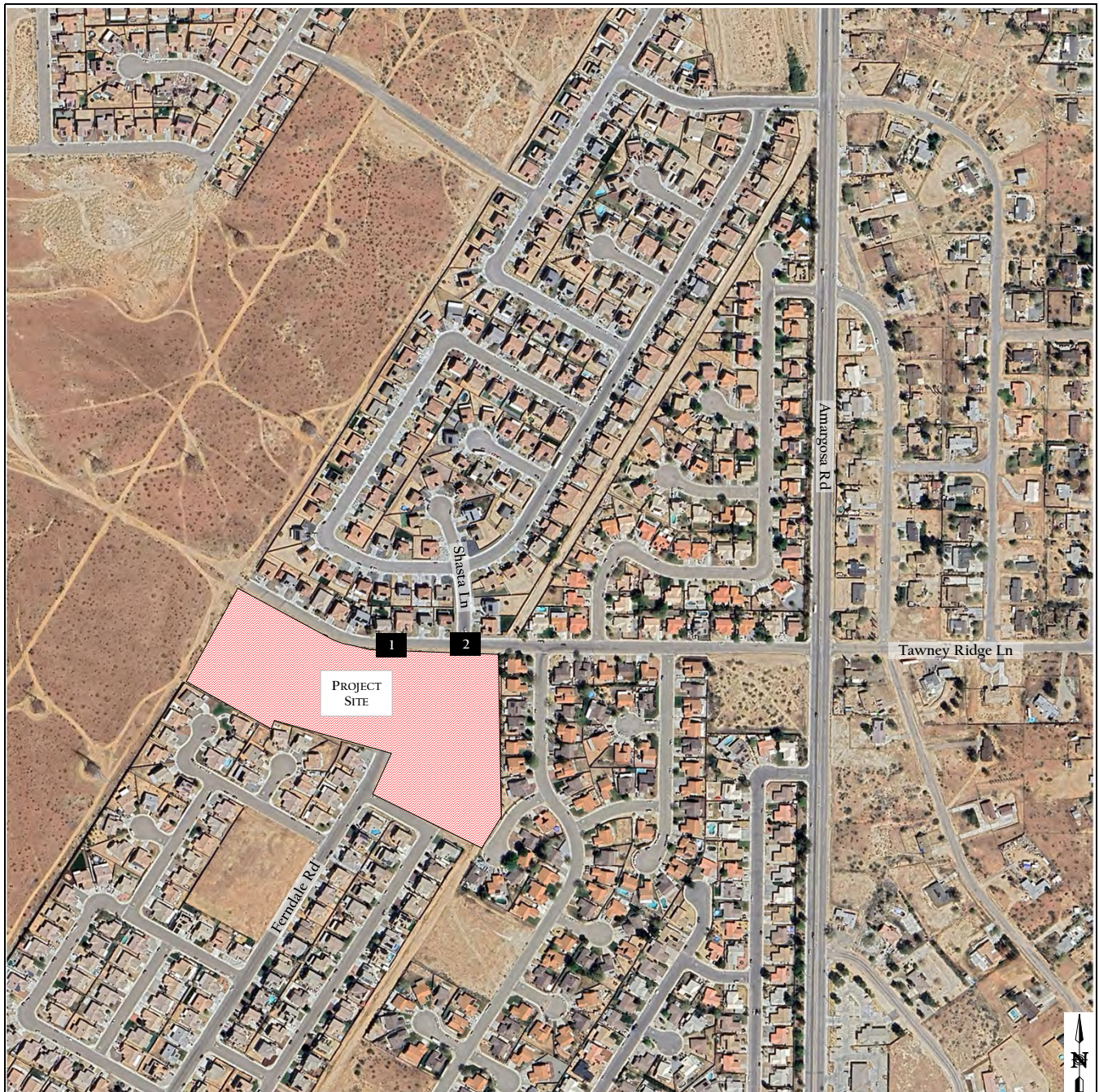
xx% / (yy%) - Enter % / (Exit %)

The naming convention for intersections is North / South & East / West

← 90% → Trip Distribution Percentage

Ferndale Rd & Tawney Ridge Ln		Shasta Ave & Tawney Ridge Ln	
		Tawney Ridge Residential Project Trip Distribution	

Figure 4-1



xx / yy - AM / PM Peak-Hour Turning Movement Volumes
 The naming convention for intersections is North / South & East / West

Ferndale Rd & Tawney Ridge Ln		Shasta Ave & Tawney Ridge Ln	
		Tawney Ridge Residential Project Trip Assignment	

Figure 4-2

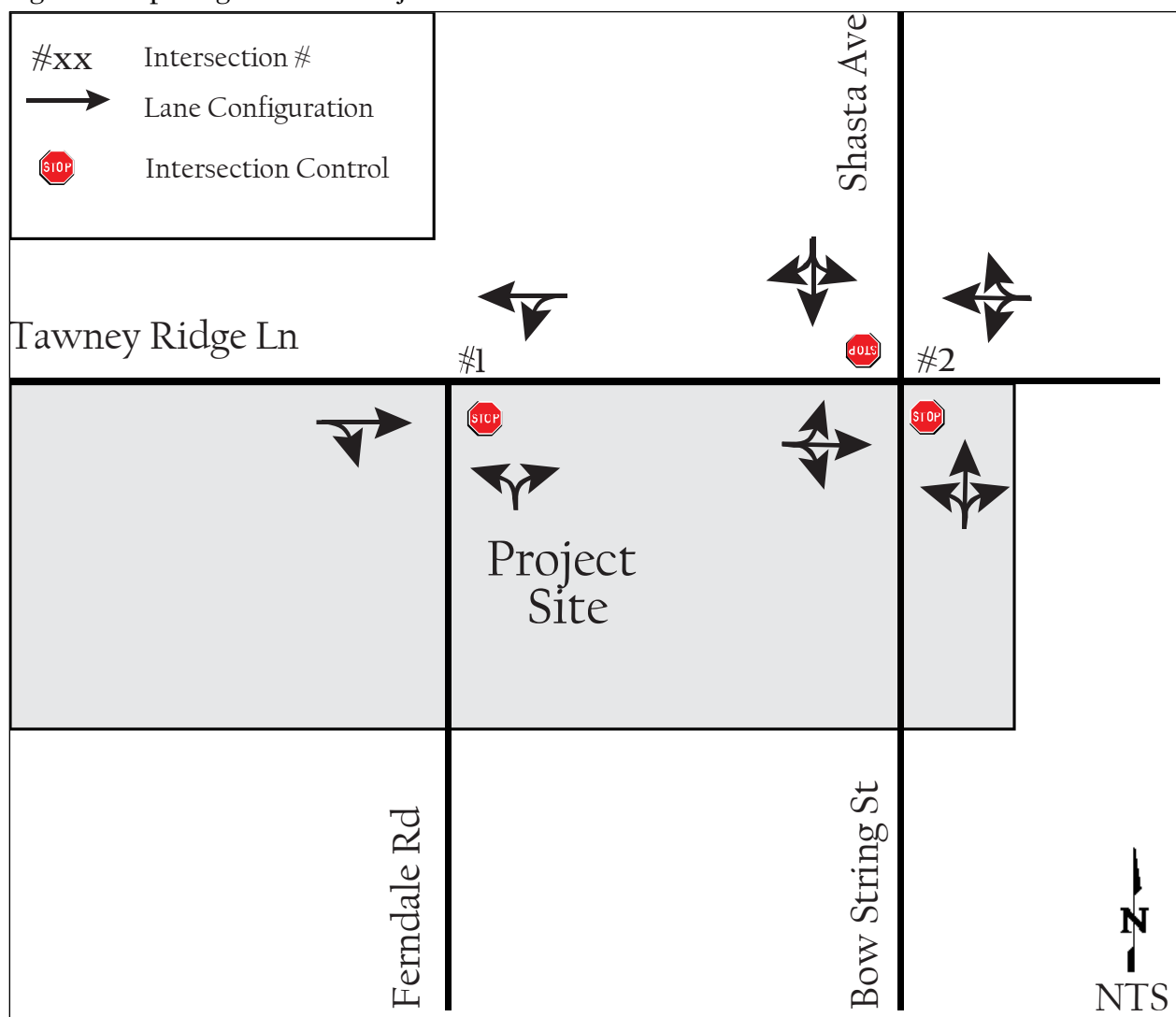
5 OPENING YEAR 2026 CONDITIONS

This section provides a summary of operations at the study area intersections anticipated with the opening of the project in the Year 2026 with the addition of ambient and project traffic.

5.1 Roadway Network

The lane configuration and traffic controls for the Opening Year 2026 conditions are consistent with Existing Conditions as shown in Figure 3-1. With the addition of the project, the south leg of the Shasta Avenue & Tawney Ridge Lane intersection will be extended to the south and connected with Bow String Street. Figure 5-1 illustrates the geometrics with the project at the study area intersections.

Figure 5-1 Opening Year with Project Intersection Geometrics



5.2 Background Traffic

An ambient growth rate was calculated to account for area-wide growth. An ambient annual growth rate of 2 percent per year was utilized to increase existing traffic volumes. This growth rate is consistent with other development projects in the study area. A total growth of 4 percent was utilized (2 percent per year for 2 years of growth).

5.3 Traffic Volumes

The Opening Year 2026 traffic volumes were estimated by applying the ambient growth factor of 2 percent for two years to the existing traffic volumes. **Figure 5-2** illustrates the Opening Year 2026 Without Project traffic volumes. **Figure 5-3** illustrates the Opening Year 2026 With Project traffic volumes.

5.4 Intersection Analysis

Table 5-1 displays the LOS analysis results for the study intersections under the Opening Year 2026 With and Without Project conditions.

Table 5-1
Opening Year 2026 Peak Hour Intersection LOS Summary

#	Intersection	Traffic Control	Peak Hour	Opening Year 2026		Opening Year 2026 w/Proj		Δ in Delay	Imp?
				Delay ¹	LOS ²	Delay ¹	LOS ²		
1	Ferndale Rd & Tawney Ridge Ln	OWSC	AM	8.5	A	8.6	A	0.1	No
			PM	8.5	A	8.6	A	0.1	No
2	Shasta Ln & Tawney Ridge Ln	TWSC	AM	9.5	A	9.8	A	0.3	No
			PM	8.9	A	9.1	A	0.2	No

Notes:

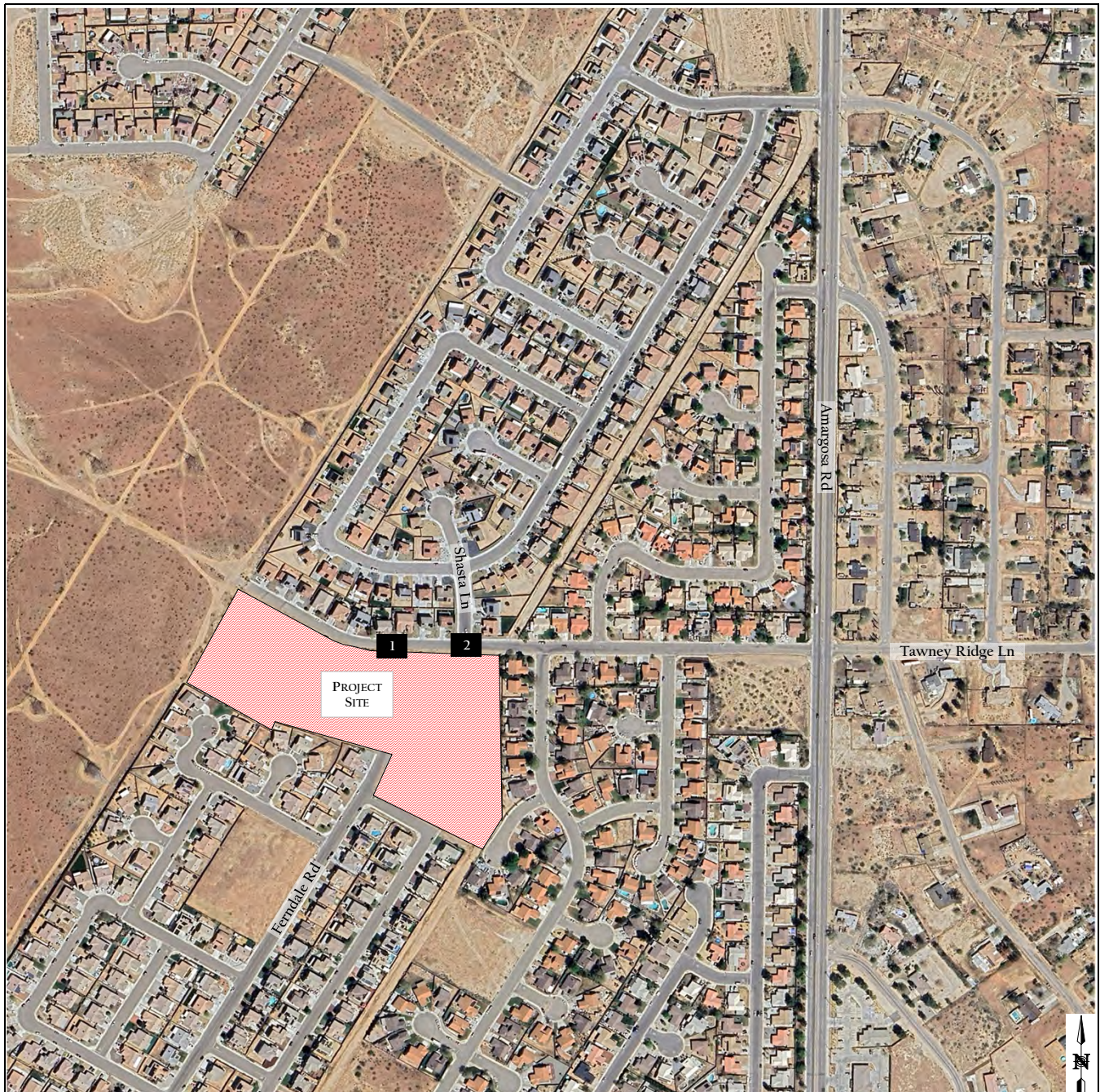
OWSC: One-Way Stopped Control, TWSC: Two-Way Stopped Control

1. Delays are reported as the average control delay for the entire intersection at signalized intersections and the worst movement at unsignalized intersections.

2. LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 7th Edition (HCM7)* and performed using Synchro 12.

As shown in the table, all intersections would continue to operate at LOS A during the weekday peak-hours.

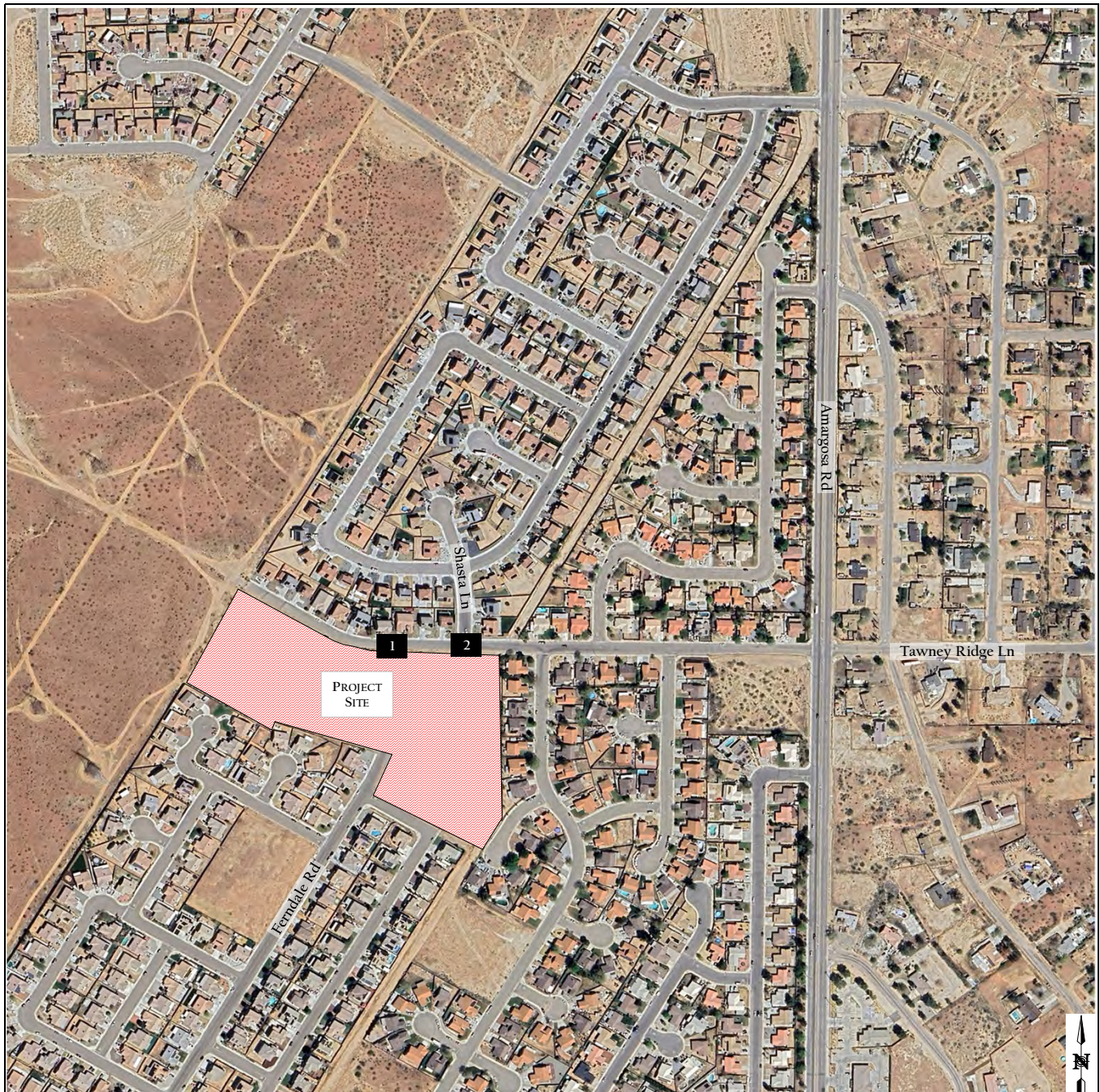
Appendix B contains the intersection LOS worksheets.



xx / yy - AM / PM Peak-Hour Turning Movement Volumes
 The naming convention for intersections is North / South & East / West

Ferndale Rd & Tawney Ridge Ln		Shasta Ave & Tawney Ridge Ln	
		Tawney Ridge Residential Opening Year 2026 Without Project Traffic Volumes	

Figure 5-2



xx / yy - AM / PM Peak-Hour Turning Movement Volumes
 The naming convention for intersections is North / South & East / West

Ferndale Rd & Tawney Ridge Ln		Shasta Ave & Tawney Ridge Ln	
		Tawney Ridge Residential Opening Year 2026 With Project Traffic Volumes	

Figure 5-3

6 HORIZON YEAR 2036 CONDITIONS

This section provides a summary of operations at the study area intersections anticipated in the Horizon Year 2036 with and without the project traffic.

6.1 Roadway Network

The lane configuration and traffic controls for the Horizon Year 2036 conditions are consistent with the Opening Year conditions as shown in Figure 5-1.

6.2 Traffic Volumes

The Horizon Year 2036 traffic volumes were estimated by applying the ambient growth factor of 2 percent for 12 years (growth factor of 1.27) to the existing traffic volumes and adding the cumulative traffic volumes. Figure 6-1 illustrates the Horizon Year 2036 Without Project traffic volumes. Figure 6-2 illustrates the Horizon Year 2036 With Project traffic volumes.

6.3 Intersection Analysis

Table 6-1 displays the LOS analysis results for the study intersections under the Horizon Year 2036 With and Without Project conditions.

Table 6-1
Horizon Year 2036 Peak Hour Intersection LOS Summary

#	Intersection	Traffic Control	Peak Hour	Opening Year 2026		Opening Year 2026 w/Proj		Δ in Delay	Imp?
				Delay ¹	LOS ²	Delay ¹	LOS ²		
1	Ferndale Rd & Tawney Ridge Ln	OWSC	AM	8.6	A	8.6	A	0.0	No
			PM	8.6	A	8.6	A	0.0	No
2	Shasta Ln & Tawney Ridge Ln	TWSC	AM	9.8	A	10.1	B	0.3	No
			PM	9.0	A	9.2	A	0.2	No

Notes:

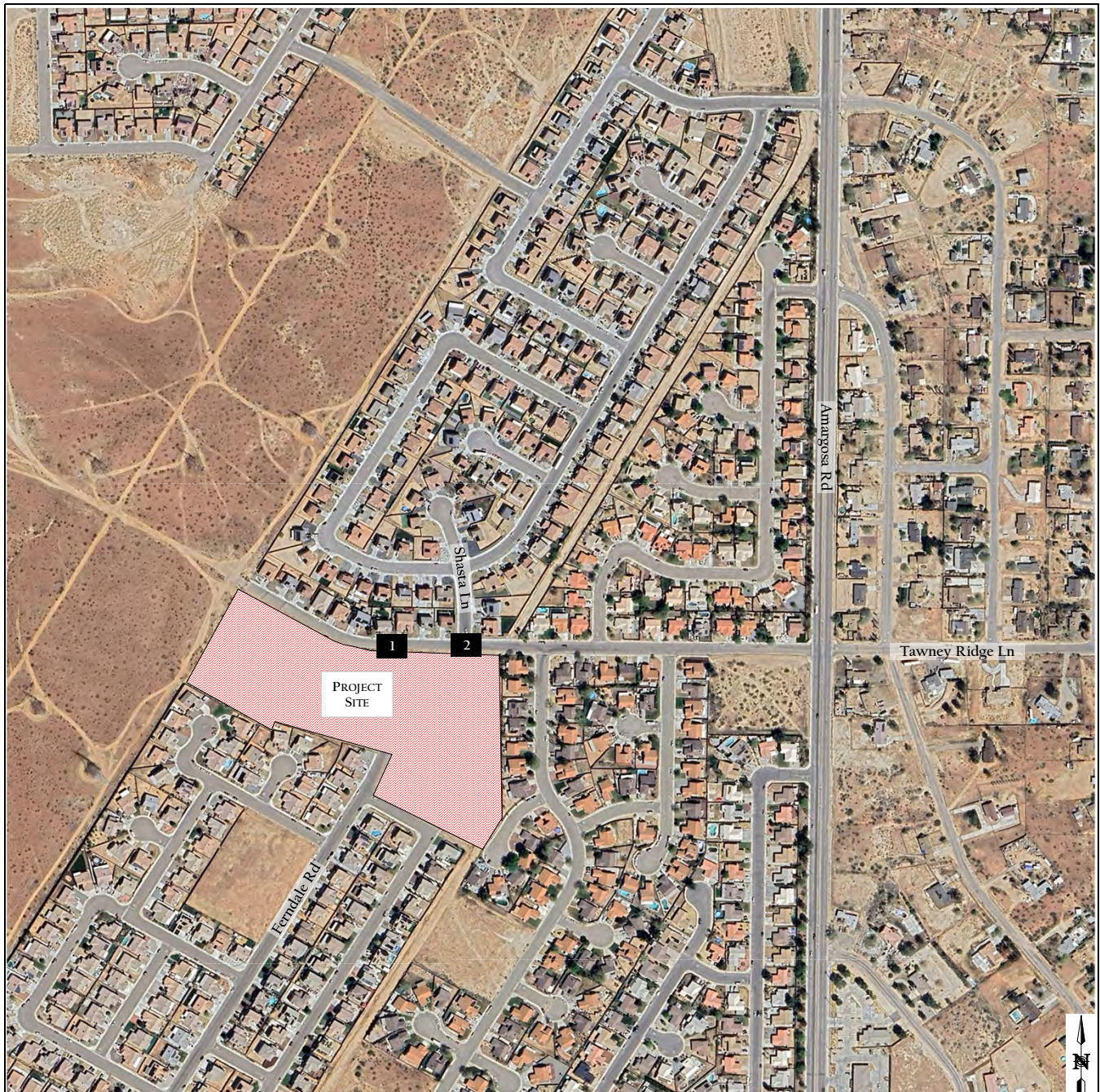
OWSC: One-Way Stopped Control, TWSC: Two-Way Stopped Control

1. Delays are reported as the average control delay for the entire intersection at signalized intersections and the worst movement at unsignalized intersections.

2. LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 7th Edition (HCM7)* and performed using Synchro 12.

As shown in the table, all intersections would continue to operate at LOS A during the weekday peak-hours .

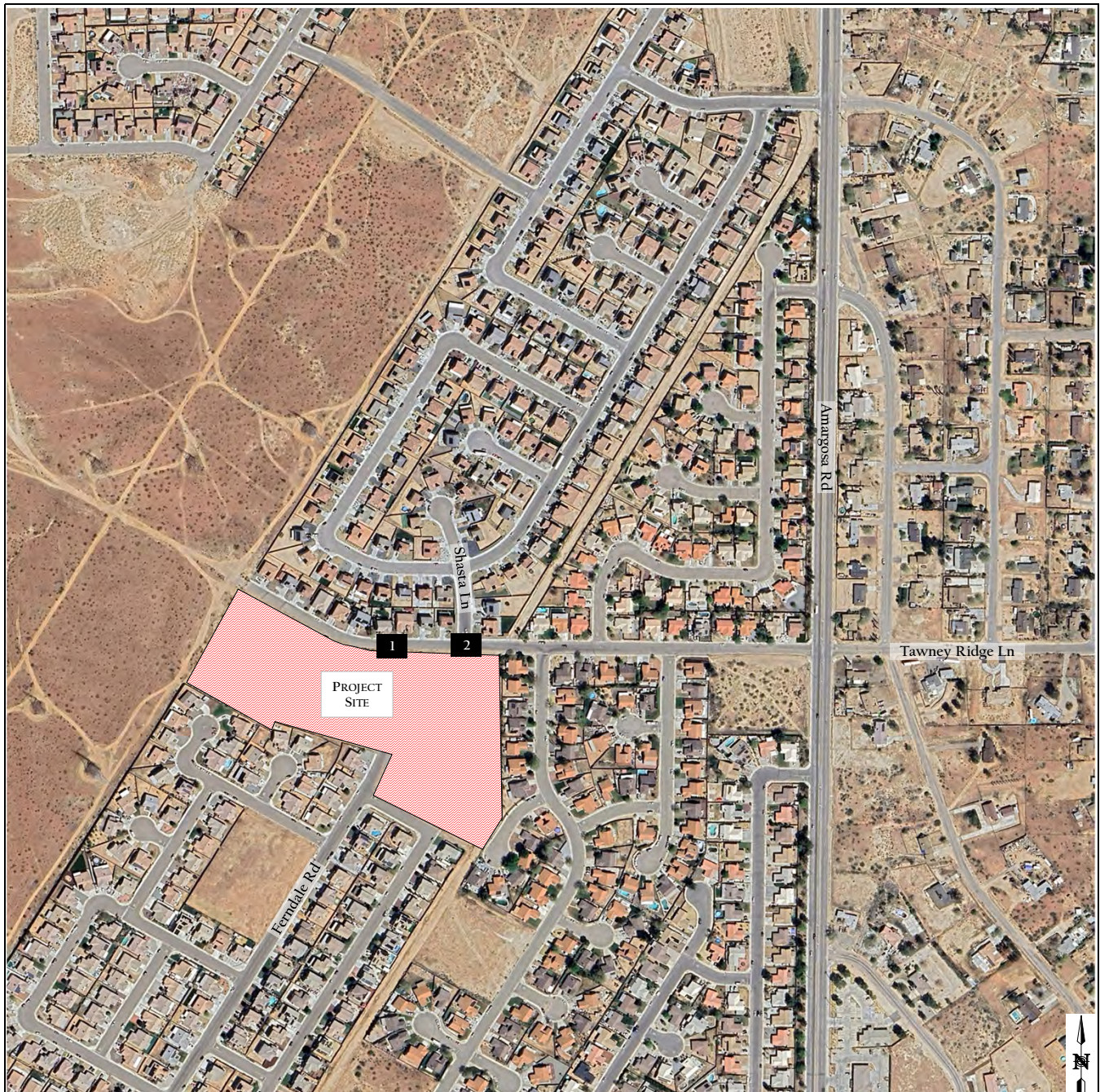
Appendix B contains the intersection LOS worksheets.



xx / yy - AM / PM Peak-Hour Turning Movement Volumes
 The naming convention for intersections is North / South & East / West

Ferndale Rd & Tawney Ridge Ln		Shasta Ave & Tawney Ridge Ln	
		Tawney Ridge Residential Horizon Year 2036 Without Project Traffic Volumes	

Figure 6-1



xx / yy - AM / PM Peak-Hour Turning Movement Volumes
 The naming convention for intersections is North / South & East / West

Ferndale Rd & Tawney Ridge Ln		Shasta Ave & Tawney Ridge Ln	
1 / 1 3 / 1 1 1 / 3 52 / 82 3 / 4 72 / 42		25 / 28 67 / 16 33 / 29 28 / 57 1 / 4 32 / 13 41 / 31 2 3 / 2	
		Tawney Ridge Residential Horizon Year 2036 With Project Traffic Volumes	

Figure 6-2

7 SUMMARY OF FINDINGS AND RECOMMENDATIONS

The following list summarizes the key findings for the Project:

- The Project proposes to construct 32 single family residential homes.
- The Project is estimated to generate 302 daily trips (ADT) with 23 trips (6 inbound, 17 outbound) during the AM peak-hour and 31 trips (20 inbound, 11 outbound) in the PM peak-hour at the project driveways.
- A traffic study is not required since the Project does not generate 50 or more peak-hour trips. However, the traffic analysis was prepared for the two main access points off Tawney Ridge Lane to ensure adequate traffic operations.
- All intersections in the study area are expected to operate at an acceptable LOS A under all scenarios.

This traffic study has been prepared in accordance with *City of Victorville's General Guidelines for Conducting Traffic Studies and Determination of Intersection Level of Service and Improvement Needs, January 20, 2005 (City's Guidelines)* and the *County of San Bernardino's Transportation Impact Study Guidelines, July 9, 2019 (County's Guidelines)*.

Appendix A

Existing Traffic Volume Data

City of Victorville
N/S: Shasta Lane
E/W: Tawney Ridge Lane
Weather: Clear

File Name : 02_VIC_Shas_TW AM
Site Code : 23524708
Start Date : 8/15/2024
Page No : 1

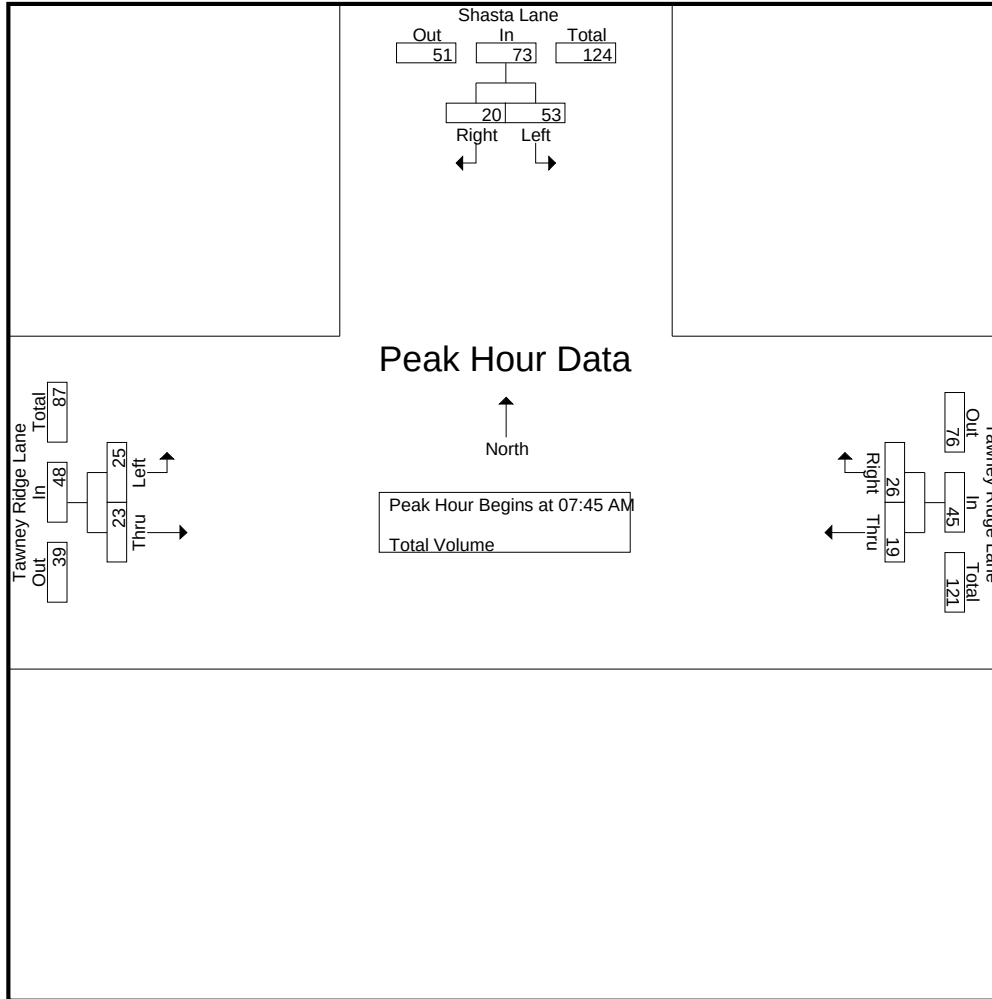
Groups Printed- Total Volume

	Shasta Lane Southbound			Tawney Ridge Lane Westbound			Tawney Ridge Lane Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	4	6	10	5	5	10	1	10	11	31
07:15 AM	9	5	14	8	4	12	3	3	6	32
07:30 AM	9	8	17	5	8	13	1	7	8	38
07:45 AM	8	4	12	4	5	9	6	8	14	35
Total	30	23	53	22	22	44	11	28	39	136
08:00 AM	12	4	16	5	7	12	4	5	9	37
08:15 AM	14	5	19	5	8	13	8	4	12	44
08:30 AM	19	7	26	5	6	11	7	6	13	50
08:45 AM	2	1	3	3	3	6	2	5	7	16
Total	47	17	64	18	24	42	21	20	41	147
Grand Total	77	40	117	40	46	86	32	48	80	283
Apprch %	65.8	34.2		46.5	53.5		40	60		
Total %	27.2	14.1	41.3	14.1	16.3	30.4	11.3	17	28.3	

	Shasta Lane Southbound			Tawney Ridge Lane Westbound			Tawney Ridge Lane Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	8	4	12	4	5	9	6	8	14	35
08:00 AM	12	4	16	5	7	12	4	5	9	37
08:15 AM	14	5	19	5	8	13	8	4	12	44
08:30 AM	19	7	26	5	6	11	7	6	13	50
Total Volume	53	20	73	19	26	45	25	23	48	166
% App. Total	72.6	27.4		42.2	57.8		52.1	47.9		
PHF	.697	.714	.702	.950	.813	.865	.781	.719	.857	.830

City of Victorville
N/S: Shasta Lane
E/W: Tawney Ridge Lane
Weather: Clear

File Name : 02_VIC_Shas_TW AM
Site Code : 23524708
Start Date : 8/15/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			07:30 AM			07:45 AM		
+0 mins.	8	4	12	5	8	13	6	8	14
+15 mins.	12	4	16	4	5	9	4	5	9
+30 mins.	14	5	19	5	7	12	8	4	12
+45 mins.	19	7	26	5	8	13	7	6	13
Total Volume	53	20	73	19	28	47	25	23	48
% App. Total	72.6	27.4		40.4	59.6		52.1	47.9	
PHF	.697	.714	.702	.950	.875	.904	.781	.719	.857

City of Victorville
N/S: Shasta Lane
E/W: Tawney Ridge Lane
Weather: Clear

File Name : 02_VIC_Shas_TW PM
Site Code : 23524708
Start Date : 8/15/2024
Page No : 1

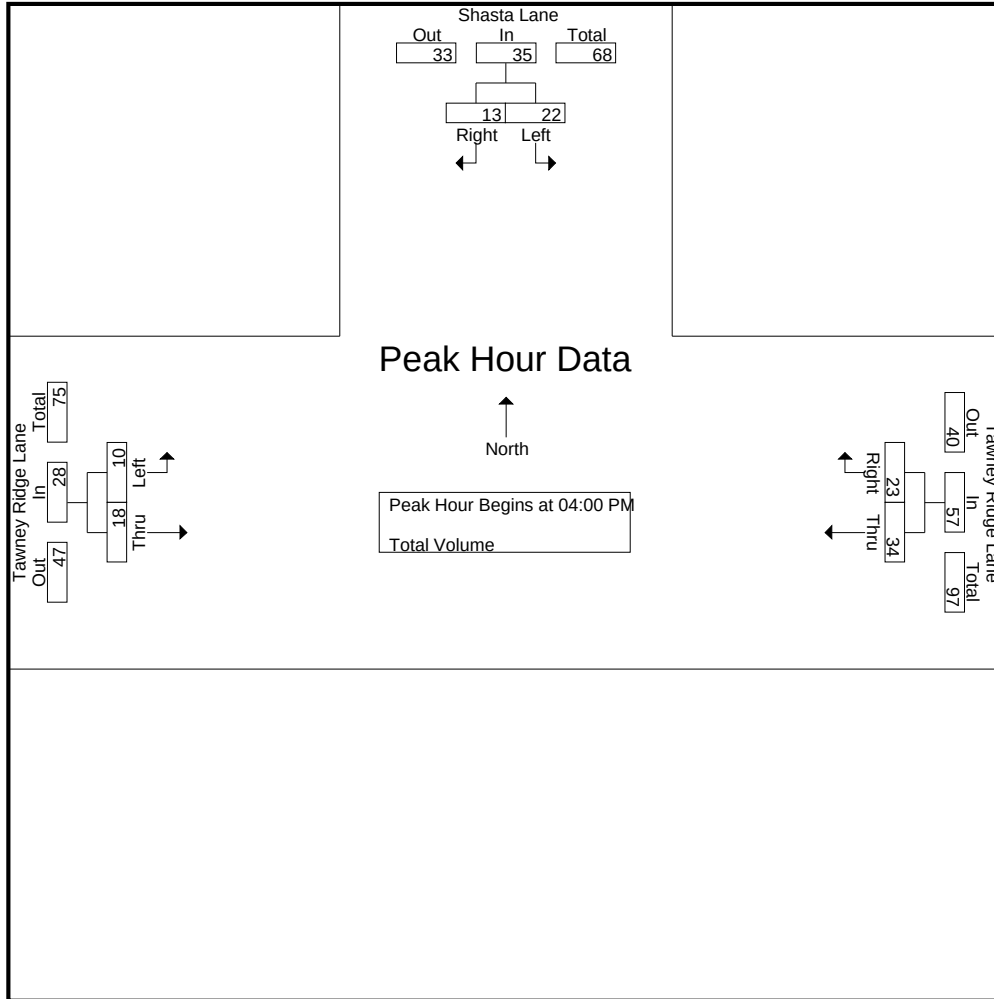
Groups Printed- Total Volume

	Shasta Lane Southbound			Tawney Ridge Lane Westbound			Tawney Ridge Lane Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	3	3	6	8	5	13	2	5	7	26
04:15 PM	6	3	9	7	6	13	4	3	7	29
04:30 PM	8	3	11	8	6	14	4	6	10	35
04:45 PM	5	4	9	11	6	17	0	4	4	30
Total	22	13	35	34	23	57	10	18	28	120
05:00 PM	8	2	10	3	5	8	2	2	4	22
05:15 PM	6	2	8	5	10	15	4	3	7	30
05:30 PM	3	2	5	9	3	12	1	2	3	20
05:45 PM	6	2	8	2	4	6	2	4	6	20
Total	23	8	31	19	22	41	9	11	20	92
Grand Total	45	21	66	53	45	98	19	29	48	212
Apprch %	68.2	31.8		54.1	45.9		39.6	60.4		
Total %	21.2	9.9	31.1	25	21.2	46.2	9	13.7	22.6	

	Shasta Lane Southbound			Tawney Ridge Lane Westbound			Tawney Ridge Lane Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	3	3	6	8	5	13	2	5	7	26
04:15 PM	6	3	9	7	6	13	4	3	7	29
04:30 PM	8	3	11	8	6	14	4	6	10	35
04:45 PM	5	4	9	11	6	17	0	4	4	30
Total Volume	22	13	35	34	23	57	10	18	28	120
% App. Total	62.9	37.1		59.6	40.4		35.7	64.3		
PHF	.688	.813	.795	.773	.958	.838	.625	.750	.700	.857

City of Victorville
N/S: Shasta Lane
E/W: Tawney Ridge Lane
Weather: Clear

File Name : 02_VIC_Shas_TW PM
Site Code : 23524708
Start Date : 8/15/2024
Page No : 2



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

	04:15 PM			04:00 PM			04:00 PM		
+0 mins.	6	3	9	8	5	13	2	5	7
+15 mins.	8	3	11	7	6	13	4	3	7
+30 mins.	5	4	9	8	6	14	4	6	10
+45 mins.	8	2	10	11	6	17	0	4	4
Total Volume	27	12	39	34	23	57	10	18	28
% App. Total	69.2	30.8		59.6	40.4		35.7	64.3	
PHF	.844	.750	.886	.773	.958	.838	.625	.750	.700

Counts Unlimited, Inc.

City of Victorville
Tawney Ridge Lane
B/ Ferndale Road - Amargosa Road
24 Hour Directional Volume Count

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

VIC001
Site Code: 235-24708

Start Time	8/15/24 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		2	15			2	9				
12:15		0	2			2	9				
12:30		0	10			2	9				
12:45		1	14	3	41	1	11	7	38	10	79
01:00		0	6			2	8				
01:15		2	10			0	7				
01:30		2	11			1	15				
01:45		2	12	6	39	1	16	4	46	10	85
02:00		2	14			1	14				
02:15		0	12			2	14				
02:30		4	16			4	16				
02:45		2	18	8	60	0	20	7	64	15	124
03:00		2	27			0	22				
03:15		1	25			0	15				
03:30		2	11			1	21				
03:45		5	5	10	68	2	21	3	79	13	147
04:00		9	7			1	19				
04:15		5	15			0	24				
04:30		4	16			0	18				
04:45		6	16	24	54	1	22	2	83	26	137
05:00		6	15			3	15				
05:15		5	21			1	24				
05:30		5	11			2	15				
05:45		5	11	21	58	3	10	9	64	30	122
06:00		4	10			0	22				
06:15		6	11			2	14				
06:30		13	12			5	16				
06:45		11	4	34	37	7	15	14	67	48	104
07:00		20	8			16	18				
07:15		16	12			6	15				
07:30		26	9			10	4				
07:45		26	8	88	37	11	16	43	53	131	90
08:00		25	11			7	9				
08:15		19	10			12	13				
08:30		22	6			7	18				
08:45		12	6	78	33	7	16	33	56	111	89
09:00		6	8			8	12				
09:15		7	6			12	7				
09:30		11	5			8	6				
09:45		10	4	34	23	8	5	36	30	70	53
10:00		6	4			8	4				
10:15		13	3			10	5				
10:30		10	3			5	7				
10:45		7	2	36	12	5	5	28	21	64	33
11:00		9	6			5	4				
11:15		8	1			7	7				
11:30		5	3			17	2				
11:45		11	2	33	12	9	5	38	18	71	30
Total		375	474	375	474	224	619	224	619	599	1093
Combined Total		849		849		843		843		1692	
AM Peak	-	07:30	-	-	-	07:00	-	-	-	-	-
Vol.	-	96	-	-	-	43	-	-	-	-	-
P.H.F.		0.923				0.672					
PM Peak	-	-	02:30	-	-	-	03:30	-	-	-	-
Vol.	-	-	86	-	-	-	85	-	-	-	-
P.H.F.			0.796				0.885				
Percentage		44.2%	55.8%			26.6%	73.4%				
ADT/AADT		ADT 1,692		AADT 1,692							

Appendix B

Intersection LOS Worksheets

HCM 7th TWSC
1: Ferndale Rd & Tawney Ridge Ln

Existing Conditions
Timing Plan: AM PEAK

Intersection

Int Delay, s/veh 7.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	2	38	1	2	47
Future Vol, veh/h	1	2	38	1	2	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	41	1	2	51

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	3
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1619
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1619
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	7.1	8.53
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1073	-	-	1618	-
HCM Lane V/C Ratio	0.05	-	-	0.026	-
HCM Control Delay (s/veh)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 7th TWSC
2: Tawney Ridge Ln & Shasta Ln

Existing Conditions
Timing Plan: AM PEAK

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	23	19	26	53	20
Future Vol, veh/h	25	23	19	26	53	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	28	23	31	64	24
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	54	0	-	0	127	39
Stage 1	-	-	-	-	39	-
Stage 2	-	-	-	-	88	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1551	-	-	-	868	1033
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	935	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1551	-	-	-	851	1033
Mov Cap-2 Maneuver	-	-	-	-	851	-
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	935	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	3.84	0		9.46		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	938	-	-	-	-	894
HCM Lane V/C Ratio	0.019	-	-	-	-	0.098
HCM Control Delay (s/veh)	7.4	0	-	-	-	9.5
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.3

HCM 7th TWSC
1: Ferndale Rd & Tawney Ridge Ln

Existing Conditions
Timing Plan: PM PEAK

Intersection						
Int Delay, s/veh	7.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	1	54	2	3	27
Future Vol, veh/h	1	1	54	2	3	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	59	2	3	29
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2	0	121	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	120	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1620	-	874	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	906	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1620	-	842	1083
Mov Cap-2 Maneuver	-	-	-	-	842	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	873	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		7.04		8.53	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1053	-	-	1618	-	
HCM Lane V/C Ratio	0.031	-	-	0.036	-	
HCM Control Delay (s/veh)	8.5	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	

HCM 7th TWSC
2: Tawney Ridge Ln & Shasta Ln

Existing Conditions
Timing Plan: PM PEAK

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	18	34	23	13	22
Future Vol, veh/h	10	18	34	23	13	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	21	40	27	15	26
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	66	0	-	0	97	53
Stage 1	-	-	-	-	53	-
Stage 2	-	-	-	-	44	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1535	-	-	-	902	1015
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	978	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1535	-	-	-	895	1015
Mov Cap-2 Maneuver	-	-	-	-	895	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	978	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	2.63	0		8.89		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	643	-	-	-	-	967
HCM Lane V/C Ratio	0.008	-	-	-	-	0.042
HCM Control Delay (s/veh)	7.4	0	-	-	-	8.9
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0.1

HCM 7th TWSC
1: Ferndale Rd & Tawney Ridge Ln

Opening Year 2026
Timing Plan: AM PEAK

Intersection

Int Delay, s/veh 7.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	2	40	1	2	49
Future Vol, veh/h	1	2	40	1	2	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	43	1	2	53

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	3
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	7.11	8.54
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1073	-	-	1618	-
HCM Lane V/C Ratio	0.052	-	-	0.027	-
HCM Control Delay (s/veh)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 7th TWSC
2: Tawney Ridge Ln & Shasta Ln

Opening Year 2026
Timing Plan: AM PEAK

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	24	20	27	55	21
Future Vol, veh/h	26	24	20	27	55	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	29	24	33	66	25
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	57	0	-	0	132	40
Stage 1	-	-	-	-	40	-
Stage 2	-	-	-	-	92	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1548	-	-	-	862	1031
Stage 1	-	-	-	-	982	-
Stage 2	-	-	-	-	932	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1548	-	-	-	844	1031
Mov Cap-2 Maneuver	-	-	-	-	844	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	932	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	3.83	0		9.52		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	936	-	-	-	889	
HCM Lane V/C Ratio	0.02	-	-	-	0.103	
HCM Control Delay (s/veh)	7.4	0	-	-	9.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

HCM 7th TWSC
1: Ferndale Rd & Tawney Ridge Ln

Opening Year 2026
Timing Plan: PM PEAK

Intersection

Int Delay, s/veh 7.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	1	56	2	3	28
Future Vol, veh/h	1	1	56	2	3	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	61	2	3	30

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	2
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	7.06	8.53
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1053	-	-	1618	-
HCM Lane V/C Ratio	0.032	-	-	0.038	-
HCM Control Delay (s/veh)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

HCM 7th TWSC
2: Tawney Ridge Ln & Shasta Ln

Opening Year 2026
Timing Plan: PM PEAK

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	19	35	24	14	23
Future Vol, veh/h	10	19	35	24	14	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	22	41	28	16	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	69	0	100
Stage 1	-	-	55
Stage 2	-	-	45
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1532	-	899
Stage 1	-	-	968
Stage 2	-	-	977
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1532	-	892
Mov Cap-2 Maneuver	-	-	892
Stage 1	-	-	960
Stage 2	-	-	977

Approach	EB	WB	SB
HCM Control Delay, s/v	2.54	0	8.91
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	621	-	-	-	963
HCM Lane V/C Ratio	0.008	-	-	-	0.045
HCM Control Delay (s/veh)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 7th TWSC
1: Ferndale Rd & Tawney Ridge Ln

Opening Year 2026 w/Proj
Timing Plan: AM PEAK

Intersection

Int Delay, s/veh 7.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	2	44	1	2	61
Future Vol, veh/h	1	2	44	1	2	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	48	1	2	66

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	3
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1619
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1619
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	7.13	8.58
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1074	-	-	1618	-
HCM Lane V/C Ratio	0.064	-	-	0.03	-
HCM Control Delay (s/veh)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 7th TWSC
2: Shasta Ln & Tawney Ridge Ln

Opening Year 2026 w/Proj
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	26	36	0	1	24	27	0	0	3	55	0	21
Future Vol, veh/h	26	36	0	1	24	27	0	0	3	55	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	92	92	83	83	92	92	92	83	92	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	43	0	1	29	33	0	0	3	66	0	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	61	0	0	43	0	0	137	170	43	153	153	45
Stage 1	-	-	-	-	-	-	106	106	-	47	47	-
Stage 2	-	-	-	-	-	-	31	64	-	106	106	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1565	-	-	834	723	1027	814	738	1025
Stage 1	-	-	-	-	-	-	900	807	-	966	855	-
Stage 2	-	-	-	-	-	-	985	842	-	900	807	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1542	-	-	1565	-	-	796	708	1027	794	723	1025
Mov Cap-2 Maneuver	-	-	-	-	-	-	796	708	-	794	723	-
Stage 1	-	-	-	-	-	-	881	791	-	965	855	-
Stage 2	-	-	-	-	-	-	960	841	-	878	791	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	3.1			0.13			8.52			9.77		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1027	755	-	-	28	-	-	846
HCM Lane V/C Ratio	0.003	0.02	-	-	0.001	-	-	0.108
HCM Control Delay (s/veh)	8.5	7.4	0	-	7.3	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.4

HCM 7th TWSC
1: Ferndale Rd & Tawney Ridge Ln

Opening Year 2026 w/Proj
Timing Plan: PM PEAK

Intersection						
Int Delay, s/veh	7.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	1	70	2	3	36
Future Vol, veh/h	1	1	70	2	3	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	76	2	3	39

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	2	0	156
Stage 1	-	-	-	-	2
Stage 2	-	-	-	-	154
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1620	-	835
Stage 1	-	-	-	-	1022
Stage 2	-	-	-	-	874
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1620	-	796
Mov Cap-2 Maneuver	-	-	-	-	796
Stage 1	-	-	-	-	1022
Stage 2	-	-	-	-	833

Approach	EB	WB	NB
HCM Control Delay, s/v	0	7.13	8.56
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1054	-	-	1618	-
HCM Lane V/C Ratio	0.04	-	-	0.047	-
HCM Control Delay (s/veh)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

HCM 7th TWSC
2: Shasta Ln & Tawney Ridge Ln

Opening Year 2026 w/Proj
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	10	27	0	4	49	24	0	0	2	14	0	23
Future Vol, veh/h	10	27	0	4	49	24	0	0	2	14	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	92	92	86	86	92	92	92	86	92	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	31	0	4	57	28	0	0	2	16	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	85	0	0	31	0	0	120	148	31	134	134	71
Stage 1	-	-	-	-	-	-	55	55	-	80	80	-
Stage 2	-	-	-	-	-	-	66	94	-	55	55	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1512	-	-	1581	-	-	855	743	1043	837	757	992
Stage 1	-	-	-	-	-	-	958	849	-	929	829	-
Stage 2	-	-	-	-	-	-	945	817	-	958	849	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1512	-	-	1581	-	-	823	735	1043	827	748	992
Mov Cap-2 Maneuver	-	-	-	-	-	-	823	735	-	827	748	-
Stage 1	-	-	-	-	-	-	950	843	-	926	826	-
Stage 2	-	-	-	-	-	-	917	815	-	948	843	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2			0.35			8.46			9.1		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1043	486	-	-	82	-	-	922
HCM Lane V/C Ratio	0.002	0.008	-	-	0.003	-	-	0.047
HCM Control Delay (s/veh)	8.5	7.4	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

HCM 7th TWSC
1: Ferndale Rd & Tawney Ridge Ln

Horizon Year 2026
Timing Plan: AM PEAK

Intersection

Int Delay, s/veh 7.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	3	48	1	3	60
Future Vol, veh/h	1	3	48	1	3	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	52	1	3	65

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	4
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1617
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1617
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	7.15	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1068	-	-	1616	-
HCM Lane V/C Ratio	0.064	-	-	0.032	-
HCM Control Delay (s/veh)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 7th TWSC
2: Tawney Ridge Ln & Shasta Ln

Horizon Year 2026
Timing Plan: AM PEAK

Intersection						
Int Delay, s/veh	5.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	32	29	24	33	67	25
Future Vol, veh/h	32	29	24	33	67	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	35	29	40	81	30
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	69	0	-	0	161	49
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	112	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1532	-	-	-	830	1020
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	913	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1532	-	-	-	809	1020
Mov Cap-2 Maneuver	-	-	-	-	809	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	913	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	3.89	0		9.82		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	944	-	-	-	857	
HCM Lane V/C Ratio	0.025	-	-	-	0.129	
HCM Control Delay (s/veh)	7.4	0	-	-	9.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	

HCM 7th TWSC
1: Ferndale Rd & Tawney Ridge Ln

Opening Year 2026
Timing Plan: PM PEAK

Intersection						
Int Delay, s/veh	7.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	1	68	3	4	34
Future Vol, veh/h	1	1	68	3	4	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	74	3	4	37
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2	0	153	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	151	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1620	-	839	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	877	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1620	-	801	1083
Mov Cap-2 Maneuver	-	-	-	-	801	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	837	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		7.02		8.59	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	1044		-	-	1617	-
HCM Lane V/C Ratio	0.04		-	-	0.046	-
HCM Control Delay (s/veh)	8.6		-	-	7.3	0
HCM Lane LOS	A		-	-	A	A
HCM 95th %tile Q(veh)	0.1		-	-	0.1	-

HCM 7th TWSC
2: Tawney Ridge Ln & Shasta Ln

Opening Year 2026
Timing Plan: PM PEAK

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	23	43	29	16	28
Future Vol, veh/h	13	23	43	29	16	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	27	50	34	19	33

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	84	0	0	124	67
Stage 1	-	-	-	67	-
Stage 2	-	-	-	57	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1513	-	-	871	997
Stage 1	-	-	-	956	-
Stage 2	-	-	-	966	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1513	-	-	862	997
Mov Cap-2 Maneuver	-	-	-	862	-
Stage 1	-	-	-	946	-
Stage 2	-	-	-	966	-

Approach	EB	WB	SB
HCM Control Delay, s/v	2.67	0	9.04
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	650	-	-	-	943
HCM Lane V/C Ratio	0.01	-	-	-	0.054
HCM Control Delay (s/veh)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 7th TWSC
1: Ferndale Rd & Tawney Ridge Ln

Horizon Year 2036
Timing Plan: AM PEAK

Intersection						
Int Delay, s/veh	7.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	3	52	1	3	72
Future Vol, veh/h	1	3	52	1	3	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	57	1	3	78
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	117	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	114	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1617	-	879	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	911	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1617	-	848	1081
Mov Cap-2 Maneuver	-	-	-	-	848	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	879	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		7.17		8.64	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1070	-	-	1616	-	
HCM Lane V/C Ratio	0.076	-	-	0.035	-	
HCM Control Delay (s/veh)	8.6	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	

HCM 7th TWSC
2: Shasta Ln & Tawney Ridge Ln

Horizon Year 2036
Timing Plan: AM PEAK

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	32	41	0	1	28	33	0	0	3	67	0	25
Future Vol, veh/h	32	41	0	1	28	33	0	0	3	67	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	92	92	83	83	92	92	92	83	92	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	49	0	1	34	40	0	0	3	81	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	73	0	0	49	0	0	162	202	49	182	182	54
Stage 1	-	-	-	-	-	-	127	127	-	56	56	-
Stage 2	-	-	-	-	-	-	36	76	-	127	127	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1526	-	-	1557	-	-	803	694	1019	779	712	1014
Stage 1	-	-	-	-	-	-	877	791	-	956	848	-
Stage 2	-	-	-	-	-	-	980	832	-	877	791	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1526	-	-	1557	-	-	758	675	1019	756	693	1014
Mov Cap-2 Maneuver	-	-	-	-	-	-	758	675	-	756	693	-
Stage 1	-	-	-	-	-	-	855	771	-	956	848	-
Stage 2	-	-	-	-	-	-	950	831	-	852	771	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	3.25	0.11	8.54	10.13
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1019	789	-	-	24	-	-	812
HCM Lane V/C Ratio	0.003	0.025	-	-	0.001	-	-	0.137
HCM Control Delay (s/veh)	8.5	7.4	0	-	7.3	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.5

HCM 7th TWSC
1: Ferndale Rd & Tawney Ridge Ln

Horizon Year 2036 w/Proj
Timing Plan: PM PEAK

Intersection						
Int Delay, s/veh	7.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	1	82	3	4	42
Future Vol, veh/h	1	1	82	3	4	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	89	3	4	46
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2	0	183	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	182	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1620	-	806	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1620	-	762	1083
Mov Cap-2 Maneuver	-	-	-	-	762	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	803	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		7.09		8.62	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1044	-	-	1617	-	
HCM Lane V/C Ratio	0.048	-	-	0.055	-	
HCM Control Delay (s/veh)	8.6	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-	

HCM 7th TWSC
2: Shasta Ln & Tawney Ridge Ln

Horizon Year 2036 w/Proj
Timing Plan: PM PEAK

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	13	31	0	4	57	29	0	0	2	16	0	28
Future Vol, veh/h	13	31	0	4	57	29	0	0	2	16	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	92	92	86	86	92	92	92	86	92	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	36	0	4	66	34	0	0	2	19	0	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	100	0	0	36	0	0	141	175	36	158	158	83
Stage 1	-	-	-	-	-	-	66	66	-	92	92	-
Stage 2	-	-	-	-	-	-	75	109	-	66	66	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1493	-	-	1575	-	-	829	718	1037	808	734	976
Stage 1	-	-	-	-	-	-	944	840	-	915	819	-
Stage 2	-	-	-	-	-	-	934	805	-	944	840	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1493	-	-	1575	-	-	790	709	1037	795	724	976
Mov Cap-2 Maneuver	-	-	-	-	-	-	790	709	-	795	724	-
Stage 1	-	-	-	-	-	-	934	831	-	913	816	-
Stage 2	-	-	-	-	-	-	900	803	-	932	831	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.2			0.3			8.48			9.23		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1037	532	-	-	70	-	-	902				
HCM Lane V/C Ratio	0.002	0.01	-	-	0.003	-	-	0.057				
HCM Control Delay (s/veh)	8.5	7.4	0	-	7.3	0	-	9.2				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2				