

TRAFFIC IMPACT ANALYSIS

North Ranch Residential Development
5979 Gabbert Road
In the City of Moorpark

Date: December 17, 2021

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Traffic Impact Analysis
Proposed North Ranch
5979 Gabbert Road, Moorpark



Prepared under the supervision of

A handwritten signature in black ink, appearing to read "Jende Kay Hsu".

Jende Kay Hsu, P.E., T. E.

Lic. # T2285

EXECUTIVE SUMMARY

The purpose of this analysis is to evaluate the traffic impact of the proposed residential development of 144 residential units, including 139 single-family homes and 5 estate lots, on vacant and unimproved lots (APN# 5110190285 & 5110190305) located at 5979 Gabbert Road in the City of Moorpark.

The project is expected to produce 107 trips in the AM peak hour, including 27 inbound trips and 80 outbound trips, 143 trips in the PM peak hour, including 90 inbound trips and 53 outbound trips, and 1,359 daily trips.

The study found that the following intersections will operate at LOS D for the opening year (2025) scenario:

- Gabbert Road/Tierra Rejada Road at E. Los Angeles Avenue (#3)
- Moorpark Avenue at Poindexter Avenue/First Street (#5)
- Moorpark Avenue at E. Los Angeles Avenue (#6)

However, the project's contribution to this pre-existing condition is negligible. Project traffic will not cause the intersection ICU to increase more than 0.10; therefore, mitigation measures are not required.

Site access will be provided to Gabbert Road via the proposed North Hills Parkway that terminates at Gabbert Road, forming a new T intersection. This new intersection of North Hills Parkway and Gabbert Road will be controlled by a STOP sign on North Hills Parkway for the eastbound traffic.

INTRODUCTION

The purpose of this analysis is to evaluate the traffic impact of the proposed residential development of 144 residential units, including 139 single-family homes and 5 estate lots, on vacant and unimproved lots (APN# 5110190285 & 5110190305) located at 5979 Gabbert Road in the City of Moorpark. The vicinity map is shown in **Exhibit 1**. Site plan is provided in **Exhibit 2**.

Site access will be provided to Gabbert Road via the proposed North Hills Parkway that terminates at Gabbert Road, forming a new T intersection. This new intersection of North Hills Parkway and Gabbert Road will be controlled by a STOP sign on North Hills Parkway for the eastbound traffic.

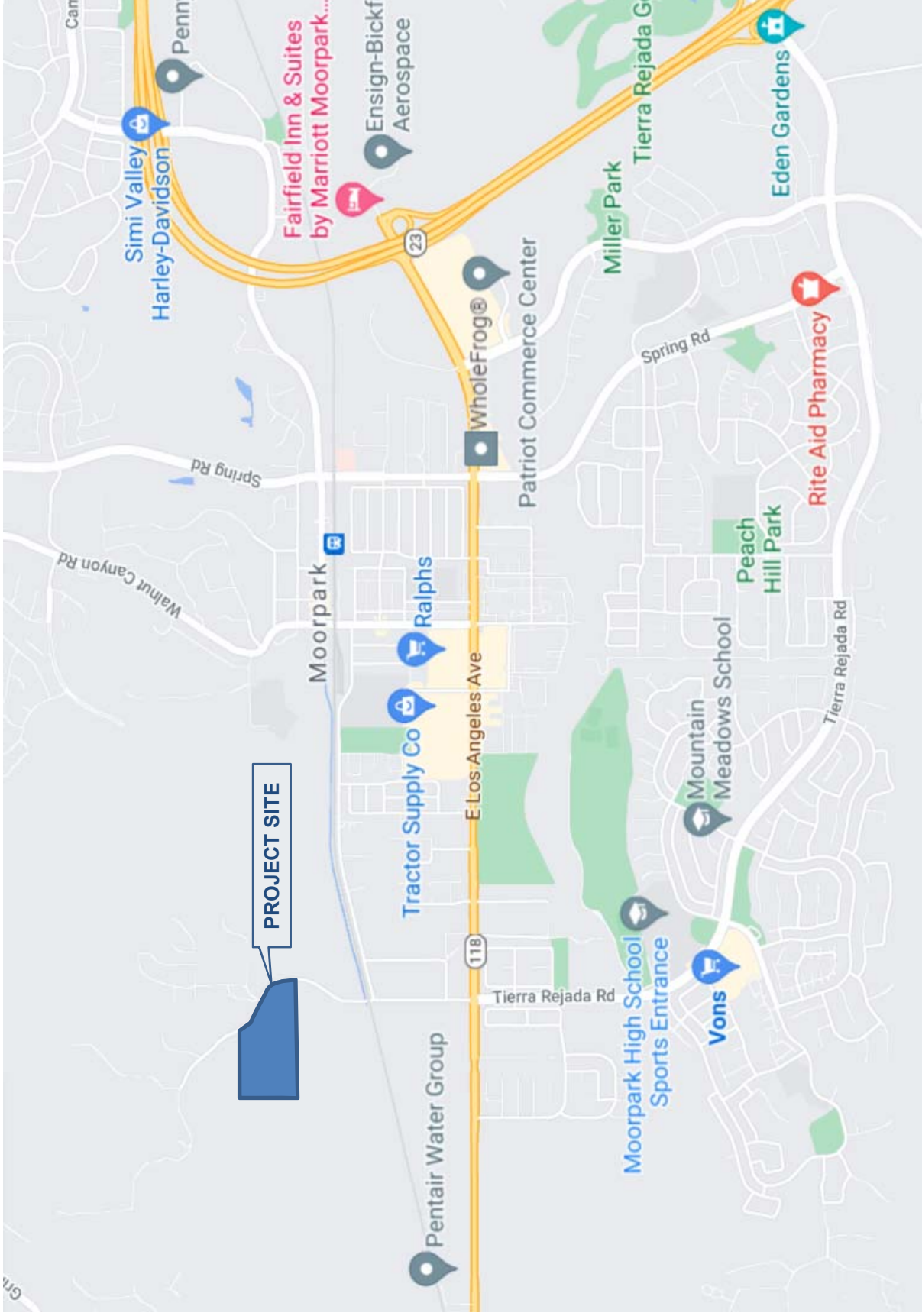
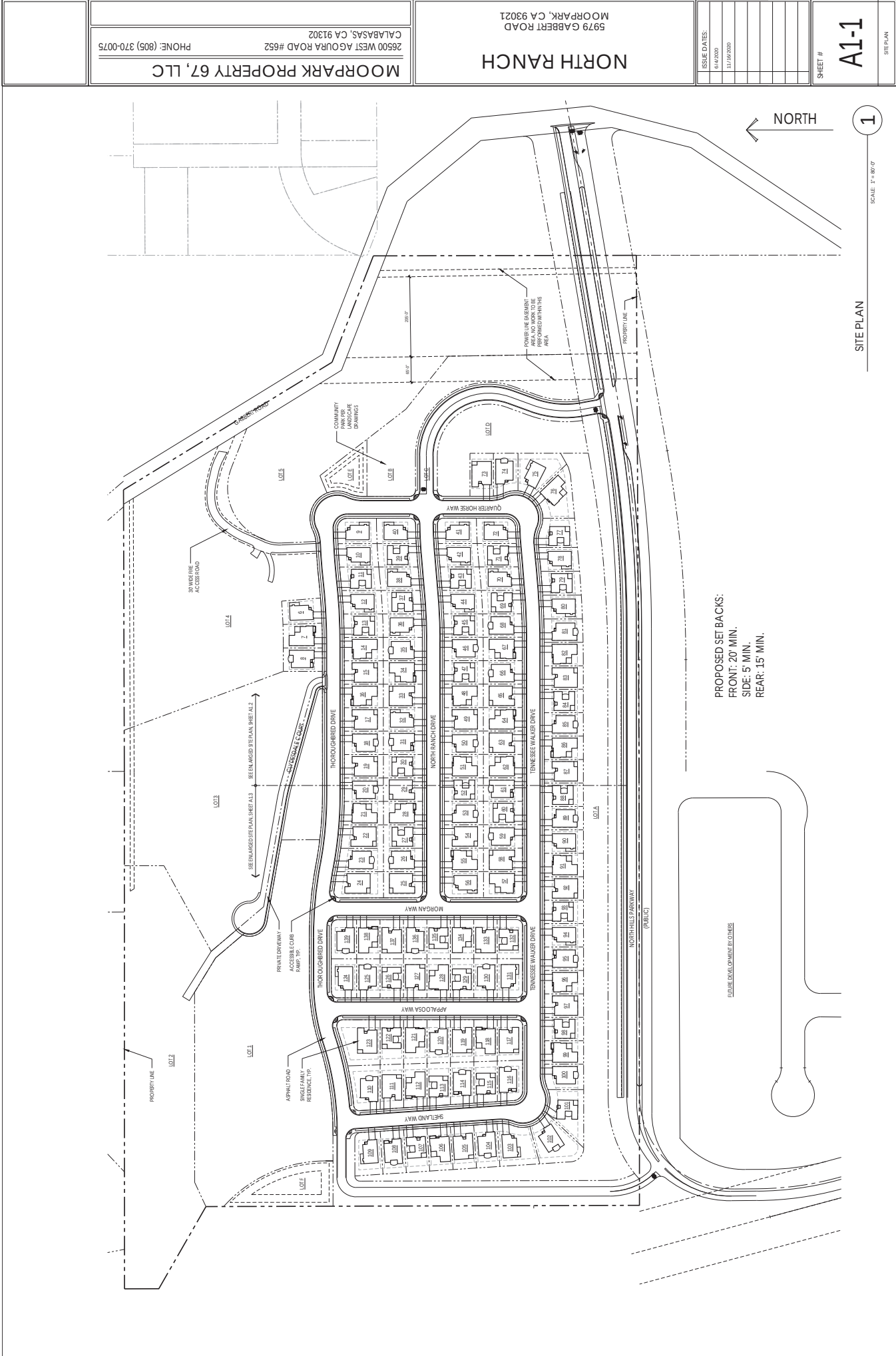


EXHIBIT 1. VICINITY MAP

Not To Scale



STUDY SCENARIOS

In compliance with the City of Moorpark “*Guidelines for Preparing Traffic and Circulation Studies*”, dated November 1993, the following scenarios are included in this analysis:

- i. Existing Conditions
- ii. Existing Conditions plus Project
- iii. Opening Year (2025) plus Cumulative Projects
- iv. Opening Year (2025) plus Cumulative Projects plus Project
- v. Opening Year (2025) plus Cumulative Projects plus Project plus Mitigation, If Necessary

According to the scoping agreement submitted to the City, provided in **Appendix A**, the following intersections are studied for level of service analysis to evaluate potential traffic impacts:

1. Gabbert Road at Poindexter Avenue
2. Gabbert Road/Tierra Rejada Road at Los Angeles Avenue
3. Moorpark Avenue at High Street
4. Moorpark Avenue at Poindexter Avenue
5. Moorpark Avenue at Los Angeles Avenue
6. Gabbert Road at North Hills Parkway

Except for the proposed intersection of Gabbert Road at North Hills Parkway and the existing intersection of Gabbert Road at Poindexter Avenue, which are stop-controlled, all other study intersections are controlled by traffic signals.

The Level of Service (LOS) Analysis is performed using the Intersection Capacity Utilization (ICU) method. **Table 1** provides the definition for LOS associated with the values of volume-to-capacity ratios (V/C).

Table 1. LOS Definitions – ICU Analysis

LOS	V/C Ratio
A	0.00 – 0.60
B	0.61 – 0.70
C	0.71 – 0.80
D	0.81 – 0.90
E	0.91 – 1.00
F	> 100

EXISTING CONDITIONS

The project site is located west of Gabbert Road and north of Poindexter Avenue in the City of Moorpark. Gabbert Road is a Local Collector running north-southerly with one lane in each direction. Gabbert Road connects southerly with Tierra Rejada Road at Los Angeles Avenue. The posted speed limit is 30 mph north of Poindexter Road and 40 mph between Poindexter Road and Los Angeles Avenue. On-street parking is generally prohibited.

Poindexter Avenue is classified as a Local Collector street running east-westerly with one lane in each direction. This roadway connects Moorpark Avenue on the east with Gabbert Road on the west. The posted speed limit is 40 mph. On-street parking is generally prohibited.

Los Angeles Avenue is classified as a Six Lane Arterial between Gabbert Road and Moorpark Avenue in General Plan's Circulation Element. It runs east-westerly with three lanes in each direction and left turn lanes at major intersections. The posted speed limit is 45 mph near the study intersections. On-street parking is generally prohibited.

Tierra Rejada Road is designated as a Four Lane Arterial road running primarily east westerly with two lanes and a bicycle lane in each direction divided by a raised median. The roadway connects Los Angeles Avenue with Moorpark Freeway (SR-23) to the east. The posted speed limit is 45 mph. On-street parking is generally prohibited.

Moorpark Avenue is designated as a Local Collector running north-southerly with one lane in each direction and left-turn lanes at major intersections. There are bicycle lanes south of Los Angeles Avenue. The posted speed limit is 30 mph. On-street parking is prohibited.

High Street is a Local Collector road running east-westerly with one vehicle lane and one bicycle lane in each direction. High Street terminates approximately 700 feet west of Moorpark Avenue. The posted speed limit is 30 mph. On-street parking is permitted.

Historical turning movement counts conducted for the Hitch Ranch Developments in April 2019 were applied with the annual growth rate of one percent (1%) to simulate existing conditions in this study. Lane configurations and existing traffic volumes for the study intersections are provided in **Exhibits 3** and **4**, respectively. Complete traffic count data can be found in **Appendix B**.

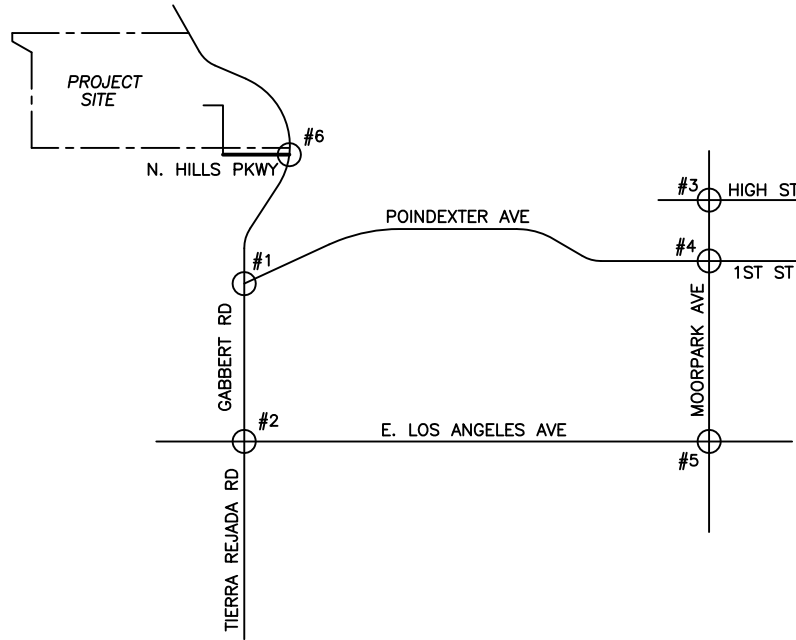
Level of service (LOS) and V/C ratio of the study intersections for existing conditions are shown in **Table 2**. The study intersections operate at LOS C or better in both the AM and PM peak hours under existing conditions. The analysis worksheets are provided in **Appendix C**.

Table 2. Existing Conditions Analysis

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	V/C	LOS	V/C
1. Gabbert Rd at Poindexter Ave	A	0.381	A	0.349
2. Gabbert Rd/Tierra Rejada Rd at Los Angeles Ave	C	0.738	B	0.658
3. Moorpark Ave at High St	A	0.482	A	0.495
4. Moorpark Ave at Poindexter Ave/First St	B	0.679	B	0.659
5. Moorpark Ave at Los Angeles Ave	B	0.637	B	0.675



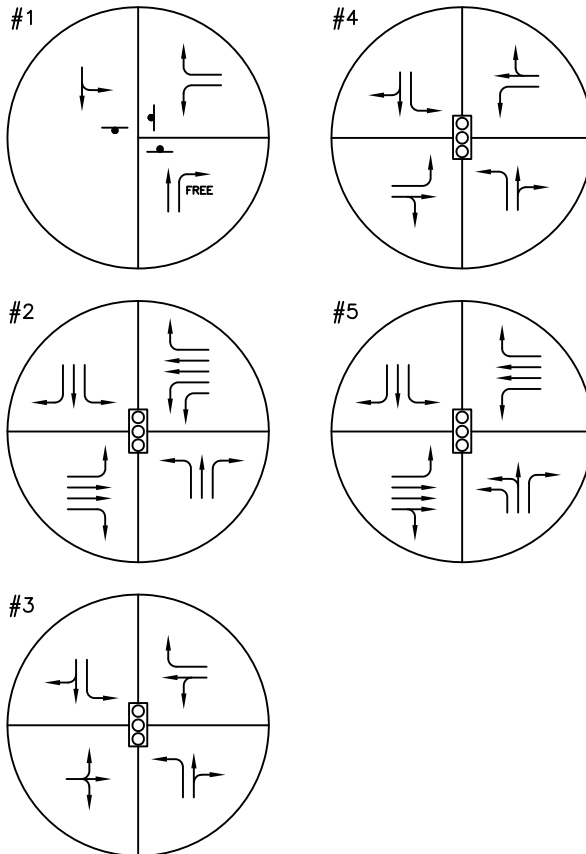
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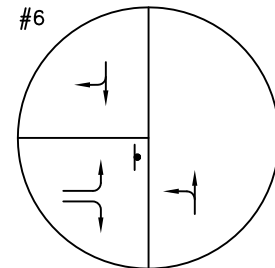
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- STUDY INTERSECTION
- TRAFFIC SIGNAL
- STOP SIGN

EXISTING



PROPOSED

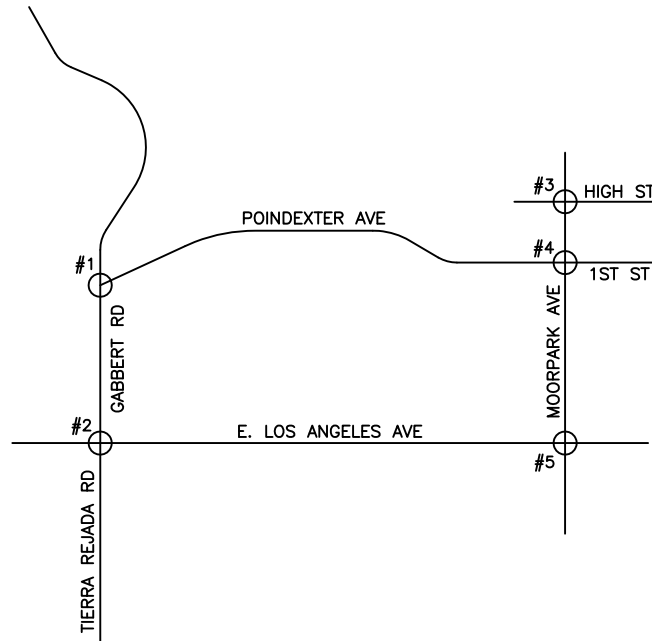


North Ranch Residential Development
5979 Gabbert Road, Moorpark

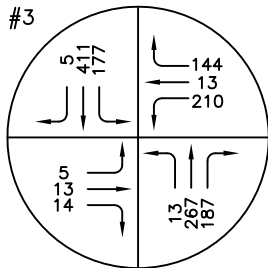
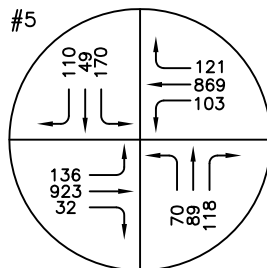
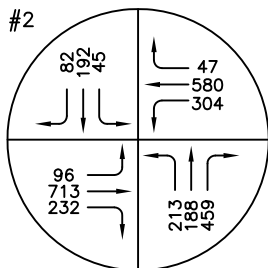
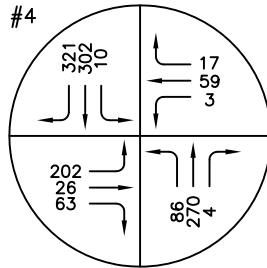
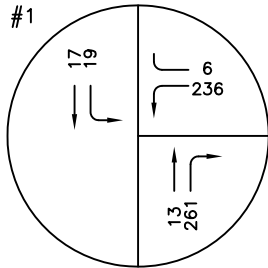
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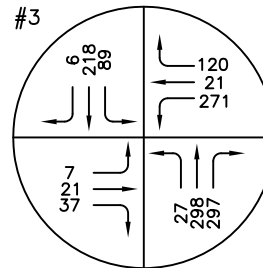
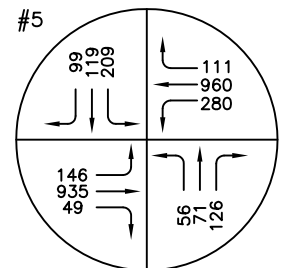
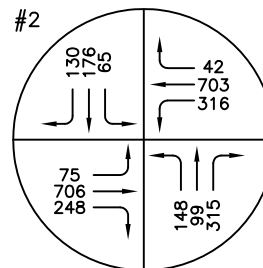
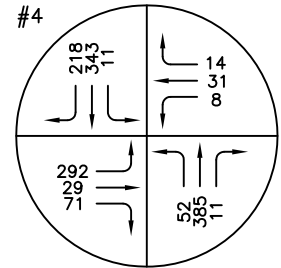
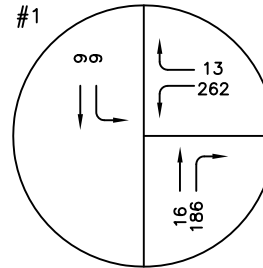
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-  TRAFFIC SIGNAL
-  STOP SIGN



AM PEAK HOUR



PM PEAK HOUR



North Ranch Residential Development
5979 Gabbert Road, Moorpark

**EXISTING CONDITIONS
TRAFFIC VOLUMES**

TRIP GENERATION

Trip generation represents the amount of traffic attracted and produced by the project development. Based upon the recommendations from “*Trip Generation, 10th Edition*,” published by the Institute of Transportation Engineers (ITE), applicable trip generation rates are shown in **Table 3**.

Table 3. Trip Generation Rate

Land Use	Unit	Daily	AM Peak			PM Peak		
			Total	In	Out	Total	In	Out
Single-Family Detached Housing (210)	Dwelling Units	9.44	0.74	25%	75%	0.99	63%	37%

Project trip calculation is calculated and summarized in **Table 4**. The project is expected to produce 107 trips in the AM peak hour, including 27 inbound trips and 80 outbound trips, 143 trips in the PM peak hour, including 90 inbound trips and 53 outbound trips, and 1,359 daily trips.

Table 4. Project Trip Generation

Land Use	Unit	Quantity	AM Peak			PM Peak			Daily
			Total	In	Out	Total	In	Out	
Single-Family Detached Housing (210)	Dwelling Units	144	107	27	80	143	90	53	1,359

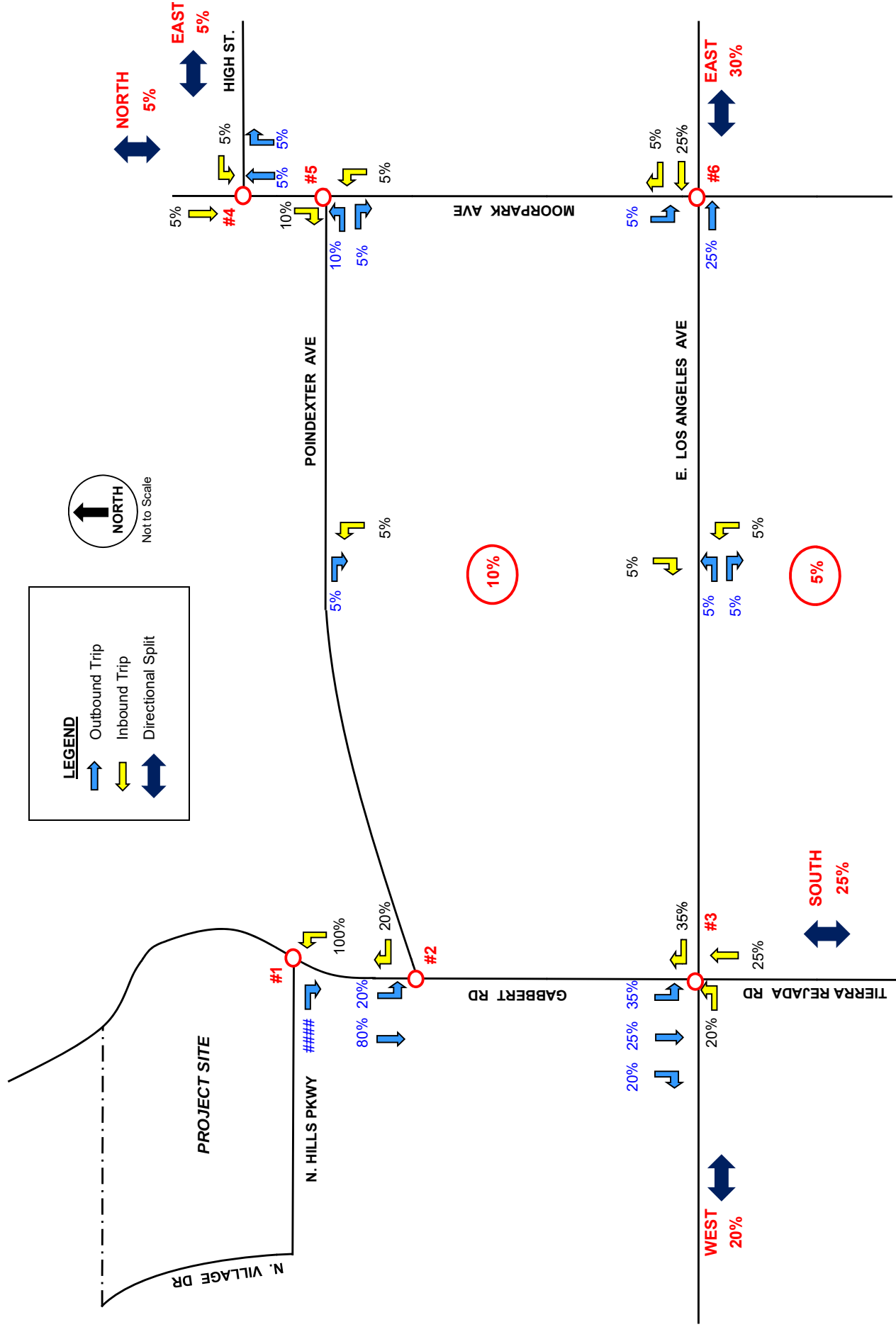
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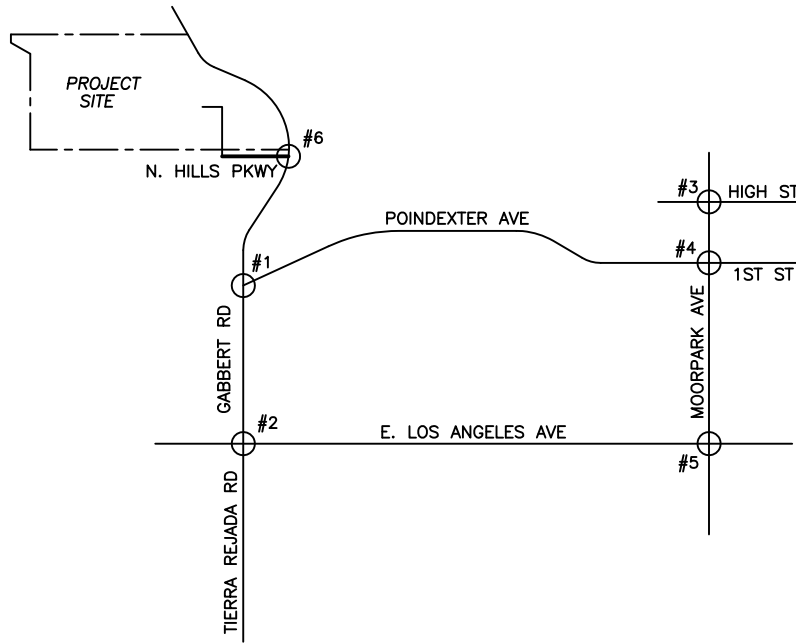
Trip distribution represents the directional orientation of traffic to and from the proposed project. Directional orientation is largely influenced by the geographical location of the site, among many other factors. The trip distribution pattern for the project is illustrated in **Exhibit 5**.

TRAFFIC ASSIGNMENT

The traffic assignment to and from the site has been based upon the results of trip generation, trip distribution, and access layouts. **Exhibit 6** illustrates the traffic assignment of the proposed project in the AM and PM peak hour.

EXHIBIT 5. TRIP DISTRIBUTION

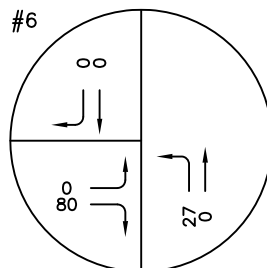
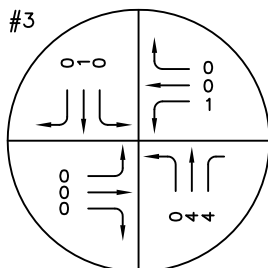
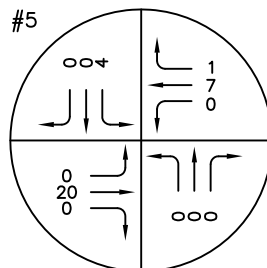
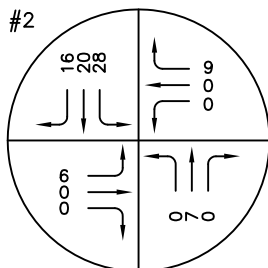
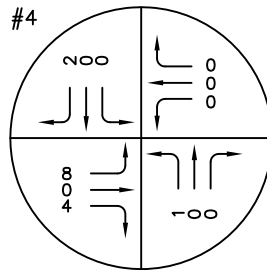
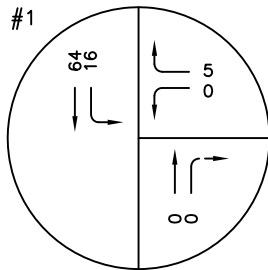




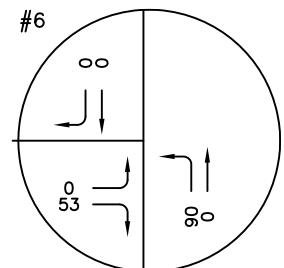
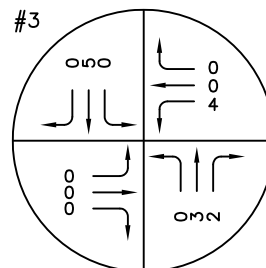
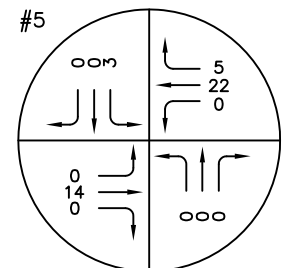
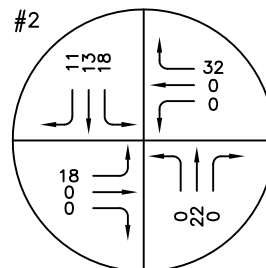
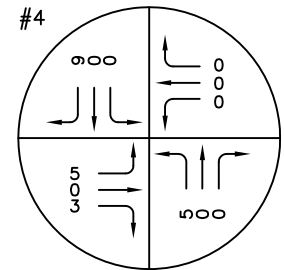
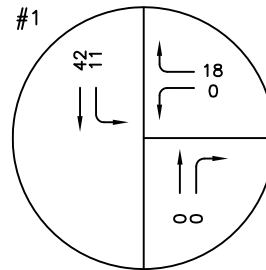
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- STUDY INTERSECTION
- TRAFFIC SIGNAL
- STOP SIGN

AM PEAK HOUR



PM PEAK HOUR

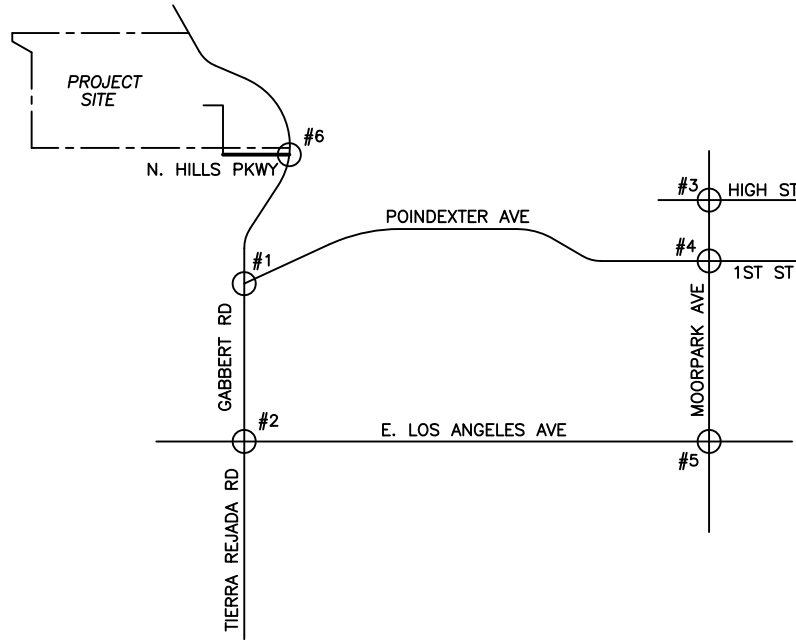


EXISTING CONDITIONS PLUS PROJECT

Traffic volumes at the study intersections for existing conditions plus project are shown in **Exhibit 7**. The level of service and delays are shown in **Table 5**. All study intersections will remain operating at LOS C or better for the AM and PM peak hours in this scenario. The analysis worksheets can be found in **Appendix C**.

Table 5. Existing Conditions plus Project

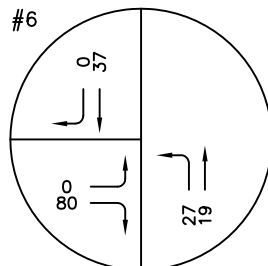
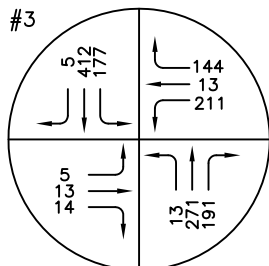
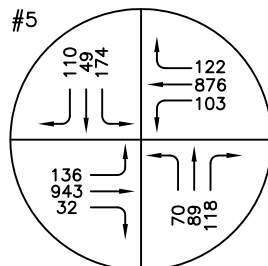
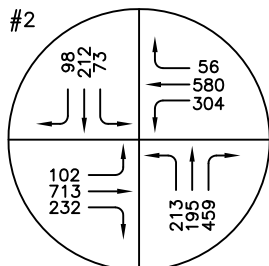
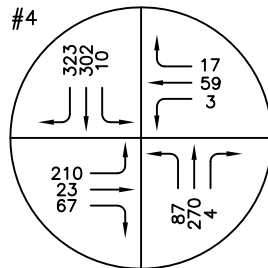
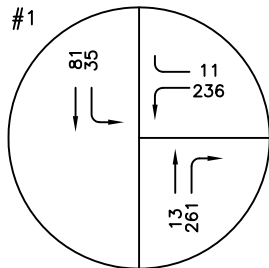
Intersection	AM Peak Hour		PM Peak Hour	
	LOS	V/C	LOS	V/C
1. Gabbert Rd at Poindexter Ave	A	0.381	A	0.349
2. Gabbert Rd/Tierra Rejada Rd at Los Angeles Ave	C	0.757	B	0.670
3. Moorpark Ave at High St	A	0.486	A	0.499
4. Moorpark Ave at Poindexter Ave/First St	B	0.687	B	0.670
5. Moorpark Ave at Los Angeles Ave	B	0.642	B	0.684
6. Gabbert Road at North Hills Pkwy	A	0.126	A	0.104



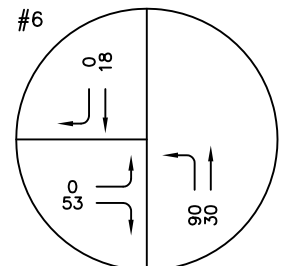
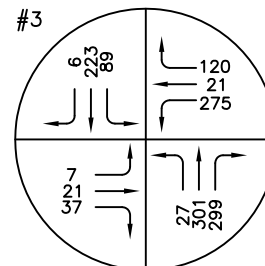
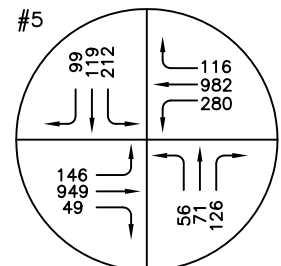
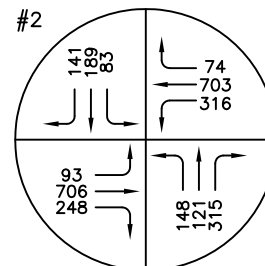
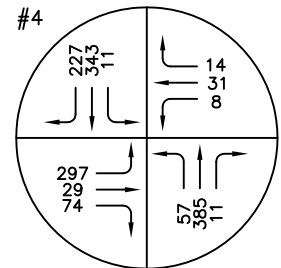
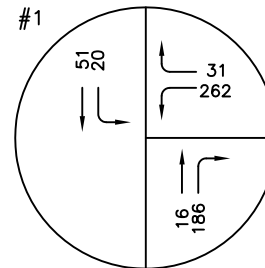
LEGEND:

- STUDY INTERSECTION
- TRAFFIC SIGNAL
- STOP SIGN

AM PEAK HOUR



PM PEAK HOUR



North Ranch Residential Development
5979 Gabbert Road, Moorpark

**EXISTING CONDITIONS PLUS PROJECT
TRAFFIC VOLUMES**

CUMULATIVE PROJECTS

Other approved projects within a one-mile radius were taken into consideration for the opening year conditions. Based upon the information provided by the City's Community Development Department, cumulative development projects are listed in **Table 6**.

Exhibit 8 illustrates the locations of the cumulative projects. **Exhibit 9** provides the traffic generated by these cumulative developments at the intersection.

Table 6. Summary of Cumulative Development Projects

No.	Project	Land Use	Quantity
1	Triliad Development	Movie Studio	37 Acres
2	Pacific Communities	Single Family Residential	283 Units
3	Essex Moorpark, LLC	Multi-Family Residential	200 Units
4	Spring Road LLC	Condominiums	95 Units
5	City Ventures	Single Family Residential	110 Units
6	Oakmond Senior Living	Senior Residential	77 Units
7	Birdsall Group, LLC	Single Family Residential	21 Units
8	Aldersgate Senior Housing	Senior Residential	390 Units
9	High Street Depot/Daly Group	Downtown Mixed-Use	13,656 SF Retail & 79 Apartments
10	Grand Moorpark/Kozar	Condominiums	63 Units
11	John C, Chiu, FLP-N	Condominiums	60 Units
12	Beltramo Ranch	Single Family Residential	52 Units
13	AHA Scattered Sites	Multi-Family Residential	56 Units
14	Hitch Ranch	Single and Multi-Family	255 Units
15	Amazon Distribution Venter	Industrial	Reuse of 189,364 SF Industrial
16	National Ready Mix	Batch Plant	10 acres
17	CEMEX	Quarry	N/A
18	Wayne J. Sand & Gravel	Quarry	N/A
19	Grimes Rock	Quarry	N/A

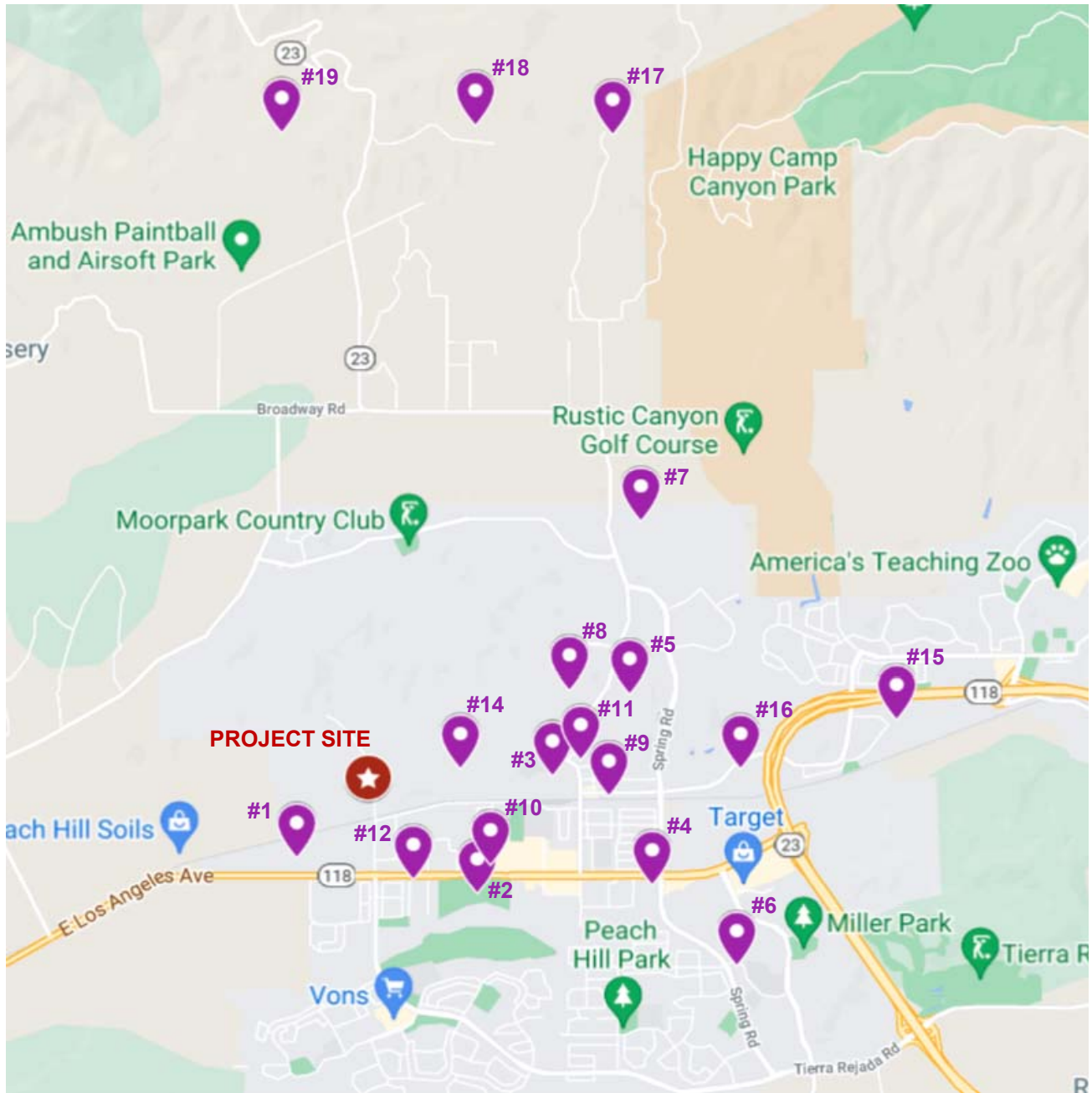
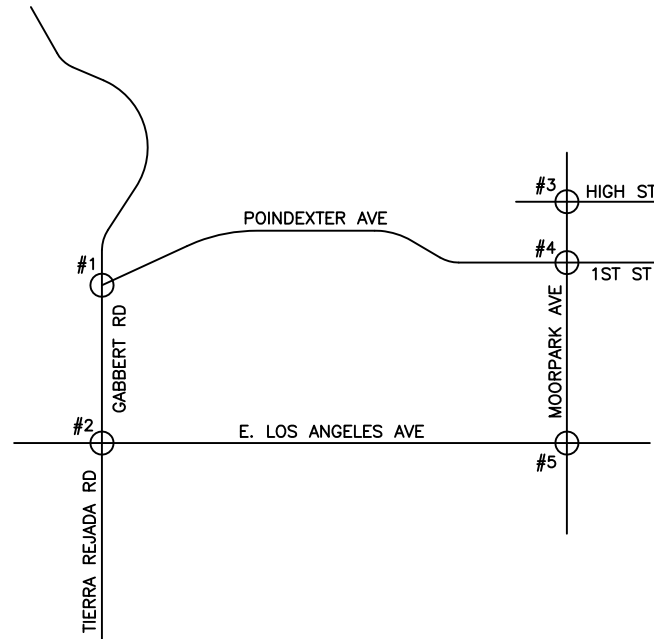


EXHIBIT 8. CUMULATIVE PROJECTS LOCATION MAP

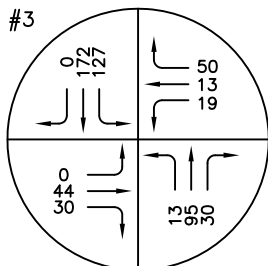
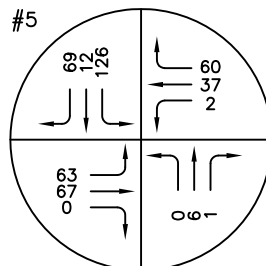
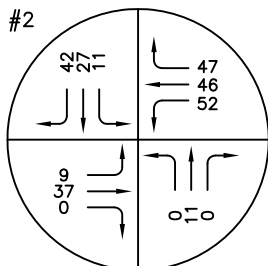
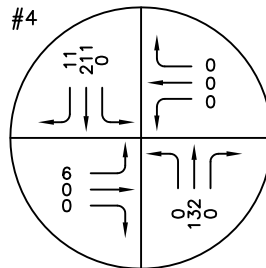
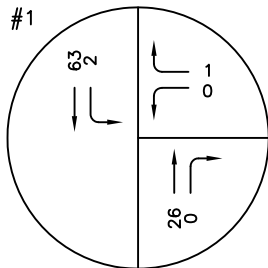
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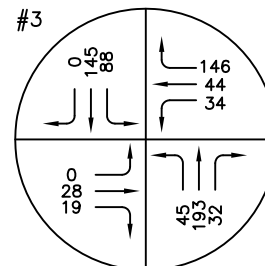
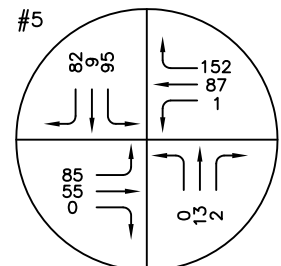
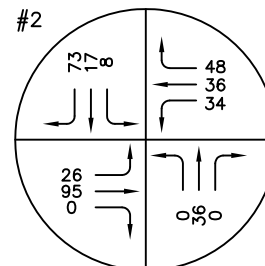
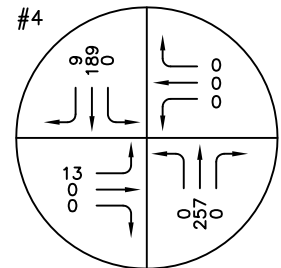
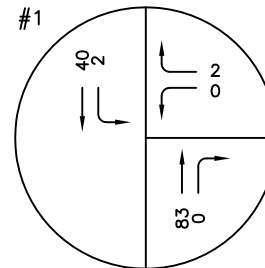
-  STUDY INTERSECTION
-  TRAFFIC SIGNAL
-  STOP SIGN



AM PEAK HOUR



PM PEAK HOUR



North Ranch Residential Development
5979 Gabbert Road, Moorpark

**CUMULATIVE PROJECTS
TRAFFIC VOLUMES**

OPENING YEAR WITH CUMULATIVE PROJECTS

For the project opening year 2025, the annual ambient growth rate of one percent (1%) is used. This factor represents traffic increases resulting from regional growth. Traffic volumes for the project opening year with related projects are illustrated in **Exhibit 10**.

The level of service in the AM and PM peak hour for this scenario are shown in **Table 7**. All study intersections will operate at acceptable LOS C or better for the AM and PM peak hours except for the following intersections:

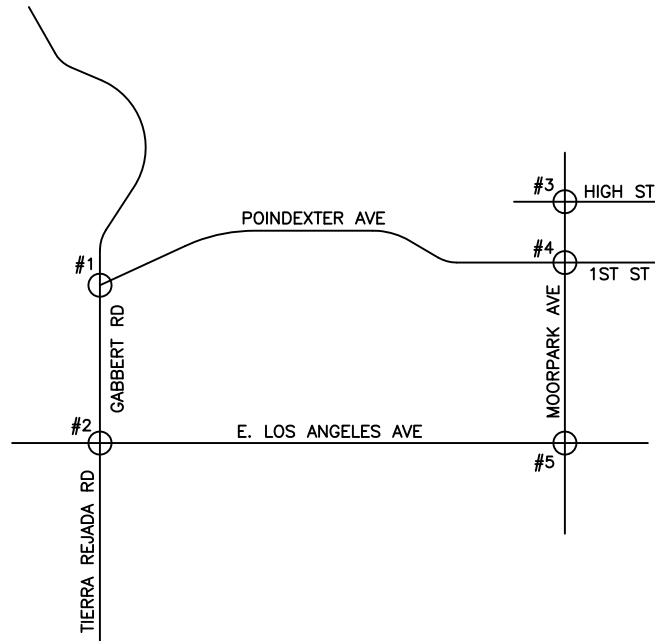
- Gabbert Road/Tierra Rejada Road at E. Los Angeles Avenue (#2): LOS D in the AM peak hour
- Moorpark Avenue at Poindexter Avenue/First Street (#4): LOS D in the AM and PM peak hour
- Moorpark Avenue at E. Los Angeles Avenue (#5): LOS D in the AM and PM peak hour

Table 7. Opening Year (2025) with Cumulative Projects

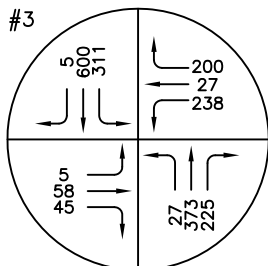
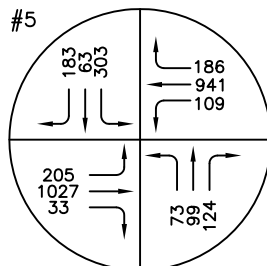
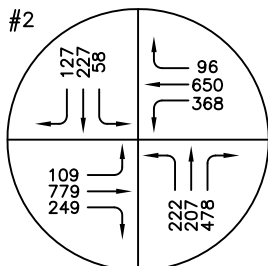
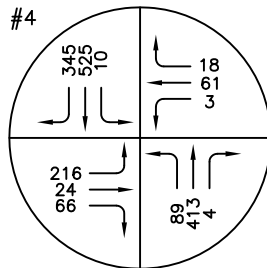
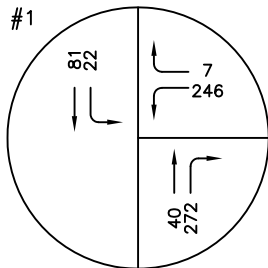
Intersection	AM Peak Hour		PM Peak Hour	
	LOS	V/C	LOS	V/C
1. Gabbert Rd at Poindexter Ave	A	0.395	A	0.361
2. Gabbert Rd/Tierra Rejada Rd at Los Angeles Ave	D	0.807	C	0.733
3. Moorpark Ave at High St	B	0.673	C	0.770
4. Moorpark Ave at Poindexter Ave/First St	D	0.846	D	0.815
5. Moorpark Ave at Los Angeles Ave	D	0.807	D	0.864

LEGEND:

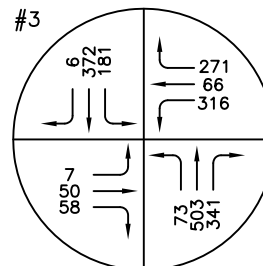
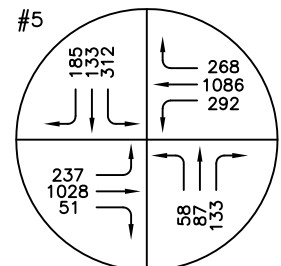
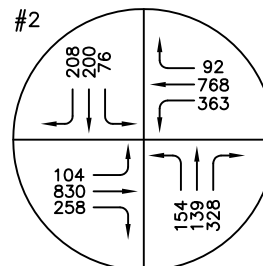
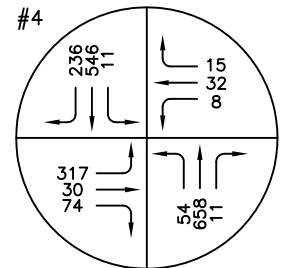
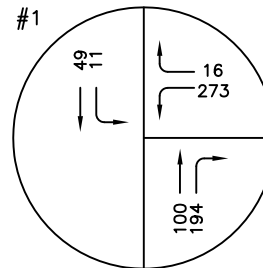
-  STUDY INTERSECTION
-  TRAFFIC SIGNAL
-  STOP SIGN



AM PEAK HOUR



PM PEAK HOUR



North Ranch Residential Development
5979 Gabbert Road, Moorpark

OPENING YEAR WITH CUMULATIVE
PROJECTS TRAFFIC VOLUMES

OPENING YEAR WITH CUMULATIVE PROJECTS PLUS PROJECT

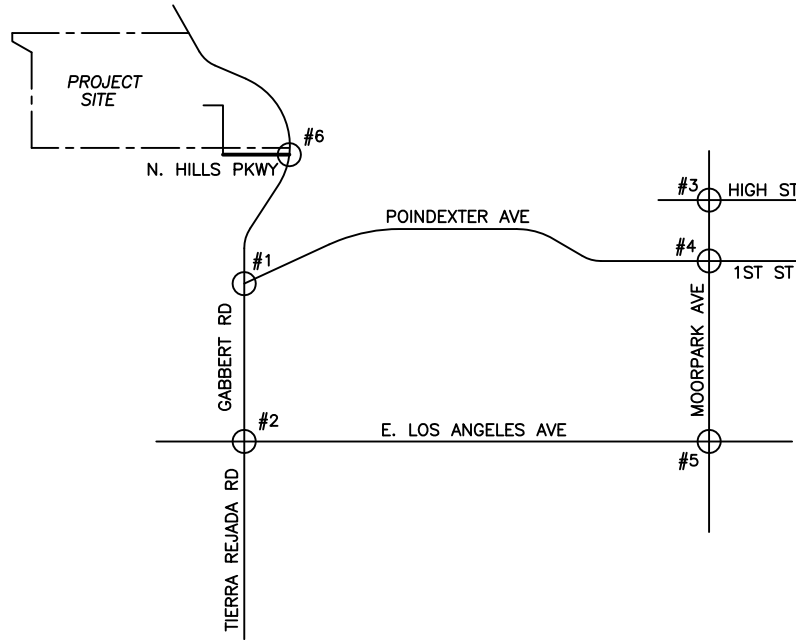
Traffic volumes for the project opening year with cumulative projects plus project traffic volumes are illustrated in **Exhibit 11**. Analysis worksheets can be found in **Appendix C**.

The level of services and V/C ratios at the study intersections under this scenario are shown in **Table 8**. All study intersections remain operating at acceptable LOS C or better except for the following intersections:

- Gabbert Road/Tierra Rejada Road at E. Los Angeles Avenue (#2): LOS D in the AM peak hour
- Moorpark Avenue at Poindexter Avenue/First Street (#4): LOS D in the AM and PM peak hour
- Moorpark Avenue at E. Los Angeles Avenue (#5): LOS D in the AM and PM peak hour

Table 8. Opening Year ((2025) Cumulative Conditions plus Project

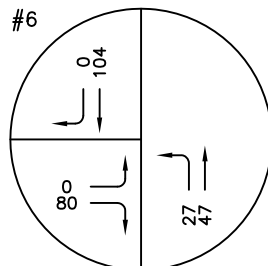
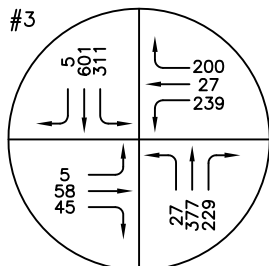
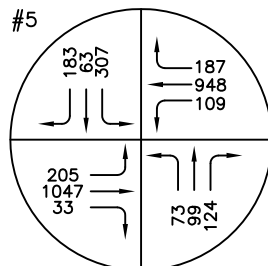
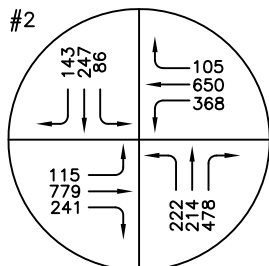
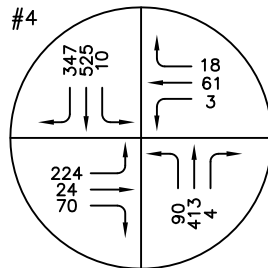
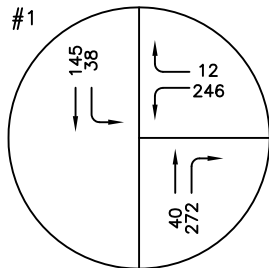
Intersection	AM Peak Hour		PM Peak Hour	
	LOS	V/C	LOS	V/C
1. Gabbert Rd at Poindexter Ave	A	0.395	A	0.361
2. Gabbert Rd/Tierra Rejada Rd at Los Angeles Ave	D	0.825	C	0.745
3. Moorpark Ave at High St	B	0.676	C	0.774
4. Moorpark Ave at Poindexter Ave/First St	D	0.853	D	0.827
5. Moorpark Ave at Los Angeles Ave	D	0.812	D	0.873
6. Gabbert Road at North Hills Pkwy	A	0.168	A	0.158



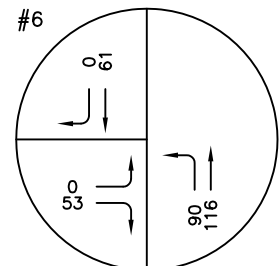
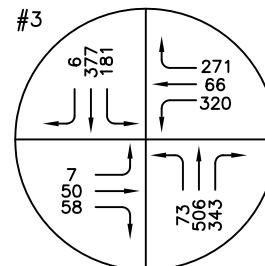
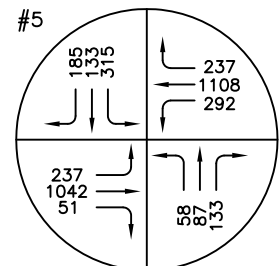
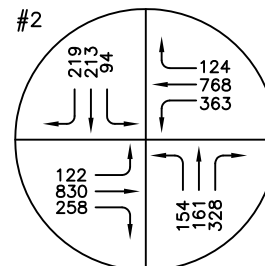
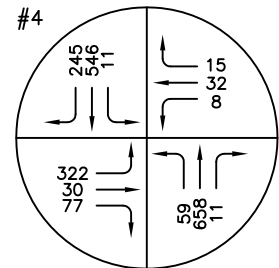
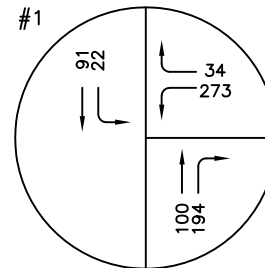
LEGEND:

- STUDY INTERSECTION
- TRAFFIC SIGNAL
- STOP SIGN

AM PEAK HOUR



PM PEAK HOUR



North Ranch Residential Development
5979 Gabbert Road, Moorpark

OPENING YEAR WITH CUMULATIVE PROJECTS
PLUS PROJECT TRAFFIC VOLUMES

SIGNIFICANT DEGRADATION

According to the City of Moorpark's "Guidelines for Preparing Traffic and Circulation Studies," mitigation measures are required when for the following conditions:

- I. The intersection capacity utilization value is changed by 0.10 or more, or
- II. An existing or future intersection LOS crosses the threshold from C to D due to the addition of project traffic

Based on existing conditions, shown in **Table 9**, project traffic does not cause a significant degradation and mitigation measures are not required.

Table 9. Significant Degradation Analysis – Existing Conditions

Intersection	Without Project		With Project			Delay Increase	Significant Degradation
	LOS	V/C	LOS	Delay	Target LOS		
AM Peak Hour							
1. Gabbert Rd at Poindexter Ave	A	0.381	A	0.381	C	-	No
2. Gabbert Rd/Tierra Rejada Rd at Los Angeles Ave	C	0.738	C	0.757	C	-	No
3. Moorpark Ave at High St	A	0.482	A	0.486	C	-	No
4. Moorpark Ave at Poindexter Ave/First St	B	0.679	B	0.687	C	-	No
5. Moorpark Ave at Los Angeles Ave	B	0.637	B	0.642	C	-	No
6. Gabbert Road at North Hills Pkwy	-	-	A	0.126	C	-	No
PM Peak Hour							
1. Gabbert Rd at Poindexter Ave	A	0.349	A	0.349	C	-	No
2. Gabbert Rd/Tierra Rejada Rd at Los Angeles Ave	B	0.658	B	0.670	C	-	No
3. Moorpark Ave at High St	A	0.495	A	0.499	C	-	No
4. Moorpark Ave at Poindexter Ave/First St	B	0.659	B	0.670	C	-	No
5. Moorpark Ave at Los Angeles Ave	B	0.675	B	0.684	C	-	No
6. Gabbert Road at North Hills Pkwy	-	-	A	0.104	C	-	No

At the project opening year (2025), the project does not cause a significant degradation at the study intersections, as shown in **Table 10**. The study found that the following intersections will operate at LOS D for the opening year (2025) scenario:

- Gabbert Road/Tierra Rejada Road at E. Los Angeles Avenue (#3)
- Moorpark Avenue at Poindexter Avenue/First Street (#5)
- Moorpark Avenue at E. Los Angeles Avenue (#6)

However, the project's contribution to the pre-existing condition is negligible. Project traffic will not cause the intersection ICU to increase more than 0.10; therefore, mitigation measures are not required.

Table 10. Significant Degradation Analysis – Opening Year (2025) Conditions

Intersection	Without Project		With Project			Delay Increase	Significant Degradation
	LOS	V/C	LOS	Delay	Target LOS		
AM Peak Hour							
1. Gabbert Rd at Poindexter Ave	A	0.395	A	0.395	C	-	No
2. Gabbert Rd/Tierra Rejada Rd at Los Angeles Ave	D	0.807	D	0.825	C	0.019 (<0.10, OK)	No
3. Moorpark Ave at High St	B	0.673	B	0.676	C	-	No
4. Moorpark Ave at Poindexter Ave/First St	D	0.846	D	0.853	C	0.007 (<0.10, OK)	No
5. Moorpark Ave at Los Angeles Ave	D	0.807	D	0.812	C	0.005 (<0.10, OK)	No
6. Gabbert Road at North Hills Pkwy	-	-	A	0.168	C	-	No
PM Peak Hour							
1. Gabbert Rd at Poindexter Ave	A	0.361	A	0.361	C	-	No
2. Gabbert Rd/Tierra Rejada Rd at Los Angeles Ave	C	0.733	C	0.745	C	-	No
3. Moorpark Ave at High St	C	0.770	C	0.774	C	-	No
4. Moorpark Ave at Poindexter Ave/First St	D	0.815	D	0.827	C	0.012 (<0.10, OK)	No
5. Moorpark Ave at Los Angeles Ave	D	0.864	D	0.873	C	0.009 (<0.10, OK)	No
6. Gabbert Road at North Hills Pkwy	-	-	A	0.158	C	-	No

SITE ACCESS

Site access will be provided to Gabbert Road via the proposed North Hills Parkway that terminates at Gabbert Road, forming a new T intersection. This new intersection of North Hills Parkway and Gabbert Road will be controlled by a STOP sign on North Hills Parkway for eastbound traffic.

APPENDIX A

SCOPING AGREEMENT

CITY OF MOORPARK

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

This study acknowledges and follows City of Moorpark Guidelines for Preparing Traffic and Circulation Studies dated November 22, 1993.

Project Name: Proposed 144-Unit Residential Development
Project Address: West of Gabbert Road and north of Poindexter Avenue and the future alignment of North Hills Parkway. (APN# 5110190285 & 5110190305)
Project Description: Proposed 144-unit residential units including 139 single-family homes and 5 estate lots (See Exhibit 1 for the site plan)

	<u>Consultant</u>	<u>Developer</u>
Name:	<u>Kay Hsu, PE, TE (K2 Traffic Engineering)</u>	<u>Land Design Consultants, Inc.</u>
Address:	<u>1442 Irvine Blvd, Ste 210</u> <u>Tustin, CA 92780</u>	<u>2700 E. Foothill Blvd, Suite 200</u> <u>Pasadena CA 91101</u>
Phone:	<u>714-832-2116</u>	<u>(626) 578-7000</u>
Email:	<u>khsu@k2traffic.com</u>	<u>james@rasmussendevlopment.com</u>

A. Trip Generation Source: ITE Trip Generation Manual, Tenth Edition

Current Land Use	<u>RL=Rural Low Density</u> <u>(1DU/5AC)</u>	Proposed Land Use	<u>H=High Density</u> <u>Residential (7DU/AC)</u>
Current Zoning	<u>A-E</u>	Proposed Zoning	<u>RPD</u>
Total Daily Trips	<u>1359</u>		

	<u>In</u>	<u>Out</u>	<u>Total</u>
AM Trips	<u>27</u>	<u>80</u>	<u>107</u>
PM Trips	<u>90</u>	<u>53</u>	<u>143</u>

(See Exhibit 2 for Trip Generation)

Internal Trip Allowance ☐ Yes ☒ No (0% Trip Discount)
Pass-By Trip Allowance ☐ Yes ☒ No (0% Trip Discount)
See Table 1 & 2 for Trip Generation

B. Trip Distribution: See Exhibit 3

C. Background Traffic

Project Completion Year: 2025 Annual Ambient Growth Rate: 1%
Model/Forecast methodology Apply growth onto existing traffic

D. Study Intersections: *Use historical data or new count with necessary adjustments for COVID-19*

<u>1 Gabbert Road at North Hills Parkway</u>	<u>4 Moorpark Avenue at High Street</u>
<u>2 Gabbert Road at Poindexter Avenue</u>	<u>5 Moorpark Avenue at East Los Angeles Avenue</u>
<u>3 Gabbert Road at East Los Angeles Avenue</u>	<u>6 Moorpark Avenue at Poindexter Avenue</u>

E. Study Scenario *(ICU methodology)*

<u>1 Existing Conditions</u>	<u>4 Opening Year + Cumulative + Project</u>
<u>2 Existing Conditions + Project</u>	<u>5 Opening Year + Cumulative + Project + Mitigation</u>
<u>3 Opening Year + Cumulative</u>	<u>(See Exhibit 4 for list of Cumulative Development Projects)</u>

F. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline)

Upon request by the City, prepare a separate Addendum for level of service analysis at two future intersections: (1) Moorpark Avenue at High Street and (2) Gabbert Road at High Street when related traffic data and roadway information are complete and provided by Hitch Ranch Developments.

Recommended by:



Consultant's Representative

5/5/2021

Date

Scoping Agreement Submitted on

5/5/2021

Date

Scoping Agreement Resubmitted on

11/1/2021

Date

Approved Scoping Agreement:

City of Moorpark

Date

EXHIBIT 2. TRIP GENERATION

TABLE 1. TRIP GENERATION RATE (ITE)

LAND USE	UNIT	Daily	AM Peak			PM Peak		
			Total	IN	OUT	Total	IN	OUT
Single-Family Detached Housing (210)	Dwelling Units	9.44	0.74	25%	75%	0.99	63%	37%

Source: Trip Generation Manual, 10th Edition

TABLE 2. NET TRIP GENERATION

LAND USE	UNIT	Quantity	AM Peak			PM Peak			Daily
			Total	IN	OUT	Total	IN	OUT	
Single-Family Detached Housing (210)	Dwelling Units	144	107	27	80	143	90	53	1,359

EXHIBIT 3. TRIP DISTRIBUTION

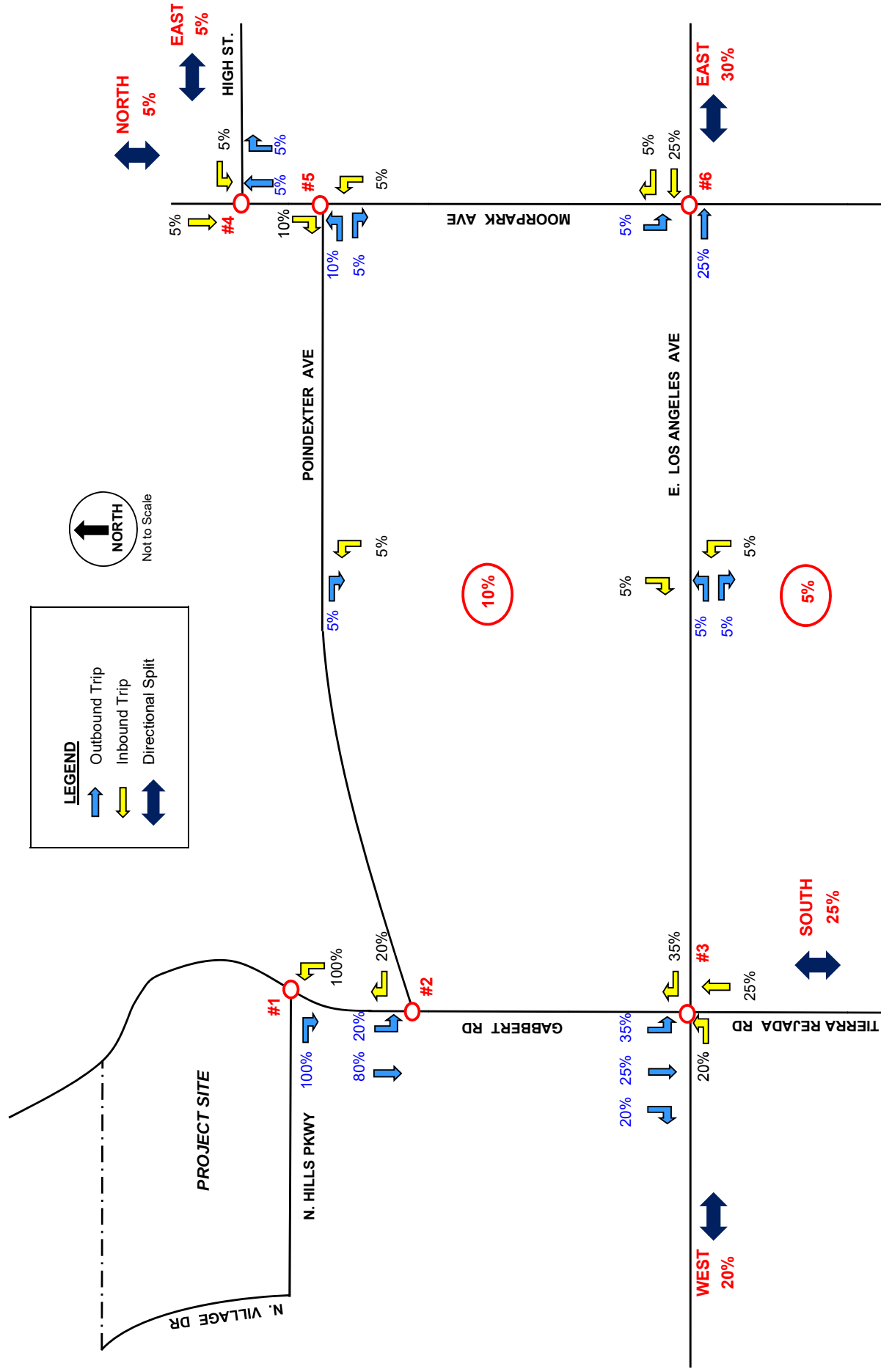


EXHIBIT 4

Cumulative Development Projects Trip Generation (As of April 2, 2021)

Project	Land Use	Size	ADT	A.M. Peak Hour	P.M. Peak Hour	Note
Triliad Development	Movie Studio	37 Acres	100	10	10	Approved
Pacific Communities	Single Family Residential	283 Units	2,694	212	283	Approved
Essex Moorpark, LLC	Multi-Family Residential	200 Units	1,318	92	57	Approved
Spring Road, LLC	Condominiums	95 Units	552	42	49	Approved
City Ventures	Single Family Residential	110 Units	1,047	82	110	Approved
Oakmont Senior Living	Senior Residential	77 units/beds				Approved/Under Construction
Birdsall Group, LLC	Single Family Residential	21 Units	200	16	12	Approved
Aldersgate Senior Housing	Senior Residential	390 Units				Approved
High Street Depot/Daly Group	Downtown Mixed-Use	13,656 sf retail and 79 apartments				Approved
Grand Moorpark/Kozar	Condominiums	63 Units	383	29	34	Approved
John C. Chiu, FLP-N	Condominiums	60 Units	349	26	31	Proposed
Beltramo Ranch	Single Family Res	52 units				Proposed
AHA Scattered Sites	Multi-family	56 units				Proposed
Hitch Ranch	Single and Multi-Family	755 units				Proposed
Moorpark 67/Rasmussen	Single Family Residential	139 Units				Proposed
**Amazon Distribution Center	Industrial	Reuse of 189,364 sf industrial	994	-17	12	Under Construction
*National Ready Mix	Batch Plant	10 acres	600	20	20	Unknown
***CEMEX	Quarry	N/A	980	276	148	Unknown
***Wayne J. Sand & Gravel	Quarry	N/A	504	92	34	Unknown
***Grimes Rock	Quarry	N/A	480	35	14	Unknown
Total Trips						

*No proposal to change or expand operations. Existing use creates significant truck traffic through Moorpark.

**Trip calculations include baseline of existing industrial use (site is developed). ADT is a gross figure and A.M./P.M. are net figures based on previous use.

***Operations under County jurisdiction but bring significant truck traffic through Moorpark. Please contact Ventura County to determine whether any active permits for expansion are being reviewed or processed.

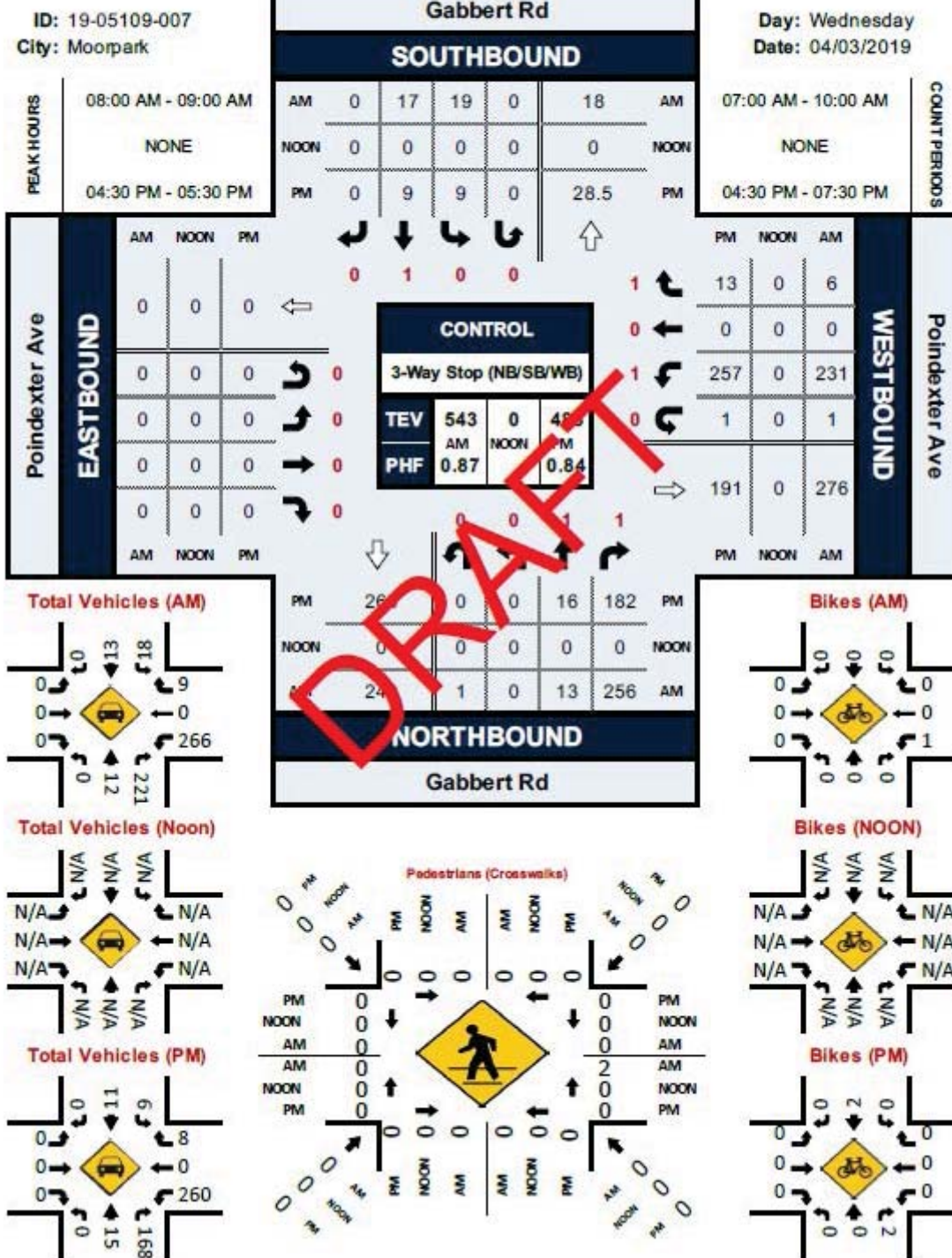
APPENDIX B
TURNING MOVEMENT COUNT DATA

INTERSECTION #1

Prepared by National Data & Surveying Services

Gabbert Rd & Poindexter Ave

Peak Hour Turning Movement Count



Intersection Turning Movement Count

Location: Tierra Rejada Rd & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-011
Date: 4/17/19

NS/EW Streets:		Tierra Rejada Rd					Tierra Rejada Rd					Los Angeles Ave					Los Angeles Ave						
AM		NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					TOTAL	
1	NT	NR	NU	1	SL	ST	SR	SU	0	1	2	ET	ER	1	0	2	WL	WT	WR	1	0	TOTAL	
7:00 AM	50	27	53	0	15	23	21	0	10	10	14	29	0	31	140	9	0	0	0	0	0	531	
7:15 AM	36	16	36	0	16	17	21	0	21	21	188	38	0	36	138	17	0	0	0	0	0	578	
7:30 AM	50	37	72	0	12	43	26	0	23	23	175	51	0	61	152	11	0	0	0	0	0	711	
7:45 AM	59	59	139	0	13	60	17	0	32	32	173	62	0	93	143	16	0	0	0	0	0	861	
8:00 AM	59	46	118	0	12	38	13	0	20	20	193	60	0	80	140	9	0	0	0	0	0	760	
8:15 AM	42	44	122	0	8	47	25	0	20	20	184	55	0	64	135	10	0	0	0	0	0	754	
8:30 AM	41	54	112	0	5	37	19	0	21	21	146	50	0	86	148	9	0	0	0	0	0	706	
8:45 AM	36	42	100	0	8	43	15	0	16	16	119	42	0	85	112	16	0	0	0	0	0	631	
9:00 AM	38	33	88	0	5	16	12	0	12	12	141	26	0	34	139	19	0	0	0	0	0	560	
9:15 AM	34	16	49	1	8	10	14	0	13	13	116	22	0	31	113	9	0	0	0	0	0	432	
9:30 AM	25	14	50	0	6	12	12	0	6	6	102	19	0	31	116	10	0	0	0	0	0	401	
9:45 AM	24	14	46	0	8	11	10	0	11	11	107	32	0	41	95	8	0	0	0	0	0	404	
TOTAL VOLUMES :		492	398.5	981.5	0.5	113	355	202.5	0	202	1740.5	483.5	0	649.5	1568.5	140	0	0	0	0	0	7327	
APPROACH %'s :		26.28%	21.28%	52.42%	0.03%	16.85%	52.95%	30.20%	0.00%	8.33%	71.74%	19.93%	0.00%	27.54%	66.52%	5.94%	0.00%	0.00%	0.00%	0.00%	0.00%		
PEAK HR :																							
PEAK HR VOL :		209	184	450	0	44	188	80	0	94	699	227	0	298	569	46	0	0	0	0	0	3086	
PEAK HR FACTOR :		0.893	0.786	0.811	0.000	0.880	0.783	0.784	0.000	0.742	0.952	0.923	0.000	0.800	0.936	0.734	0.000	0.000	0.000	0.000	0.000	0.896	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1	1	1	0	1	1	1	0	1	2	1	0	2	2	1	0	
4:30 PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	47	31	63	0	30	40	37	0	22	174	71	0	80	167	19	0	778
4:45 PM	26	19	90	0	14	41	24	0	20	193	56	0	76	166	9	0	733
5:00 PM	34	26	84	0	12	56	36	0	17	150	52	0	80	192	7	0	743
5:15 PM	39	21	72	0	9	36	30	0	16	176	65	0	74	165	7	0	709
5:30 PM	34	20	60	0	34	30	19	0	25	171	62	0	74	171	10	0	677
5:45 PM	30	20	66	0	5	38	28	0	14	150	60	0	75	153	6	0	642
6:00 PM	30	17	70	0	4	23	21	0	22	147	47	0	80	158	9	0	639
6:15 PM	28	14	64	0	5	19	13	0	10	132	48	0	89	136	4	0	559
6:30 PM	29	16	56	0	11	21	17	0	8	110	51	0	66	124	4	0	483
6:45 PM	20	18	47	0	4	15	14	0	8	109	41	0	57	103	4	0	423
7:00 PM	25	16	78	0	5	22	13	0	7	96	22	0	68	106	2	0	458
7:15 PM	16	13	63	0	4	14	12	0	7	74	21	0	66	105	4	0	396
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	355	228.5	810.5	0	98	352.5	261	0	11	1712	557.5	0	863	1743	81	0	7237
	25.47%	16.39%	58.14%	0.00%	13.77%	49.54%	36.68%	0.00%	7.11%	70.03%	22.81%	0.00%	32.12%	64.87%	3.01%	0.00%	
PEAK HR:																	
PEAK HR VOL:	145	97	309	0	64	173	127	0	74	32	243	0	310	689	41	0	2962
PEAK HR FACTOR:	0.780	0.791	0.862	0.000	0.538	0.772	0.855	0.000	0.937	0.896	0.862	0.000	0.969	0.899	0.554	0.000	0.952

INTERSECTION #3

Prepared by National Data & Surveying Services

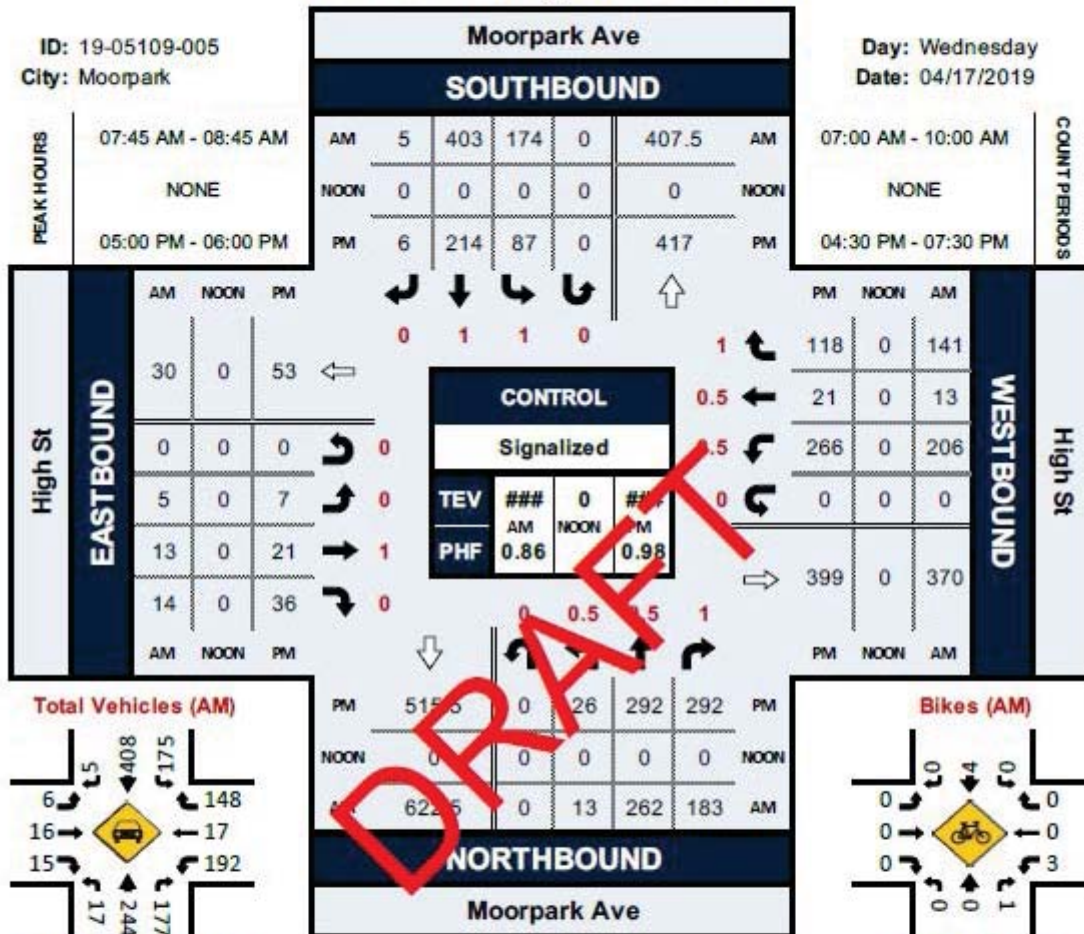
Moorpark Ave & High St

Peak Hour Turning Movement Count

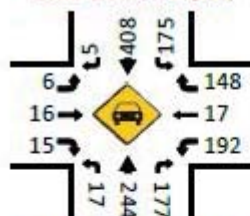
ID: 19-05109-005
City: Moorpark

PEAK HOURS
07:45 AM - 08:45 AM
NONE
05:00 PM - 06:00 PM

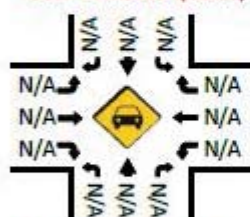
Day: Wednesday
Date: 04/17/2019



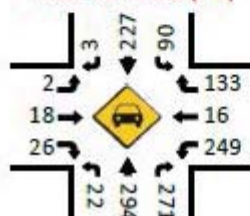
Total Vehicles (AM)



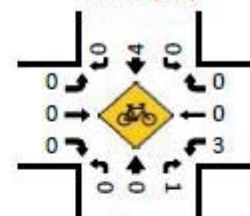
Total Vehicles (Noon)



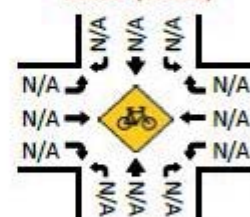
Total Vehicles (PM)



Bikes (AM)



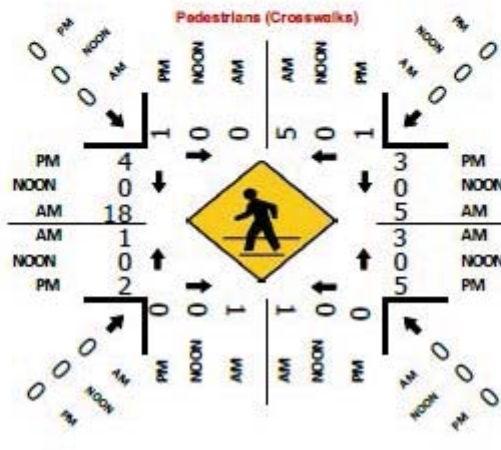
Bikes (NOON)



Bikes (PM)



Pedestrians (Crosswalks)



INTERSECTION #4

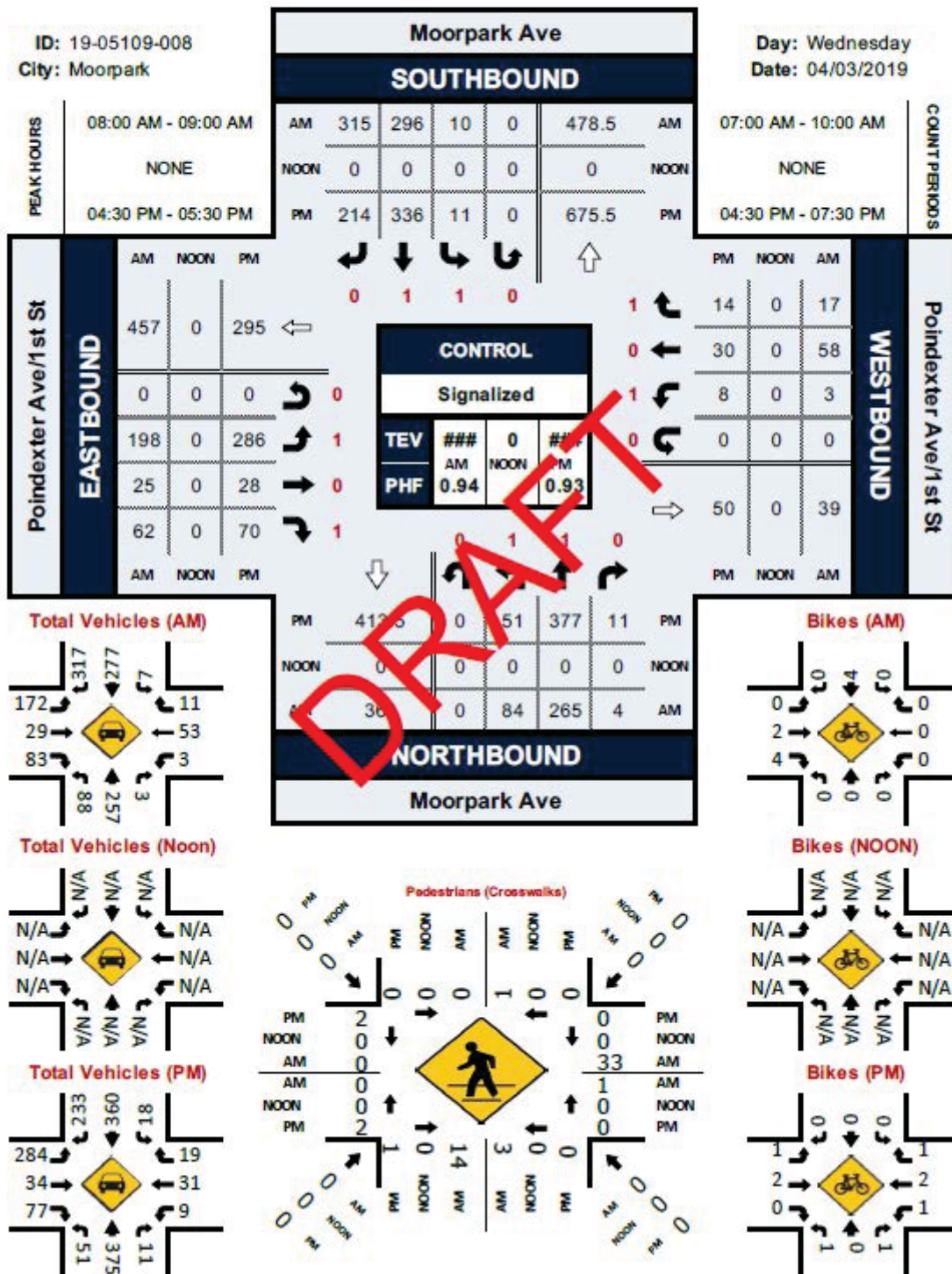
Prepared by National Data & Surveying Services

Moorpark Ave & Poindexter Ave/1st St

Peak Hour Turning Movement Count

ID: 19-05109-008
City: Moorpark

Day: Wednesday
Date: 04/03/2019



INTERSECTION #5

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Ave & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-012
Date: 4/17/19

Total

NS/EW Streets:	Moorpark Ave				Moorpark Ave				Los Angeles Ave			
	NORTHBOUND		SOUTHBOUND		EASTBOUND		WESTBOUND		EASTBOUND		WESTBOUND	
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU
7:00 AM	14	11	32	0	33	5	11	0	12	177	4	0
7:15 AM	15	11	29	0	29	12	18	0	14	185	3	0
7:30 AM	22	13	39	0	28	11	24	0	17	197	4	0
7:45 AM	23	20	34	0	42	7	28	0	34	251	8	0
8:00 AM	16	26	32	0	39	12	32	0	44	236	8	0
8:15 AM	14	20	27	0	46	19	29	0	29	229	6	0
8:30 AM	17	22	23	0	40	11	19	0	26	190	10	0
8:45 AM	12	19	18	0	42	23	30	0	26	185	6	0
9:00 AM	15	10	18	0	37	10	15	0	18	179	8	0
9:15 AM	9	3	25	0	32	9	12	0	15	162	5	0
9:30 AM	9	8	23	0	38	8	18	0	15	161	3	0
9:45 AM	4	5	31	0	40	10	19	0	15	147	3	0
TOTAL VOLUMES :	167.5	165	327	0	445	134	251	0	263.5	2295	65	0
APPROACH %'s :	25.40%	25.02%	49.58%	0.00%	53.61%	16.14%	30.24%	0.00%	10.04%	87.48%	2.48%	0.00%
PEAK HR :	69	87	116	0	167	48	108	0	133	905	31	0
PEAK HR VOL :	0.750	0.832	0.849	0.000	0.905	0.649	0.840	0.000	0.756	0.901	0.816	0.000
PEAK HR FACTOR :	0.886											
	0.912											
	0.971											
TOTAL	2734	852	119	0	101	852	119	0	101	852	119	0
0.947	0.904	0.826	0.000	0.000	0.777	0.904	0.826	0.000	0.777	0.904	0.826	0.000

NS/EW Streets:	Moorpark Ave				Moorpark Ave				Los Angeles Ave			
	NORTHBOUND		SOUTHBOUND		EASTBOUND		WESTBOUND		EASTBOUND		WESTBOUND	
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU
4:30 PM	14	19	28	0	44	25	21	0	47	243	15	0
4:45 PM	16	14	27	0	56	27	26	0	35	224	9	0
5:00 PM	14	20	27	0	55	31	30	0	32	246	12	0
5:15 PM	11	13	40	0	45	30	25	0	45	231	14	0
5:30 PM	16	24	30	0	50	29	16	0	32	217	14	0
5:45 PM	14	18	29	0	42	24	20	0	23	206	14	0
6:00 PM	16	14	38	0	48	26	16	0	30	245	8	0
6:15 PM	12	16	31	0	43	22	20	0	21	145	10	0
6:30 PM	10	17	24	1	40	18	20	0	21	195	7	0
6:45 PM	11	13	32	0	40	28	15	0	25	172	13	0
7:00 PM	12	14	23	0	36	20	16	0	15	156	5	0
7:15 PM	9	12	18	0	32	17	18	0	15	152	9	0
TOTAL VOLUMES :	150.5	190.5	335.5	0.5	527	295.5	240.5	0	342	2456	122.5	0
APPROACH %'s :	22.23%	28.14%	49.56%	0.07%	49.58%	27.80%	22.62%	0.00%	11.8	83.99%	4.19%	0.00%
PEAK HR :	55	70	124	0	205	117	97	0	143	7	48	0
PEAK HR VOL :	0.887	0.729	0.775	0.000	0.913	0.944	0.804	0.000	0.913	0.934	0.848	0.000
PEAK HR FACTOR :	0.896											
	0.905											
	0.956											
TOTAL	3098	941	109	0	274	941	109	0	274	941	109	0
0.981	0.942	0.904	0.000	0.000	0.958	0.942	0.904	0.000	0.958	0.942	0.904	0.000

APPENDIX C
LEVEL OF SERVICE ANALYSIS

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing**

Intersection # **1**

Project: **North Ranch Residential Development**

North/South St: **Gabbert Road**

East/West St: **Poindexter Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Total	Critical Lane	V/C Ratio	Critical V/C	Total	Critical Lane	V/C Ratio	Critical V/C
Northbound :Left		1500								
Northbound :Thru	1.0	1600	13	13	0.008		16	16	0.010	
Northbound Right:	1.0	1500	261	261	0.174	0.174	186	186	0.124	0.124
Southbound :Left		1500	19				9			
Southbound :Thru	1.0	1600	17	17	0.011		9	9	0.006	
Southbound Right:		1500								
Eastbound :Left		1500								
Eastbound :Thru		1600								
Eastbound Right:		1500								
Westbound :Left	1.0	1500	236	236	0.157	0.157	262	262	0.175	0.175
Westbound :Thru		1600								
Westbound Right:	1.0	1500	6	6	0.004		13	13	0.009	
Sum of Critical V/C Ratios						0.331	0.299			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.381	0.349			
Level of Service (LOS)						A	A			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Project**

Intersection # **1**

Project: **North Ranch Residential Development**

North/South St: **Gabbert Road**

East/West St: **Poindexter Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Total	Critical Lane	V/C Ratio	Critical V/C	Total	Critical Lane	V/C Ratio	Critical V/C
Northbound :Left	1.0	1500								
Northbound :Thru	1.0	1600	13	13	0.008		16	16	0.010	
Northbound Right:	1.0	1500	261	261	0.174	0.174	186	186	0.124	0.124
Southbound :Left		1500	35				20			
Southbound :Thru	1.0	1600	81	81	0.051		51	51	0.032	
Southbound Right:		1500								
Eastbound :Left		1500								
Eastbound :Thru		1600								
Eastbound Right:		1500								
Westbound :Left	1.0	1500	236	236	0.157	0.157	262	262	0.175	0.175
Westbound :Thru		1600								
Westbound Right:	1.0	1500	11	11	0.007		31	31	0.021	
Sum of Critical V/C Ratios						0.331	0.299			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.381	0.349			
Level of Service (LOS)						A	A			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative**

Intersection # **1**

Project: **North Ranch Residential Development**

North/South St: **Gabbert Road**

East/West St: **Poindexter Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Total	Critical Lane	V/C Ratio	Critical V/C	Total	Critical Lane	V/C Ratio	Critical V/C
Northbound :Left	1.0	1500								
:Thru	1.0	1600	40	40	0.025		100	100	0.063	
Right:	1.0	1500	272	272	0.181	0.181	194	194	0.129	0.129
Southbound :Left		1500	22				11			
:Thru	1.0	1600	81	81	0.051		49	49	0.031	
Right:		1500								
Eastbound :Left		1500								
:Thru		1600								
Right:		1500								
Westbound :Left	1.0	1500	246	246	0.164	0.164	273	273	0.182	0.182
:Thru		1600								
Right:	1.0	1500	7	7	0.005		16	16	0.011	
Sum of Critical V/C Ratios						0.345	0.311			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.395	0.361			
Level of Service (LOS)						A	A			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative + Project**

Intersection # **1**

Project: **North Ranch Residential Development**

North/South St: **Gabbert Road**

East/West St: **Poindexter Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Total	Critical Lane	V/C Ratio	Critical V/C	Total	Critical Lane	V/C Ratio	Critical V/C
Northbound :Left	1.0	1500								
:Thru	1.0	1600	40	40	0.025		100	100	0.063	
Right:	1.0	1500	272	272	0.181	0.181	194	194	0.129	0.129
Southbound :Left		1500	38				22			
:Thru	1.0	1600	145	145	0.091		91	91	0.057	
Right:		1500								
Eastbound :Left		1500								
:Thru		1600								
Right:		1500								
Westbound :Left	1.0	1500	246	246	0.164	0.164	273	273	0.182	0.182
:Thru		1600								
Right:	1.0	1500	12	12	0.008		34	34	0.023	
Sum of Critical V/C Ratios						0.345	0.311			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.395	0.361			
Level of Service (LOS)						A	A			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)Traffic Scenario: **Existing**Intersection # **2**Project: **North Ranch Residential Development**North/South St: **Gabbert Rd/Tierra Rejada Rd**East/West St: **E. Los Angeles Ave**Date: **12/17/21**By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes			V/C Ratio	Volumes			V/C Ratio
			Total	Critical Lane	Critical V/C		Total	Critical Lane	Critical V/C	
Northbound :Left	1.0	1500	213	213	0.142		148	148	0.099	
:Thru	1.0	1600	188	188	0.118		99	99	0.062	
Right:	1.0	1500	459	459	0.306	0.306	315	315	0.210	0.210
Southbound :Left	1.0	1500	45	45	0.030	0.030	65	65	0.043	0.043
:Thru	1.0	1600	192	192	0.120		176	176	0.110	
Right:	1.0	1500	82	82	0.055		130	130	0.087	
Eastbound :Left	1.0	1500	96	96	0.064		75	75	0.050	
:Thru	2.0	1600	713	357	0.223	0.223	706	353	0.221	0.221
Right:	1.0	1500	232	232	0.155		248	248	0.165	
Westbound :Left	2.0	1300	304	167	0.129	0.129	316	174	0.134	0.134
:Thru	2.0	1600	580	290	0.181		703	352	0.220	
Right:	1.0	1500	47	47	0.031		42	42	0.028	
Sum of Critical V/C Ratios						0.688	0.608			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.738	0.658			
Level of Service (LOS)						C	B			

NOTES:**Level of Service (LOS)**

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Project**

Intersection # **2**

Project: **North Ranch Residential Development**

North/South St: **Gabbert Rd/Tierra Rejada Rd**

East/West St: **E. Los Angeles Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes			Critical V/C	Volumes			Critical V/C
			Total	Critical Lane	V/C Ratio		Total	Critical Lane	V/C Ratio	
Northbound	:Left	1.0	1500	213	213	0.142	148	148	0.099	
	:Thru	1.0	1600	195	195	0.122	121	121	0.076	
	Right:	1.0	1500	459	459	0.306	315	315	0.210	0.210
Southbound	:Left	1.0	1500	73	73	0.049	83	83	0.055	0.055
	:Thru	1.0	1600	212	212	0.133	189	189	0.118	
	Right:	1.0	1500	98	98	0.065	141	141	0.094	
Eastbound	:Left	1.0	1500	102	102	0.068	93	93	0.062	
	:Thru	2.0	1600	713	357	0.223	706	353	0.221	0.221
	Right:	1.0	1500	232	232	0.155	248	248	0.165	
Westbound	:Left	2.0	1300	304	167	0.129	316	174	0.134	0.134
	:Thru	2.0	1600	580	290	0.181	703	352	0.220	
	Right:	1.0	1500	56	56	0.037	74	74	0.049	
Sum of Critical V/C Ratios						0.707	0.620			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.757	0.670			
Level of Service (LOS)						C	B			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative**

Intersection # **2**

Project: **North Ranch Residential Development**

North/South St: **Gabbert Rd/Tierra Rejada Rd**

East/West St: **E. Los Angeles Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes			Critical V/C	Volumes			Critical V/C
			Total	Critical Lane	V/C Ratio		Total	Critical Lane	V/C Ratio	
Northbound	:Left	1.0	1500	222	222	0.148	154	154	0.103	
	:Thru	1.0	1600	207	207	0.129	139	139	0.087	
	Right:	1.0	1500	478	478	0.319	328	328	0.219	0.219
Southbound	:Left	1.0	1500	58	58	0.039	76	76	0.051	0.051
	:Thru	1.0	1600	227	227	0.142	200	200	0.125	
	Right:	1.0	1500	127	127	0.085	208	208	0.139	
Eastbound	:Left	1.0	1500	109	109	0.073	104	104	0.069	
	:Thru	2.0	1600	779	390	0.243	830	415	0.259	0.259
	Right:	1.0	1500	241	241	0.161	258	258	0.172	
Westbound	:Left	2.0	1300	368	202	0.156	363	200	0.154	0.154
	:Thru	2.0	1600	650	325	0.203	768	384	0.240	
	Right:	1.0	1500	96	96	0.064	92	92	0.061	
Sum of Critical V/C Ratios						0.757	0.683			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.807	0.733			
Level of Service (LOS)						D	C			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative + Project**

Intersection # **2**

Project: **North Ranch Residential Development**

North/South St: **Gabbert Rd/Tierra Rejada Rd**

East/West St: **E. Los Angeles Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes			Critical V/C	Volumes			Critical V/C
			Total	Critical Lane	V/C Ratio		Total	Critical Lane	V/C Ratio	
Northbound	:Left	1.0	1500	222	222	0.148	154	154	0.103	
	:Thru	1.0	1600	214	214	0.134	161	161	0.101	
	Right:	1.0	1500	478	478	0.319	328	328	0.219	0.219
Southbound	:Left	1.0	1500	86	86	0.057	94	94	0.063	0.063
	:Thru	1.0	1600	247	247	0.154	213	213	0.133	
	Right:	1.0	1500	143	143	0.095	219	219	0.146	
Eastbound	:Left	1.0	1500	115	115	0.077	122	122	0.081	
	:Thru	2.0	1600	779	390	0.243	830	415	0.259	0.259
	Right:	1.0	1500	241	241	0.161	258	258	0.172	
Westbound	:Left	2.0	1300	368	202	0.156	363	200	0.154	0.154
	:Thru	2.0	1600	650	325	0.203	768	384	0.240	
	Right:	1.0	1500	105	105	0.070	124	124	0.083	
Sum of Critical V/C Ratios						0.775	0.695			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.825	0.745			
Level of Service (LOS)						D	C			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing**

Intersection # **3**

Project: **North Ranch Residential Development**

North/South St: **Moorpark Ave**

East/West St: **High St**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Critical Total	V/C Lane Ratio	Critical V/C		Critical Total	V/C Lane Ratio	Critical V/C	
Northbound :Left		1500	13				27			
Northbound :Thru	1.0	1600	267	280	0.175	0.175	298	325	0.203	0.203
Northbound Right:	1.0	1500	187	187	0.125		297	297	0.198	
Southbound :Left	1.0	1500	177	177	0.118	0.118	89	89	0.059	0.059
Southbound :Thru	1.0	1600	411	416	0.260		218	224	0.140	
Southbound Right:		1500	5				6			
Eastbound :Left		1500	5				7			
Eastbound :Thru	1.0	1600	13	27	0.017		21	58	0.036	
Eastbound Right:		1500	14				37			
Westbound :Left		1500	210				271			
Westbound :Thru	1.0	1600	13	223	0.139	0.139	21	292	0.183	0.183
Westbound Right:	1.0	1500	144	144	0.096		120	120	0.080	
Sum of Critical V/C Ratios						0.432	0.445			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.482	0.495			
Level of Service (LOS)						A	A			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Project**

Intersection # **3**

Project: **North Ranch Residential Development**

North/South St: **Moorpark Ave**

East/West St: **High St**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Critical Total	V/C Lane Ratio	Critical V/C		Critical Total	V/C Lane Ratio	Critical V/C	
Northbound :Left		1500	13				27			
Northbound :Thru	1.0	1600	271	284	0.178	0.178	301	328	0.205	0.205
Northbound Right:	1.0	1500	191	191	0.127		299	299	0.199	
Southbound :Left	1.0	1500	177	177	0.118	0.118	89	89	0.059	0.059
Southbound :Thru	1.0	1600	412	417	0.261		223	229	0.143	
Southbound Right:		1500	5				6			
Eastbound :Left		1500	5				7			
Eastbound :Thru	1.0	1600	13	27	0.017		21	58	0.036	
Eastbound Right:		1500	14				37			
Westbound :Left		1500	211				275			
Westbound :Thru	1.0	1600	13	224	0.140	0.140	21	296	0.185	0.185
Westbound Right:	1.0	1500	144	144	0.096		120	120	0.080	
Sum of Critical V/C Ratios						0.436	0.449			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.486	0.499			
Level of Service (LOS)						A	A			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative**

Intersection # **3**

Project: **North Ranch Residential Development**

North/South St: **Moorpark Ave**

East/West St: **High St**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Critical Total	V/C Lane Ratio	Critical V/C		Critical Total	V/C Lane Ratio	Critical V/C	
Northbound :Left		1500	27				73			
Northbound :Thru	1.0	1600	373	400	0.250	0.250	503	576	0.360	0.360
Northbound Right:	1.0	1500	225	225	0.150		341	341	0.227	
Southbound :Left	1.0	1500	311	311	0.207	0.207	181	181	0.121	0.121
Southbound :Thru	1.0	1600	600	605	0.378		372	378	0.236	
Southbound Right:		1500	5				6			
Eastbound :Left		1500	5				7			
Eastbound :Thru	1.0	1600	58	103	0.064		50	108	0.068	
Eastbound Right:		1500	45				58			
Westbound :Left		1500	238				316			
Westbound :Thru	1.0	1600	27	265	0.166	0.166	66	382	0.239	0.239
Westbound Right:	1.0	1500	200	200	0.133		271	271	0.181	
Sum of Critical V/C Ratios						0.623	0.720			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.673	0.770			
Level of Service (LOS)						B	C			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative + Project**

Intersection # **3**

Project: **North Ranch Residential Development**

North/South St: **Moorpark Ave**

East/West St: **High St**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Critical Total	Critical Lane	V/C Ratio	Critical V/C	Critical Total	Critical Lane	V/C Ratio	Critical V/C
Northbound :Left		1500	27				73			
Northbound :Thru	1.0	1600	377	404	0.253	0.253	506	579	0.362	0.362
Northbound Right:	1.0	1500	229	229	0.153		343	343	0.229	
Southbound :Left	1.0	1500	311	311	0.207	0.207	181	181	0.121	0.121
Southbound :Thru	1.0	1600	601	606	0.379		377	383	0.239	
Southbound Right:		1500	5				6			
Eastbound :Left		1500	5				7			
Eastbound :Thru	1.0	1600	58	103	0.064		50	108	0.068	
Eastbound Right:		1500	45				58			
Westbound :Left		1500	239				320			
Westbound :Thru	1.0	1600	27	266	0.166	0.166	66	386	0.241	0.241
Westbound Right:	1.0	1500	200	200	0.133		271	271	0.181	
Sum of Critical V/C Ratios						0.626	0.724			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.676	0.774			
Level of Service (LOS)						B	C			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing**

Intersection # **4**

Project: **Noth Ranch Residential Development**

North/South St: **Moorpark Ave**

East/West St: **Poindexter Ave/1st St**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Total	Critical Lane	V/C Ratio	Critical V/C	Total	Critical Lane	V/C Ratio	Critical V/C
Northbound :Left	1.0	1500	86	86	0.057	0.057	52	52	0.035	0.035
Northbound :Thru	1.0	1600	270	274	0.171		385	396	0.248	
Northbound Right:		1500	4				11			
Southbound :Left	1.0	1500	10	10	0.007		11	11	0.007	
Southbound :Thru	1.0	1600	302	623	0.389	0.389	343	561	0.351	0.351
Southbound Right:		1500	321				218			
Eastbound :Left	1.0	1500	202	202	0.135	0.135	292	292	0.195	0.195
Eastbound :Thru	1.0	1600	23	86	0.054		29	100	0.063	
Eastbound Right:		1500	63				71			
Westbound :Left	1.0	1500	3	3	0.002		8	8	0.005	
Westbound :Thru	1.0	1600	59	76	0.048	0.048	31	45	0.028	0.028
Westbound Right:		1500	17				14			
Sum of Critical V/C Ratios						0.629	0.609			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.679	0.659			
Level of Service (LOS)						B	B			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Project**

Intersection # **4**

Project: **Noth Ranch Residential Development**

North/South St: **Moorpark Ave**

East/West St: **Poindexter Ave/1st St**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Critical Total	V/C Lane	Critical Ratio	Critical V/C	Critical Total	V/C Lane	Critical Ratio	Critical V/C
Northbound :Left	1.0	1500	87	87	0.058	0.058	57	57	0.038	0.038
Northbound :Thru	1.0	1600	270	274	0.171		385	396	0.248	
Northbound Right:		1500	4				11			
Southbound :Left	1.0	1500	10	10	0.007		11	11	0.007	
Southbound :Thru	1.0	1600	302	625	0.391	0.391	343	570	0.356	0.356
Southbound Right:		1500	323				227			
Eastbound :Left	1.0	1500	210	210	0.140	0.140	297	297	0.198	0.198
Eastbound :Thru	1.0	1600	23	90	0.056		29	103	0.064	
Eastbound Right:		1500	67				74			
Westbound :Left	1.0	1500	3	3	0.002		8	8	0.005	
Westbound :Thru	1.0	1600	59	76	0.048	0.048	31	45	0.028	0.028
Westbound Right:		1500	17				14			
Sum of Critical V/C Ratios						0.637	0.620			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.687	0.670			
Level of Service (LOS)						B	B			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative**

Intersection # **4**

Project: **Noth Ranch Residential Development**

North/South St: **Moorpark Ave**

East/West St: **Poindexter Ave/1st St**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes			Critical V/C	Volumes			Critical V/C
			Total	Critical Lane	V/C Ratio		Total	Critical Lane	V/C Ratio	
Northbound :Left	1.0	1500	89	89	0.059	0.059	54	54	0.036	0.036
Northbound :Thru	1.0	1600	413	417	0.261		658	669	0.418	
Northbound Right:		1500	4				11			
Southbound :Left	1.0	1500	10	10	0.007		11	11	0.007	
Southbound :Thru	1.0	1600	525	870	0.544	0.544	546	782	0.489	0.489
Southbound Right:		1500	345				236			
Eastbound :Left	1.0	1500	216	216	0.144	0.144	317	317	0.211	0.211
Eastbound :Thru	1.0	1600	24	90	0.056		30	104	0.065	
Eastbound Right:		1500	66				74			
Westbound :Left	1.0	1500	3	3	0.002		8	8	0.005	
Westbound :Thru	1.0	1600	61	79	0.049	0.049	32	47	0.029	0.029
Westbound Right:		1500	18				15			
Sum of Critical V/C Ratios						0.796	0.765			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.846	0.815			
Level of Service (LOS)						D	D			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative + Project**

Intersection # **4**

Project: **Noth Ranch Residential Development**

North/South St: **Moorpark Ave**

East/West St: **Poindexter Ave/1st St**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Total	Critical Lane	V/C Ratio	Critical V/C	Total	Critical Lane	V/C Ratio	Critical V/C
Northbound :Left	1.0	1500	90	90	0.060	0.060	59	59	0.039	0.039
Northbound :Thru	1.0	1600	413	417	0.261		658	669	0.418	
Northbound Right:		1500	4				11			
Southbound :Left	1.0	1500	10	10	0.007		11	11	0.007	
Southbound :Thru	1.0	1600	525	872	0.545	0.545	546	791	0.494	0.494
Southbound Right:		1500	347				245			
Eastbound :Left	1.0	1500	224	224	0.149	0.149	322	322	0.215	0.215
Eastbound :Thru	1.0	1600	24	94	0.059		30	107	0.067	
Eastbound Right:		1500	70				77			
Westbound :Left	1.0	1500	3	3	0.002		8	8	0.005	
Westbound :Thru	1.0	1600	61	79	0.049	0.049	32	47	0.029	0.029
Westbound Right:		1500	18				15			
Sum of Critical V/C Ratios						0.803	0.777			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.853	0.827			
Level of Service (LOS)						D	D			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing**

Intersection # **5**

Project: **North Ranch Residential Development**

North/South St: **Moorpark Ave**

East/West St: **E. Los Angeles Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes			Critical V/C	Volumes			Critical V/C
			Total	Critical Lane	V/C Ratio		Total	Critical Lane	V/C Ratio	
Northbound	:Left	1.5	1500	70	47	0.031	56	38	0.025	
	:Thru	0.5	1600	89	178	0.111	71	142	0.089	0.089
	Right:	1.0	1500	118	118	0.079	126	126	0.084	
Southbound	:Left	1.0	1500	170	170	0.113	209	209	0.139	0.139
	:Thru	1.0	1600	49	49	0.031	119	119	0.074	
	Right:	1.0	1500	110	110	0.073	99	99	0.066	
Eastbound	:Left	1.0	1500	136	136	0.091	146	146	0.097	0.097
	:Thru	3.0	1600	923	318	0.199	935	328	0.205	
	Right:		1500	32			49			
Westbound	:Left	1.0	1500	103	103	0.069	280	280	0.187	
	:Thru	2.0	1600	869	435	0.272	960	480	0.300	0.300
	Right:	1.0	1500	121	121	0.081	111	111	0.074	
Sum of Critical V/C Ratios						0.587	0.625			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.637	0.675			
Level of Service (LOS)						B	B			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Project**

Intersection # **5**

Project: **North Ranch Residential Development**

North/South St: **Moorpark Ave**

East/West St: **E. Los Angeles Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Critical Total	V/C Lane Ratio	Critical V/C		Critical Total	V/C Lane Ratio	Critical V/C	
Northbound :Left	1.5	1500	70	47	0.031		56	38	0.025	
:Thru	0.5	1600	89	178	0.111	0.111	71	142	0.089	0.089
Right:	1.0	1500	118	118	0.079		126	126	0.084	
Southbound :Left	1.0	1500	174	174	0.116	0.116	212	212	0.141	0.141
:Thru	1.0	1600	49	49	0.031		119	119	0.074	
Right:	1.0	1500	110	110	0.073		99	99	0.066	
Eastbound :Left	1.0	1500	136	136	0.091	0.091	146	146	0.097	0.097
:Thru	3.0	1600	943	325	0.203		949	333	0.208	
Right:		1500	32				49			
Westbound :Left	1.0	1500	103	103	0.069		280	280	0.187	
:Thru	2.0	1600	876	438	0.274	0.274	982	491	0.307	0.307
Right:	1.0	1500	122	122	0.081		116	116	0.077	
Sum of Critical V/C Ratios					0.592		0.634			
Adjustments for Lost Time					0.05		0.05			
Intersection Capacity Utilization (ICU)					0.642		0.684			
Level of Service (LOS)					B		B			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative**

Intersection # **5**

Project: **North Ranch Residenital Development**

North/South St: **Moorpark Ave**

East/West St: **E. Los Angeles Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Critical Total	V/C Lane Ratio	Critical V/C		Critical Total	V/C Lane Ratio	Critical V/C	
Northbound :Left	1.5	1500	73	49	0.033		58	39	0.026	
Northbound :Thru	0.5	1600	99	198	0.124	0.124	87	174	0.109	0.109
Northbound Right:	1.0	1500	124	124	0.083		133	133	0.089	
Southbound :Left	1.0	1500	303	303	0.202	0.202	312	312	0.208	0.208
Southbound :Thru	1.0	1600	63	63	0.039		133	133	0.083	
Southbound Right:	1.0	1500	183	183	0.122		185	185	0.123	
Eastbound :Left	1.0	1500	205	205	0.137	0.137	237	237	0.158	0.158
Eastbound :Thru	3.0	1600	1027	353	0.221		1028	360	0.225	
Eastbound Right:		1500	33				51			
Westbound :Left	1.0	1500	109	109	0.073		292	292	0.195	
Westbound :Thru	2.0	1600	941	471	0.294	0.294	1086	543	0.339	0.339
Westbound Right:	1.0	1500	186	186	0.124		268	268	0.179	
Sum of Critical V/C Ratios					0.757		0.814			
Adjustments for Lost Time					0.05		0.05			
Intersection Capacity Utilization (ICU)					0.807		0.864			
Level of Service (LOS)					D		D			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative + Project**

Intersection # **5**

Project: **North Ranch Residenital Development**

North/South St: **Moorpark Ave**

East/West St: **E. Los Angeles Ave**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Critical Total	V/C Lane Ratio	Critical V/C		Critical Total	V/C Lane Ratio	Critical V/C	
Northbound :Left	1.5	1500	73	49	0.033		58	39	0.026	
Northbound :Thru	0.5	1600	99	198	0.124	0.124	87	174	0.109	0.109
Northbound Right:	1.0	1500	124	124	0.083		133	133	0.089	
Southbound :Left	1.0	1500	307	307	0.205	0.205	315	315	0.210	0.210
Southbound :Thru	1.0	1600	63	63	0.039		133	133	0.083	
Southbound Right:	1.0	1500	183	183	0.122		185	185	0.123	
Eastbound :Left	1.0	1500	205	205	0.137	0.137	237	237	0.158	0.158
Eastbound :Thru	3.0	1600	1047	360	0.225		1042	364	0.228	
Eastbound Right:		1500	33				51			
Westbound :Left	1.0	1500	109	109	0.073		292	292	0.195	
Westbound :Thru	2.0	1600	948	474	0.296	0.296	1108	554	0.346	0.346
Westbound Right:	1.0	1500	187	187	0.125		273	273	0.182	
Sum of Critical V/C Ratios					0.762		0.823			
Adjustments for Lost Time					0.05		0.05			
Intersection Capacity Utilization (ICU)					0.812		0.873			
Level of Service (LOS)					D		D			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Project**

Intersection # **6**

Project: **North Ranch Residential Development**

North/South St: **Gabbert Rd**

East/West St: **N. Hills Pkwy**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes				Volumes			
			Critical Total	Critical Lane	V/C Ratio	Critical V/C	Critical Total	Critical Lane	V/C Ratio	Critical V/C
Northbound :Left		1500	27				90			
Northbound :Thru	1.0	1600	19	19	0.012		30	30	0.019	0.019
Northbound Right:		1500								
Southbound :Left		1500								
Southbound :Thru	1.0	1600	37	37	0.023	0.023	18	18	0.011	
Southbound Right:		1500								
Eastbound :Left	1.0	1500								
Eastbound :Thru		1600								
Eastbound Right:	1.0	1500	80	80	0.053	0.053	53	53	0.035	0.035
Westbound :Left		1500								
Westbound :Thru		1600								
Westbound Right:		1500								
Sum of Critical V/C Ratios						0.076	0.054			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.126	0.104			
Level of Service (LOS)						A	A			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33

Intersection Capacity Utilization Analysis (ICU)

Traffic Scenario: **Existing + Growth + Cumulative + Project**

Intersection # **6**

Project: **North Ranch Residential Development**

North/South St: **Gabbert Rd**

East/West St: **N. Hills Pkwy**

Date: **12/17/21**

By: **ET**

Movement	No, of Lanes	Critical Lane Capacity	A.M. Peak Hour				P.M. Peak Hour			
			Volumes			V/C Ratio	Volumes			V/C Ratio
			Total	Critical Lane	Critical V/C		Total	Critical Lane	Critical V/C	
Northbound :Left		1500	27				90			
Northbound :Thru	1.0	1600	47	47	0.029		116	116	0.073	0.073
Northbound Right:		1500								
Southbound :Left		1500								
Southbound :Thru	1.0	1600	104	104	0.065	0.065	61	61	0.038	
Southbound Right:		1500								
Eastbound :Left	1.0	1500								
Eastbound :Thru		1600								
Eastbound Right:	1.0	1500	80	80	0.053	0.053	53	53	0.035	0.035
Westbound :Left		1500								
Westbound :Thru		1600								
Westbound Right:		1500								
Sum of Critical V/C Ratios						0.118	0.108			
Adjustments for Lost Time						0.05	0.05			
Intersection Capacity Utilization (ICU)						0.168	0.158			
Level of Service (LOS)						A	A			

NOTES:

Level of Service (LOS)

A	0.00 ~ 0.60
B	0.601 ~ 0.70
C	0.701 ~ 0.80
D	0.801 ~ 0.90
E	0.901 ~ 1.00
F	1.00+

Critical Lane Flow Factors

0.5	Lanes:	2.00
1	Lane:	1.00
1.5	Lanes:	0.67
2	Lanes:	0.50
2.5	Lanes:	0.40
3	Lanes:	0.33