RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

LOCAL MOBILITY ANALYSIS

MAJOR USE PERMIT PDS2020-MUP-20-001; PDS2020-ER-20-09-001

REVISED: JANUARY 26, 2021

JOB NUMBER 14557-0

RICK ENGINEERING COMPANY

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LOCAL MOBILITY ANALYSIS
MAJOR USE PERMIT PDS2020-MUP-20-001; PDS2020-ER-20-09-001

REVISED: JANUARY 26, 2021

PREPARED FOR:
RANCHO GUEJITO CORPORATION
17224 SAN PASQUAL VALLEY ROAD
ESCONDIDO, CALIFORNIA

PREPARED BY:

RICK ENGINEERING COMPANY
Traffic Division

JOB NUMBER 14557-0

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REVISED: JANUARY 26, 2021

INTRODUCTION

The following Local Mobility Analysis (LMA) has been prepared in accordance with *County of San Diego Transportation Study Guidelines* (June 2020) to ensure project area intersections are consistent with the County of San Diego General Plan with the development of a wine tasting facility and event center adjacent to the existing Rancho Guejito facility located along SR-78 in the unincorporated community of San Pasqual in the County of San Diego. The proposed project is located on the north side of State Route (SR) 78 (San Pasqual Valley Road), between Ysabel Creek Road and Bandy Canyon Road at Caltrans post mile 26.906. The study evaluates the adjacent driveways (considered as intersections) in the vicinity of the project site.

Exhibit 1 shows the project vicinity map.

PROJECT DESCRIPTION

The proposed project is located west of the intersection of SR-78 (San Pasqual Valley Road) and Bandy Canyon Road. The new site will replace a mobile office trailer and require the removal of existing citrus trees to accommodate a 4,283 square foot tasting room, which includes a merchandise area, office space, toilets and kitchen; 1,612 square feet of future expansion; and a special events area containing 1,519 square feet event logistics and launch suite, and 3,700 square feet banquet barn. The project is expected to operate seven days a week, and the anticipated buildout square footage is 11,114. The project is to be constructed in phases with the tasting room opening in year 2023, the event center (bridal suite and banquet barn) in year 2026, and the tasting room expansion in year 2027.

Exhibit 2 shows the proposed project site.

Currently, there are 3 gated driveways that provide access to the project site. The westernmost driveway (Driveway #1) is currently fenced off and it is not operational. The central driveway (Rockwood Grove/Driveway #2) is a gated access which serves as the primary access to the main agricultural activities within Rockwood Canyon, and will be the main access point for the proposed project and its guests. It should be noted that this gate will be open during operational hours. The Project will widen SR-78 along the project frontage to construct a two-way left-turn lane (TWLTL) and a westbound acceleration lane taper on SR-78 between Driveway #1 and Driveway #2. The easternmost driveway (Driveway #3) is gated and serves as access to an existing farmhouse and wine tasting area previously permitted (AD 12.032). For the purposes of this traffic study, all wine tasting facility and event center traffic will be accounted for at the central driveway, and existing site traffic is assumed to operate at their respective driveways.

TRAFFIC ANALYSIS METHODOLOGY

The intersections and roadways within the project area were analyzed for the following scenarios:

- Existing (2019)
- Opening Year (2023)
- Opening Year (2023) Plus Project Conditions
- Opening Year (2026)
- Opening Year (2026) Plus Project Conditions
- Opening Year (2027)
- Opening Year (2027) Plus Project Conditions

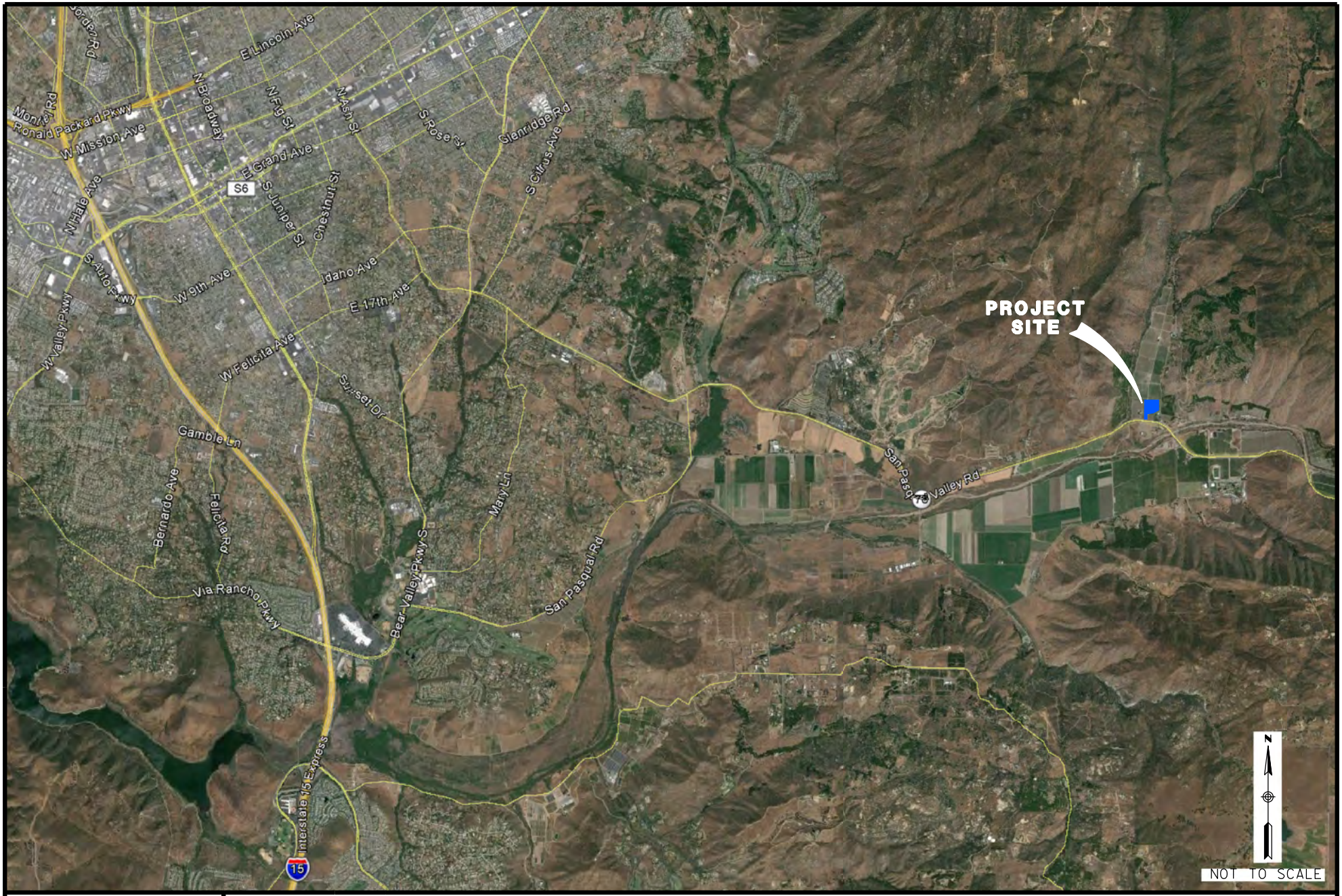

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EXHIBIT 1

VICINITY MAP

RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

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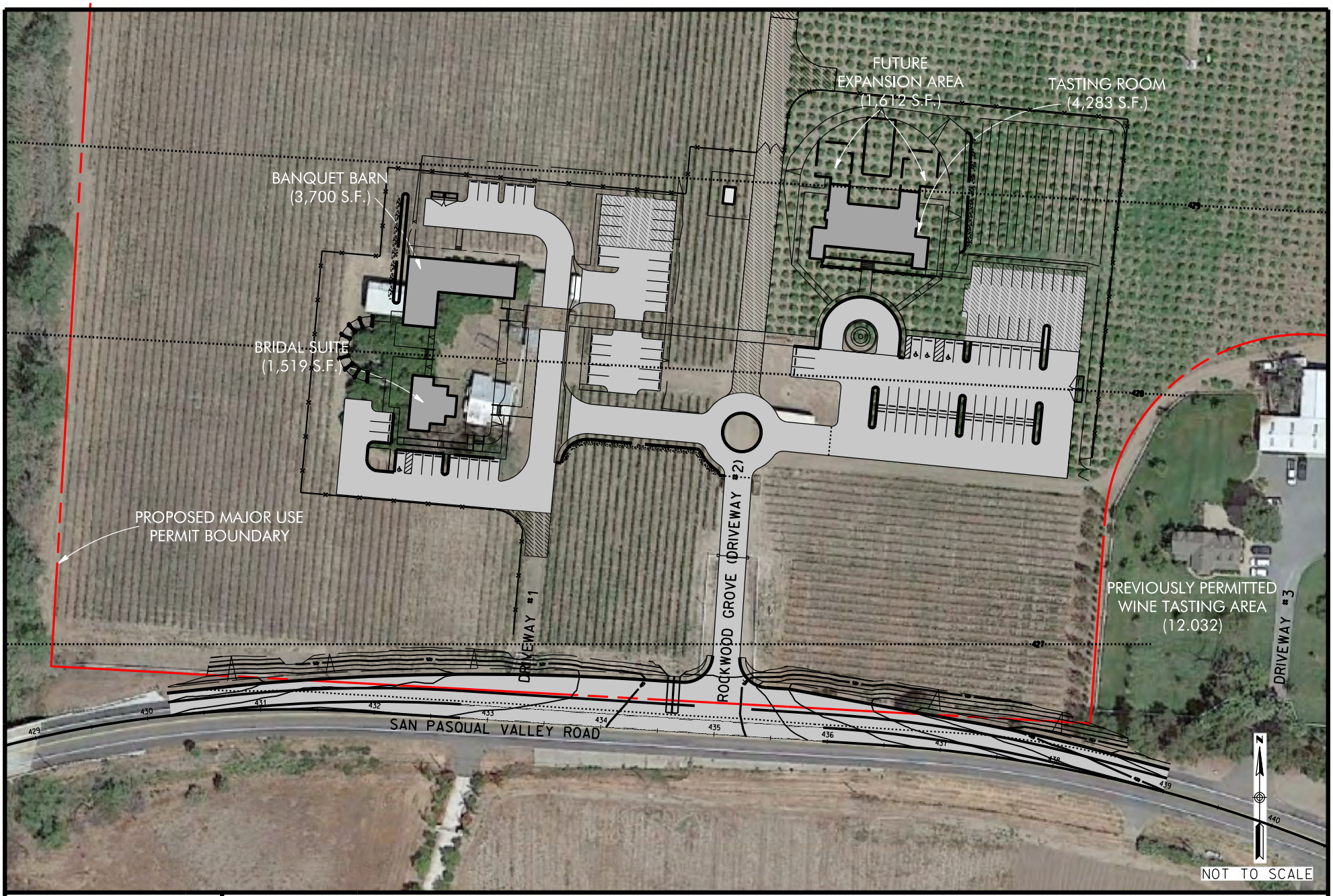

EXHIBIT 2

PROPOSED SITE PLAN

RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

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Levels of Service (LOS) for the unsignalized study intersections were calculated using the methodologies described in Chapter 19 of the Highway Capacity Manual, 6th edition (HCM 6). The LOS for an unsignalized (e.g. 1-way stop-controlled) intersection is determined by the computed average delay for each minor street movement and major street left-turns.

Per the County of San Diego *Transportation Study Guidelines*, an improvement at an unsignalized intersection is required if the following criteria are met:

- The project causes the average intersection delay to be LOS E or F during the peak hour.
- If the worst-case movement is currently operating at LOS E or F:
    - The project adds 5 or more seconds of overall intersection.
      AND
    - The project adds ten (10) or more trips to the worst-case movement OR 50 or more trips to the overall intersection.

EXISTING CONDITIONS

The *Existing Conditions scenario* analyzes the current traffic patterns along the adjacent SR-78 (San Pasqual Valley Road), and the performance at the existing driveways. The following is a brief description of the State and County of San Diego roadways and intersections (driveways) within the study area:

SR-78 (San Pasqual Valley Road) runs east-west and is classified as a minor arterial in the vicinity of the project. The section within the project area currently operates as a two-lane (one lane each direction), undivided. The posted speed limit is 55 mph, the 85th percentile speeds were observed to be 64, and 63 mph for the eastbound, and westbound approaches respectively, and on-street parking is not permitted. In the area directly adjacent to the project, there are two 12 foot lanes, one in each direction. There is a 1 foot shoulder on the north side of the road and an 8 foot shoulder on the south side; just east of the project driveway there is an 8 foot shoulder on the north side of the road and a 6 foot shoulder on the south side.

The SR-78 (San Pasqual Valley Road)/Driveway #1 intersection is currently constructed as an offset four-legged unsignalized intersection. The north leg is Driveway #1 on the project site, and the south leg is a driveway serving another property. The southbound and northbound approaches (driveways) are assumed to be stop controlled and are configured with a single shared left-right lane. The project's Driveway #1 was not analyzed for the project scenarios, as this driveway is to remain closed and is proposed to be used for fire access only.

The SR-78 (San Pasqual Valley Road)/Rockwood Grove Driveway (Driveway #2) intersection is currently constructed as a three-legged unsignalized intersection. The southbound approach (driveway) is assumed to be stop controlled and is configured with a single shared left-right lane. Driveway #2 will serve as the primary access for the proposed project.

The SR-78 (San Pasqual Valley Road)/ Driveway #3 intersection is currently constructed as a three-legged unsignalized intersection. The southbound approach (driveway) is assumed to be stop controlled and is configured with a single shared left-right lane. Driveway #3 is gated and serves as access for the existing farm house and wine tasting area previously permitted (AD12.032).

Existing Pedestrian Network
There is currently no existing sidewalk provided along either side of SR-78 (San Pasqual Valley Road) within the project study area.

Existing Bicycle Network
There are currently no bike lanes provided along either side of SR-78 (San Pasqual Valley Road) within the project study area.

Existing Transit Network

The North County Transit District (NCTD) currently provides the following transit bus routes within the study area:

- **NCTD Route 371 FLEX**: Extends from the Escondido Transit Center to Ramona Station, Monday through Friday (5:40am – 7:22pm). This route circulates along Valley Parkway and along San Pasqual Valley Road between the two transit stations. There is a Route 371 bus stop approximately 150' east of the eastern most driveway.

Exhibit 3 shows the existing transportation conditions within the project area.

EXISTING TRAFFIC VOLUMES

Existing traffic volumes at the project area intersections and adjacent roadway were obtained from traffic counts conducted by Veracity Traffic Group on Thursday, September 19, 2019. The turning movement counts were conducted during the weekday AM (7:00 AM - 9:00 PM) and PM (4:00 AM - 6:00 PM) peak periods.

Exhibit 4 shows the 2019 turning movement counts at the 3 existing study intersections and ADT count along SR-78 just west of the project site. **Appendix A** contains the manual turning movement/ADT count sheets.

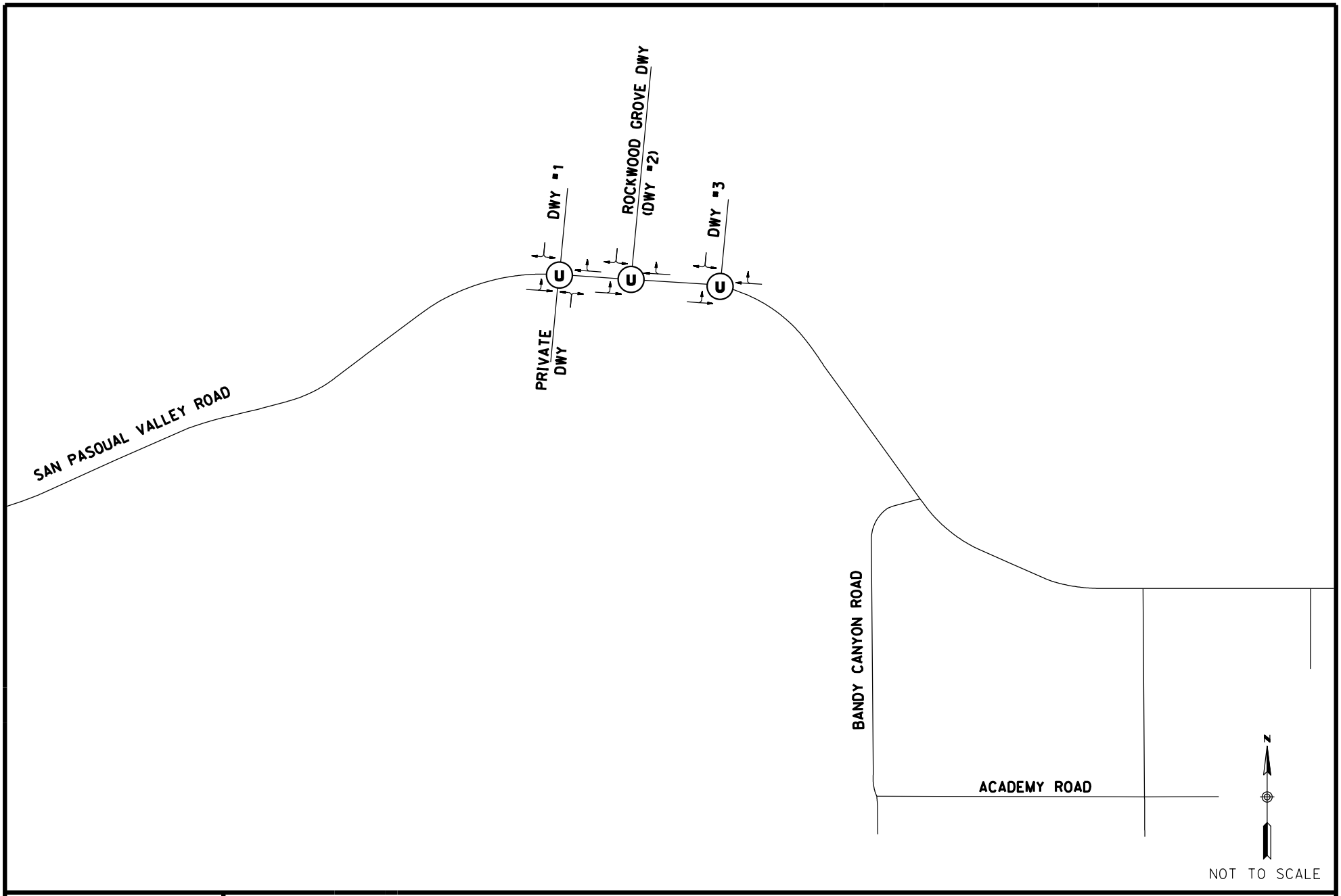

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EXHIBIT 3

EXISTING ROADWAY CONDITIONS

RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

LEGEND (U) =UNSIGNALIZED

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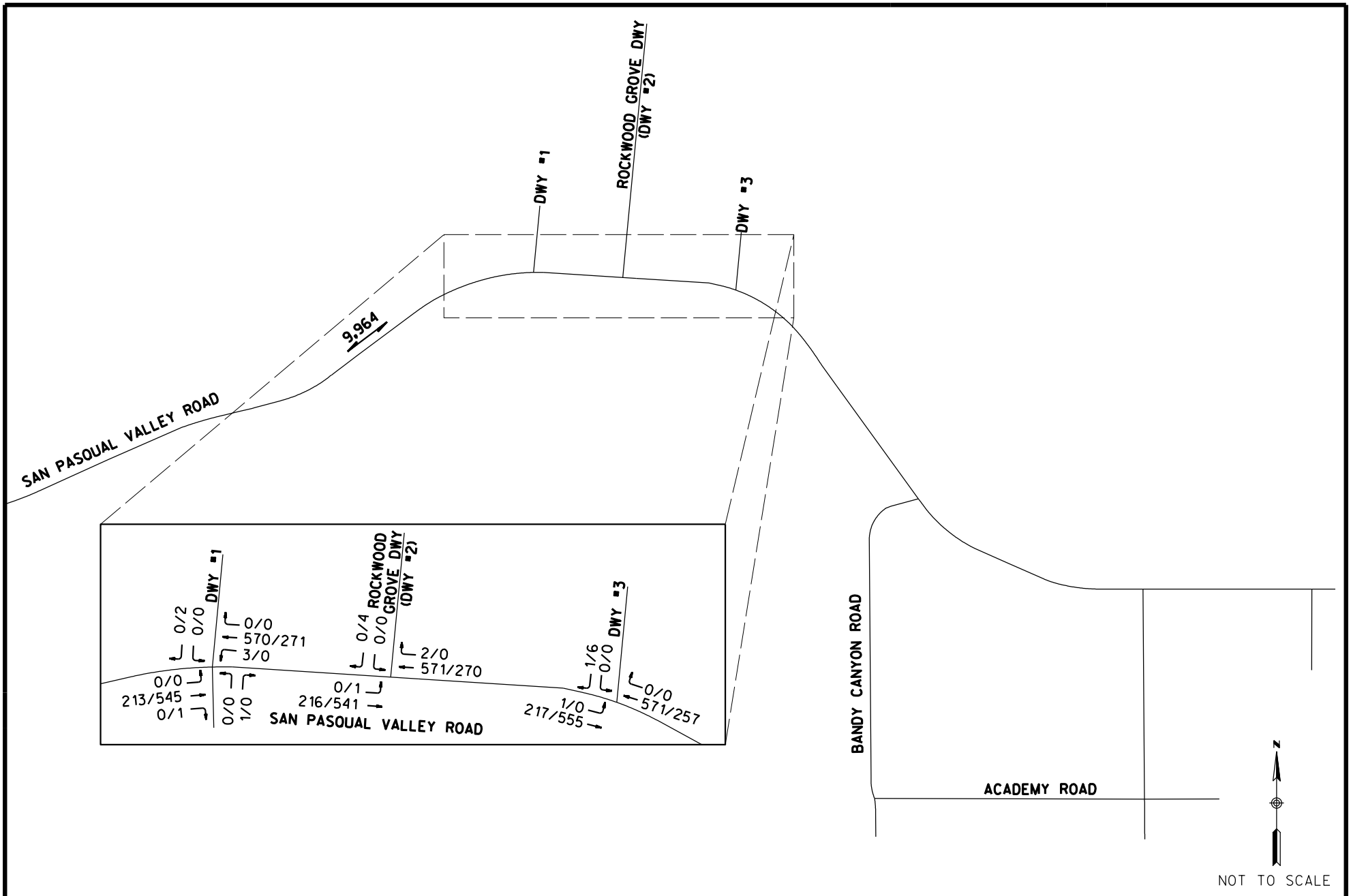

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EXHIBIT 4

EXISTING TRAFFIC VOLUMES

RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

LEGEND

AM/PM=PEAK HOUR VOLUMES

X,XXX =TWO-WAY ADT

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EXISTING TRAFFIC OPERATIONS

The existing intersection operation results are based on existing traffic volumes collected and existing transportation conditions. The three existing driveway intersections were studied under the Existing Conditions Scenario.

Table 1 shows that the three existing driveway intersections currently operate at LOS A or B during the AM and PM peak periods.

TABLE 1 - EXISTING (2019) INTERSECTION OPERATIONS

INTERSECTION		EXISTING (2019)			
		AM Peak		PM Peak	
		DELAY [1]	LOS [2]	DELAY [1]	LOS [2]
San Pasqual Valley Road/ Dwy #1 (U)					
	SB-L	0.0	A	9.9	A
	WB-L	7.7	A	0.0	A
	NB-L	9.5	A	0.0	A
	EB-L	0.0	A	0.0	A
San Pasqual Valley Rd/ Rockwood Grove Dwy, Dwy #2 (U)					
	SB-L	0.0	A	9.9	A
	EB-L	0.0	A	7.8	A
San Pasqual Valley Rd/ Dwy #3 (U)					
	SB-L	12.4	B	9.8	A
	EB-L	8.8	A	0.0	A

Footnotes:

Results calculated utilizing the methodologies described in Chapters 18, 19, and 20 of the 2016 Highway Capacity Manual (HCM 6).

1) Delay is measured in seconds per vehicle.

2) Level of Service

(U)= Unignalized

NB=Northbound, WB=Westbound, etc.

L=Left-turn movement, T=Thru movement, R=Right-turn movement, etc.

The LOS for these left-turn movements is typically an indication that adequate gaps in the major street traffic are currently being provided during the peak periods along SR-78 (San Pasqual Valley Road).

PROJECT TRAFFIC GENERATION

The traffic volume expected to be generated by the project has been estimated using the nationally published trip generation rates and recommendations from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2018.

Based on operational information provided by the client, and in coordination with the County of San Diego, the project was assumed to fit the general description for the "Winery" land use. Typical trip generation for the winery land use as described in the ITE Trip Generation Manual is based on the gross square footage of the tasting room area only; however, based on the limited data samples within the manual this study adopted a conservative approach by using the gross area of the tasting room, tasting room expansion, and event center (composed of the event logistics and launch suite, and banquet barn).

The proposed Rancho Guejito Wine Tasting Facility and Event Center project is estimated to generate a total of 512 ADT with 23 trips (16 inbound: 7 outbound) in the AM peak hour and 81 trips (40 inbound: 41 outbound) in the PM peak hour.

Table 2 summarizes the amount of traffic to be generated by the proposed project.

TABLE 2 – TRIP GENERATION SUMMARY

LAND USE (CODE)	QUANTITY	ADT	AM PEAK HOUR			PM PEAK HOUR		
			% OF ADT	IN : OUT SPLIT	VOLUMES	% OF ADT	IN : OUT SPLIT	VOLUMES
					IN / OUT / TOTAL			IN / OUT / TOTAL
Winery (970)-Tasting Room	4,283 SF	198	5%	65% : 35%	6 / 3 / 9	16%	50% : 50%	15 / 16 / 31
Winery (970)-Tasting Room expansion	1,612 SF	74	4%	65% : 35%	2 / 1 / 3	16%	50% : 50%	6 / 6 / 12
Winery (970)-Event Center[1]	5,219 SF	240	5%	75% : 25%	8 / 3 / 11	16%	50% : 50%	19 / 19 / 38
		512			**16 / 7 / 23**			**40 / 41 / 81**

-Source: ITE Trip Generation Manual 10th Edition, 2018.

-Based on the ITE Land use description and limited sample size. Typical trip generation of the square footage would only apply to the floor housing the winery testing room. In an effort to account for deviations from the limited data samples, the banquet barn and bridal suite areas of the proposed site were accounted for as part of the gross area contributing to the trip generation.

1) Event Center= 3,700 square feet for Banquet Barn plus 1,519 square feer for the Bridal Suite

Appendix C contains the trip generation calculation worksheets.

PROJECT TRIP DISTRIBUTION/ASSIGNMENT

Exhibit 5 shows the project trip distribution percentages. These percentages are based on trip distribution patterns derived from the existing traffic patterns and the assumption that the majority of the traffic travelling to/from the site would be originating from the west. **Exhibit 6** shows the project trip assignment.

OPENING YEARS CONDITIONS

The *Opening Year* (2023, 2026, and 2027) scenarios analyze the forecasted traffic patterns by assuming a 2% growth per year and comparing the operational capabilities of the study intersections with and without the project traffic volumes associated with the proposed project. The goal of these scenarios is to understand the traffic conditions at the proposed main driveway intersection through the various phases of the project.

The westernmost driveway (Driveway #1) is assumed to operate as a fire access only and was not analyzed for the Opening Year conditions. The intersection for the Rockwood Grove driveway (Driveway #2) would be improved to provide a dedicated eastbound left-turn lane on SR-78. The easternmost driveway (Driveway #3) is assumed to continue operating under the same lane configuration and intersection control as the existing scenario condition.

Opening Year (2023, 2026, and 2027) *without Project volumes*

Exhibit 7 shows the anticipated opening year volumes for the study area under their respective opening years using a 2% growth per year. The volumes shown do not account for the traffic generated by the proposed project site.

Opening Year (2023, 2026, and 2027) *plus Project volumes*

Exhibit 8 shows the anticipated opening year volumes for the study area under their respective opening years using a 2% growth per year plus the traffic anticipated to be generated by the project for each respective year.

The project study area, analysis scenarios, and traffic generation utilized in this LMA are based on the *County of San Diego Transportation Study Guidelines* (June 2020).

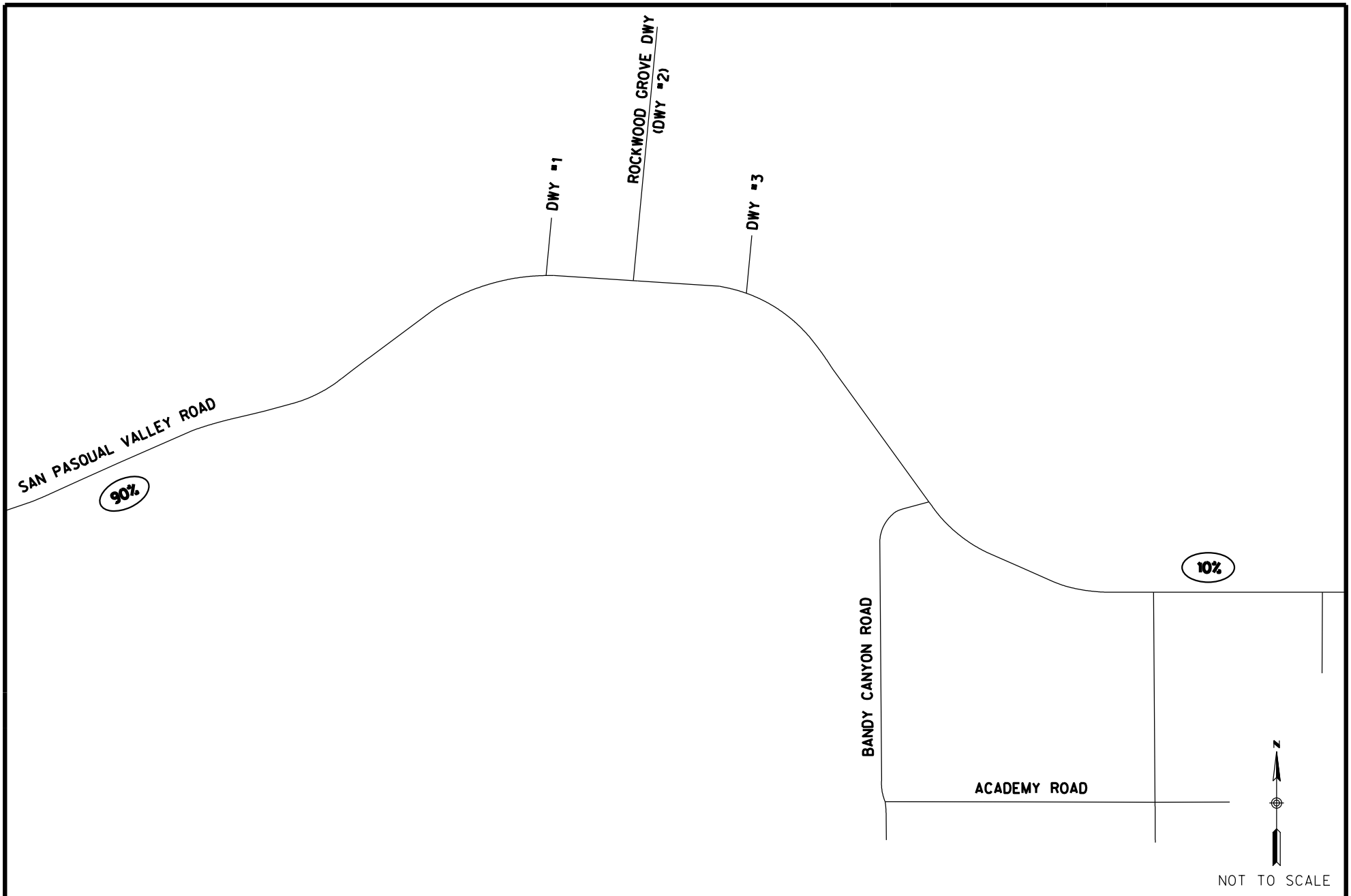

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EXHIBIT 5

PROJECT TRIP DISTRIBUTION PERCENTAGES

RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

LEGEND (XX%) =DISTRIBUTION PERCENTAGE

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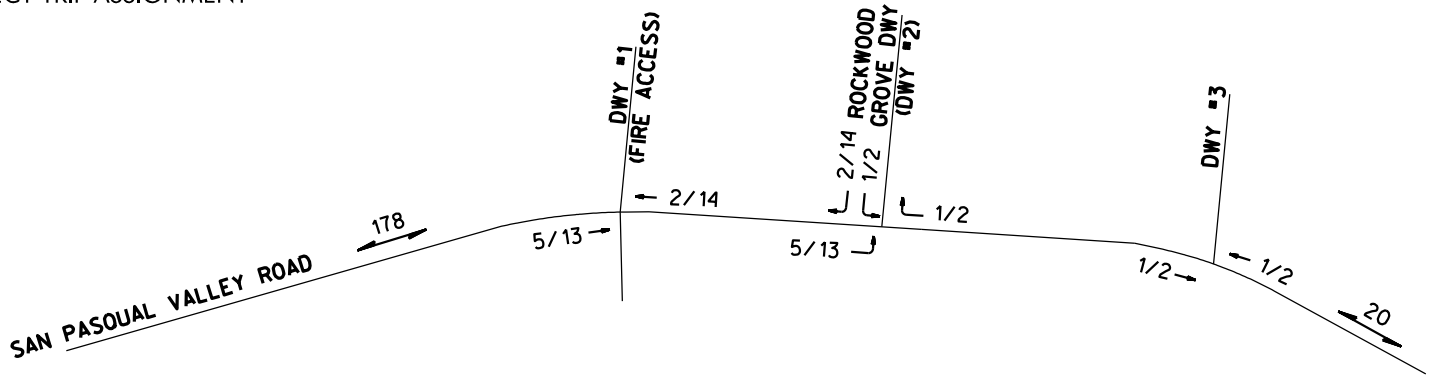
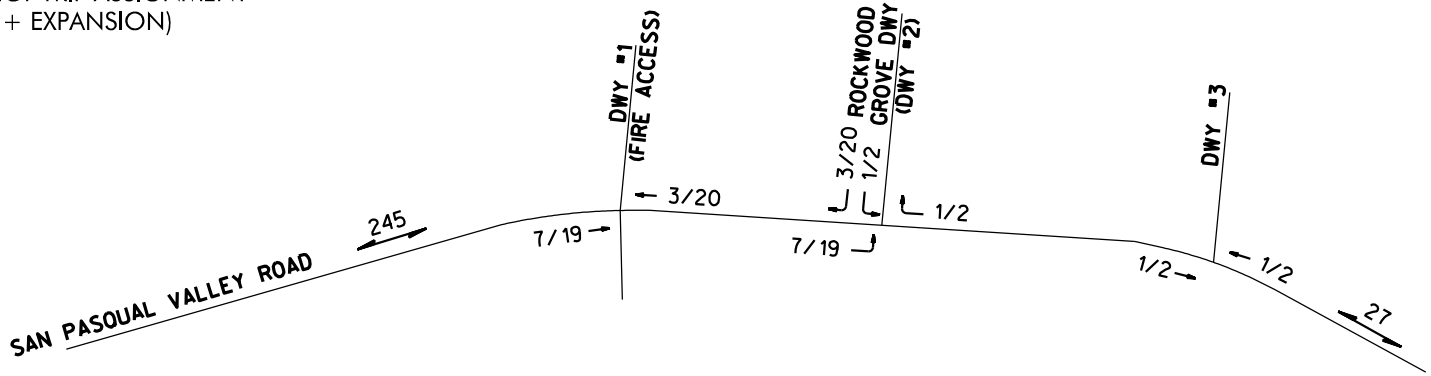
YEAR 2023 PROJECT TRIP ASSIGNMENT
(TASTING ROOM)



YEAR 2026 PROJECT TRIP ASSIGNMENT
(TASTING ROOM + EXPANSION)



YEAR 2027 PROJECT TRIP ASSIGNMENT
(TASTING ROOM + EXPANSION + EVENT CENTER)

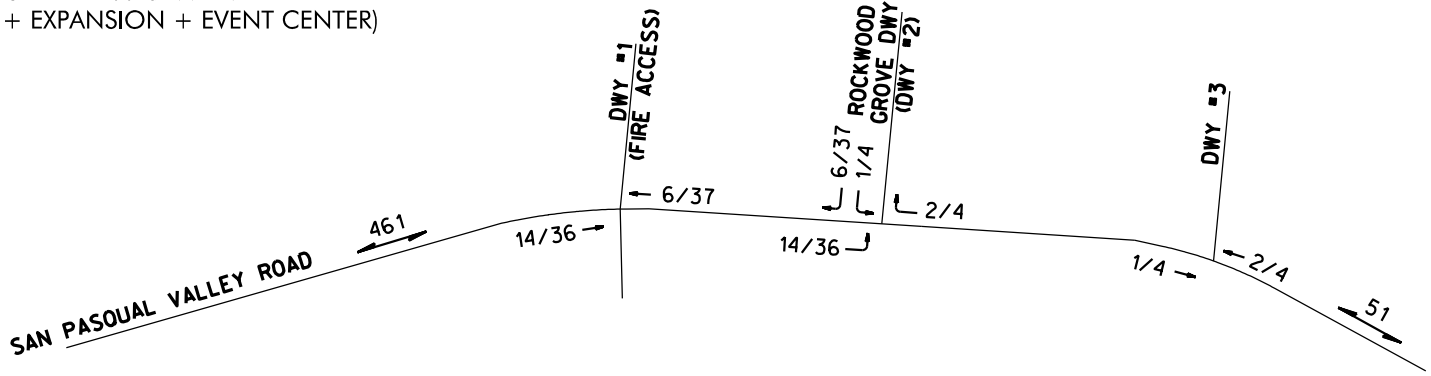


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EXHIBIT 6

PROJECT TRIP ASSIGNMENT

RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

LEGEND

AM/PM=PEAK HOUR VOLUMES

X,XXX=TWO-WAY ADT

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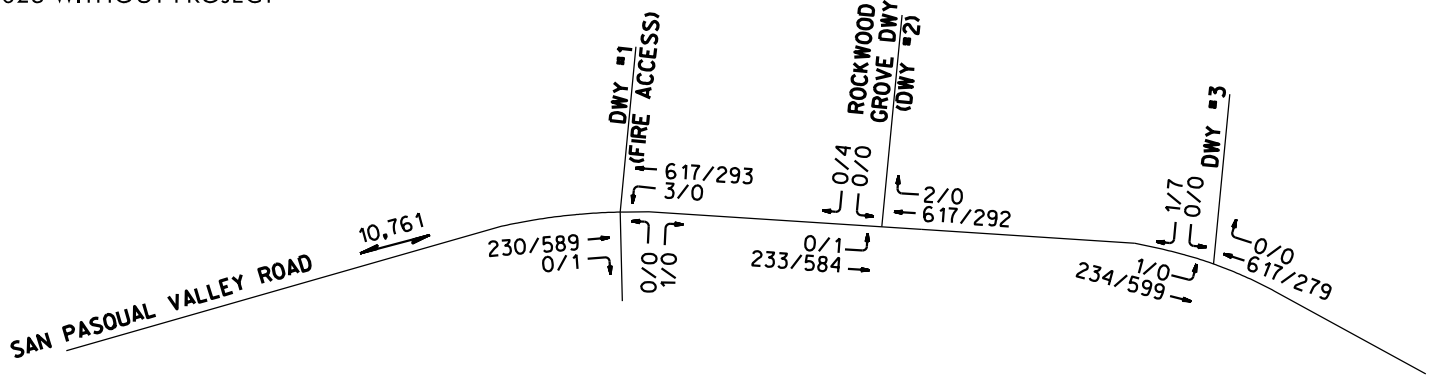
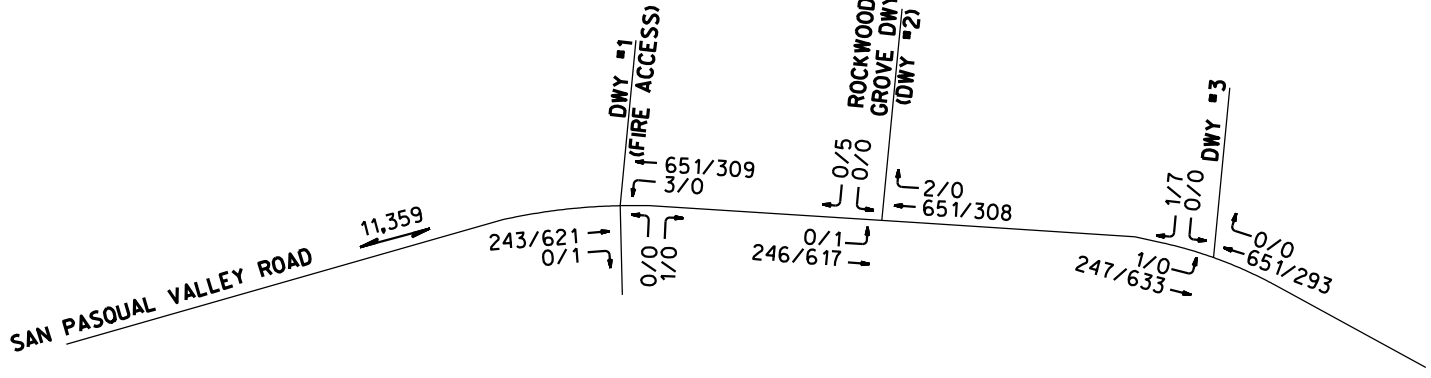
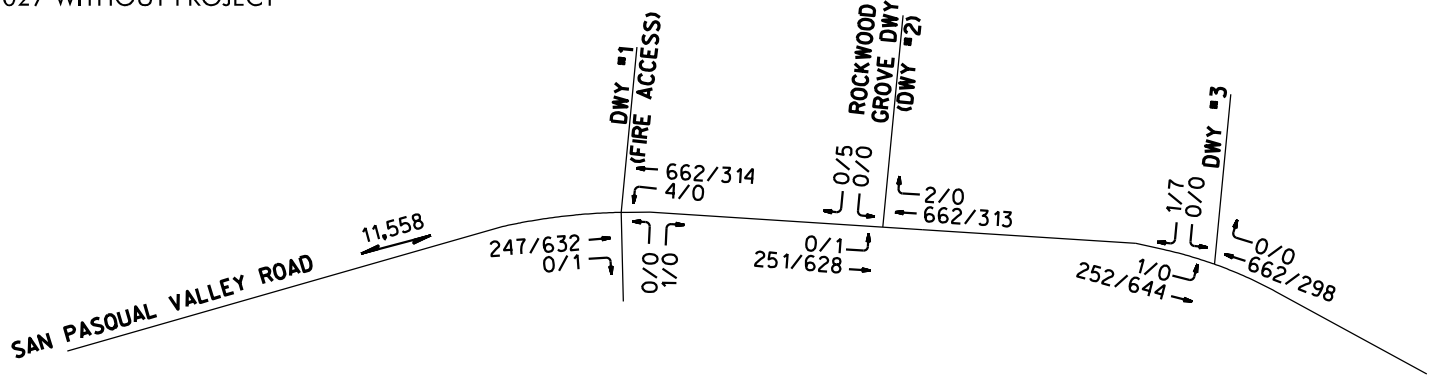
OPENING YEAR 2023 WITHOUT PROJECT



OPENING YEAR 2026 WITHOUT PROJECT



OPENING YEAR 2027 WITHOUT PROJECT



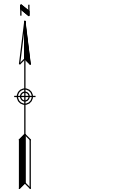


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EXHIBIT 7

OPENING YEAR WITHOUT PROJECT

RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

LEGEND

AM/PM = PEAK HOUR VOLUMES

X,XXX = DAILY TRAFFIC VOLUMES

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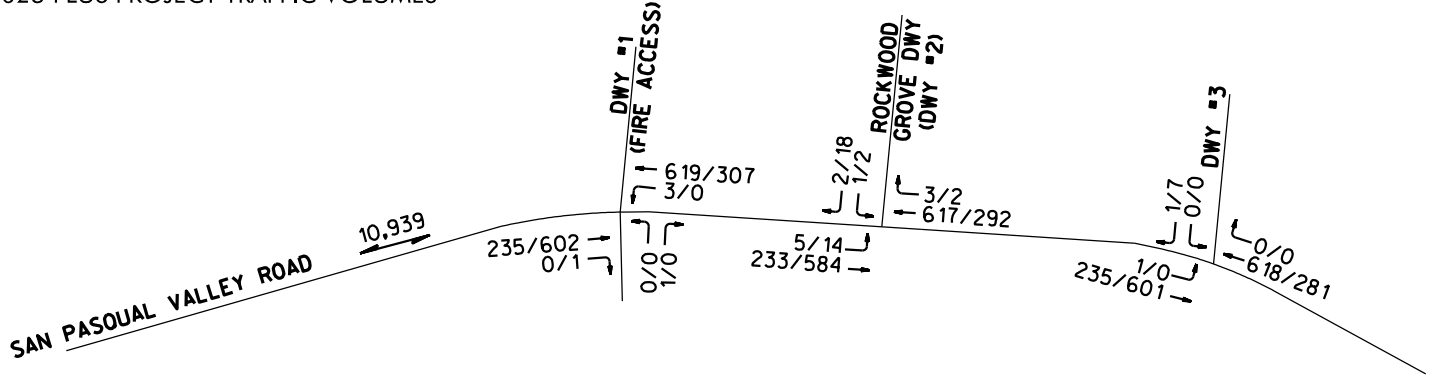
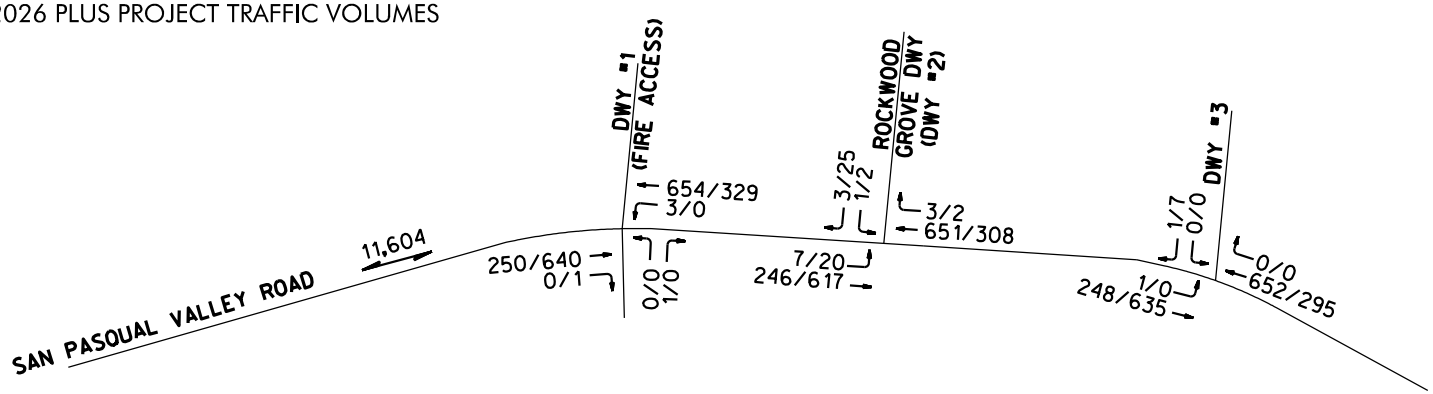
OPENING YEAR 2023 PLUS PROJECT TRAFFIC VOLUMES



OPENING YEAR 2026 PLUS PROJECT TRAFFIC VOLUMES



OPENING YEAR 2027 PLUS PROJECT TRAFFIC VOLUMES

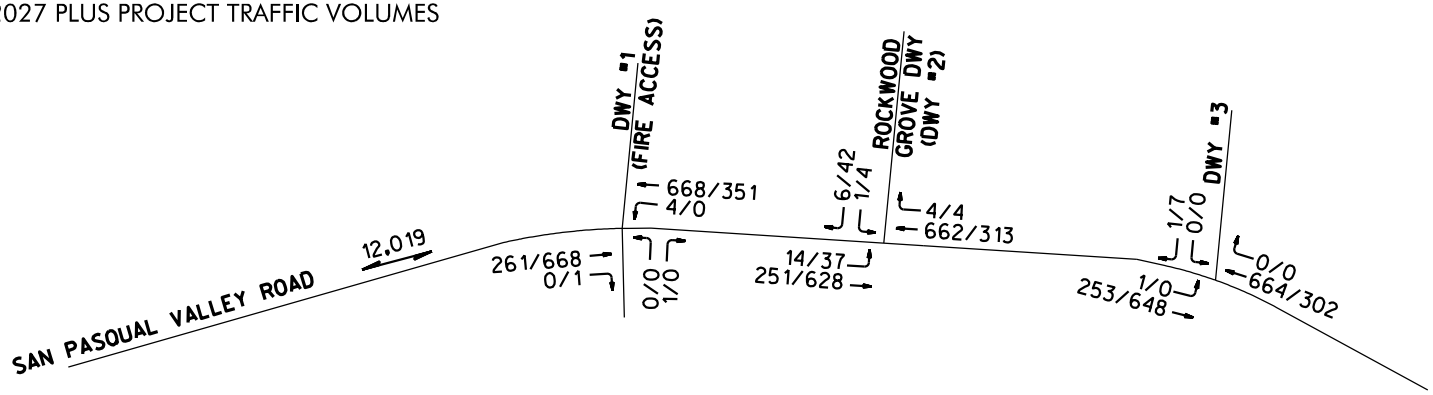


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EXHIBIT 8

OPENING YEAR PLUS PROJECT TRAFFIC VOLUMES

RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

LEGEND

AM/PM = PEAK HOUR VOLUMES

X,XXX = DAILY TRAFFIC VOLUMES

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OPENING YEAR 2023 OPERATIONS

The intersections at SR-78 (San Pasqual Valley Road)/Rockwood Grove Driveway (Driveway #2) and SR-78 (San Pasqual Valley Road)/Driveway #3 were analyzed.

Table 3 shows both intersections are anticipated to continue to operate at an acceptable LOS B or better during the AM and PM peak periods for the Year 2023 without Project scenario. The Opening Year (2023) plus Project generated traffic is also anticipated to operate at an acceptable LOS B or better.

TABLE 3- OPENING YEAR (2023) INTERSECTION OPERATIONS

INTERSECTION		YEAR 2023				YEAR 2023 + PROJECT			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]
San Pasqual Valley Rd/ Rockwood Grove Dwy, Dwy #2 (U)									
	SB-L	0.0	A	10.0	B	14.5	B	11.0	B
	EB-L	0.0	A	7.9	A	8.9	A	7.9	A
San Pasqual Valley Rd/ Dwy #3 (U)									
	SB-L	12.9	B	9.9	A	12.9	B	9.9	A
	EB-L	8.9	A	0.0	A	8.9	A	0.0	A

Footnotes:

Results calculated utilizing the methodologies described in Chapters 18, 19, and 20 of the 2016 Highway Capacity Manual.

1) Delay is measured in seconds per vehicle.

2) Level of Service

(U)= Unsignalized,

NB=Northbound, WB=Westbound, etc.

L=Left-turn movement, T=Thru movement, R=Right-turn movement, etc.

The LOS for the left-turn movements at the unsignalized intersections is typically an indication that adequate gaps in the major street traffic will continue to be provided during the peak periods.

OPENING YEAR 2026 OPERATIONS

The intersections at SR-78 (San Pasqual Valley Road)/Rockwood Grove Driveway (Driveway #2) and SR-78 (San Pasqual Valley Road)/Driveway #3 were analyzed.

Table 4 shows both intersections are anticipated to continue to operate at an acceptable LOS B or better during the AM and PM peak periods for the Year 2026 without Project scenario. The Opening Year (2026) plus Project generated traffic is also anticipated to operate at an acceptable LOS B or better.

TABLE 4 – OPENING YEAR (2026) INTERSECTION OPERATIONS

INTERSECTION		YEAR 2026				YEAR 2026 + PROJECT			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]
San Pasqual Valley Rd/ Rockwood Grove Dwy, Dwy #2 (U)									
	SB-L	0.0	A	10.1	B	14.7	B	11.0	B
	EB-L	0.0	A	7.9	A	9.1	A	7.9	A
San Pasqual Valley Rd/ Dwy #3 (U)									
	SB-L	13.3	B	10.0	B	13.3	B	10.1	B
	EB-L	9.0	A	0.0	A	9.1	A	0.0	A

Footnotes:

Results calculated utilizing the methodologies described in Chapters 18, 19, and 20 of the 2016 Highway Capacity Manual.

1) Delay is measured in seconds per vehicle.

2) Level of Service

(U)= Unsignalized,

NB=Northbound, WB=Westbound, etc.

L=Left-turn movement, T=Thru movement, R=Right-turn movement, etc.

The LOS for the left-turn movements at the unsignalized intersections is typically an indication that adequate gaps in the major street traffic will continue to be provided during the peak periods.

OPENING YEAR 2027 OPERATIONS

The intersections at SR-78 (San Pasqual Valley Road)/Rockwood Grove Driveway (Driveway #2) and SR-78 (San Pasqual Valley Road)/Driveway #3 were analyzed.

Table 5 shows both intersections are anticipated to continue to operate at an acceptable LOS B or better during the AM and PM peak periods for the Year 2027 without Project scenario. The Opening Year (2027) plus Project generated traffic is also anticipated to operate at an acceptable LOS B or better.

TABLE 5 – OPENING YEAR (2027) INTERSECTION OPERATIONS

INTERSECTION		YEAR 2027				YEAR 2027 + PROJECT			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]
San Pasqual Valley Rd/ Rockwood Grove Dwy, Dwy #2 (U)									
	SB-L	0.0	A	10.2	B	14.8	B	11.6	B
	EB-L	0.0	A	8.0	A	9.2	A	8.1	A
San Pasqual Valley Rd/ Dwy #3 (U)									
	SB-L	13.4	B	10.1	B	13.5	B	10.1	B
	EB-L	9.1	A	0.0	A	9.1	A	0.0	A

Footnotes:

Results calculated utilizing the methodologies described in Chapters 18, 19, and 20 of the 2016 Highway Capacity Manual.

1) Delay is measured in seconds per vehicle.

2) Level of Service

(U)= Unsignalized,

NB=Northbound, WB=Westbound, etc.

The LOS for the left-turn movements at the unsignalized intersections is typically an indication that adequate gaps in the major street traffic will continue to be provided during the peak periods.

CUMULATIVE CONDITIONS

The *Cumulative Conditions* scenario analyzes the traffic patterns upon completion of all cumulative projects within the project study area. Based on the review and research conducted at the County's Department of Planning and Development Services, no cumulative projects are expected to contribute to the overall growth in traffic in the area, therefore, no cumulative analysis was conducted.

SITE ACCESS ASSESSMENT

The results of the level of service (LOS) operational analysis had shown that the proposed project access intersection (SR-78/Driveway #2) would operate at LOS A and B during the peak hours through the project buildout scenario (Year 2027). An additional assessment of the SR-78/Driveway #2 intersection was conducted in regard to queuing and sight distance.

Queuing Assessment

The proposed project will construct a two-way left-turn lane (TWLTL) on SR-78 with a storage length of approximately 200 feet between Driveway #1 and Driveway #2. A queuing assessment was performed for the project buildout scenario (Year 2027) to determine if the proposed 200-foot storage length of the TWLTL between Driveway #1 and Driveway #2 would accommodate the 95th percentile queue length of the eastbound left-turn movement at the SR-78/Driveway #2 intersection during peak hours. The queuing assessment was performed using the SimTraffic application within the Synchro software program. The queuing assessment results are based on the 95th percentile queue lengths during the AM and PM peak hours. The SimTraffic queuing reports are contained in **Appendix D**.

The SimTraffic queuing reports showed the following 95th percentile queue lengths for the eastbound left-turn movement at the SR-78/Driveway #2 intersection under Year 2027 conditions with the project:

- AM Peak Hour: 39 feet
- PM Peak Hour: 27 feet

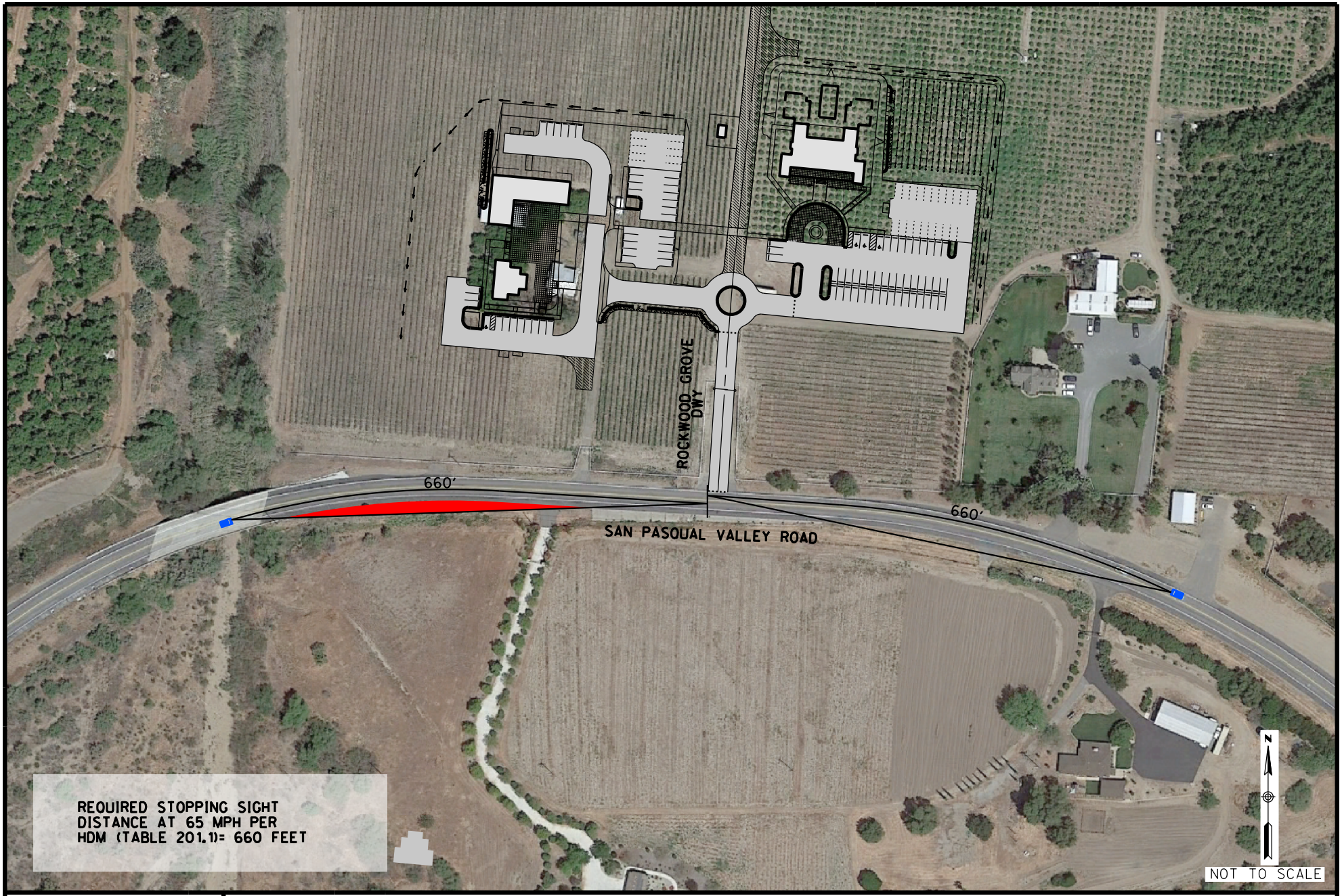
As shown above, the proposed 200-foot storage length of the TWLTL between Driveway #1 and Driveway #2 would accommodate the 95th percentile queue length of the eastbound left-turn movement at the SR-78/Driveway #2 intersection during the peak hours under the project buildout scenario (Year 2027).

Sight Distance Assessment

Sight distance along SR-78 (San Pasqual Valley Road) at the main project driveway (Rockwood Grove driveway/Driveway #2) location was evaluated based on sight distance criteria contained in the Caltrans Highway Design Manual (HDM), dated November 20, 2017. This criterion was used as it is more restrictive than the criteria contained in the County of San Diego, Department of Public Works, *Public Road Standards*, dated March 2012. These guidelines include recommended sight distances at intersections, including stopping sight distances for drivers traveling along the major approaches. These recommendations are based upon approach travel speeds.

Stopping sight distance at the proposed driveway location was field measured. The stopping sight distance measured west of the main project driveway was 700 feet. The stopping sight distance measured east of the main project driveway was 1,120 feet. Based on the observed 85th percentile speeds of 64 and 63 mph for the eastbound and eastbound approach respectively, the minimum stopping sight distance needed is 660 feet (HDM Table 201.1). When measured, the stopping sight distances were more than adequate for both directions of travel.

Exhibit 9 shows the required stopping sight distance. **Appendix E** contains imagery of the observed field visit conditions for sight distance.



RICK ENGINEERING COMPANY

EXHIBIT 9

SIGHT DISTANCE

RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

LEGEND =REMOVE BRUSH/CLEAR SIGHT LINE

C:\RICK\Projects\C_SD_T\14557-WT_New\Traffic\Graphics\14557-WT_EX09_SightDistance.dgn
C:\RICK\Projects\C_SD_T\14557-WT_New\Traffic\Graphics\SD CorpStds 2005.dscript

18-NOV-2019 09:34

ACTIVE TRANSPORTATION ASSESSMENT

An Active Transportation Assessment was performed for the study area to evaluate the project's potential effect on Pedestrian and Bicycle facilities. Planned improvements and recommendations for pedestrian and bike facilities described in the *County of San Diego Active Transportation Plan, October 2018*, were considered in this assessment.

Study Area Pedestrian Network
There is currently no existing sidewalk provided along either side of SR-78 (San Pasqual Valley Road) within the project study area. The County of San Diego Active Transportation Plan does not recommend any pedestrian improvements in the immediate vicinity of the project site, and due to the rural location and lack of existing pedestrian facilities in the adjacent surrounding area, no specific improvements to pedestrian facilities along San Pasqual Valley Road (SR-78) are currently recommended.

Study Area Bicycle Network
There are currently no bike lanes provided along either side of SR-78 (San Pasqual Valley Road) within the project study area. The County of San Diego ATP currently does not have any plans to construct new bike facilities on the segment within the project area, and due to the rural location and lack of existing bicycle facilities in the adjacent surrounding area, no specific improvements to bicycle facilities along San Pasqual Valley Road (SR-78) are currently recommended.

CONCLUSIONS/RECOMMENDATIONS

This study evaluated the potential traffic impacts due to the proposed Rancho Guejito Wine Tasting Facility and Event Center project located along SR-78 (San Pasqual Valley Road), between Ysabel Creek Road and Bandy Canyon Road at Caltrans post mile 26.906 within the County of San Diego. This TIS adopted a conservative approach by accounting for the square footages of the tasting room as well as tasting room expansion, and event center (composed of the event logistics and launch suite, and banquet barn). At buildout, the project is anticipated to generate a total of 512 ADT with 23 trips (16 inbound: 7 outbound) in the AM peak hour and 81 trips (40 inbound: 41 outbound) in the PM peak hour.

Based on the analysis contained within this report, all study intersections are anticipated to operate acceptably with their current lane configurations, therefore no additional improvements are recommended as a result of the proposed project. **Table 6** provides a side-by-side comparison between all the study area intersections, their respective capacity analysis, and scenario year.

The project will widen SR-78 along the project frontage to construct a two-way left-turn lane (TWLTL) and a westbound acceleration lane taper on SR-78 between Driveway #1 and Driveway #2. The results of the queuing analysis showed that the proposed 200-foot storage length of the TWLTL between Driveway #1 and Driveway #2 would accommodate the 95th percentile queue length of the eastbound left-turn movement at the SR-78/Driveway #2 intersection during the peak hours under the project buildout scenario (Year 2027).

The results of the sight distance assessment for the proposed project driveway (Driveway #2) had shown that the available stopping sight distance was more than adequate in both directions of travel on SR-78 approaching Driveway #2.

RICK ENGINEERING COMPANY
Traffic Division

TABLE 6
INTERSECTION OPERATIONS SUMMARY
RANCHO GUEJITO WINE TASTING FACILITY AND EVENT CENTER

INTERSECTION		EXISTING (2019)				YEAR 2023				YEAR 2023 + PROJECT				YEAR 2026				YEAR 2026 + PROJECT				YEAR 2027				YEAR 2027 + PROJECT			
		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
		DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]	DELAY [1]	LOS [2]
San Pasqual Valley Road/ Dwy #1 (U)																													
	SB-L	0.0	A	9.9	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WB-L	7.7	A	0.0	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	NB-L	9.5	A	0.0	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EB-L	0.0	A	0.0	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Pasqual Valley Rd/ Rockwood Grove Dwy, Dwy #2 (U)																													
	SB-L	0.0	A	9.9	A	0.0	A	10.0	B	14.5	B	11.0	B	0.0	A	10.1	B	14.7	B	11.0	B	0.0	A	10.2	B	14.8	B	11.6	B
	EB-L	0.0	A	7.8	A	0.0	A	7.9	A	8.9	A	7.9	A	0.0	A	7.9	A	9.1	A	7.9	A	0.0	A	8.0	A	9.2	A	8.1	A
San Pasqual Valley Rd/ Dwy #3 (U)																													
	SB-L	12.4	B	9.8	A	12.9	B	9.9	A	12.9	B	9.9	A	13.3	B	10.0	B	13.3	B	10.1	B	13.4	B	10.1	B	13.5	B	10.1	B
	EB-L	8.8	A	0.0	A	8.9	A	0.0	A	8.9	A	0.0	A	9.0	A	0.0	A	9.1	A	0.0	A	9.1	A	0.0	A	9.1	A	0.0	A

Footnotes:
Results calculated utilizing the methodologies described in Chapters 18, 19, and 20 of the 2016 Highway Capacity Manual.
1) Delay is measured in seconds per vehicle.
2) Level of Service
(S)=Signalized, (TWSC)=Two-Way Stop Controlled, (AWSC)=All-Way Stop Controlled, (R)=Roundabout.
NB=Northbound, WB=Westbound, etc.
L=Left-turn movement, T=Thru movement, R=Right-turn movement, etc.

APPENDIX A

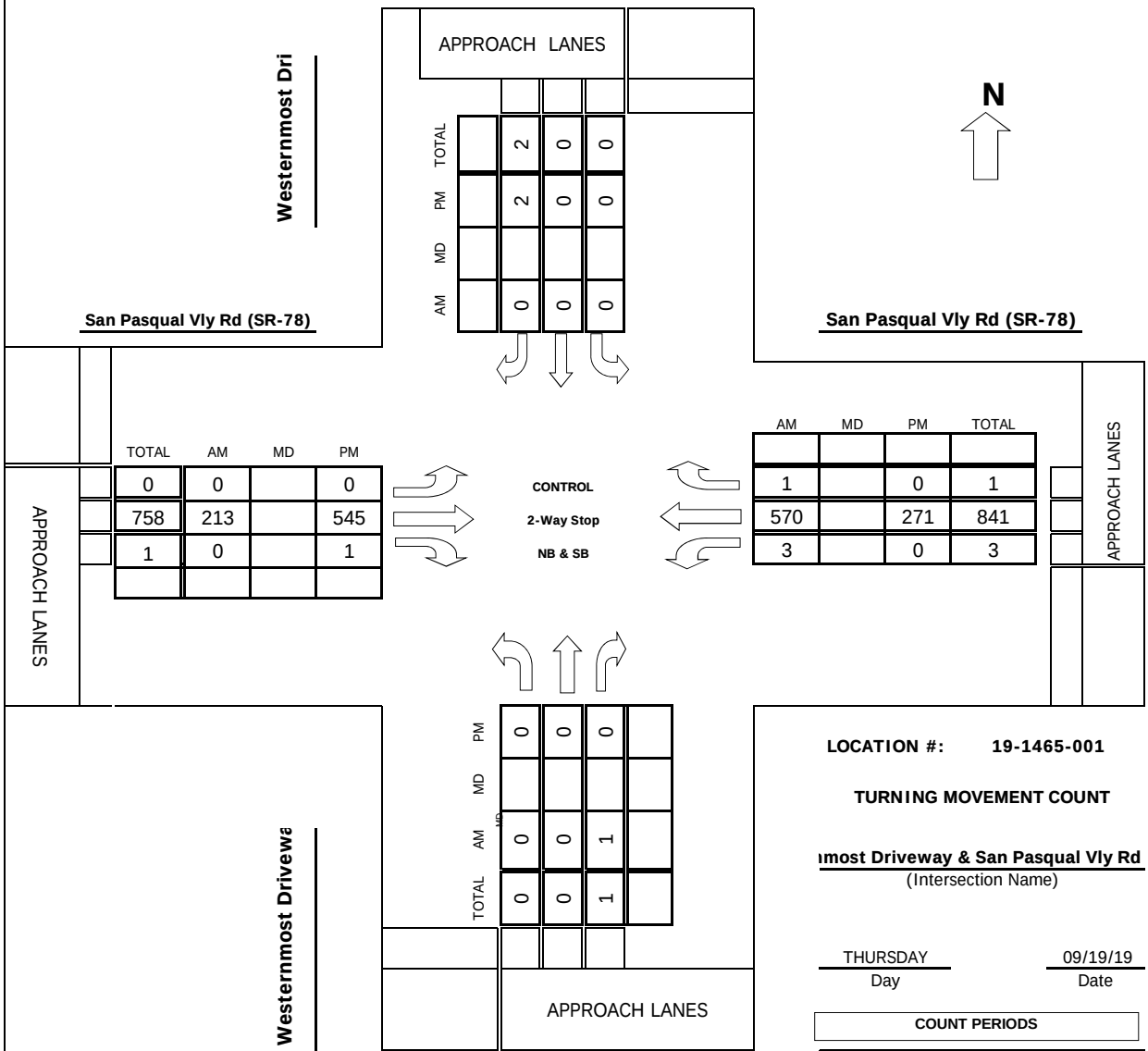
Traffic Volume Counts

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1465-001

TMC SUMMARY OF Westernmost Driveway & San Pasqual Vly Rd (SR-78)



LOCATION #: 19-1465-001

TURNING MOVEMENT COUNT

ımost Driveway & San Pasqual Vly Rd
(Intersection Name)

THURSDAY (Day) 09/19/19 (Date)

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 700 AM

NOON PEAK HOUR

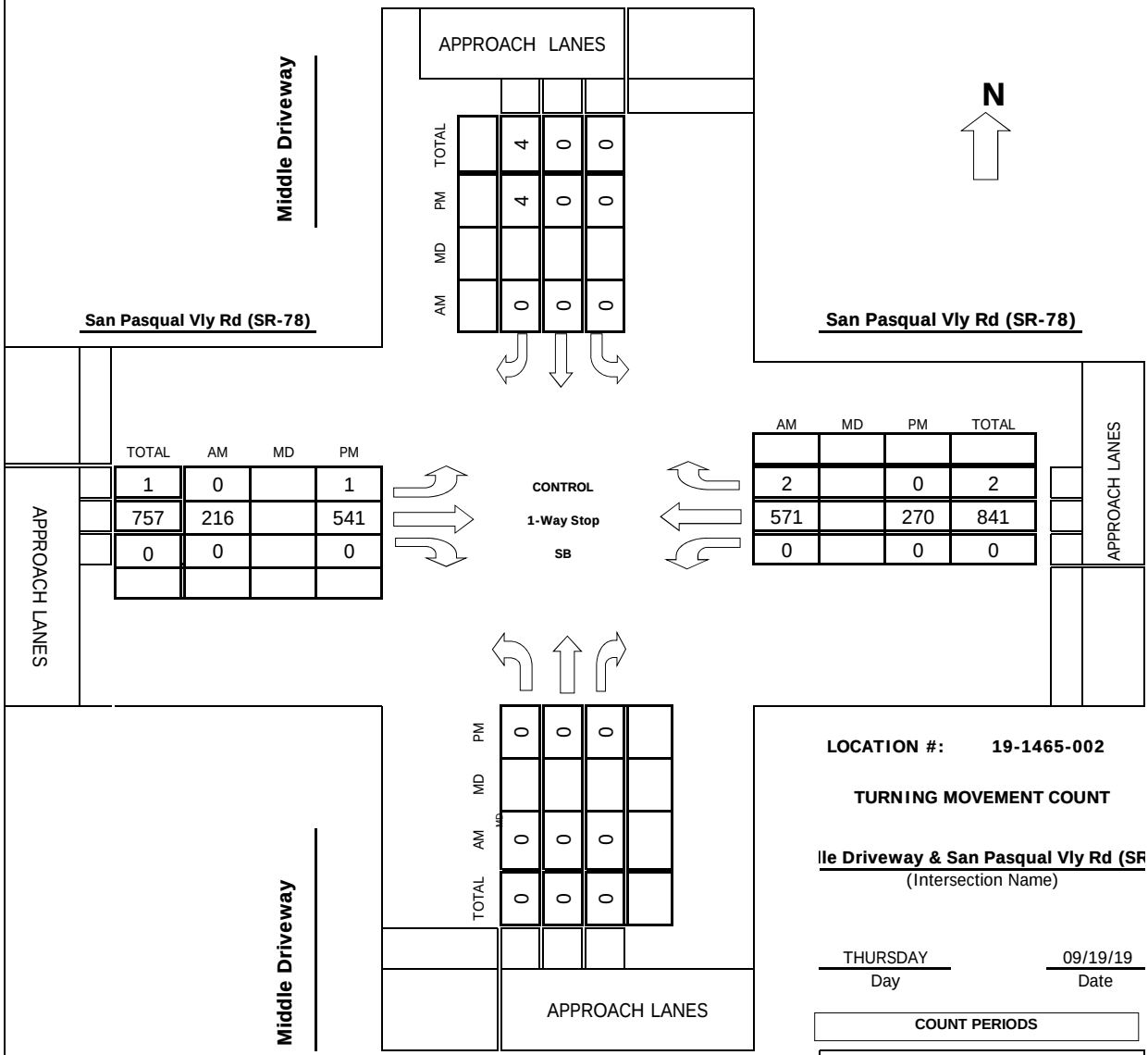
PM PEAK HOUR 430 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1465-002

TMC SUMMARY OF Middle Driveway & San Pasqual Vly Rd (SR-78)



LOCATION #: 19-1465-002

TURNING MOVEMENT COUNT

lle Driveway & San Pasqual Vly Rd (SR
(Intersection Name)

THURSDAY (Day) 09/19/19 (Date)

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 700 AM

NOON PEAK HOUR

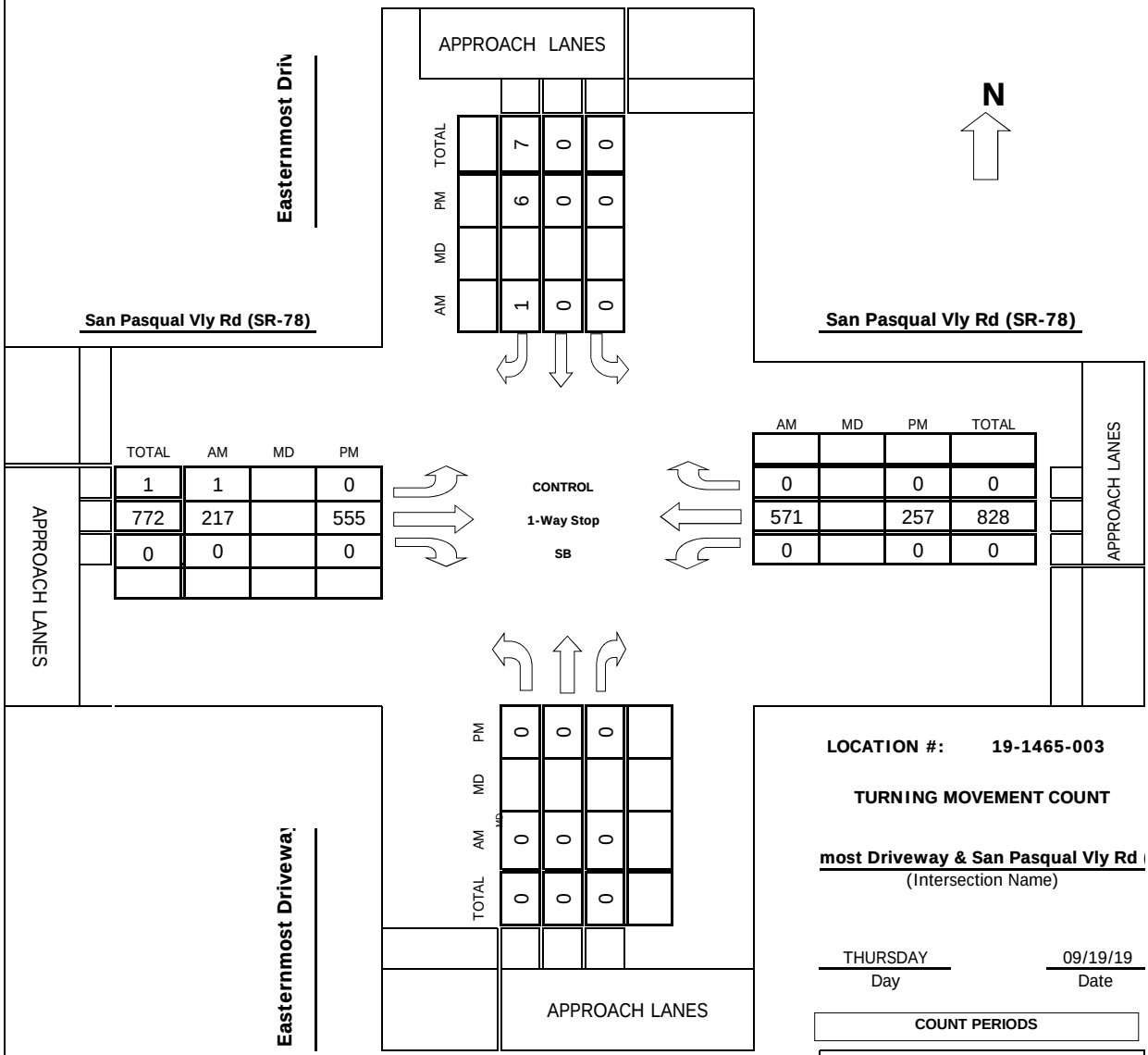
PM PEAK HOUR 430 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1465-003

TMC SUMMARY OF Easternmost Driveway & San Pasqual Vly Rd (SR-78)



LOCATION #: 19-1465-003

TURNING MOVEMENT COUNT

most Driveway & San Pasqual Vly Rd
(Intersection Name)

THURSDAY (Day) 09/19/19 (Date)

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 700 AM

NOON PEAK HOUR

PM PEAK HOUR 445 PM

Rancho Guejito Winery TIA

24 Hour Summary Report

Prepared For:

Rick Engineering

5620 Friars Rd.

San Diego, CA 92110

Prepared By:

Field Data Services of Arizona, Inc. /

Veracity Traffic Group

520.316.6745

Site ID: 19-1465-004
Street: San Pasqual Valley Rd. (SR-78)
Location: btwn. Bridge & Westernmost Driveway

GPS FOR EB/NB LOC: 33.094796 / 0.00000
GPS FOR WB/SB LOC: -116.960577 / 0.00000

Begin Date: September-19-2019 (Thursday)
Begin Time: 0:00

End Date: September-20-2019 (Friday)
End Time: 0:00

Average Daily Traffic:

EB	5,048	vehicles
WB	4,916	vehicles
Total	9,964	vehicles

85th Percentile

EB	64.0	mph
WB	63.0	mph
Average	63.5	mph

Percentile Speeds	**EB**	**WB**	
10%	50	49	mph
15%	51	50	mph
50%	58	57	mph
85%	64	63	mph
95%	67	66	mph

Speed Distribution Summary (MPH)

	0-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70+
EB	4	0	3	1	2	8	24	160	299	846	1759	1466	476
WB	5	0	1	5	6	4	30	111	408	1116	1755	1136	339
Total	9	0	4	6	8	12	54	271	707	1962	3514	2602	815

Classification Summary (FHWA Scheme F)

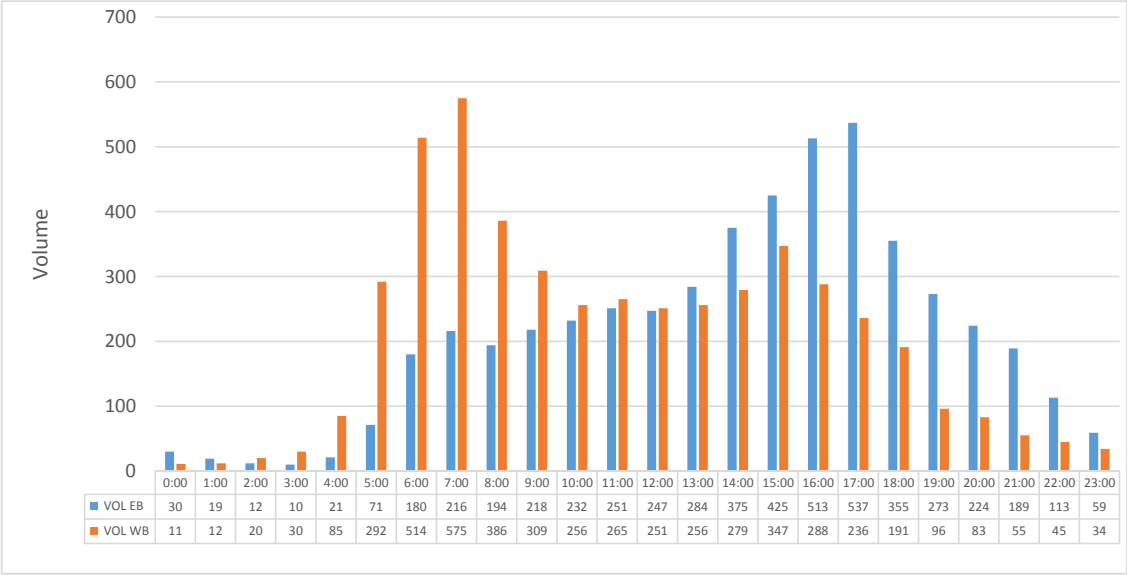
	BIKE	CARS	2A-L	BUS	2A-S	3A-S	4A-S	<5-D	5A-D	>6-D	<6-M	6A-M	>6-M
EB	52	3447	670	33	746	11	4	55	27	0	2	1	0
WB	51	3219	697	34	801	26	6	49	31	0	1	1	0
Total	103	6666	1367	67	1547	37	10	104	58	0	3	2	0
	1.0%	66.9%	13.7%	0.7%	15.5%	0.4%	0.1%	1.0%	0.6%	0.0%	0.0%	0.0%	0.0%

EB	WB	TOTAL
5048	4916	9964
5048	4916	9964

Rancho Guejito Winery TIA

24 Hour Summary Report

VOLUME BY HOUR, GRAPH FOR EACH DIRECTION



	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
VOL EB	30	19	12	10	21	71	180	216	194	218	232	251	247	284	375	425	513	537	355	273	224	189	113	59
VOL WB	11	12	20	30	85	292	514	575	386	309	256	265	251	256	279	347	288	236	191	96	83	55	45	34

APPENDIX B

Level of Service Capacity Analysis

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	213	0	3	570	1	0	0	1	0	0	0
Future Vol, veh/h	0	213	0	3	570	1	0	0	1	0	0	0
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	232	0	3	620	1	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	621	0	0	232	0	0	859	859	232	860	859	621
Stage 1	-	-	-	-	-	-	232	232	-	627	627	-
Stage 2	-	-	-	-	-	-	627	627	-	233	232	-
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	960	-	-	1336	-	-	277	294	807	276	294	487
Stage 1	-	-	-	-	-	-	771	713	-	471	476	-
Stage 2	-	-	-	-	-	-	471	476	-	770	713	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	960	-	-	1336	-	-	276	293	807	275	293	487
Mov Cap-2 Maneuver	-	-	-	-	-	-	276	293	-	275	293	-
Stage 1	-	-	-	-	-	-	771	713	-	471	475	-
Stage 2	-	-	-	-	-	-	470	475	-	769	713	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9.5	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	807	960	-	-	1336	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	0.002	-	-	-
HCM Control Delay (s)	9.5	0	-	-	7.7	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	216	571	2	0	0
Future Vol, veh/h	0	216	571	2	0	0
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	0	235	621	2	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	623	0	-	0	857	622
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	235	-
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	958	-	-	-	328	487
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	804	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	958	-	-	-	328	487
Mov Cap-2 Maneuver	-	-	-	-	328	-
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	804	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	958	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	217	571	0	0	1
Future Vol, veh/h	1	217	571	0	0	1
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	236	621	0	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	621	0	-	0	859	621
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	238	-
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	960	-	-	-	327	487
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	960	-	-	-	327	487
Mov Cap-2 Maneuver	-	-	-	-	327	-
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	802	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	960	-	-	-	487
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Control Delay (s)	8.8	0	-	-	12.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	545	1	0	271	0	0	0	0	0	0	2
Future Vol, veh/h	0	545	1	0	271	0	0	0	0	0	0	2
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	592	1	0	295	0	0	0	0	0	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	295	0	0	593	0	0	889	888	593	888	888	295
Stage 1	-	-	-	-	-	-	593	593	-	295	295	-
Stage 2	-	-	-	-	-	-	296	295	-	593	593	-
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	1266	-	-	983	-	-	264	283	506	264	283	744
Stage 1	-	-	-	-	-	-	492	493	-	713	669	-
Stage 2	-	-	-	-	-	-	712	669	-	492	493	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1266	-	-	983	-	-	263	283	506	264	283	744
Mov Cap-2 Maneuver	-	-	-	-	-	-	263	283	-	264	283	-
Stage 1	-	-	-	-	-	-	492	493	-	713	669	-
Stage 2	-	-	-	-	-	-	710	669	-	492	493	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1266	-	-	983	-	-	744
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.003
HCM Control Delay (s)	0	0	-	-	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	541	270	0	0	4
Future Vol, veh/h	1	541	270	0	0	4
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	588	293	0	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	293	0	-	0	883	293
Stage 1	-	-	-	-	293	-
Stage 2	-	-	-	-	590	-
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	1269	-	-	-	316	746
Stage 1	-	-	-	-	757	-
Stage 2	-	-	-	-	554	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1269	-	-	-	316	746
Mov Cap-2 Maneuver	-	-	-	-	316	-
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	554	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1269	-	-	-	746
HCM Lane V/C Ratio	0.001	-	-	-	0.006
HCM Control Delay (s)	7.8	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	555	257	0	0	6
Future Vol, veh/h	0	555	257	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	603	279	0	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	279	0	-	0	882	279
Stage 1	-	-	-	-	279	-
Stage 2	-	-	-	-	603	-
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	1284	-	-	-	317	760
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	546	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1284	-	-	-	317	760
Mov Cap-2 Maneuver	-	-	-	-	317	-
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	546	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1284	-	-	-	760
HCM Lane V/C Ratio	-	-	-	-	0.009
HCM Control Delay (s)	0	-	-	-	9.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	233	617	2	0	0
Future Vol, veh/h	0	233	617	2	0	0
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	0	253	671	2	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	673	0	-	0	925	672
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	253	-
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	918	-	-	-	299	456
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	789	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	918	-	-	-	299	456
Mov Cap-2 Maneuver	-	-	-	-	299	-
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	789	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	918	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	234	617	0	0	1
Future Vol, veh/h	1	234	617	0	0	1
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	254	671	0	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	671	0	-	0	927	671
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	256	-
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	919	-	-	-	298	456
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	787	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	919	-	-	-	298	456
Mov Cap-2 Maneuver	-	-	-	-	298	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	787	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	919	-	-	-	456
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Control Delay (s)	8.9	0	-	-	12.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	584	292	0	0	4
Future Vol, veh/h	1	584	292	0	0	4
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	635	317	0	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	317	0	-	0	954	317
Stage 1	-	-	-	-	317	-
Stage 2	-	-	-	-	637	-
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	1243	-	-	-	287	724
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	527	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1243	-	-	-	287	724
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	737	-
Stage 2	-	-	-	-	527	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1243	-	-	-	724
HCM Lane V/C Ratio	0.001	-	-	-	0.006
HCM Control Delay (s)	7.9	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	599	279	0	0	7
Future Vol, veh/h	0	599	279	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	651	303	0	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	303	0	-	0	954	303
Stage 1	-	-	-	-	303	-
Stage 2	-	-	-	-	651	-
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	1258	-	-	-	287	737
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	519	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1258	-	-	-	287	737
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	519	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1258	-	-	-	737
HCM Lane V/C Ratio	-	-	-	-	0.01
HCM Control Delay (s)	0	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	233	617	3	1	2
Future Vol, veh/h	5	233	617	3	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	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	5	253	671	3	1	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	674	0	-	0	936	673
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	263	-
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	917	-	-	-	294	455
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	781	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	917	-	-	-	293	455
Mov Cap-2 Maneuver	-	-	-	-	293	-
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	781	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	917	-	-	-	384
HCM Lane V/C Ratio	0.006	-	-	-	0.008
HCM Control Delay (s)	8.9	-	-	-	14.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	235	618	0	0	1
Future Vol, veh/h	1	235	618	0	0	1
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	255	672	0	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	672	0	-	0	929	672
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	257	-
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	919	-	-	-	297	456
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	786	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	919	-	-	-	297	456
Mov Cap-2 Maneuver	-	-	-	-	297	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	786	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	919	-	-	-	456
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Control Delay (s)	8.9	0	-	-	12.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	584	292	2	2	18
Future Vol, veh/h	14	584	292	2	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	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	15	635	317	2	2	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	319	0	-	0	983	318
Stage 1	-	-	-	-	318	-
Stage 2	-	-	-	-	665	-
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	1241	-	-	-	276	723
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	511	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1241	-	-	-	273	723
Mov Cap-2 Maneuver	-	-	-	-	273	-
Stage 1	-	-	-	-	729	-
Stage 2	-	-	-	-	511	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1241	-	-	-	621
HCM Lane V/C Ratio	0.012	-	-	-	0.035
HCM Control Delay (s)	7.9	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	601	281	0	0	7
Future Vol, veh/h	0	601	281	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	653	305	0	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	305	0	-	0	958	305
Stage 1	-	-	-	-	305	-
Stage 2	-	-	-	-	653	-
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	1256	-	-	-	285	735
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	518	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1256	-	-	-	285	735
Mov Cap-2 Maneuver	-	-	-	-	285	-
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	518	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1256	-	-	-	735
HCM Lane V/C Ratio	-	-	-	-	0.01
HCM Control Delay (s)	0	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	246	651	2	0	0
Future Vol, veh/h	0	246	651	2	0	0
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	0	267	708	2	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	710	0	-	0	976	709
Stage 1	-	-	-	-	709	-
Stage 2	-	-	-	-	267	-
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	889	-	-	-	279	434
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	778	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	889	-	-	-	279	434
Mov Cap-2 Maneuver	-	-	-	-	279	-
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	778	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	889	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	247	651	0	0	1
Future Vol, veh/h	1	247	651	0	0	1
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	268	708	0	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	708	0	-	0	978	708
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	270	-
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	891	-	-	-	278	435
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	775	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	891	-	-	-	278	435
Mov Cap-2 Maneuver	-	-	-	-	278	-
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	775	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	891	-	-	-	435
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Control Delay (s)	9	0	-	-	13.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	617	308	0	0	5
Future Vol, veh/h	1	617	308	0	0	5
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	671	335	0	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	335	0	-	0	1008	335
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	673	-
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	1224	-	-	-	267	707
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	507	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1224	-	-	-	267	707
Mov Cap-2 Maneuver	-	-	-	-	267	-
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	507	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1224	-	-	-	707
HCM Lane V/C Ratio	0.001	-	-	-	0.008
HCM Control Delay (s)	7.9	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	633	293	0	0	7
Future Vol, veh/h	0	633	293	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	688	318	0	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	318	0	-	0	1006	318
Stage 1	-	-	-	-	318	-
Stage 2	-	-	-	-	688	-
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	1242	-	-	-	267	723
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	499	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1242	-	-	-	267	723
Mov Cap-2 Maneuver	-	-	-	-	267	-
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	499	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1242	-	-	-	723
HCM Lane V/C Ratio	-	-	-	-	0.011
HCM Control Delay (s)	0	-	-	-	10
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	246	651	3	1	3
Future Vol, veh/h	7	246	651	3	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	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	8	267	708	3	1	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	711	0	-	0	993	710
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	283	-
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	888	-	-	-	272	434
Stage 1	-	-	-	-	487	-
Stage 2	-	-	-	-	765	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	888	-	-	-	270	434
Mov Cap-2 Maneuver	-	-	-	-	270	-
Stage 1	-	-	-	-	483	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	888	-	-	-	377
HCM Lane V/C Ratio	0.009	-	-	-	0.012
HCM Control Delay (s)	9.1	-	-	-	14.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	248	652	0	0	1
Future Vol, veh/h	1	248	652	0	0	1
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	270	709	0	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	709	0	-	0	981	709
Stage 1	-	-	-	-	709	-
Stage 2	-	-	-	-	272	-
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	890	-	-	-	277	434
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	774	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	890	-	-	-	277	434
Mov Cap-2 Maneuver	-	-	-	-	277	-
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	774	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	890	-	-	-	434
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s)	9.1	0	-	-	13.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	617	308	2	2	25
Future Vol, veh/h	1	617	308	2	2	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	200	-	-	-	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	671	335	2	2	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	337	0	-	0	1009	336
Stage 1	-	-	-	-	336	-
Stage 2	-	-	-	-	673	-
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	1222	-	-	-	266	706
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	507	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1222	-	-	-	266	706
Mov Cap-2 Maneuver	-	-	-	-	266	-
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	507	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1222	-	-	-	629
HCM Lane V/C Ratio	0.001	-	-	-	0.047
HCM Control Delay (s)	7.9	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	635	295	0	0	7
Future Vol, veh/h	0	635	295	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	690	321	0	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	321	0	-	0	1011	321
Stage 1	-	-	-	-	321	-
Stage 2	-	-	-	-	690	-
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	1239	-	-	-	265	720
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1239	-	-	-	265	720
Mov Cap-2 Maneuver	-	-	-	-	265	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	498	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1239	-	-	-	720
HCM Lane V/C Ratio	-	-	-	-	0.011
HCM Control Delay (s)	0	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	251	662	2	0	0
Future Vol, veh/h	0	251	662	2	0	0
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	0	273	720	2	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	722	0	-	0	994	721
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	273	-
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	880	-	-	-	272	427
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	773	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	880	-	-	-	272	427
Mov Cap-2 Maneuver	-	-	-	-	272	-
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	773	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	880	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	252	662	0	0	1
Future Vol, veh/h	1	252	662	0	0	1
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	274	720	0	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	720	0	-	0	996	720
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	276	-
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	882	-	-	-	271	428
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	882	-	-	-	271	428
Mov Cap-2 Maneuver	-	-	-	-	271	-
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	771	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	882	-	-	-	428
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s)	9.1	0	-	-	13.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	628	313	0	0	5
Future Vol, veh/h	1	628	313	0	0	5
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	683	340	0	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	340	0	-	0	1025	340
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	685	-
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	1219	-	-	-	260	702
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	500	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1219	-	-	-	260	702
Mov Cap-2 Maneuver	-	-	-	-	260	-
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	500	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1219	-	-	-	702
HCM Lane V/C Ratio	0.001	-	-	-	0.008
HCM Control Delay (s)	8	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	644	298	0	0	7
Future Vol, veh/h	0	644	298	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	700	324	0	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	324	0	-	0	1024	324
Stage 1	-	-	-	-	324	-
Stage 2	-	-	-	-	700	-
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	1236	-	-	-	261	717
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	493	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1236	-	-	-	261	717
Mov Cap-2 Maneuver	-	-	-	-	261	-
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	493	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1236	-	-	-	717
HCM Lane V/C Ratio	-	-	-	-	0.011
HCM Control Delay (s)	0	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	251	662	4	2	9
Future Vol, veh/h	14	251	662	4	2	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	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	15	273	720	4	2	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	724	0	-	0	1025	722
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	303	-
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	879	-	-	-	260	427
Stage 1	-	-	-	-	481	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	879	-	-	-	256	427
Mov Cap-2 Maneuver	-	-	-	-	256	-
Stage 1	-	-	-	-	473	-
Stage 2	-	-	-	-	749	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	879	-	-	-	381
HCM Lane V/C Ratio	0.017	-	-	-	0.031
HCM Control Delay (s)	9.2	-	-	-	14.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	253	664	0	0	1
Future Vol, veh/h	1	253	664	0	0	1
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	275	722	0	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	722	0	-	0	999	722
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	277	-
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	880	-	-	-	270	427
Stage 1	-	-	-	-	481	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	880	-	-	-	270	427
Mov Cap-2 Maneuver	-	-	-	-	270	-
Stage 1	-	-	-	-	481	-
Stage 2	-	-	-	-	770	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	880	-	-	-	427
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s)	9.1	0	-	-	13.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	37	628	313	4	4	42
Future Vol, veh/h	37	628	313	4	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	200	-	-	-	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	40	683	340	4	4	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	344	0	-	0	1105	342
Stage 1	-	-	-	-	342	-
Stage 2	-	-	-	-	763	-
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	1215	-	-	-	233	701
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	460	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1215	-	-	-	225	701
Mov Cap-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	460	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1215	-	-	-	592
HCM Lane V/C Ratio	0.033	-	-	-	0.084
HCM Control Delay (s)	8.1	-	-	-	11.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	648	302	0	0	7
Future Vol, veh/h	0	648	302	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	704	328	0	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	328	0	-	0	1032	328
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	704	-
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	1232	-	-	-	258	713
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	490	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1232	-	-	-	258	713
Mov Cap-2 Maneuver	-	-	-	-	258	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	490	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1232	-	-	-	713
HCM Lane V/C Ratio	-	-	-	-	0.011
HCM Control Delay (s)	0	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

APPENDIX C

ITE TRIP GENERATION WORKSHEETS

Land Use: 970
Winery

Description

A winery is a property used primarily for the production of wine. Wineries typically include tasting room facilities and may offer special events such as weddings or parties. Wineries often offer complimentary tours and wine tasting. Visitors also may purchase wine or wine-related products.

Additional Data

For the purposes of this land use, the independent variable “1,000 sq. foot gross floor area” refers to the square footage of the building that houses the tasting room.

Time-of-day distribution data for this land use for a weekday, Friday, Saturday, and Sunday are presented in Appendix A. For the sites with weekday, Saturday, and Sunday data, the overall highest vehicle volumes during the PM were counted between 1:45 and 2:45 p.m. For the sites with Friday data, the PM peak hour was between 4:00 and 5:00 p.m. For all four days, the AM peak hour was between 11:45 a.m. and 12:45 p.m.

The sites were surveyed in the 2010s in California, Illinois, and Virginia.

Source Numbers

807, 851, 894

DATA SOURCE:
Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:
970

LAND USE CATEGORY:
(900-999) Services

LAND USE :
970 - Winery

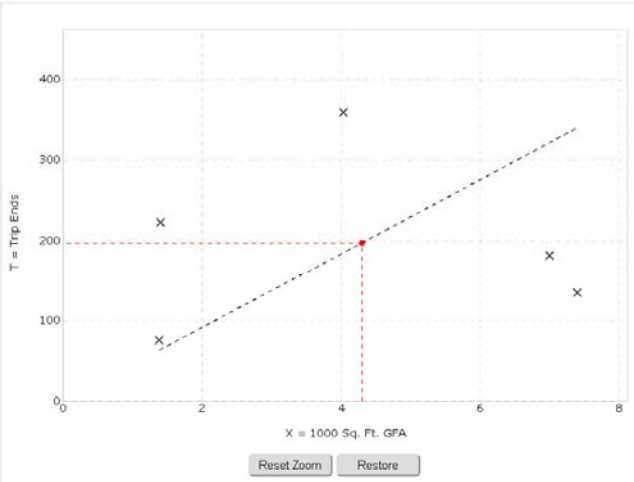
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday

SETTING/LOCATION:
Rural

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
4.3 Calculate



Land Use:
Winery (970) Click for more details
Independent Variable:
1000 Sq. Ft. GFA
Time Period:
Weekday
Setting/Location:
Rural
Trip Type:
Vehicle
Number of Studies:
5
Avg. 1000 Sq. Ft. GFA:
4
Average Rate:
45.96
Range of Rates:
18.24 - 159.29
Standard Deviation:
44.79
Fitted Curve Equation:
Not Given
R^2:

Directional Distribution:
50% entering, 50% exiting
Calculated Trip Ends:
Average Rate: 198 (Total), 99 (Entry), 99 (Exit)

Query Filter

DATA SOURCE:
Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:
970

LAND USE CATEGORY:
(900-999) Services

LAND USE :
970 - Winery

INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

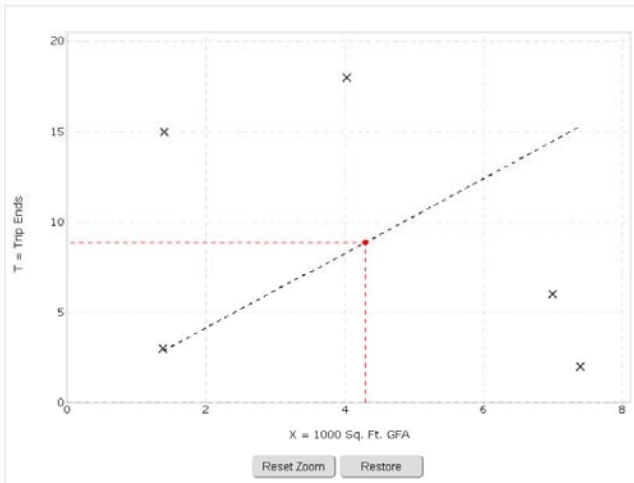
TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

SETTING/LOCATION:
Rural

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
4.3 Calculate

Data Plot and Equation *Caution – Small Sample Size*



DATA STATISTICS

Land Use:
Winery (970) Click for more details
Independent Variable:
1000 Sq. Ft. GFA
Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.
Setting/Location:
Rural
Trip Type:
Vehicle
Number of Studies:
5
Avg. 1000 Sq. Ft. GFA:
4
Average Rate:
2.07
Range of Rates:
0.27 - 10.71
Standard Deviation:
3.09
Fitted Curve Equation:
Not Given
R^2:

Directional Distribution:
70% entering, 30% exiting
Calculated Trip Ends:
Average Rate: 9 (Total), 6 (Entry), 3 (Exit)

Query Filter

DATA SOURCE:
Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:
970

LAND USE CATEGORY:
(900-999) Services

LAND USE :
970 - Winery

INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

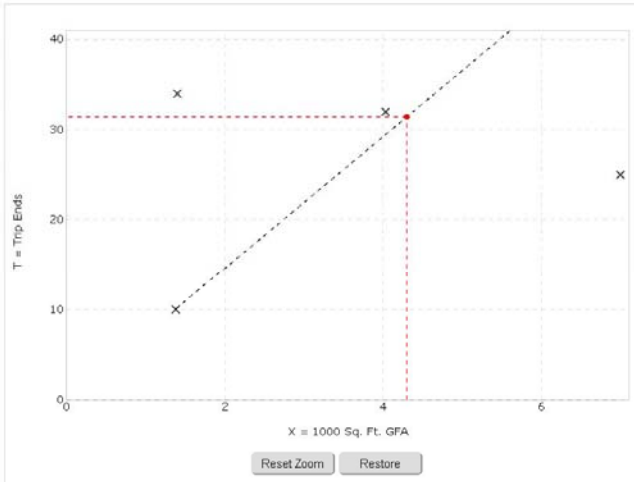
TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

SETTING/LOCATION:
Rural

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
4.3 Calculate

Data Plot and Equation *Caution – Small Sample Size*



DATA STATISTICS

Land Use:
Winery (970) Click for more details
Independent Variable:
1000 Sq. Ft. GFA
Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.
Setting/Location:
Rural
Trip Type:
Vehicle
Number of Studies:
4
Avg. 1000 Sq. Ft. GFA:
3
Average Rate:
7.31
Range of Rates:
3.57 - 24.29
Standard Deviation:
6.97
Fitted Curve Equation:
Not Given
R^2:

Directional Distribution:
50% entering, 50% exiting
Calculated Trip Ends:
Average Rate: 31 (Total), 15 (Entry), 16 (Exit)

DATA SOURCE:
Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:
970

LAND USE CATEGORY:
(900-999) Services

LAND USE :
970 - Winery

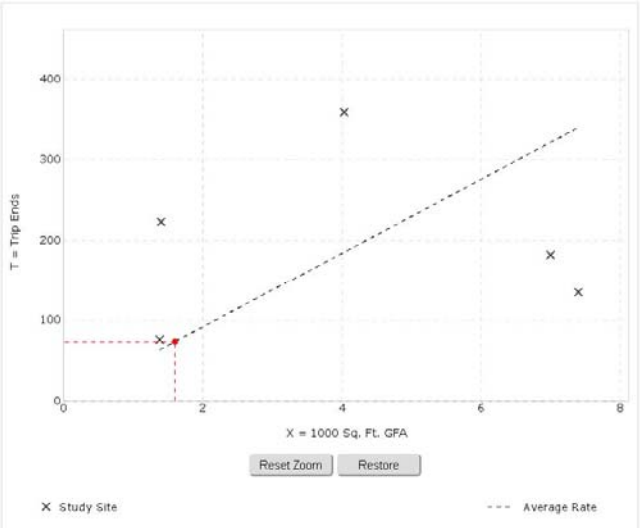
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday

SETTING/LOCATION:
Rural

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
1.6 Calculate



Land Use:
Winery (970) Click for more details
Independent Variable:
1000 Sq. Ft. GFA
Time Period:
Weekday
Setting/Location:
Rural
Trip Type:
Vehicle
Number of Studies:
5
Avg. 1000 Sq. Ft. GFA:
4
Average Rate:
45.96
Range of Rates:
18.24 - 159.29
Standard Deviation:
44.79
Fitted Curve Equation:
Not Given
R^2:
****
Directional Distribution:
50% entering, 50% exiting
Calculated Trip Ends:
Average Rate: 74 (Total), 37 (Entry), 37 (Exit)

DATA SOURCE:
Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:
970

LAND USE CATEGORY:
(900-999) Services

LAND USE :
970 - Winery

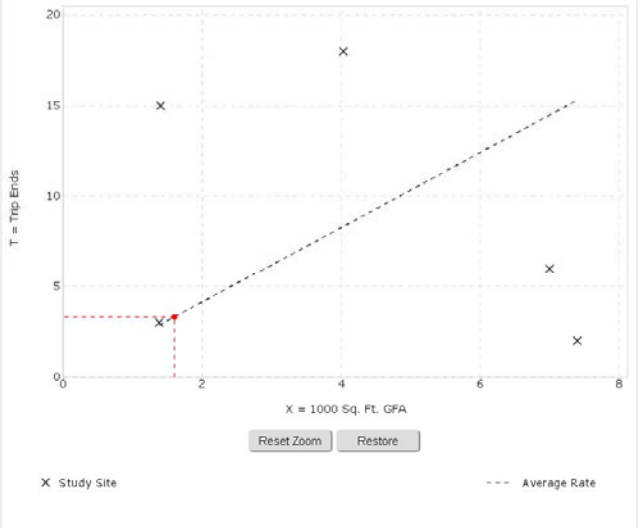
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

SETTING/LOCATION:
Rural

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
1.6 Calculate



Land Use:
Winery (970) Click for more details
Independent Variable:
1000 Sq. Ft. GFA
Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.
Setting/Location:
Rural
Trip Type:
Vehicle
Number of Studies:
5
Avg. 1000 Sq. Ft. GFA:
4
Average Rate:
2.07
Range of Rates:
0.27 - 10.71
Standard Deviation:
3.09
Fitted Curve Equation:
Not Given
R^2:
****
Directional Distribution:
70% entering, 30% exiting
Calculated Trip Ends:
Average Rate: 3 (Total), 2 (Entry), 1 (Exit)

DATA SOURCE:
Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:
970

LAND USE CATEGORY:
(900-999) Services

LAND USE :
970 - Winery

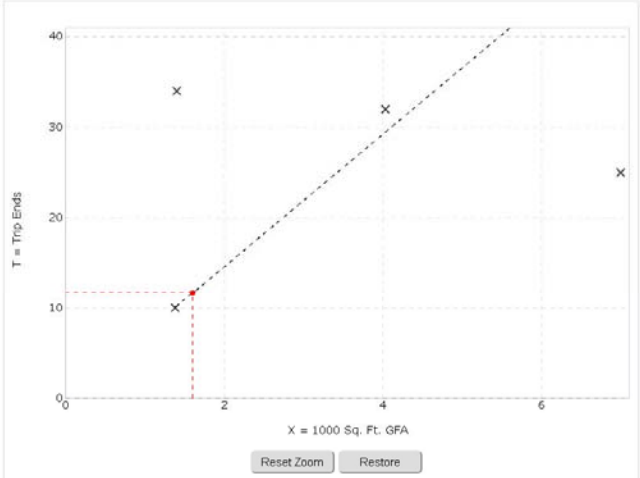
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

SETTING/LOCATION:
Rural

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
1.6 Calculate



Land Use:
Winery (970) Click for more details
Independent Variable:
1000 Sq. Ft. GFA
Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.
Setting/Location:
Rural
Trip Type:
Vehicle
Number of Studies:
4
Avg. 1000 Sq. Ft. GFA:
3
Average Rate:
7.31
Range of Rates:
3.57 - 24.29
Standard Deviation:
6.97
Fitted Curve Equation:
Not Given
R^2:
****
Directional Distribution:
50% entering, 50% exiting
Calculated Trip Ends:
Average Rate: 12 (Total), 6 (Entry), 6 (Exit)

DATA SOURCE:
Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:
970

LAND USE CATEGORY:
(900-999) Services

LAND USE :
970 - Winery

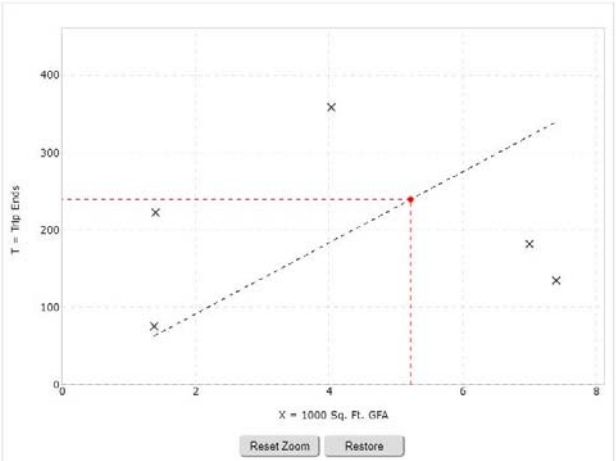
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday

SETTING/LOCATION:
Rural

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
5.22 Calculate



Land Use:
Winery (970) Click for more details
Independent Variable:
1000 Sq. Ft. GFA
Time Period:
Weekday
Setting/Location:
Rural
Trip Type:
Vehicle
Number of Studies:
5
Avg. 1000 Sq. Ft. GFA:
4
Average Rate:
45.96
Range of Rates:
18.24 - 159.29
Standard Deviation:
44.79
Fitted Curve Equation:
Not Given
R^2:
****
Directional Distribution:
50% entering, 50% exiting
Calculated Trip Ends:
Average Rate: 240 (Total), 120 (Entry), 120 (Exit)

DATA SOURCE:
Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:
970

LAND USE CATEGORY:
(900-999) Services

LAND USE :
970 - Winery

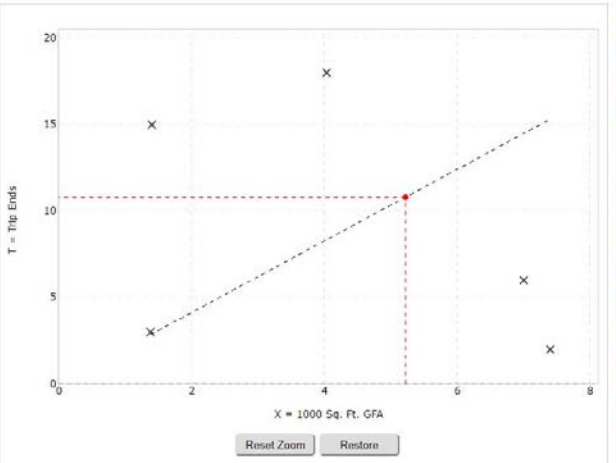
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traff

SETTING/LOCATION:
Rural

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
5.22 Calculate



Land Use:
Winery (970) Click for more details
Independent Variable:
1000 Sq. Ft. GFA
Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.
Setting/Location:
Rural
Trip Type:
Vehicle
Number of Studies:
5
Avg. 1000 Sq. Ft. GFA:
4
Average Rate:
2.07
Range of Rates:
0.27 - 10.71
Standard Deviation:
3.09
Fitted Curve Equation:
Not Given
R^2:
****
Directional Distribution:
70% entering, 30% exiting
Calculated Trip Ends:
Average Rate: 11 (Total), 8 (Entry), 3 (Exit)

DATA SOURCE:
Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:
970

LAND USE CATEGORY:
(900-999) Services

LAND USE :
970 - Winery

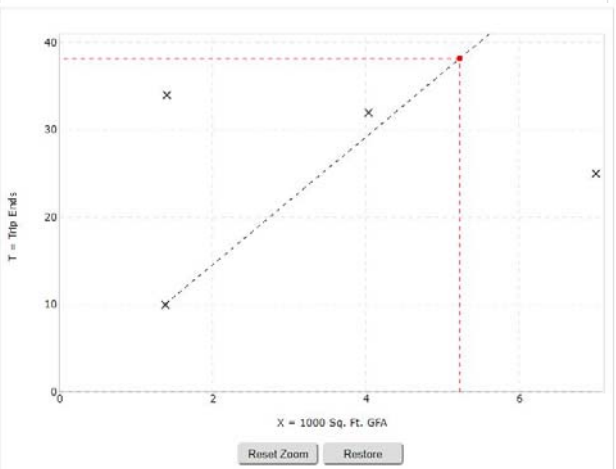
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traff

SETTING/LOCATION:
Rural

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
5.22 Calculate



Land Use:
Winery (970) Click for more details
Independent Variable:
1000 Sq. Ft. GFA
Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.
Setting/Location:
Rural
Trip Type:
Vehicle
Number of Studies:
4
Avg. 1000 Sq. Ft. GFA:
3
Average Rate:
7.31
Range of Rates:
3.57 - 24.29
Standard Deviation:
6.97
Fitted Curve Equation:
Not Given
R^2:
****
Directional Distribution:
50% entering, 50% exiting
Calculated Trip Ends:
Average Rate: 38 (Total), 19 (Entry), 19 (Exit)

APPENDIX D

Queueing Analysis Sheets

Intersection: 2: San Pasqual Valley Road & Driveway #2

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	53	28
Average Queue (ft)	11	2
95th Queue (ft)	39	13
Link Distance (ft)		166
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	200	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: San Pasqual Valley Road & Driveway #2

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	31	55
Average Queue (ft)	6	28
95th Queue (ft)	27	52
Link Distance (ft)		166
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	200	
Storage Blk Time (%)		
Queuing Penalty (veh)		

APPENDIX E

Sight Distance Conditions

RICK
ENGINEERING COMPANY

RANCHO GUEJITO- WINE TASTING FACILITY AND EVENT CENTER

SIGHT DISTANCE ASSESSMENT VISUALS

NOTE: THE PICTURES PROVIDED DO NOT ENTAIL THE ACTUAL OBSERVED MEASUREMENTS OUT IN THE FIELD.