

Clarke Dental and Vet Clinics Project

Vehicle Miles Traveled and Local Mobility Analysis

PDS2020-ER-09-008

Prepared for:

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I INTRODUCTION

This Vehicle Miles Traveled (VMT) and Local Mobility Analysis (LMA) evaluates the traffic operations and safety for the road network associated with the proposed development (herein referred to as “the Project”) located on the vacant parcel (APN 186-280-03) on the west side of Valley Center Road and approximately 400 feet north of Woods Valley Road within the Valley Center Community Planning Area within the County of San Diego. The site is currently zoned as General Commercial (C36) and Rural Residential (RR). Figure I-1 illustrates the project vicinity map.

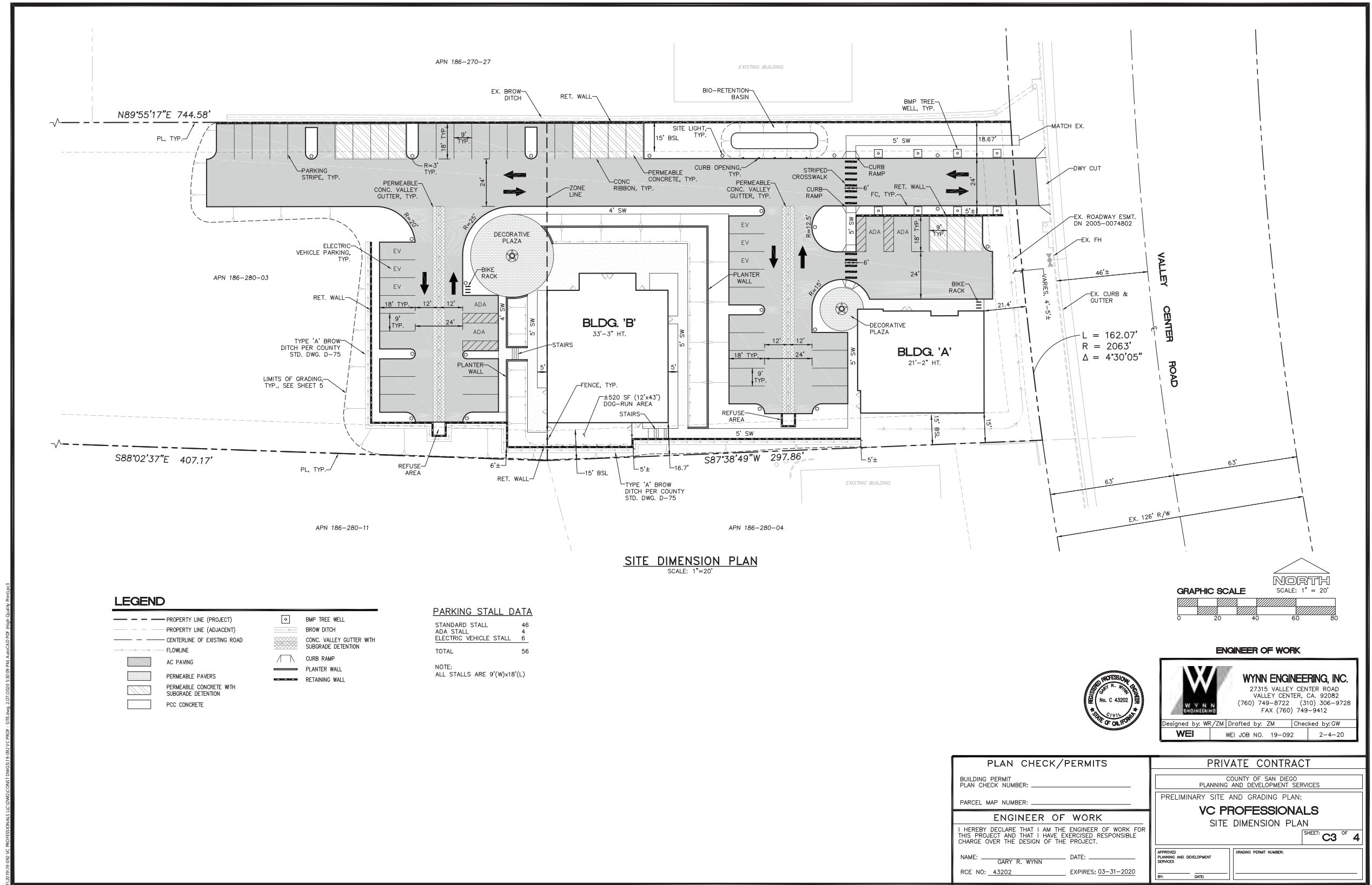
Some of the other elements that the LMA will address include the following:

- Ensure that the local transportation system is adequate to serve the project and that improvements identified in the General Plan are constructed when needed and consistent with the County’s Public Road Standards.
- Address issues related to operations and safety for all transportation modes.
- Ensure consideration of the County’s Active Transportation Plan for bicycle and pedestrian facilities.
- Identify the necessary transportation entitlement conditions for land development projects.
- Outline the County’s screening criteria, study area, and methodologies to assess the potential need for off-site transportation operation and safety improvements to the project study area roadway network.
- Establish measures of effectiveness to maintain transportation LOS consistent with the County’s General Plan Mobility Element.
- Facilitate on-site project access and roadway frontage design infrastructure improvements to serve the project and the surrounding community.

I.1 Project Description

The Project consists of a 7,572 square foot (sf) veterinary clinic and a 3,140 sf dental clinic. Access is proposed by a single driveway off of Valley Center Road. The Project is estimated to be in operation in 2021. Figure I-2 illustrates the Project site plan.





2 VMT ASSESSMENT

Senate Bill 743 (SB 743) was approved in 2013 and changes the way transportation impacts are measured under the California Environmental Quality Act (CEQA). The Office of Planning and Research (OPR) has recommended the use of vehicle miles travelled (VMT) as the required metric to replace the automobile delay-based LOS. The VMT assessment is required to satisfy CEQA guidelines that utilizes VMT as the required metric to determine transportation impacts. The VMT assessment was based on the criteria outlined in the OPR's *Technical Advisory On Evaluating Transportation Impacts in CEQA*, December 2018.

2.1 Screening Criteria

The requirements to prepare a detailed VMT analysis apply to all land development projects, except those that meet at least one of the screening criteria. A project that meets at least one of the screening criteria is presumed to have a less than significant VMT impact due to project characteristics and/or location. The following list summarizes the screening criteria:

1. Projects located in a VMT Efficient Area
2. Small Residential and Employment Projects
3. Projects Located in a Transit Accessible Area
- 4. Locally Serving Retail/Service Projects**
5. Locally Serving Public Facilities and Other Uses
6. Redevelopment Projects with Greater VMT Efficiency
7. Affordable Housing

The Locally Serving Retail/Service Projects screening criteria is intended for projects that are less than 50,000 sf and generally improves the convenience of shopping close and has the effect of reducing vehicle travel. By definition, a retail or service establishment sells goods or services to the general public and serves the everyday needs of the community in which it is located.

The project has a combined building area of 10,712 sf, which is significantly less than the 50,000 sf criteria. Additionally, the service provided by the project is dental and veterinary needs for local Valley Center patients. It should be noted that both businesses are currently leasing space in Valley Center with 95 percent of their employees/patients residing in Valley Center. With the completion of the project, both businesses will relocate into the respective buildings to operate their business. It is expected that the existing patients will continue to visit the dental and/or veterinary clinic once the businesses move into their permanent location. The presence of other dental and veterinary establishments in the community also support the conclusion that the project would indeed function as local-serving service with most patients likely traveling from nearby areas of Valley Center, with little potential to draw longer trips from the wider region. As a result, it is reasonable to presume that the total regional VMT would not increase with the project.

3 LMA ANALYSIS APPROACH AND METHODOLOGY

This section summarizes the analysis approach and methodology used to evaluate the study intersections associated with the Project. It should be noted that the approach was coordinated with County staff and based on the guidelines outlined in the *OPR's Technical Advisory On Evaluating Transportation Impacts in CEQA*, December 2018.

3.1 Study Area

This LMA addresses potential operational impacts that could result from the addition of the project traffic to the local circulation system. According to the *County of San Diego Transportation Study Guidelines*, a focused LMA should be prepared for projects generating between 250 and 499 daily trips if it is in conformance with the land use and/or transportation element of the General Plan.

The Project is in conformance with the land use for the site and is forecasted to generate between 250 and 499 daily trips. As a result, the Project is required to complete a focused LMA. Additionally, based on the trip assignment (shown in Figure 5-2), the Project does not meet the 25 peak-hour trip threshold and would not be required to analyze any intersections. However, as a conservative estimate, a LMA is being prepared for the project and will include the following locations as part of the study area:

1. Valley Center Road & Woods Valley Road
2. Valley Center Road & Project Driveway

3.2 Analysis Scenarios

The following scenarios were evaluated as part of the project:

- Existing Conditions: This scenario reflects the conditions on the ground at the time the traffic volume data was obtained (November 2018). Traffic volume counts were adjusted to Year 2020 conditions by a historical growth factor.
- Opening Year Conditions: This scenario represents the cumulative conditions resulting from the development of other approved and reasonably foreseeable pending projects that are expected to influence the study area.
- Opening Year Plus Project Conditions: This scenario represents the conditions with the addition of Project traffic.

The traditional weekday peak-hour coinciding with the highest volume of traffic between 7:00 and 9:00 AM and between 4:00 and 6:00 PM was evaluated for each analysis scenario. **Appendix A** contains a copy of the approved scoping agreement for this LMA.

3.3 Methodology

3.3.1 Intersection Level of Service Analysis

Signalized and unsignalized intersection operations were analyzed with Synchro 10 software (Trafficware), using the methodologies outlined in the *Highway Capacity Manual 6th Edition (HCM6)*. The

HCM methodology calculates delay, which corresponds to a particular LOS, to describe the overall operation of an intersection. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time.

The LOS for unsignalized intersections is determined by the computed or measured control delay and is defined for each minor movement. At a one-way or two-way stop control intersection, the delay reported represents the worst movement, which is typically the left-turns from the minor street approach. The criteria for the LOS grade designations are provided in Table 3-1.

Within the County of San Diego, the threshold for acceptable operating conditions for signalized and unsignalized intersections is LOS D or better.

Table 3-1
LOS Criteria for Intersections

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

Source: *Highway Capacity Manual 6th Edition*

3.4 Improvement Threshold Criteria

The *County of San Diego Transportation Study Guidelines* requires development projects to provide improvements at signalized or unsignalized intersections if the project meets certain criteria. Table 3-2 summarizes the improvement criteria for intersections.

**Table 3-2
Improvement Criteria for Intersections**

Criteria	Condition
Signalized	Consistent with County General Plan Policy, any intersection that is operating at an acceptable LOS or better without project traffic in which the addition of project traffic causes the intersection to degrade to an LOS E or F should identify improvements to improve operations to LOS D or better.
	Any signalized study intersection that is operating at LOS E or F without project traffic where the project increased delay by 5.0 or more seconds should identify improvements to offset the increase in delay.
	If the left turn volume exceeds 100 vehicles per hour, an exclusive left turn lane is recommended.
	If the left turn volume exceeds 150 vehicles per hour and posted speed of 45 mph or greater, a protected left turn signal phase is recommended.
	If the left turn volume exceeds 300 vehicles per hour, a second left turn lane is recommended.
	If the right turn volume exceeds 150 vehicles per hour, a dedicated right turn lane is recommended.
	The project causes the 95 th percentile queue at a turn lane to exceed the existing turn lane length/storage.
Unsignalized (Side Street Stop)	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 10 or more trips to the worst-case movement OR 50 or more trips to the overall intersection.
	The intersection meets the peak hour traffic signal warrants after the addition of project traffic per the California Manual of Uniform Traffic Control Devices (CA MUTCD-latest edition). An investigation of the need for a traffic control signal may also include an analysis of factors related to the existing operations and safety at a study intersection and the potential to improve these conditions. A warrant analysis is not required for right turn in/right turn out only intersections or driveways that are physically restricted by a raised center median.
Unsignalized (All-Way Stop/Roundabout)	The project causes the average intersection delay to be LOS E or F during the peak hour.
	The project adds 5 or more seconds of delay to an intersection that is currently operating at LOS E or F during the peak hour.

Source:

Final County of San Diego Transportation Study Guidelines, June 2020.

4 EXISTING CONDITIONS

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

4.1 Roadway Network

Valley Center Road is classified as a 4.1A Major Road south of Woods Valley Road and a 4.2A Boulevard north of Woods Valley Road to Lilac Road. This roadway runs in the north-south direction near the project site and contains a center two-way left-turn lane. On-street parking is prohibited on both sides of the roadway. A Class II bicycle lane, curbs, and sidewalk are provided on both sides of the roadway. The posted speed limit is 45 miles per hour (mph).

Figure 4-1 illustrates the existing geometrics at the study area intersections.

4.2 Alternate Modes of Travel

In addition to the vehicular roadway network, alternative modes of travel are provided within the study area and described in more detail below.

4.2.1 *Transit Service*

The North County Transit District (NCTD) provides service to the study area along Valley Center Road via the BREEZE bus system with Route 388. Route 388 provides daily service between Escondido and Pala.

The nearest transit stop to the Project is located along the west side of Valley Center Road and approximately 300 feet south of the Project. The other transit stop is located on the east side of Valley Center Road directly in front of the transit stop. Both transit stops have a bench for patrons to sit on. Appendix B contains the BREEZE bus schedule.

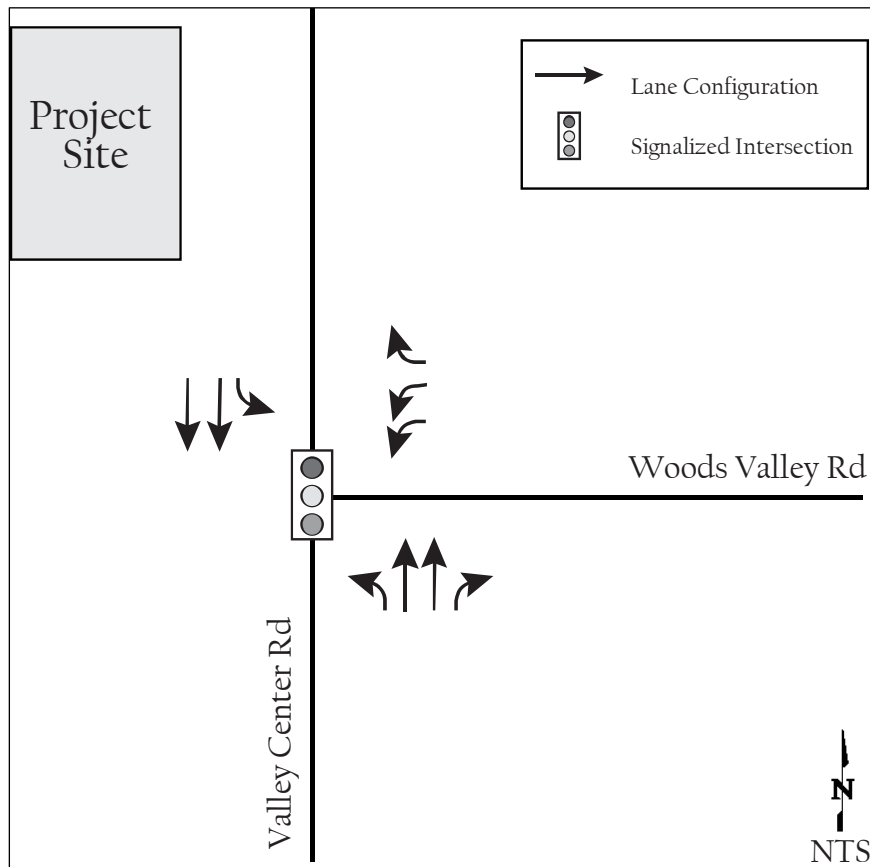
4.2.2 *Pedestrian Access*

Sidewalks are provided on both sides of Valley Center Road. Pedestrians are able to cross Valley Center Road in the marked crosswalks on the north side of the signalized intersection at Woods Valley Road.

4.2.3 *Bicycle Access*

There is a Class II bicycle lane on both sides of Valley Center Road in the immediate vicinity of the project site.

Figure 4-1 Existing Intersection Geometrics



4.2.4 Community Trails and Paths

There are no existing community trails or paths in the immediate vicinity of the project site. However, based on the Valley Center Community Trails and Pathways Plan, there are two proposed community pathways near the project. The first community pathway is Trail #1 (Heritage Trail along Valley Center Road) and is estimated to be 2.50 miles in length extending from the Valley Center Community Park to Woods Valley Road. The second community pathway is Trail #29 (Woods Valley Ranch along Woods Valley Road) and is estimated to be 3.90 miles in length extending from Valley Center Road to Lake Wohlford Road. Appendix C contains excerpts of the community trails and paths.

4.3 Traffic Volumes

Due to the COVID pandemic in the region, no new traffic volume counts were able to be collected. However, the most recent traffic volumes at the Valley Center Road & Woods Valley Road intersection were obtained on Thursday, November 1, 2018. These traffic volumes include school traffic and would represent normal traffic conditions in the study area.

Additionally, historical traffic volumes along Valley Center Road north and south of Woods Valley Road were used to calculate an annual growth rate of 0.3 percent. However, as a conservative estimate, a 1 percent growth rate was applied to the November 2018 traffic counts to estimate traffic volumes for the Year 2020. Figure 4-2 illustrates the study area traffic volumes.

Appendix D contains a copy of the traffic volume data sheets and Appendix E contains the historical traffic volumes used to calculate the ambient growth factor.



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

Valley Center Rd & Woods Valley Rd		Valley Center Rd & Proj Dwy	
		Does not exist	
		Clarke Dental and Vet Clinics Existing Conditions Traffic Volumes	Figure 4-2

4.4 Intersection Analysis

Table 4-1 displays the LOS analysis results for the study area intersections under Existing Conditions. As shown in the table, the Valley Center Road & Woods Valley Road intersection operates at LOS A during the weekday peak-hours.

Appendix F contains the intersection LOS worksheets.

Table 4-1
Existing Peak Hour Intersection LOS Summary

#	Intersection	Traffic Control	Peak Hour	Existing Conditions	
				Delay ¹	LOS ²
1	Valley Center Rd & Woods Valley Rd	Signal	AM	7.6	A
			PM	8.3	A

Notes:

Signal: Traffic signal

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

2. LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition (HCM6)* and performed using Synchro 10.

5 PROJECT TRAFFIC

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

5.1 Trip Generation

Trip generation rates for the project were developed utilizing the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition*. The trip rates for the Animal Hospital/Veterinary Clinic and Medical-Dental Office Building land uses are the most applicable and matches the proposed uses for the proposed project.

The existing site is currently vacant. As part of the Project, the existing site would be developed to include a 7,572 square foot (sf) building that will be used as a veterinary clinic and a 3,140 sf building that will be used as a dental clinic. Table 5-1 summarizes the weekday trip generation rates and calculations.

Table 5-1
Project Trip Generation

TRIP GENERATION RATES¹									
Land Use	ITE Code	Weekday Daily		AM PEAK			PM PEAK		
				Rate	In:Out Ratio		Rate	In:Out Ratio	
Animal Hospital/Veterinary Clinic	640	21.50	trips / ksf	3.64	0.67 : 0.33		3.53	0.40 : 0.60	
Medical-Dental Office Building	720	34.80	trips / ksf	2.78	0.78 : 0.22		3.46	0.28 : 0.72	
TRIP GENERATION CALCULATIONS									
Land Use	Amount		ADT	AM PEAK			PM PEAK		
				In	Out	Total	In	Out	Total
Proposed Use									
Veterinary Clinic	7.572 ksf		163	19	9	28	11	16	27
Dental Clinic	3.140 ksf		109	8	1	9	4	7	11
Proposed Driveway Trips			272	27	10	37	15	23	38

Notes:

1. The trip rates for the project's land use are based on the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition*.

As shown in the table, the Project is estimated to generate 272 daily trips with 37 AM peak-hour trips and 38 PM peak-hour trips at the project driveway.

5.2 Trip Distribution

Based on existing travel patterns in the study area and on logical connections to regional facilities, the following list shows the assumed project trip distribution for the proposed project:

- 75 percent to/from the north via Valley Center Road
- 20 percent to/from the south via Valley Center Road
- 5 percent to/from the east via Woods Valley Road

Figure 5-1 displays the assumed Project trip distribution through the study intersection and project driveway.

5.3 Trip Assignment

Based on the Project trip generation and distribution, the Project trips were assigned to the study area. Figure 5-2 illustrates the trip assignment for the Project



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

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

xx% Trip Distribution Percentage

Valley Center Rd & Woods Valley Rd		Valley Center Rd & Proj Dwy	
		Clarke Dental and Vet Clinics Project Trip Distribution	

Figure 5-1



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

Valley Center Rd & Woods Valley Rd		Valley Center Rd & Proj Dwy	
		Clarke Dental and Vet Clinics Project Trip Assignment	Figure 5-2

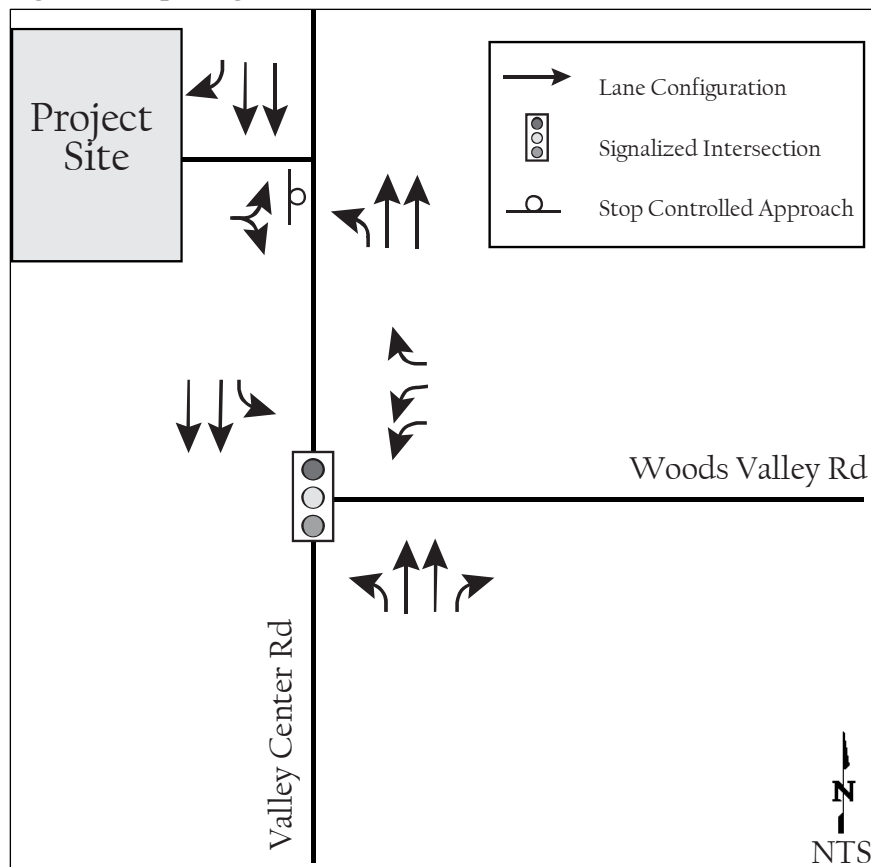
6 OPENING YEAR CONDITIONS

This section provides a summary of operations at the study area intersections under the Opening Year conditions. It is assumed that the project will be in operation by the Year 2021.

6.1 Roadway Network

No changes to the existing roadway network are proposed with the construction of the project. Figure 6-1 illustrates the intersection geometrics with the project.

Figure 6-1 Opening Year Intersection Geometrics



6.2 Traffic Volumes

An ambient growth factor of 1 percent per year was applied to existing traffic volumes to account for regular growth in traffic volumes due to the development of Projects outside of the study area.

Figures 6-2 and 6-3 illustrate the Opening Year Baseline and Opening Year With Project traffic volumes within the study area, respectively.



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

Valley Center Rd & Woods Valley Rd		Valley Center Rd & Proj Dwy	
		Does not exist	
		Clarke Dental and Vet Clinics Opening Year Baseline Traffic Volumes	Figure 6-2



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

Valley Center Rd & Woods Valley Rd		Valley Center Rd & Proj Dwy	
		Clarke Dental and Vet Clinics Opening Year With Project Traffic Volumes	Figure 6-3

6.3 Intersection Analysis

Table 6-1 displays the LOS analysis results for the study intersection under the Opening Year with and without Project conditions.

Table 6-1
Opening Year Peak Hour Intersection LOS Summary

#	Intersection	Traffic Control	Peak Hour	Opening Year Baseline		Opening Year w/Proj		Δ in Delay	Improvement?
				Delay ¹	LOS ²	Delay ¹	LOS ²		
1	Valley Center Rd & Woods Valley Rd	Signal	AM	7.7	A	7.7	A	0.0	No
			PM	8.4	A	8.4	A	0.0	No
2	Valley Center Rd & Proj Dwy	OWSC	AM	DNE		20.9	C	20.9	No
			PM			20.6	C	20.6	No

Notes:

DNE: Does not exist

OWSC: One-Way Stopped Control, Signal: Traffic Signal

Bold values indicate intersections operating at LOS E or F.

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

2. LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition (HCM6)* and performed using Synchro 10.

As shown in the table, all intersections, including the project driveway, are expected to operate at LOS C or better during the weekday peak-hours with the addition of the Project traffic. As a result, no additional intersection improvements are required and/or recommended. Appendix F contains the intersection LOS worksheets.

7 SUMMARY OF FINDINGS AND RECOMMENDATIONS

The following list provides a summary of the key findings for the Project:

- The Project consists of 7,572 sf veterinary clinic and a 3,140 sf dental clinic.
- The Project would be screened out from a VMT analysis and is presumed to not have a significant VMT impact.
- The Project is forecasted to generate a total of 272 daily trips with 37 trips (27 inbound, 10 outbound) during the AM peak-hour and 38 trips (15 inbound, 23 outbound) in the PM peak-hour.
- The Valley Center Road & Woods Valley Road intersection is expected to operate at an acceptable LOS A during the peak-hours under all scenarios.
- The project driveway is expected to operate at an acceptable LOS C during the peak-hours under the Opening Year with Project scenario.

The proposed Project results in no significant traffic impacts from VMT and no intersection improvements are recommended for the proposed Project.

Appendix A

Scoping Agreement

**Scoping Agreement for Transportation Studies****General Project Information and Description****Project Information****Project Name:****Project PDS Number:****Project Location:****Project Description****Land Uses and Intensities:****Gross and Developable Acreage:****Number of Vehicle Parking Spaces:****Bicycle Storage Capacity:****Motorcycle Spaces:****Consultant****Name of Firm:****Project Manager:****Address:****Telephone:****Trip Generation****Source:****Pass-by Trips:****Total Daily Trips:****Diverted Trips:****Internal Capture Rate:****Trip Credit:****Alternative Modes:****Net Daily Trips:****General Plan Consistency****Is this project consistent with the General Plan?** ☐ Yes ☐ No**Site Plan****Attach 11x17 copies of the project location/vicinity map and site plan containing the following:**

- Driveway locations and access type
- Pedestrian access, bicycle access, and on-site pedestrian circulation
- Location and distance to closest existing transit stop (measure as walking distance to project entrance or middle of parcel)
- Location of any planned trails identified in the Community Trails Master Plan (CTMP) within ¼ mile of the project location

CEQA Transportation Analysis Screening

Project Type Screening

1) Select the Land Uses that apply to your project 2) Answer the questions for each Land Use that applies to your project (if "Yes" in any land use category below then that land use (or a portion of the land use) is screened from CEQA Transportation Analysis)		Screened Out	Not Screened Out
		Yes	No
☐	1. Small Projects: a. Does the project result in 110 daily trips or less?	☐	☐
☐	2. Small Service/Retail Project: a. Is the project less than 50,000 square feet?	☐	☐
☐	3. Mixed-Use Project: a. Is the project location screened out based on the SANDAG screening map for VMT/service population?	☐	☐
☐	4. Locally Serving Retail/Public Facility/Recreational a. Is the project locally serving: Retail OR Public Facility OR Recreational?	☐	☐
☐	5. Redevelopment Project: a. Does the project result in a net decrease in total Project VMT than the existing use? b. If the project is to redevelop an affordable housing site, are all proposed units affordable housing units? Mark "No" for projects that replace affordable housing with market rate units	☐ ☐	☐ ☐

Project Location Screening (if not screened based on project type) – Part 1

Is this project located within a grey area (area with little to no existing land use) on the applicable County screening maps for the project land use type?	☐ Yes	☐ No
--	------------------------------	-----------------------------

If "yes", the project cannot be screened based on location. If "No", proceed to Part 2.

Project Location Screening (if not screened based on project type) – Part 2

1) Select the Land Uses that apply to your project 2) Answer the questions for each Land Use that applies to your project (if "Yes" in any land use category below then that land use (or a portion of the land use) is screened from CEQA Transportation Analysis)		Screened Out	Not Screened Out
		Yes	No
☐	1. Residential a. Is the project location screened out using the County screening maps for VMT/resident?	☐	☐
☐	2. Employment a. Is the project location screened out using the County screening maps for VMT/employee or VMT/service population?	☐	☐
☐	3. Retail/Public Facility/Recreational a. Is the project location screened out using the County screening maps for VMT/service population?	☐	☐

Local Mobility Analysis

Type of Local Mobility Analysis (LMA)

☐ Site Access Study	249 daily trips or less
☐ Focused LMA	250 to 499 daily trips and consistent with the General Plan
☐ Full LMA	500 or greater daily trips and consistent with the General Plan, or 250 or greater daily trips and inconsistent with the General Plan

Trip Distribution

☐ Select Zone (Model Series _____)	Projects that generate greater than 1,000 daily trips
☐ Manual Estimation	Site Access Studies, Focused LMAs, or project's that generate less than 1,000 daily trips

Provide exhibit detailing trip distribution and trip assignment for review.

Study Intersections (and Roadway Segments) (NOTE: Subject to change based of staff review)

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

Attach a separate page if the number of study locations exceeds 10.

Other Jurisdictions

Is this project located within one mile of another Local Jurisdiction? ☐ **Yes** ☐ **No**

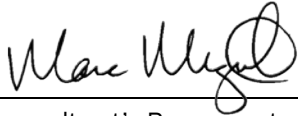
If so, name of Jurisdiction:

Specific Issues to be addressed within the Study

(in addition to requirements described in the Guidelines – to be filled out by County Staff)

1.
2.
3.
4.
5.

Recommended by:



Consultant's Representative

Date

Scoping Agreement Submitted on

Date

Scoping Agreement Re-submitted on

Date

Approved Scoping Agreement:

County of San Diego
Transportation Specialist

Date

Table 1

TRIP GENERATION RATES ¹								
Land Use	ITE Code	Weekday Daily	AM PEAK		PM PEAK			
			Rate	In:Out Ratio	Rate	In:Out Ratio		
Animal Hospotal/Veterinary Clinic	640	21.50 trips / ksf	3.64	0.67 : 0.33	3.53	0.40 : 0.60		
Medical-Dental Office Building	720	34.80 trips / ksf	2.78	0.78 : 0.22	3.46	0.28 : 0.72		
TRIP GENERATION CALCULATIONS								
Land Use	Amount	ADT	AM PEAK			PM PEAK		
			In	Out	Total	In	Out	Total
Proposed Use								
Veterinary Clinic	7,572 ksf	163	19	9	28	11	16	27
Dental Clinic	3,140 ksf	110	8	1	9	4	7	11
Proposed Driveway Trips		273	27	10	37	15	23	38

Notes:

1. The trip rates for the project's land use are based on the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition*.

Appendix B

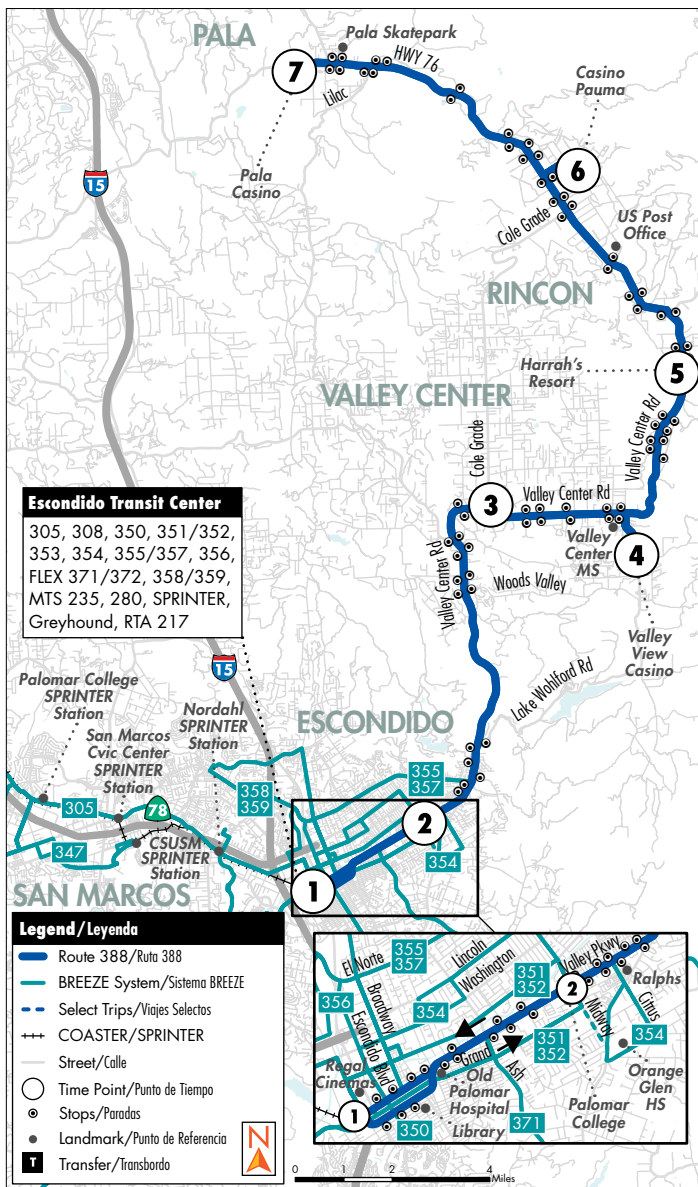
BREEZE Bus Schedule

M-F • SA • SU
L-V • SÁ • DO

Destinations/Destinos

- Palomar College Escondido Branch
- Regal Cinemas
- Palomar Medical Center
- Harrah's Rincon Casino

- Pala Casino
- Casino Pauma
- Valley View Casino
- East Valley Community Center



See pg. 6 for Holiday schedules/Ver pág. 244 para obtener los horarios de días festivos

Monday - Friday
Northbound to Pala via Valley Center
Lunes a Viernes • Dirección hacia el norte a Pala vía Valley Center

Escondido Transit Center	Valley Pkwy. & Midway Dr.	Valley Center Rd. & Cole Grade Rd.	Valley View Casino	Harrah's Rincon Casino	Casino Pauma	Pala Casino
1	2	3	4	5	6	7
4:33	4:42	4:56	5:06	5:17	5:31	5:45a
5:03	5:13	5:27	5:37	5:48	6:02	6:16
7:03	7:15	7:33	7:43	7:54	8:10	8:24
9:03	9:15	9:33	9:43	9:54	10:10	10:25
11:03	11:17	11:35	11:45	11:56	12:12	12:27p
1:03	1:17	1:36	1:46	1:57	2:13	2:29
3:03	3:17	3:37	3:47	3:58	4:14	4:30
4:03	4:17	4:37	4:47	4:58	5:14	5:30
5:03	5:17	5:38	5:48	5:59	6:15	6:32
7:03	7:15	7:32	7:42	7:53	8:09	8:25

Monday - Friday
Southbound to Escondido via Valley Center
Lunes a Viernes • Dirección hacia el sur a Escondido vía Valley Center

Pala Casino	Casino Pauma	Harrah's Rincon Casino	Valley View Casino	Valley Center Rd. & Cole Grade Rd.	Valley Pkwy. & Midway Dr.	Escondido Transit Center
7	6	5	4	3	2	1
6:12	6:25	6:38	6:48	6:58	7:13	7:27a
7:12	7:25	7:38	7:48	7:58	8:13	8:27
9:09	9:23	9:37	9:47	9:57	10:13	10:27
11:09	11:23	11:37	11:47	11:57	12:13	12:27p
1:09	1:23	1:38	1:48	1:58	2:13	2:27
3:07	3:21	3:36	3:47	3:57	4:12	4:27
5:07	5:21	5:36	5:47	5:57	6:12	6:27
6:14	6:27	6:40	6:51	6:59	7:13	7:27
7:14	7:27	7:40	7:51	7:59	8:13	8:27
9:15	9:28	9:41	9:52	10:00	10:14	10:27

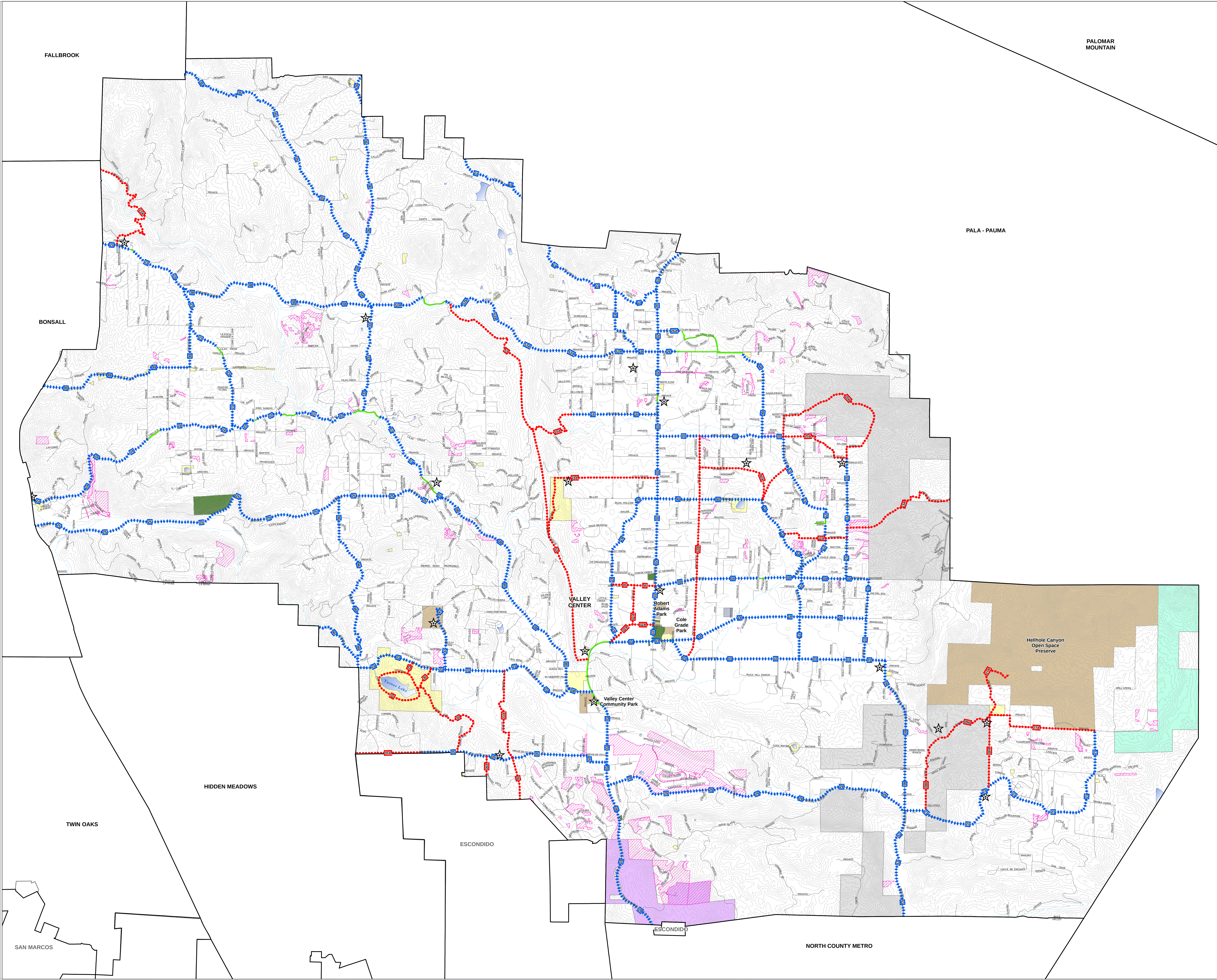
See pg. 6 for Holiday schedules/Ver pág. 244 para obtener los horarios de días festivos

Saturday & Sunday Northbound to Pala via Valley Center <i>Sábado y Domingo • Dirección hacia el norte a Pala vía Valley Center</i>						
Escondido Transit Center	Valley Pkwy. & Midway Dr.	Valley Center Rd. & Cole Grade Rd.	Valley View Casino	Harrah's Rincon Casino	Casino Pauma	Pala Casino
1	2	3	4	5	6	7
5:33	5:43	5:58	6:08	6:19	6:34	6:48 _a
6:33	6:44	7:01	7:11	7:22	7:38	7:52
9:03	9:15	9:33	9:43	9:54	10:10	10:25
11:03	11:17	11:35	11:45	11:56	12:12	12:27_p
1:03	1:17	1:36	1:46	1:57	2:13	2:29
3:03	3:17	3:37	3:47	3:58	4:14	4:30
4:03	4:17	4:37	4:47	4:58	5:14	5:30
5:03	5:17	5:38	5:48	5:59	6:15	6:32
7:03	7:15	7:32	7:42	7:53	8:09	8:25

Saturday & Sunday Southbound to Escondido via Valley Center <i>Sábado y Domingo • Dirección hacia el sur a Escondido vía Valley Center</i>						
Pala Casino	Casino Pauma	Harrah's Rincon Casino	Valley View Casino	Valley Center Rd. & Cole Grade Rd.	Valley Pkwy. & Midway Dr.	Escondido Transit Center
7	6	5	4	3	2	1
6:11	6:24	6:37	6:47	6:57	7:12	7:26 _a
7:11	7:24	7:37	7:47	7:57	8:12	8:26
8:38	8:52	9:06	9:16	9:26	9:42	9:56
10:38	10:52	11:06	11:16	11:26	11:42	11:56
12:38	12:52	1:07	1:17	1:27	1:42	1:56_p
3:06	3:20	3:35	3:46	3:56	4:11	4:26
5:06	5:20	5:35	5:46	5:56	6:11	6:26
6:13	6:26	6:39	6:50	6:58	7:12	7:26
7:13	7:26	7:39	7:50	7:58	8:12	8:26
9:14	9:27	9:40	9:51	9:59	10:13	10:26

Appendix C

Excerpts of Community Trails and Paths

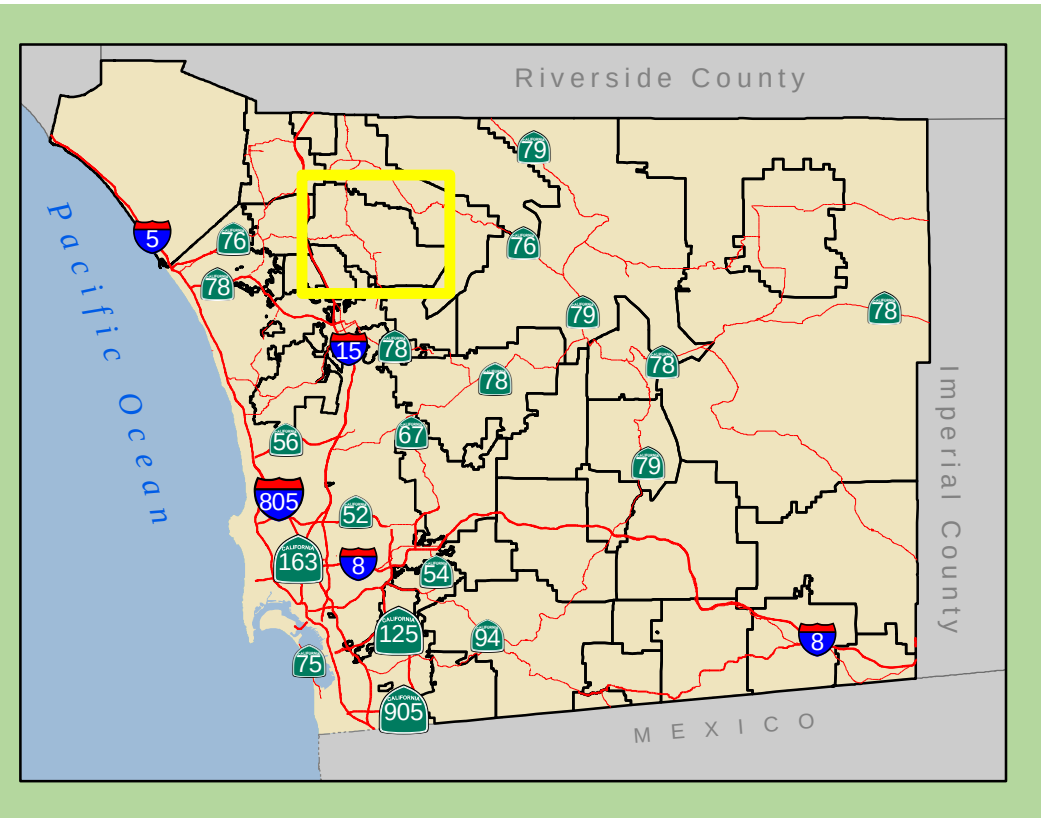
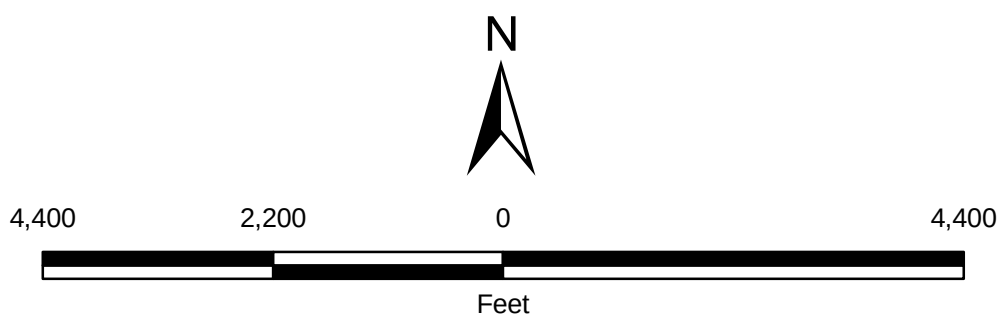


Valley Center

Community Trails and Pathways Plan

FOR PLANNING PURPOSES ONLY

- Regional Trail Proposed
- Regional Trail Existing
- Existing Community Trails
- Proposed Community Pathways
- Proposed Community Trails
- Existing Staging Area
- Proposed Staging Area
- Community Planning Areas
- Municipal Boundaries
- Trail and Pathway Easements
- Biological or Open Space Easement
- County Park Owned, Managed, or Other Property
- Other County Lands
- City Lands
- State Parks
- California Department of Fish and Game
- Bureau of Land Management
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- Military Reservations
- Indian Reservations
- Special District Lands
- Other Federal Lands
- Other State Lands
- Water Body
- Freeway
- Highway
- Roads
- River
- Intermittent Stream
- 40' Topographic Contours



**COMMUNITY TRAILS MAP
APPROVED JANUARY 12, 2005
UPDATE APPROVED JUNE 24, 2009
BY COUNTY OF SAN DIEGO
BOARD OF SUPERVISORS**

County of San Diego
Department of Parks and Recreation
Geographic Information Services

For more information regarding this map please contact:
Department of Parks and Recreation
Maryanne Vancio, Trails Program Coordinator at (858) 966-1372

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VALLEY CENTER TRAILS MAP INDEX

<u>Trail #:</u> 1	<u>Name:</u> Heritage Trail Valley Center Road Pathway Trail Status: () Existing (X) Proposed Trail Type: () Trail (X) Pathway Trail Priority: (X) 1 () 2 () 3 Estimated Trail Length in Miles: 2.50	<u>Connections: Trail Name (Trail #)</u> Ken Knust Trail (28) Woods Valley Road Pathway (29) Joe Barry/Mirar de Valle Pathway (5) Valley Center Road Trail Easement Valley Center Community Center Staging Area Lilac Road South Pathway (8) Keys Creek Canyon Trail (53) Keys Creek Staging Area Miller Road Pathway (19) Oat Field Trail (1A) Cole Grade Road Pathway (2) Rincon Trail (3)	<u>Trail Priority Criteria:</u> Connectivity Loop Large user opportunity Historical Safety <u>Special Features:</u> Village Core, commercial areas, Parks land connections Possible future staging area site Road widening in process McMann Trust and DPR Staging Areas
<u>Trail #:</u> 1A	<u>Name:</u> Oat Field Trail Trail Status: () Existing (X) Proposed Trail Type: (X) Trail () Pathway Trail Priority: (X) 1 () 2 () 3 Estimated Trail Length in Miles: 1.25	<u>Connections: Trail Name (Trail #)</u> Heritage Trail (1) Miller Road Pathway (19) Cole Grade Road Pathway (2) Library Trail (45)	<u>Trail Priority Criteria:</u> Connectivity Loop Setting Large user opportunity Historical Safety <u>Special Features:</u> Village Core, commercial areas, Parks land, schools and library connections Opportunity for shared development Gaughan Project Greenbelt area
<u>Trail #:</u> 2	<u>Name:</u> Cole Grade Road Pathway Trail Status: () Existing (X) Proposed Trail Type: () Trail (X) Pathway Trail Priority: (X) 1 () 2 () 3 Estimated Trail Length in Miles: 4.70	<u>Connections: Trail Name (Trail #)</u> Heritage Trail (1) Rincon Trail (3) Oat Field Trail (1A) Martin Gang Elementary School Staging Area Fruitvale Road Pathway (4) Library Trail (45) Miller Road East Pathway (40) Segal Ranch Trail (19A) Cool Valley Road Pathway (20) Hilldale Road Pathway (16) Bell Gardens Staging Area Cole Grade Road Trail Easement Pauma Heights Road Pathway (26) Tyler Road Pathway (26A) Oak Glen Road Pathway (18) McNally Road Pathway (17) <i>Pala-Pauma/Cole Grade Road Pathway (2)</i>	<u>Trail Priority Criteria:</u> Connectivity Loop Large user opportunity Historical Safety <u>Special Features:</u> Village Core, commercial areas, Parks land, schools and library connections Opportunity for shared development Staging Area
<u>Trail #:</u> 3	<u>Name:</u> Rincon Trail Valley Center Road East Pathway Trail Status: () Existing (X) Proposed Trail Type: () Trail (X) Pathway Trail Priority: (X) 1 () 2 () 3 Estimated Trail Length in Miles: 2.90	<u>Connections: Trail Name (Trail #)</u> Heritage Trail (1) Cole Grade Road Pathway (2) Vesper Road Pathway (14) Wilhite Trail (3A) Mac Tan Road Pathway (12) Sunset Road Pathway (10) North Lake Wolford Road Pathway (9) Valley Center Middle School Staging Area	<u>Trail Priority Criteria:</u> Connectivity Loop Safety <u>Special Features:</u> Commercial area and schools connections Road widening in process

VALLEY CENTER TRAILS MAP INDEX

Trail #: 29	<u>Name:</u> Woods Valley Ranch Woods Valley Road Pathway Trail Status: () Existing (X) Proposed Trail Type: () Trail (X) Pathway Trail Priority: (X) 1 () 2 () 3 Estimated Trail Length in Miles: 3.90	<u>Connections: Trail Name (Trail #)</u> Heritage Trail (1) Ken Knust Trail (28) Lake Wolford Trail (51) North Lake Wolford Road Pathway (9) Paradise Mountain Road Pathway (27)	<u>Trail Priority Criteria:</u> Connectivity Loop Setting <u>Special Features:</u> Commercial area connection
Trail #: 30	<u>Name:</u> Burnt Mountain Road Trail Trail Status: () Existing (X) Proposed Trail Type: (X) Trail () Pathway Trail Priority: () 1 () 2 () 3 Estimated Trail Length in Miles: 1.62	<u>Connections: Trail Name (Trail #)</u> Betsworth Road Pathway (21) Turner Lake Trail (31) Joe Barry/Mirar de Valle Pathway (5)	<u>Trail Priority Criteria:</u> Connectivity Loop Education Remoteness Setting <u>Special Features:</u> Lake Turner connection
Trail #: 31	<u>Name:</u> Turner Lake Trail Trail Status: () Existing (X) Proposed Trail Type: (X) Trail () Pathway Trail Priority: () 1 () 2 (X) 3 Estimated Trail Length in Miles: 1.56	<u>Connections: Trail Name (Trail #)</u> Betsworth Road Pathway (21)	<u>Trail Priority Criteria:</u> Connectivity Loop Education Remoteness Setting <u>Special Features:</u> Lake Turner Opportunity for shared development
Trail #: 33	<u>Name:</u> Mesa Verde Trail Lilac Road Pathway Trail Status: () Existing (X) Proposed Trail Type: () Trail (X) Pathway Trail Priority: () 1 () 2 (X) 3 Estimated Trail Length in Miles: 1.20	<u>Connections: Trail Name (Trail #)</u> Lilac School Trail (7) Moosa Creek Trail (22) Lilac Ranch Staging Area Running Creek/Lilac Ranch Pathway (38) Keys Creek Road Pathway (53A) Old Lilac Trail (34)	<u>Trail Priority Criteria:</u> Connectivity Loop Remoteness <u>Special Features:</u> Opportunity for shared development Staging Area
Trail #: 34	<u>Name:</u> Old Lilac Trail Lilac Road Pathway Trail Status: () Existing (X) Proposed Trail Type: () Trail (X) Pathway Trail Priority: () 1 () 2 (X) 3 Estimated Trail Length in Miles: 0.60	<u>Connections: Trail Name (Trail #)</u> Lilac Ranch Staging Area Mesa Verde Trail (33) Running Creek/Lilac Ranch Pathway (38) Keys Creek Road Pathway (53A) Couser Canyon Road Pathway (35) North Lilac Trail (36)	<u>Trail Priority Criteria:</u> Connectivity Remoteness <u>Special Features:</u> Opportunity for shared development

Appendix D

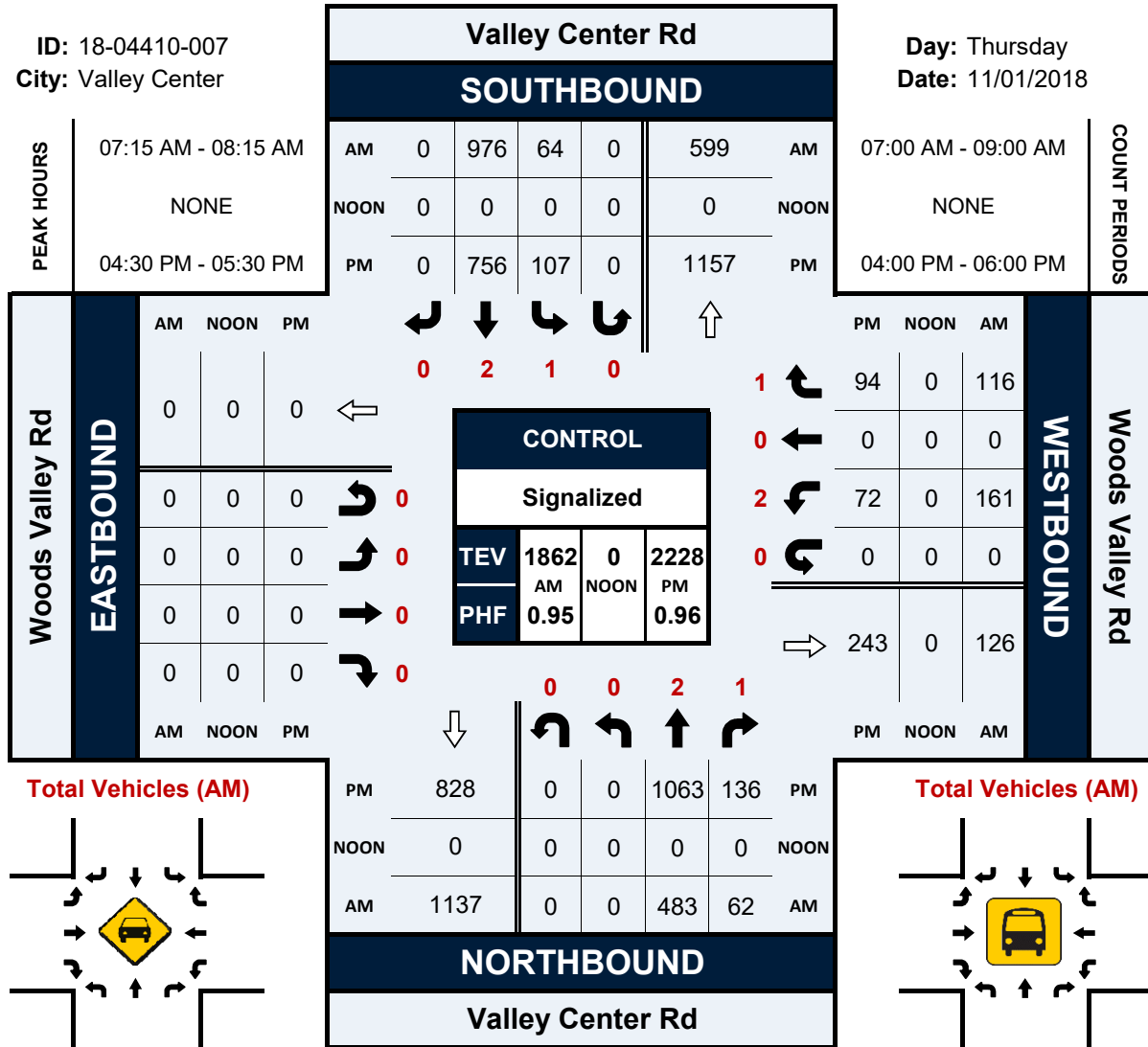
Traffic Volume Data

Valley Center Rd & Woods Valley Rd

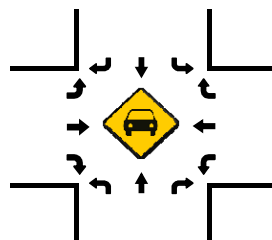
Peak Hour Turning Movement Count

ID: 18-04410-007
City: Valley Center

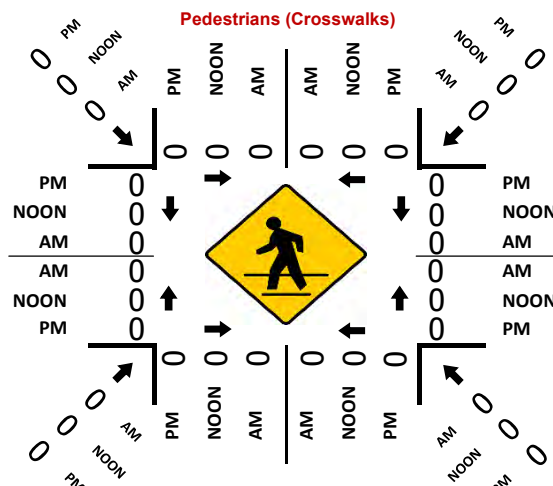
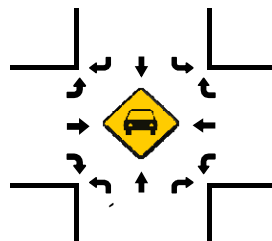
Day: Thursday
Date: 11/01/2018



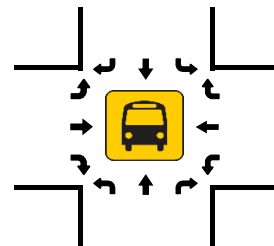
Total Vehicles (NOON)



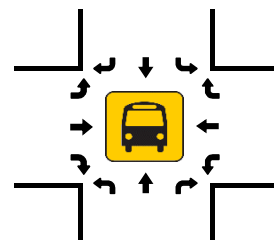
Total Vehicles (PM)



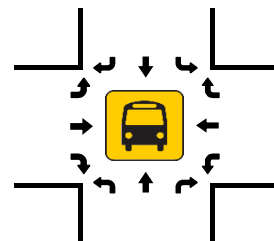
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Valley Center Rd & Woods Valley Rd
City: Valley Center
Control: Signalized

Project ID: 18-04410-007
Date: 11/1/2018

Total

NS/EW Streets:	Valley Center Rd				Valley Center Rd				Woods Valley Rd				Woods Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	2 WL	0 WT	1 WR	0 WU	
7:00 AM	0	112	10	0	9	208	0	0	0	0	0	0	39	0	31	0	409
7:15 AM	0	118	15	0	18	240	0	0	0	0	0	0	41	0	31	0	463
7:30 AM	0	104	17	0	14	258	0	0	0	0	0	0	41	0	24	0	458
7:45 AM	0	125	15	0	17	266	0	0	0	0	0	0	38	0	31	0	492
8:00 AM	0	136	15	0	15	212	0	0	0	0	0	0	41	0	30	0	449
8:15 AM	0	117	16	0	18	228	0	0	0	0	0	0	26	0	26	0	431
8:30 AM	0	109	9	0	20	245	0	0	0	0	0	0	29	0	25	0	437
8:45 AM	0	109	17	0	18	189	0	0	0	0	0	0	25	0	21	0	379
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	930	114	0	129	1846	0	0	0	0	0	0	280	0	219	0	3518
	0.00%	89.08%	10.92%	0.00%	6.53%	93.47%	0.00%	0.00%	0	0	0	0	56.11%	0.00%	43.89%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	483	62	0	64	976	0	0	0	0	0	0	161	0	116	0	1862
PEAK HR FACTOR :	0.000	0.888	0.912	0.000	0.889	0.917	0.000	0.000	0.000	0.000	0.000	0.000	0.982	0.000	0.935	0.000	0.946
	0.902				0.919								0.962				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	1 NR	0 NU	1 SL	2 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	2 WL	0 WT	1 WR	0 WU	
4:00 PM	0	210	31	0	27	161	0	0	0	0	0	0	24	0	31	0	484
4:15 PM	0	212	33	0	28	171	0	0	0	0	0	0	20	0	20	0	484
4:30 PM	0	256	33	0	19	182	0	0	0	0	0	0	22	0	25	0	537
4:45 PM	0	278	30	0	33	191	0	0	0	0	0	0	11	0	24	0	567
5:00 PM	0	250	35	0	26	200	0	0	0	0	0	0	18	0	13	0	542
5:15 PM	0	279	38	0	29	183	0	0	0	0	0	0	21	0	32	0	582
5:30 PM	0	262	41	0	33	129	0	0	0	0	0	0	28	0	25	0	518
5:45 PM	0	268	45	0	32	152	0	0	0	0	0	0	28	0	19	0	544
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	2015	286	0	227	1369	0	0	0	0	0	0	172	0	189	0	4258
	0.00%	87.57%	12.43%	0.00%	14.22%	85.78%	0.00%	0.00%	0	0	0	0	47.65%	0.00%	52.35%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	1063	136	0	107	756	0	0	0	0	0	0	72	0	94	0	2228
PEAK HR FACTOR :	0.000	0.953	0.895	0.000	0.811	0.945	0.000	0.000	0.000	0.000	0.000	0.000	0.818	0.000	0.734	0.000	0.957
	0.946				0.955								0.783				

Appendix E

Historical Traffic Counts

Segment	Date of Count	ADT	Δ in ADT	Δ in %	Annual Growth %
Valley Center Rd north of Woods Valley Rd	Tue, 03/24/15	24,419	151	1%	0%
	Thu, 11/01/18	24,570			
Valley Center Rd south of Woods Valley Rd	Tue, 03/24/15	25,120	416	2%	0%
	Thu, 11/01/18	25,536			

Avg. Annual Growth %:	0.3%
-----------------------	------

TUESDAY, MARCH 24TH, 2015

CITY: VALLEY CENTER

PROJECT: PTD15-0327-01

VALLEY CENTER N-O WOODS VALLEY

AM Period	NB		SB		EB	WB		PM Period		NB		SB		EB	WB	
00:00	15		26					12:00		186		153				
00:15	23		31					12:15		177		178				
00:30	22		24					12:30		167		141				
00:45	16	76	24	105		181		12:45	147	677	164	636		1313		
01:00	11		16					13:00		184		180				
01:15	15		37					13:15		165		164				
01:30	11		18					13:30		190		157				
01:45	6	43	15	86		129		13:45	195	734	163	664		1398		
02:00	5		24					14:00		184		185				
02:15	11		21					14:15		186		202				
02:30	11		23					14:30		204		196				
02:45	4	31	11	79		110		14:45	202	776	209	792		1568		
03:00	7		14					15:00		200		223				
03:15	10		14					15:15		225		199				
03:30	8		24					15:30		280		246				
03:45	8	33	26	78		111		15:45	240	945	192	860		1805		
04:00	9		28					16:00		281		191				
04:15	10		30					16:15		277		198				
04:30	14		45					16:30		265		215				
04:45	18	51	55	158		209		16:45	275	1098	205	809		1907		
05:00	23		87					17:00		255		216				
05:15	48		92					17:15		268		213				
05:30	52		129					17:30		284		166				
05:45	71	194	164	472		666		17:45	281	1088	175	770		1858		
06:00	96		175					18:00		234		128				
06:15	118		198					18:15		261		150				
06:30	136		205					18:30		223		136				
06:45	156	506	204	782		1288		18:45	249	967	137	551		1518		
07:00	144		222					19:00		209		109				
07:15	131		235					19:15		221		98				
07:30	168		267					19:30		164		101				
07:45	184	627	225	949		1576		19:45	178	772	82	390		1162		
08:00	166		218					20:00		135		100				
08:15	141		268					20:15		161		109				
08:30	144		215					20:30		114		74				
08:45	121	572	188	889		1461		20:45	139	549	85	368		917		
09:00	134		191					21:00		102		74				
09:15	125		220					21:15		104		58				
09:30	122		204					21:30		90		55				
09:45	137	518	166	781		1299		21:45	97	393	58	245		638		
10:00	139		173					22:00		79		68				
10:15	133		208					22:15		84		72				
10:30	119		165					22:30		54		54				
10:45	160	551	150	696		1247		22:45	58	275	45	239		514		
11:00	116		148					23:00		40		46				
11:15	160		188					23:15		44		33				
11:30	160		161					23:30		22		29				
11:45	162	598	184	681		1279		23:45	18	124	33	141		265		
Total Vol.	3800		5756		9556		8398		6465		14863					

TUESDAY, MARCH 24TH, 2015

CITY: VALLEY CENTER

PROJECT: PTD15-0327-01

VALLEY CENTER S-O WOODS VALLEY

AM Period	NB		SB		EB	WB		PM Period		NB		SB		EB	WB	
00:00	18		24					12:00	177		150					
00:15	21		38					12:15	183		177					
00:30	27		24					12:30	183		151					
00:45	13	79	25	111			190	12:45	156	699	150	628				1327
01:00	15		21					13:00	184		175					
01:15	12		39					13:15	166		163					
01:30	14		19					13:30	194		140					
01:45	7	48	16	95			143	13:45	185	729	168	646				1375
02:00	4		21					14:00	189		174					
02:15	14		23					14:15	165		187					
02:30	12		26					14:30	209		191					
02:45	6	36	16	86			122	14:45	193	756	202	754				1510
03:00	8		14					15:00	202		197					
03:15	10		19					15:15	250		199					
03:30	10		22					15:30	276		220					
03:45	7	35	28	83			118	15:45	250	978	195	811				1789
04:00	6		32					16:00	275		188					
04:15	14		32					16:15	297		196					
04:30	18		55					16:30	288		215					
04:45	11	49	54	173			222	16:45	278	1138	213	812				1950
05:00	23		99					17:00	281		196					
05:15	46		107					17:15	299		225					
05:30	49		155					17:30	325		170					
05:45	69	187	181	542			729	17:45	321	1226	159	750				1976
06:00	93		191					18:00	239		117					
06:15	113		230					18:15	277		157					
06:30	120		243					18:30	236		124					
06:45	139	465	224	888			1353	18:45	264	1016	137	535				1551
07:00	121		246					19:00	238		112					
07:15	141		267					19:15	228		99					
07:30	146		316					19:30	187		88					
07:45	157	565	255	1084			1649	19:45	191	844	85	384				1228
08:00	141		245					20:00	161		88					
08:15	126		287					20:15	166		92					
08:30	156		240					20:30	135		73					
08:45	123	546	193	965			1511	20:45	157	619	84	337				956
09:00	133		196					21:00	111		71					
09:15	125		238					21:15	126		55					
09:30	130		225					21:30	103		58					
09:45	147	535	167	826			1361	21:45	106	446	50	234				680
10:00	137		177					22:00	95		69					
10:15	130		204					22:15	94		63					
10:30	110		190					22:30	56		50					
10:45	148	525	157	728			1253	22:45	64	309	50	232				541
11:00	118		156					23:00	39		51					
11:15	160		183					23:15	46		38					
11:30	167		166					23:30	30		34					
11:45	153	598	190	695			1293	23:45	20	135	35	158				293
Total Vol.	3668		6276				9944			8895		6281				15176

VOLUME

Valley Center Rd Bet. Mirar de Valle Rd & Woods Valley Rd

Day: Thursday
Date: 11/1/2018City: Valley Center
Project #: CA18_4411_010

DAILY TOTALS					NB	SB	EB					WB	Total
					12,343	12,227						0	0
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00	34	20			54		12:00	188	152			340	
00:15	21	28			49		12:15	188	167			355	
00:30	28	21			49		12:30	172	163			335	
00:45	11	94	19	88	30	182	12:45	190	738	183	665	373	1403
01:00	11	20			31		13:00	170	139			309	
01:15	17	13			30		13:15	197	147			344	
01:30	15	15			30		13:30	191	152			343	
01:45	10	53	13	61	23	114	13:45	190	748	153	591	343	1339
02:00	11	18			29		14:00	215	199			414	
02:15	9	14			23		14:15	213	156			369	
02:30	5	17			22		14:30	222	179			401	
02:45	9	34	20	69	29	103	14:45	212	862	202	736	414	1598
03:00	7	17			24		15:00	232	195			427	
03:15	11	19			30		15:15	249	221			470	
03:30	17	20			37		15:30	248	209			457	
03:45	6	41	29	85	35	126	15:45	254	983	185	810	439	1793
04:00	8	34			42		16:00	250	202			452	
04:15	14	39			53		16:15	262	189			451	
04:30	24	41			65		16:30	270	205			475	
04:45	15	61	55	169	70	230	16:45	276	1058	246	842	522	1900
05:00	33	84			117		17:00	280	202			482	
05:15	40	102			142		17:15	324	196			520	
05:30	79	150			229		17:30	268	173			441	
05:45	98	250	159	495	257	745	17:45	267	1139	188	759	455	1898
06:00	101	195			296		18:00	260	140			400	
06:15	111	220			331		18:15	244	158			402	
06:30	163	232			395		18:30	265	128			393	
06:45	148	523	208	855	356	1378	18:45	210	979	122	548	332	1527
07:00	138	223			361		19:00	178	89			267	
07:15	168	264			432		19:15	165	101			266	
07:30	132	291			423		19:30	160	89			249	
07:45	170	608	276	1054	446	1662	19:45	142	645	81	360	223	1005
08:00	177	217			394		20:00	141	86			227	
08:15	121	258			379		20:15	145	95			240	
08:30	145	251			396		20:30	133	60			193	
08:45	115	558	202	928	317	1486	20:45	109	528	66	307	175	835
09:00	102	172			274		21:00	116	69			185	
09:15	137	201			338		21:15	127	59			186	
09:30	119	175			294		21:30	89	60			149	
09:45	97	455	194	742	291	1197	21:45	86	418	59	247	145	665
10:00	140	199			339		22:00	80	60			140	
10:15	145	174			319		22:15	73	65			138	
10:30	126	152			278		22:30	67	62			129	
10:45	148	559	179	704	327	1263	22:45	44	264	45	232	89	496
11:00	146	166			312		23:00	39	48			87	
11:15	142	189			331		23:15	43	32			75	
11:30	169	168			337		23:30	36	43			79	
11:45	150	607	198	721	348	1328	23:45	20	138	36	159	56	297
TOTALS	3843	5971			9814		TOTALS	8500	6256			14756	
SPLIT %	39.2%	60.8%			39.9%		SPLIT %	57.6%	42.4%			60.1%	

DAILY TOTALS					NB	SB					EB	WB	Total	
					12,343	12,227					0	0	24,570	
AM Peak Hour	11:45	07:00		07:15	PM Peak Hour	16:30	16:30		16:30					
AM Pk Volume	698	1054		1695	PM Pk Volume	1150	849		1999					
Pk Hr Factor	0.928	0.905		0.950	Pk Hr Factor	0.887	0.863		0.957					
7 - 9 Volume	1166	1982	0	0	3148	4 - 6 Volume	2197	1601	0	0	3798			
7 - 9 Peak Hour	07:15	07:00		07:15	4 - 6 Peak Hour	16:30	16:30		16:30					
7 - 9 Pk Volume	647	1054	0	0	1695	4 - 6 Pk Volume	1150	849	0	0	1999			
Pk Hr Factor	0.914	0.905	0.000	0.000	0.950	Pk Hr Factor	0.887	0.863	0.000	0.000	0.957			

VOLUME

Valley Center Rd S/O Woods Valley Rd

Day: Thursday
Date: 11/1/2018City: Valley Center
Project #: CA18_4411_011

DAILY TOTALS					NB	SB	EB					WB	Total
					12,829	12,707						0	0
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00	34	23			57		12:00	175	160			335	
00:15	26	27			53		12:15	191	177			368	
00:30	30	20			50		12:30	172	179			351	
00:45	13	103	18	88	31	191	12:45	203	741	187	703	390	1444
01:00	13	19			32		13:00	179	159			338	
01:15	23	14			37		13:15	206	166			372	
01:30	15	13			28		13:30	201	167			368	
01:45	11	62	12	58	23	120	13:45	200	786	149	641	349	1427
02:00	13	19			32		14:00	210	197			407	
02:15	9	14			23		14:15	217	143			360	
02:30	5	18			23		14:30	221	182			403	
02:45	9	36	17	68	26	104	14:45	236	884	217	739	453	1623
03:00	10	17			27		15:00	240	192			432	
03:15	13	21			34		15:15	268	219			487	
03:30	17	19			36		15:30	284	218			502	
03:45	5	45	34	91	39	136	15:45	237	1029	192	821	429	1850
04:00	10	43			53		16:00	260	182			442	
04:15	15	42			57		16:15	276	195			471	
04:30	23	49			72		16:30	283	195			478	
04:45	17	65	61	195	78	260	16:45	282	1101	232	804	514	1905
05:00	27	98			125		17:00	297	194			491	
05:15	32	120			152		17:15	337	183			520	
05:30	72	170			242		17:30	300	173			473	
05:45	87	218	178	566	265	784	17:45	281	1215	170	720	451	1935
06:00	98	221			319		18:00	278	147			425	
06:15	97	238			335		18:15	265	160			425	
06:30	165	262			427		18:30	280	119			399	
06:45	149	509	230	951	379	1460	18:45	223	1046	121	547	344	1593
07:00	116	260			376		19:00	201	90			291	
07:15	146	284			430		19:15	189	98			287	
07:30	140	316			456		19:30	183	84			267	
07:45	127	529	298	1158	425	1687	19:45	150	723	80	352	230	1075
08:00	167	238			405		20:00	147	75			222	
08:15	112	267			379		20:15	162	81			243	
08:30	134	254			388		20:30	148	55			203	
08:45	116	529	214	973	330	1502	20:45	128	585	64	275	192	860
09:00	114	180			294		21:00	132	66			198	
09:15	157	224			381		21:15	135	62			197	
09:30	109	194			303		21:30	103	60			163	
09:45	101	481	204	802	305	1283	21:45	108	478	53	241	161	719
10:00	147	206			353		22:00	95	63			158	
10:15	143	190			333		22:15	83	66			149	
10:30	127	180			307		22:30	70	66			136	
10:45	159	576	183	759	342	1335	22:45	52	300	47	242	99	542
11:00	142	180			322		23:00	47	50			97	
11:15	146	194			340		23:15	53	31			84	
11:30	159	184			343		23:30	42	44			86	
11:45	178	625	186	744	364	1369	23:45	21	163	44	169	65	332
TOTALS	3778	6453			10231		TOTALS	9051	6254			15305	
SPLIT %	36.9%	63.1%			40.1%		SPLIT %	59.1%	40.9%			59.9%	

DAILY TOTALS				NB	SB	EB				WB	Total			
				12,829	12,707					0				
AM Peak Hour	11:45	07:00			07:15	PM Peak Hour	16:45	14:45						16:30
AM Pk Volume	716	1158			1716	PM Pk Volume	1216	846						2003
Pk Hr Factor	0.937	0.916			0.941	Pk Hr Factor	0.902	0.966						0.963
7 - 9 Volume	1058	2131	0	0	3189	4 - 6 Volume	2316	1524	0	0				3840
7 - 9 Peak Hour	07:15	07:00			07:15	4 - 6 Peak Hour	16:45	16:15						16:30
7 - 9 Pk Volume	580	1158	0	0	1716	4 - 6 Pk Volume	1216	816	0	0				2003
Pk Hr Factor	0.868	0.916	0.000	0.000	0.941	Pk Hr Factor	0.902	0.879	0.000	0.000				0.963

Appendix F

Intersection LOS Worksheets

Clarke Dental and Vet Clinics
1: Valley Center Rd & Woods Valley Rd

Existing Conditions
Timing Plan: AM PEAK

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	164	118	493	63	65	996	
Future Volume (veh/h)	164	118	493	63	65	996	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	173	124	519	66	68	1048	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	499	229	1009	679	103	1751	
Arrive On Green	0.14	0.14	0.28	0.28	0.06	0.49	
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647	
Grp Volume(v), veh/h	173	124	519	66	68	1048	
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1585	1781	1777	
Q Serve(g_s), s	1.3	2.1	3.6	0.7	1.1	6.2	
Cycle Q Clear(g_c), s	1.3	2.1	3.6	0.7	1.1	6.2	
Prop In Lane	1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	499	229	1009	679	103	1751	
V/C Ratio(X)	0.35	0.54	0.51	0.10	0.66	0.60	
Avail Cap(c_a), veh/h	3042	1395	11526	5370	1196	14448	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	11.3	11.6	8.8	5.0	13.5	5.3	
Incr Delay (d2), s/veh	0.2	0.7	0.2	0.0	2.6	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	1.9	0.9	0.2	0.4	0.9	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	11.4	12.3	8.9	5.0	16.1	5.5	
LnGrp LOS	B	B	A	A	B	A	
Approach Vol, veh/h	297		585			1116	
Approach Delay, s/veh	11.8		8.5			6.1	
Approach LOS	B		A			A	
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			19.7		9.5	6.1	13.6
Change Period (Y+Rc), s			5.3		5.3	4.4	5.3
Max Green Setting (Gmax), s			118.7		25.7	19.6	94.7
Max Q Clear Time (g_c+l1), s			8.2		4.1	3.1	5.6
Green Ext Time (p_c), s			6.2		0.5	0.1	2.6
Intersection Summary							
HCM 6th Ctrl Delay			7.6				
HCM 6th LOS			A				

Clarke Dental and Vet Clinics
1: Valley Center Rd & Woods Valley Rd

Existing Conditions
Timing Plan: PM PEAK

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	 		 			 	
Traffic Volume (veh/h)	73	96	1084	139	109	771	
Future Volume (veh/h)	73	96	1084	139	109	771	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	77	101	1141	146	115	812	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	347	159	1663	901	150	2324	
Arrive On Green	0.10	0.10	0.47	0.47	0.08	0.65	
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647	
Grp Volume(v), veh/h	77	101	1141	146	115	812	
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1585	1781	1777	
Q Serve(g_s), s	0.9	2.6	10.9	1.9	2.7	4.4	
Cycle Q Clear(g_c), s	0.9	2.6	10.9	1.9	2.7	4.4	
Prop In Lane	1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	347	159	1663	901	150	2324	
V/C Ratio(X)	0.22	0.63	0.69	0.16	0.77	0.35	
Avail Cap(c_a), veh/h	2057	943	7795	3636	809	9770	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	17.9	18.7	9.0	4.4	19.4	3.4	
Incr Delay (d2), s/veh	0.1	1.6	0.2	0.0	3.1	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	2.4	3.0	0.6	1.1	0.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	18.0	20.2	9.2	4.5	22.5	3.4	
LnGrp LOS	B	C	A	A	C	A	
Approach Vol, veh/h	178		1287			927	
Approach Delay, s/veh	19.2		8.6			5.8	
Approach LOS	B		A			A	
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			33.5		9.6	8.0	25.5
Change Period (Y+Rc), s			5.3		5.3	4.4	5.3
Max Green Setting (Gmax), s			118.7		25.7	19.6	94.7
Max Q Clear Time (g_c+l1), s			6.4		4.6	4.7	12.9
Green Ext Time (p_c), s			4.4		0.3	0.1	7.3
Intersection Summary							
HCM 6th Ctrl Delay			8.3				
HCM 6th LOS			A				

Clarke Dental and Vet Clinics
1: Valley Center Rd & Woods Valley Rd

Opening Year 2021
Timing Plan: AM PEAK

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	166	119	498	64	66	1006	
Future Volume (veh/h)	166	119	498	64	66	1006	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	175	125	524	67	69	1059	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	501	230	1022	685	104	1760	
Arrive On Green	0.14	0.14	0.29	0.29	0.06	0.50	
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647	
Grp Volume(v), veh/h	175	125	524	67	69	1059	
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1585	1781	1777	
Q Serve(g_s), s	1.3	2.2	3.6	0.7	1.1	6.3	
Cycle Q Clear(g_c), s	1.3	2.2	3.6	0.7	1.1	6.3	
Prop In Lane	1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	501	230	1022	685	104	1760	
V/C Ratio(X)	0.35	0.54	0.51	0.10	0.66	0.60	
Avail Cap(c_a), veh/h	3014	1382	11421	5324	1185	14315	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	11.3	11.7	8.8	5.0	13.6	5.3	
Incr Delay (d2), s/veh	0.2	0.7	0.1	0.0	2.7	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	1.9	0.9	0.2	0.4	1.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	11.5	12.4	8.9	5.0	16.2	5.5	
LnGrp LOS	B	B	A	A	B	A	
Approach Vol, veh/h	300		591			1128	
Approach Delay, s/veh	11.9		8.5			6.1	
Approach LOS	B		A			A	
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			19.9		9.6	6.1	13.8
Change Period (Y+Rc), s			5.3		5.3	4.4	5.3
Max Green Setting (Gmax), s			118.7		25.7	19.6	94.7
Max Q Clear Time (g_c+l1), s			8.3		4.2	3.1	5.6
Green Ext Time (p_c), s			6.3		0.5	0.1	2.7
Intersection Summary							
HCM 6th Ctrl Delay			7.7				
HCM 6th LOS			A				

Clarke Dental and Vet Clinics
1: Valley Center Rd & Woods Valley Rd

Opening Year 2021
Timing Plan: PM PEAK

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	 		 			 	
Traffic Volume (veh/h)	74	97	1095	140	110	779	
Future Volume (veh/h)	74	97	1095	140	110	779	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	78	102	1153	147	116	820	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	350	160	1673	907	151	2332	
Arrive On Green	0.10	0.10	0.47	0.47	0.08	0.66	
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647	
Grp Volume(v), veh/h	78	102	1153	147	116	820	
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1585	1781	1777	
Q Serve(g_s), s	0.9	2.7	11.1	1.9	2.8	4.5	
Cycle Q Clear(g_c), s	0.9	2.7	11.1	1.9	2.8	4.5	
Prop In Lane	1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	350	160	1673	907	151	2332	
V/C Ratio(X)	0.22	0.64	0.69	0.16	0.77	0.35	
Avail Cap(c_a), veh/h	2032	932	7700	3595	799	9651	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	18.1	18.9	9.1	4.4	19.6	3.4	
Incr Delay (d2), s/veh	0.1	1.6	0.2	0.0	3.1	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	0.1	3.1	0.6	1.2	0.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	18.2	20.4	9.3	4.4	22.7	3.4	
LnGrp LOS	B	C	A	A	C	A	
Approach Vol, veh/h	180		1300			936	
Approach Delay, s/veh	19.4		8.7			5.8	
Approach LOS	B		A			A	
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				34.0	9.7	8.1	25.9
Change Period (Y+Rc), s				5.3	5.3	4.4	5.3
Max Green Setting (Gmax), s				118.7	25.7	19.6	94.7
Max Q Clear Time (g_c+l1), s				6.5	4.7	4.8	13.1
Green Ext Time (p_c), s				4.4	0.3	0.1	7.5
Intersection Summary							
HCM 6th Ctrl Delay			8.4				
HCM 6th LOS			A				

Clarke Dental and Vet Clinics
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Timing Plan: AM PEAK

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	 		 			 	
Traffic Volume (veh/h)	166	120	503	64	67	1008	
Future Volume (veh/h)	166	120	503	64	67	1008	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	175	126	529	67	71	1061	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	503	231	1020	685	107	1761	
Arrive On Green	0.15	0.15	0.29	0.29	0.06	0.50	
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647	
Grp Volume(v), veh/h	175	126	529	67	71	1061	
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1585	1781	1777	
Q Serve(g_s), s	1.3	2.2	3.7	0.7	1.2	6.3	
Cycle Q Clear(g_c), s	1.3	2.2	3.7	0.7	1.2	6.3	
Prop In Lane	1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	503	231	1020	685	107	1761	
V/C Ratio(X)	0.35	0.55	0.52	0.10	0.67	0.60	
Avail Cap(c_a), veh/h	3006	1379	11392	5312	1182	14279	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	11.4	11.7	8.8	5.0	13.6	5.4	
Incr Delay (d2), s/veh	0.2	0.8	0.2	0.0	2.7	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.9	0.2	0.4	1.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	11.5	12.5	9.0	5.0	16.3	5.5	
LnGrp LOS	B	B	A	A	B	A	
Approach Vol, veh/h	301		596			1132	
Approach Delay, s/veh	11.9		8.5			6.2	
Approach LOS	B		A			A	
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			19.9		9.6	6.2	13.8
Change Period (Y+Rc), s			5.3		5.3	4.4	5.3
Max Green Setting (Gmax), s			118.7		25.7	19.6	94.7
Max Q Clear Time (g_c+l1), s			8.3		4.2	3.2	5.7
Green Ext Time (p_c), s			6.3		0.5	0.1	2.7
Intersection Summary							
HCM 6th Ctrl Delay			7.7				
HCM 6th LOS			A				

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	3	7	617	1072	20
Future Vol, veh/h	8	3	7	617	1072	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	3	8	671	1165	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1528	594	1187	0	-	0
Stage 1	1176	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	108	448	584	-	-	-
Stage 1	255	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	106	448	584	-	-	-
Mov Cap-2 Maneuver	203	-	-	-	-	-
Stage 1	251	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	20.9	0.1		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	584	-	239	-	-	
HCM Lane V/C Ratio	0.013	-	0.05	-	-	
HCM Control Delay (s)	11.2	-	20.9	-	-	
HCM Lane LOS	B	-	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Clarke Dental and Vet Clinics
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Timing Plan: PM PEAK

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	 		 			 	
Traffic Volume (veh/h)	74	98	1098	140	111	784	
Future Volume (veh/h)	74	98	1098	140	111	784	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	78	103	1156	147	117	825	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	352	161	1674	908	152	2334	
Arrive On Green	0.10	0.10	0.47	0.47	0.09	0.66	
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647	
Grp Volume(v), veh/h	78	103	1156	147	117	825	
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1585	1781	1777	
Q Serve(g_s), s	0.9	2.7	11.2	1.9	2.8	4.6	
Cycle Q Clear(g_c), s	0.9	2.7	11.2	1.9	2.8	4.6	
Prop In Lane	1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	352	161	1674	908	152	2334	
V/C Ratio(X)	0.22	0.64	0.69	0.16	0.77	0.35	
Avail Cap(c_a), veh/h	2022	927	7660	3578	795	9601	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	18.1	18.9	9.1	4.4	19.7	3.4	
Incr Delay (d2), s/veh	0.1	1.6	0.2	0.0	3.1	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	0.1	3.1	0.6	1.2	0.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	18.2	20.5	9.3	4.4	22.7	3.4	
LnGrp LOS	B	C	A	A	C	A	
Approach Vol, veh/h	181		1303			942	
Approach Delay, s/veh	19.5		8.7			5.8	
Approach LOS	B		A			A	
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				34.2	9.8	8.2	26.0
Change Period (Y+Rc), s				5.3	5.3	4.4	5.3
Max Green Setting (Gmax), s				118.7	25.7	19.6	94.7
Max Q Clear Time (g_c+l1), s				6.6	4.7	4.8	13.2
Green Ext Time (p_c), s				4.5	0.3	0.1	7.5
Intersection Summary							
HCM 6th Ctrl Delay			8.4				
HCM 6th LOS			A				

Clarke Dental and Vet Clinics
2: Valley Center Rd & Proj Dwy

Opening Year 2021 w/Proj
Timing Plan: PM PEAK

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	6	4	1192	889	11
Future Vol, veh/h	17	6	4	1192	889	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	1	-	-	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	18	7	4	1296	966	12

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1628	489	978
Stage 1	972	-	-
Stage 2	656	-	-
Critical Hdwy	6.84	6.94	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	2.22
Pot Cap-1 Maneuver	93	525	701
Stage 1	327	-	-
Stage 2	478	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	92	525	701
Mov Cap-2 Maneuver	217	-	-
Stage 1	325	-	-
Stage 2	478	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	701	-	256	-	-
HCM Lane V/C Ratio	0.006	-	0.098	-	-
HCM Control Delay (s)	10.2	-	20.6	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-