Traffic Analysis
(Hexagon Transportation Consultants, Inc. 2025)

E

APPENDIX

Hexagon Transportation Consultants, Inc.

Memorandum

Date: December 9, 2025

To: Teri Wissler Adam, EMC Planning Group Inc.

From: Robert Del Rio, T.E., Luis Descanzo

Subject: Trip Generation and Operations Analysis for the Chapin Concrete Plant and Recycling Facility in San Benito County, California

Hexagon Transportation Consultants, Inc. has completed a trip generation and operations analysis for the proposed Chapin Concrete Plant and Recycling Facility project located at 2751 San Juan Hollister Road (APN 021-030-017) in San Benito County, California (see Figure 1). The 43.92-acre project site is currently vacant and was formerly occupied by a light industrial manufacturing plant. The project as proposed would establish a concrete ready-mix plant; a facility for recycling waste asphalt, concrete, and soils; and a facility for precasting of concrete products. Existing buildings on-site may be repurposed in the future, however no proposed use has been identified. Vehicular access would be provided via a proposed new driveway along San Juan Hollister Road, approximately 750 feet south of State Route 156 Business. The methodology, results, and recommendations of the analysis are discussed below.

Scope of Study

The purpose of the study is to estimate the amount of additional traffic that would be added to the roadway system as a result of the proposed facility and operations (hereafter referred to as the proposed project). The study includes a review of the proposed project site access point to identify any potential deficiencies or safety issues related to the project access point and its effects on surrounding roadways, evaluation of project traffic effects relative to existing conditions, and evaluation of surrounding intersections with regard to level of service and the need for signalization.

Project Trip Generation Estimates and Assignment

In determining the project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. Trips were estimated based on project characteristics and information provided by the applicant, summarized below. Operational data is based on current operations of the existing facility located at the intersection of SR 25 and SR 156. All operations at the existing facility will be relocated to the proposed project site.

The proposed operational workforce and truck activity will have seasonal variation based on product demand. As noted below, some work shifts will have flexible start and end times. The estimated project trips are based on anticipated operations during average peak demand periods and are shown in Table 1.

Figure 1
Site Location

Figure 2
Site Plan

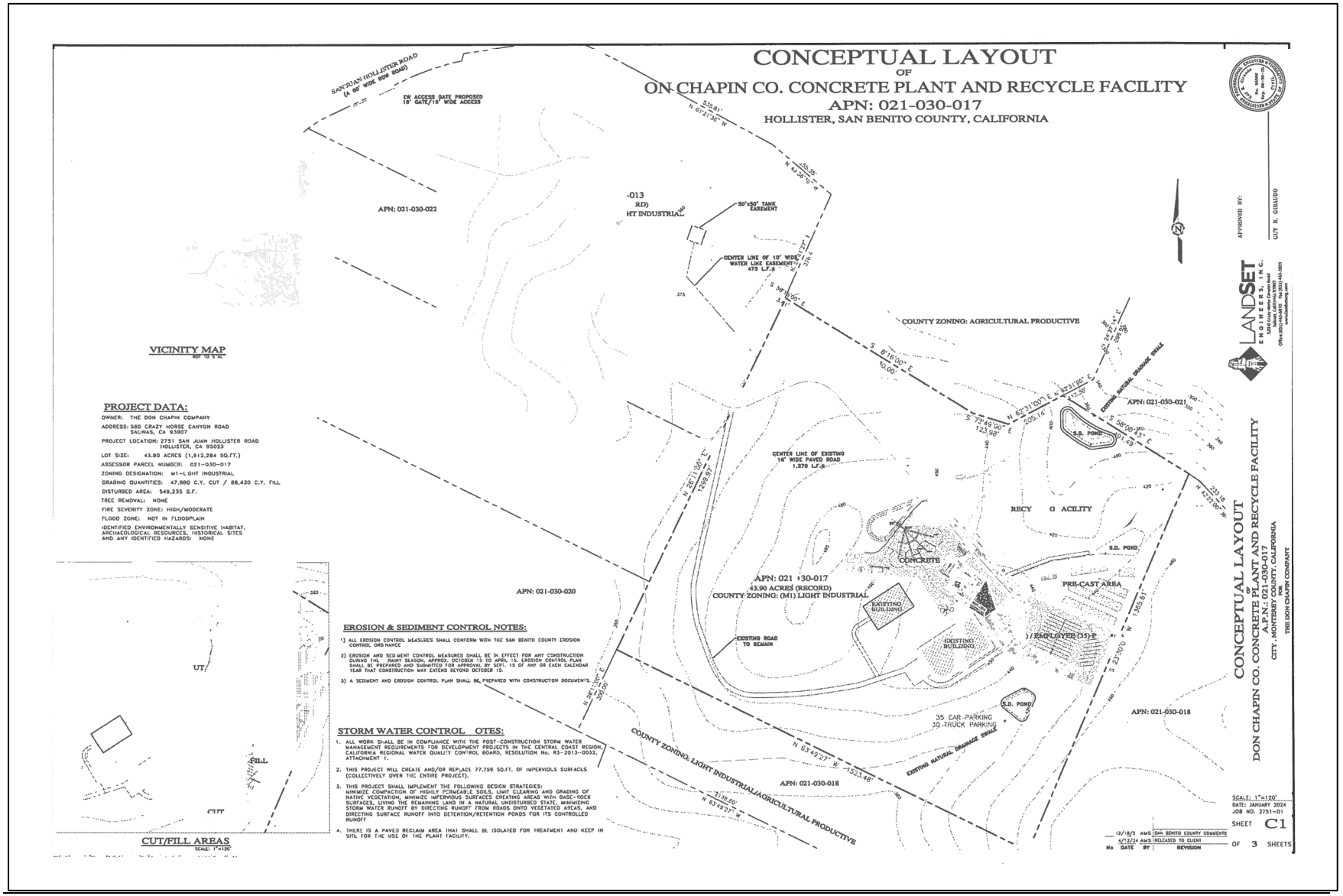


Table 1
Trip Generation Summary

Land Use	Size	Units	Weekday Trips	AM Peak-Hour Trips In	AM Peak-Hour Trips Out	AM Peak-Hour Trips Total	PM Peak-Hour Trips In	PM Peak-Hour Trips Out	PM Peak-Hour Trips Total
Proposed									
Truck Drivers	*15*		*30*	*8*	*0*	*8*	*0*	*0*	*0*
Concrete Ready-Mix Operations	*5*		*10*	*3*	*0*	*3*	*0*	*0*	*0*
Pre-Cast Operations	*10*		*20*	*10*	*0*	*10*	*0*	*10*	*10*
Scale Attendant	*1*		*2*	*1*	*0*	*1*	*0*	*1*	*1*
Recycle Operations	*5*		*10*	*5*	*0*	*5*	*0*	*5*	*5*
Maintenance/Support	*4*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total Staff [1]	**40**	**employees**	**72**	**27**	**0**	**27**	**0**	**16**	**16**
Concrete Ready-Mix Operations	*32*		*64*	*4*	*4*	*8*	*4*	*4*	*8*
Pre-Cast Operations	*4*		*8*	*0*	*1*	*1*	*1*	*0*	*1*
Recycle Operations	*6*		*12*	*1*	*1*	*2*	*1*	*1*	*2*
Total Trucks [1]	**42**	**trucks**	**84**	**5**	**6**	**11**	**6**	**5**	**11**
Proposed Vehicle Trips			**156**	**32**	**6**	**38**	**6**	**21**	**27**

Notes:

[1] The trip generation estimates are based on the existing and proposed full-buildout operations provided by the applicant.

Concrete Ready-Mix Plant Operations

The concrete ready-mix plant operations will be staffed by up to 15 trucks drivers and 5 on-site staff members. Hours of operation would be generally between 5:00 AM and 12:00 PM, however evening deliveries could occur between 8:00 PM and 6:00 AM. Based on the proposed shifts, employees will typically arrive and depart outside of weekday peak-hour periods (7:00 AM to 9:00 AM; 4:00 PM to 6:00 PM). However, for the purpose of providing a conservative estimate of peak-hour trips, it is assumed that approximately 50% of staff could arrive or depart during peak-hour periods.

Based on the applicant's estimates of deliveries, trucks will make approximately 32 daily round-trips, or 64 total (inbound and outbound) trips. Assuming an 8-hour workshift, this yields an average of 8 truck trips per hour. Therefore, 4 inbound and 4 outbound truck trips are estimated to arrive and depart during the AM and PM peak-hours.

Pre-Casting Operations

The pre-casting operations will be staffed by up to 10 staff members. Hours of operation would generally be between 7:00 AM and 3:30 PM. Based on the proposed shift, employees will typically arrive and depart outside of weekday peak-hour periods (7:00 AM to 9:00 AM; 4:00 PM to 6:00 PM). However, for the purpose of providing a conservative estimate of peak-hour trips, it is assumed that all staff members would arrive or depart during peak-hour periods.

Based on the applicant's estimates of deliveries, trucks will make approximately 4 daily round-trips, or 8 total (inbound and outbound) trips. Assuming an 8-hour workshift, this yields an average of 1 truck trip per hour. Therefore, 1 truck trip is estimated to arrive or depart during the AM and PM peak-hours.

Recycle Operations

The recycle operations will be seasonal, operating only during a 4-month period annually, and will be staffed by up to 5 staff members. Hours of operations would generally be between 7:00 AM and 3:30

PM. Based on the proposed shift, employees will typically arrive and depart outside of weekday peak-hour periods (7:00 AM to 9:00 AM; 4:00 PM to 6:00 PM). However, for the purpose of providing a conservative estimate of peak-hour trips, it is assumed that all staff members would arrive or depart during peak-hour periods.

Based on the applicant's estimates of deliveries, trucks will make approximately 6 daily round-trips, or 12 total (inbound and outbound) trips. Assuming an 8-hour workshift, this yields an average of up to 2 truck trips per hour. Therefore, 1 truck trip is estimated to arrive and depart during the AM and PM peak-hours.

Scale Attendant

A scale attendant will be present on-site between 7:00 AM and 3:30 PM. Based on the proposed shift, the employee will typically arrive and depart outside of weekday peak-hour periods (7:00 AM to 9:00 AM; 4:00 PM to 6:00 PM). However, for the purpose of providing a conservative estimate of peak-hour trips, it is assumed that the staff members would arrive or depart during peak-hour periods.

Support and Maintenance Employees

Approximately four support and maintenance staff members will be hired for the purpose of servicing vehicles and facilities. However, no support and maintenance staff will be stationed at the facility. Each staff member would visit the site once each week during non-working hours. Therefore, maintenance and support staff will not generate peak-hour trips during an average workday.

Trip Distribution and Assignment

The directional distribution of site-generated traffic to and from the project site was estimated based on the existing travel patterns on the surrounding roadway network that reflect typical weekday AM and PM peak commute patterns, the location of the project driveways, freeway access points, and the locations of complimentary land uses. Figure 3 shows the trip distribution patterns for the project.

The peak-hour project trips associated with the proposed project were added to the transportation network in accordance with the distribution patterns, the roadway network connections, and the project driveway locations. The project trip assignment of project trips at the study intersections is shown in Figure 4.

Intersection Level of Service Analysis

Traffic conditions at the following signalized and unsignalized study intersections were analyzed for the weekday AM and PM peak hours of traffic:

1. Union Road and SR 156
2. Union Road and San Juan Hollister Road
3. San Juan Hollister Road and SR 156 (Business)

The weekday AM peak hour of traffic generally falls within the 7:00 AM to 9:00 AM period and the weekday PM peak hour is typically in the 4:00 PM to 6:00 PM period. It is during these times that the most congested traffic conditions occur on a typical weekday.

Signalized Intersection Analysis

Signalized study intersections are subject to the County of San Benito's level of service standards. The County of San Benito's level of service methodology is Synchro, which is based on the *Highway*

Figure 3
Project Trip Distribution

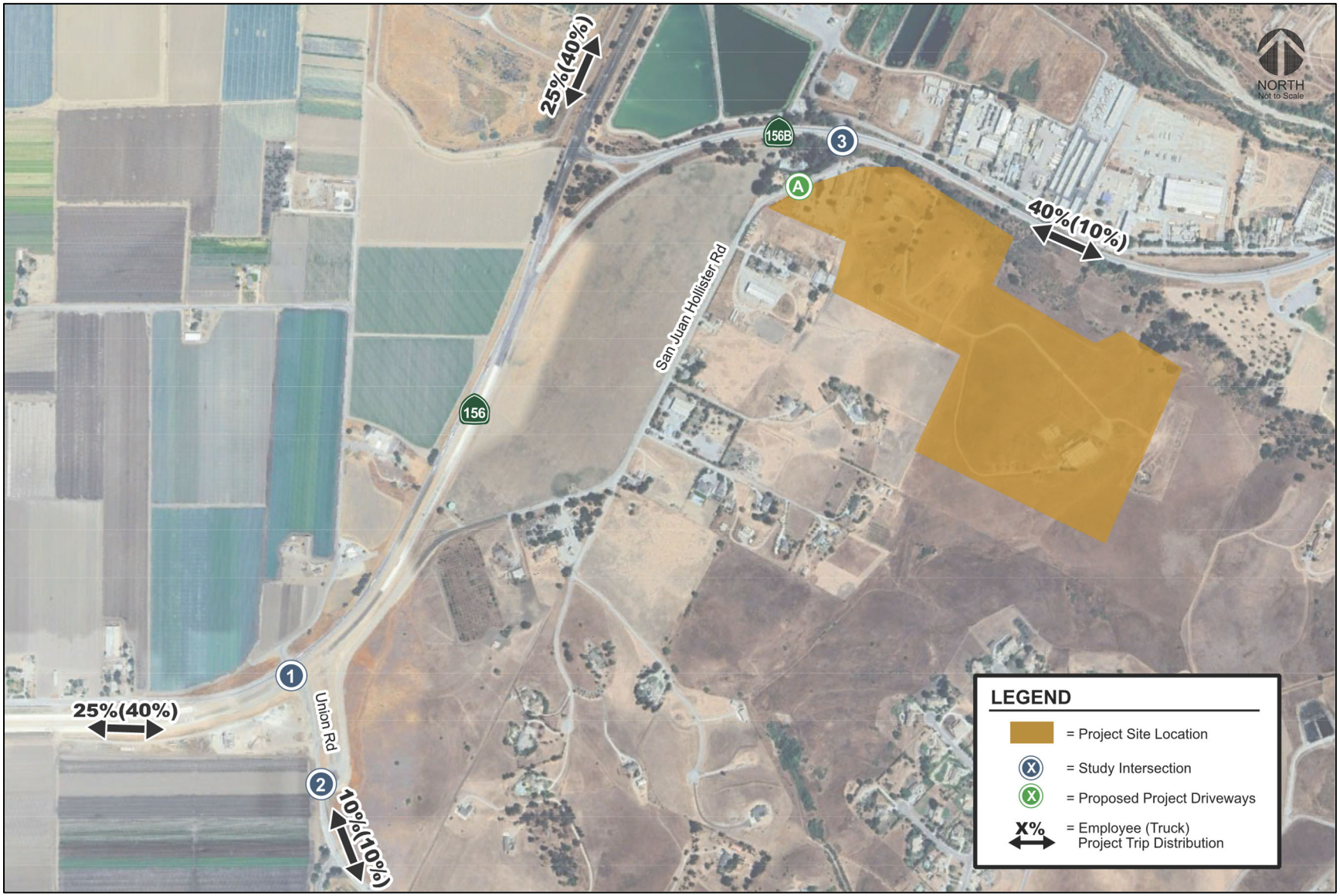
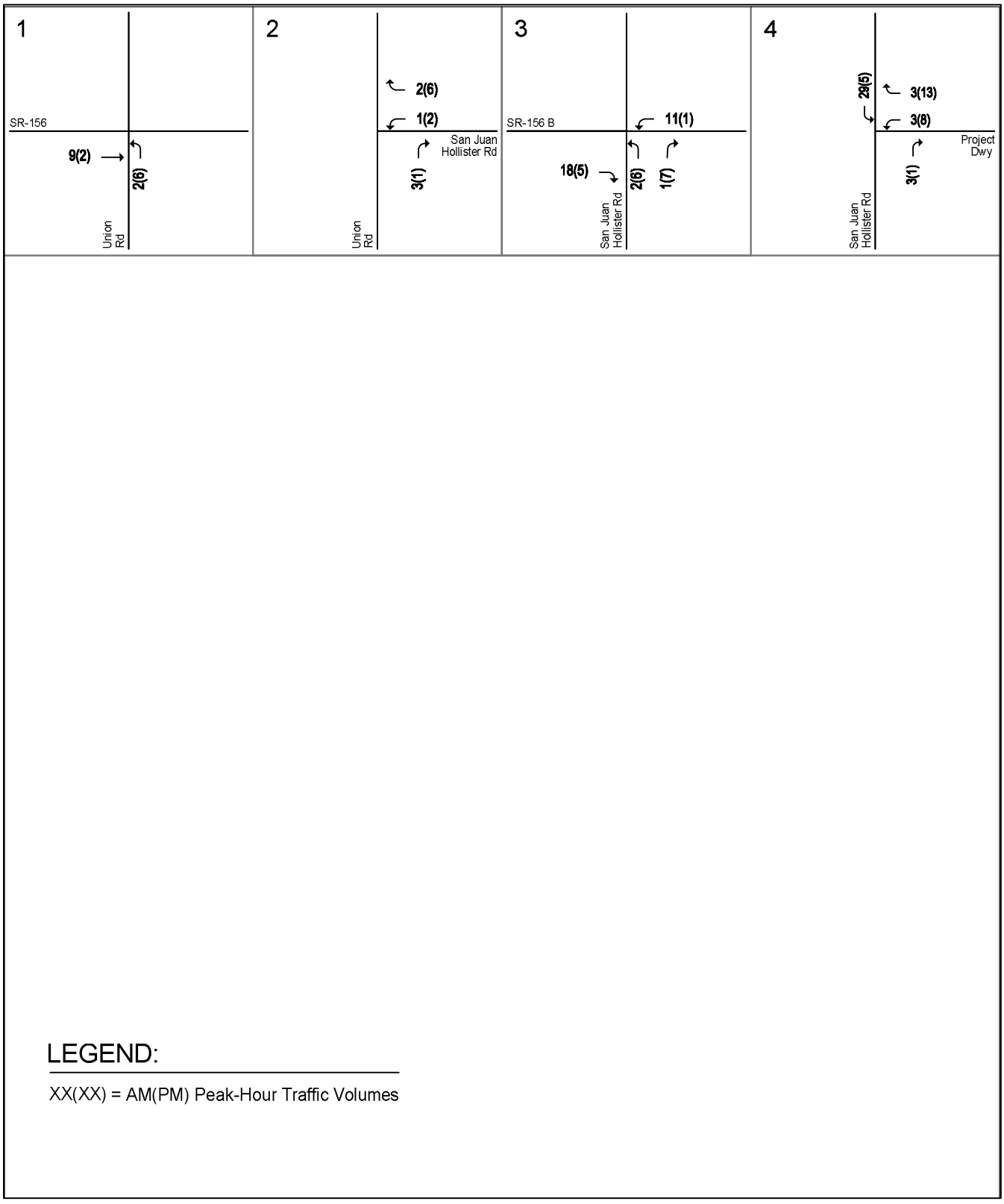


Figure 4
Project Trip Assignment



Capacity Manual, 7th Edition (HCM 7) method for signalized intersections. Synchro evaluates signalized intersections operations based on average delay time for all vehicles at the intersection. All intersections within the County of San Benito are required to meet the County's LOS standard of LOS D, with intersections already operating at LOS D or below being required to maintain the existing LOS.

Unsignalized Intersections

The methodology used to determine the level of service for unsignalized intersections is also Synchro and the *HCM 7* methodology for unsignalized intersection analysis. This method is applicable for both two-way and all-way stop-controlled intersections. For the analysis of stop-controlled intersections, the *HCM 7* methodology evaluates intersection operations on the basis of average control delay time for all vehicles on the stop-controlled approaches. For the purpose of reporting level of service for one- and two-way stop-controlled intersections, the delay and corresponding level of service for the stop-controlled minor street approach with the highest delay is reported. For all-way stop-controlled intersections, the reported average delay and corresponding level of service is the average for all approaches at the intersection. The County uses a minimum acceptable level of service standard of LOS D for unsignalized intersections.

Signal Warrants

The level of service analysis at unsignalized intersections is supplemented with an assessment of the need for signalization of the intersection. The need for signalization of unsignalized intersections is assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the *California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD)*, Part 4, Highway Traffic Signals, 2014. This method makes no evaluation of intersection level of service but simply provides an indication whether vehicular peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. The decision to install a traffic signal should not be based purely on the warrants alone. Instead, the installation of a signal should be considered and further analysis performed when one or more of the warrants are met. Additionally, engineering judgment is exercised on a case-by-case basis to evaluate the effect a traffic signal will have on certain types of accidents and traffic conditions at the subject intersection as well as at adjacent intersections. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions.

None of the unsignalized intersections studied currently have or would have traffic volumes which would warrant signalization.

Level of Service Results

The results of the level of service analysis show that each of the study intersections currently operate at an acceptable LOS D or better during both the AM and PM peak hours and would continue to do so with the addition of project traffic, based on the applicable County of San Benito intersection operations standards.

Based on the results of the intersection level of service analysis, the project would not have an adverse effect on operations at the study intersections. The results of level of service analysis are summarized in Table 2.

Site Access

The evaluation of site access is based on a conceptual site plan prepared by LandSet Engineers, Inc. dated January 2024. Site access was evaluated to determine the adequacy of the site's access points

Table 2
Level of Service Results

#	Intersection	Peak Hour	Control	Existing Conditions		Existing + Project Conditions	
				Avg. Delay	LOS	Avg. Delay	LOS
1	Union Road & SR 156	AM	Signal	40.4	D	40.7	D
		PM		40.1	D	40.3	D
2	Union Road & San Juan Hollister Road	AM	TWSC	24.2	C	22.7	C
		PM		16.4	C	15.7	C
3	San Juan Hollister Road & SR 156 Business	AM	TWSC	16.5	C	17.9	C
		PM		14.5	B	14.2	B
4	San Juan Hollister Road & Project Driveway	AM	TWSC	-	-	8.8	A
		PM		-	-	8.6	A

Source: Synchro 12, HCM 7th Edition Methodology

Notes

For TWSC intersections, delay represents worst approach delay and LOS represents worst approach LOS

'-' indicates scenario does not evaluate this intersection

with regard to the following: traffic volume, geometric design, and sight distance. Site access was evaluated in accordance with generally accepted traffic engineering standards and transportation planning principles.

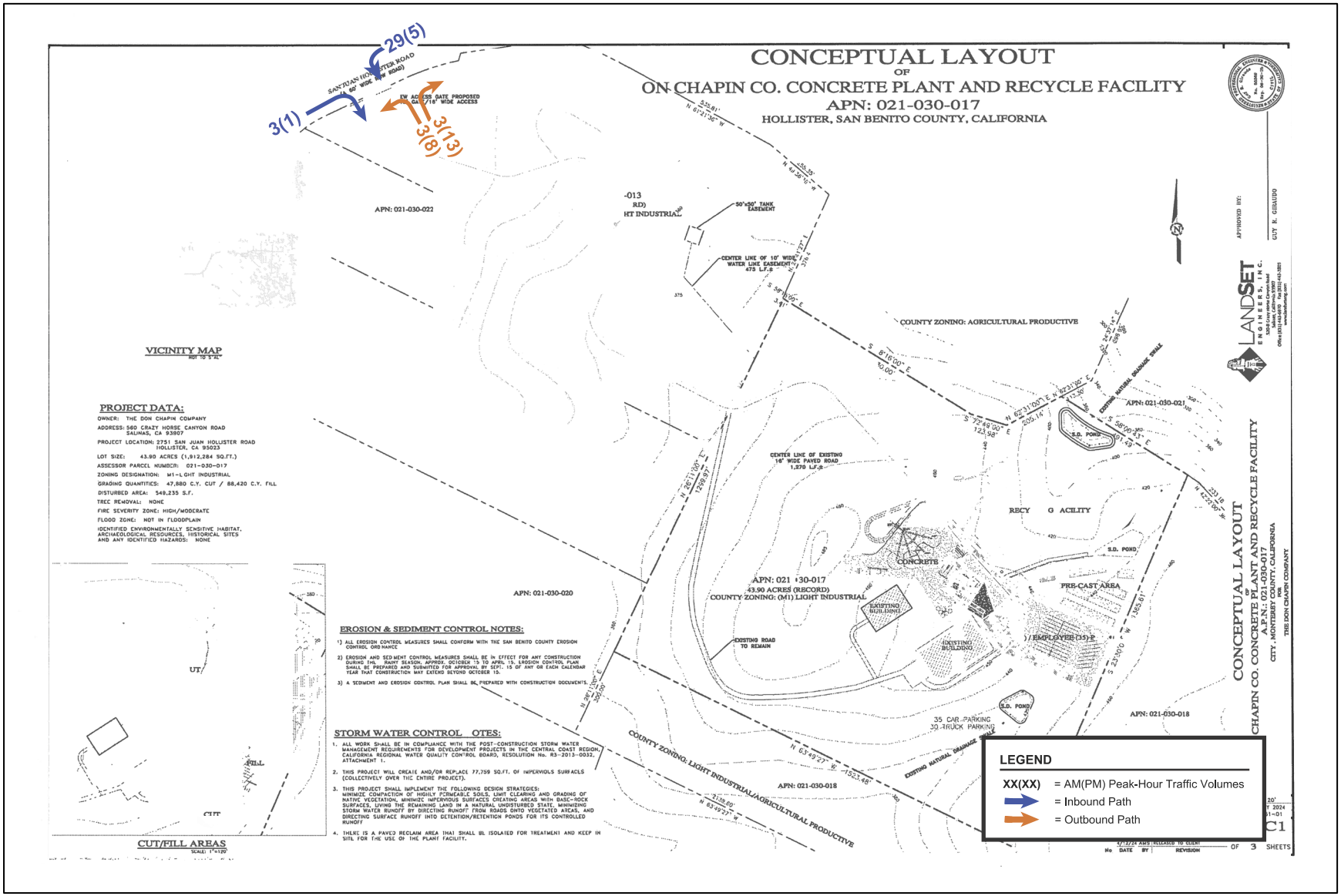
Project Access Point

Vehicular access would be provided via a proposed driveway along San Juan Hollister Road. The site plan indicates a new 18-foot wide gated driveway connecting to an existing 16-foot wide drive aisle that leads to the project's parking facilities.

The County of San Benito does not have design standards for industrial driveways. Standards from the City of Hollister were used to assess site access design requirements. City of Hollister standard drawing A-11 indicates that commercial and industrial driveway approaches should have a minimum width of 21 feet and a maximum width of 42 feet.

Inbound and outbound left and right turns will be permitted at the project access point. No significant inbound and outbound queues are expected to form at the driveway due to low volumes during peak-hours. A maximum of 32 inbound trips would enter the driveway during the AM peak-hour, which equates to approximately one inbound trip every two minutes. A maximum of 21 outbound trips would exit the driveway during the PM peak-hour, which equates to only one outbound trip every three minutes. Based on the traffic counts collected on October 2, 2025, the estimated total peak-hour volume for both directions of traffic along San Juan Hollister Road is 33 vehicles and 27 vehicles in the AM and PM peak-hours respectively. Due to the relatively low volumes on San Juan Hollister Road, there should be adequate gaps in traffic flow and the project trips would not have a noticeable effect on traffic flow along San Juan Hollister Road.

Figure 5
Project Trips at Site Access



Recommendation: Per City of Hollister design standards, the project should provide a driveway approach with a minimum width of 21 feet.

Recommendation: The adequacy of the proposed driveway width should be assessed with truck-turning templates. The turning templates should demonstrate that trucks would not need to encroach into the opposing lane along San Juan Hollister Road to complete their turning movements. Turning templates for the largest truck expected to enter the site should be utilized.

Sight Distance

Sight distance was checked at the project access point. The proposed driveway would be located along a straight segment of San Juan Hollister Road. However, there are horizontal curves to the south and north which would limit a driver's line-of-sight at the site access point to no more than 200 feet to the south and 300 feet to the north.

Sight distance recommendations vary depending on the roadway speeds. There are currently no posted speed limits along northbound or southbound San Juan Hollister Road in the vicinity of the project site. A warning sign located approximately 700 feet south of the proposed driveway indicates a horizontal alignment ahead, and recommends an advisory speed of 25 mph. However, it is likely that the prima facie speed along San Juan Hollister Road is greater than 25 mph due to the rural setting of the roadway. As a conservative measure, sight distance at the project driveway was evaluated for a design speed of 40 mph.

Based on a design speed of 40 miles per hour (mph), the Caltrans recommended stopping sight distance for the project driveway is 300 feet. Thus, a driver must be able to see 300 feet to the north and south along San Juan Hollister Road to locate a sufficient gap to turn out of the driveway. As a result of the horizontal curve to the south of the proposed driveway, drivers only would have 200 feet of sight distance to the south. Therefore, the 300 feet of sight distance cannot be physically provided for a design speed of 40 mph. However, due to the roadway alignment vehicles will be traveling at slower speeds. Speed limit as well as cross-traffic warning signage should be implemented along San Juan Hollister Road.

Recommendation: There is currently no posted speed limit along San Juan Hollister Road, south of its intersection with State Route 156 Business. The County should verify the appropriate speed limit and implement regulatory speed limit signs along San Juan Hollister Road.

On-Site Circulation

The project would utilize an existing 16-foot wide two-way access road to connect the proposed new driveway with a new parking area within the eastern side of the project site. The parking area consists of 35 standard vehicle parking stalls and 38 truck parking stalls. No dead-end drive aisles are proposed.

Standard 90-degree vehicle parking spaces are required by San Benito County Code section 25.07.010 (I) (2) (a) to be a minimum of 9 feet in width and 20 feet in length. All two-way drive aisles within the parking area will be required to meet the County's minimum requirement for two-way drive aisle width of 25 feet as stipulated in section 25.07.010 (I) (2) (b) of the County Code.

Recommendation: All parking spaces and drive aisles should be constructed in accordance with San Benito County standards in order to ensure adequate space for vehicular circulation.

Emergency Vehicles and Truck Access

Trucks will deliver raw and finished products in and out of the project site. Unloading and loading areas would be provided within the concrete plan, the recycling facility, and pre-cast area. Truck parking spaces are provided within the surface parking lot. The required number and dimensions of truck loading spaces are at the discretion of the County's planning director per section 25.07.010 (J) of the County Code.

In addition to delivery trucks, garbage trucks and emergency vehicles also would require access to the proposed facility's parking lot.

Recommendation: The project should work with the County to determine the number and dimensions of truck loading spaces.

Recommendation: Truck-turning templates should be prepared for truck parking spaces and loading/unloading areas to ensure adequate space is provided for truck parking and loading activities.

Chapin Concrete Plant and Recycling
Facility Trip Generation and Operations Analysis
Technical Appendices

December 9, 2025

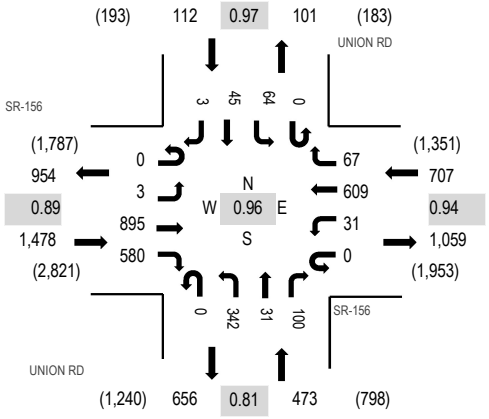
Appendix A

Traffic Counts

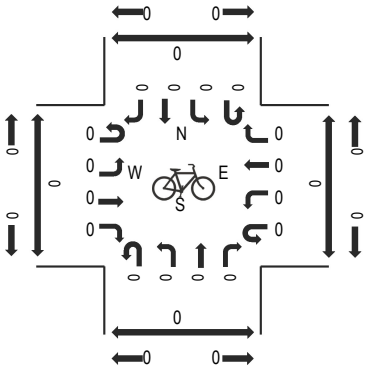
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 UNION RD & SR-156 PM
Date: Thursday, October 2, 2025
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

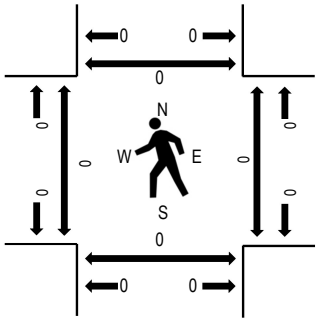
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR-156 Eastbound				SR-156 Westbound				UNION RD Northbound				UNION RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	1	204	140	0	5	145	19	0	72	6	25	0	13	15	1	646	2,770	0	0	0	0
4:15 PM	0	1	231	126	0	10	152	16	0	95	10	26	0	21	6	0	694	2,707	0	0	0	0
4:30 PM	0	1	224	135	0	7	153	12	0	104	9	33	0	17	11	1	707	2,631	0	0	0	0
4:45 PM	0	0	236	179	0	9	159	20	0	71	6	16	0	13	13	1	723	2,529	0	0	0	0
5:00 PM	0	2	178	128	0	5	141	14	0	75	6	18	0	9	6	1	583	2,393	0	0	0	0
5:15 PM	0	1	204	136	0	3	151	13	0	66	14	7	0	20	3	0	618		0	0	0	0
5:30 PM	0	0	214	122	0	5	158	14	0	58	4	7	0	12	10	1	605		0	0	0	0
5:45 PM	0	1	205	152	0	5	127	8	0	54	5	11	0	9	9	1	587		0	0	0	0

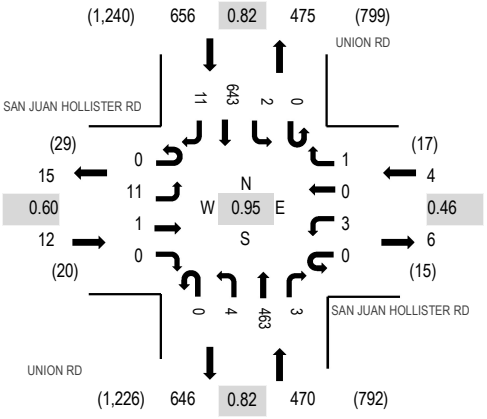
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	60	3	0	1	86	2	0	2	1	0	0	1	1	0	158
Lights	0	2	811	574	0	29	509	64	0	338	30	97	0	61	44	3	2,562
Mediums	0	0	24	3	0	1	14	1	0	2	0	3	0	2	0	0	50
Total	0	3	895	580	0	31	609	67	0	342	31	100	0	64	45	3	2,770

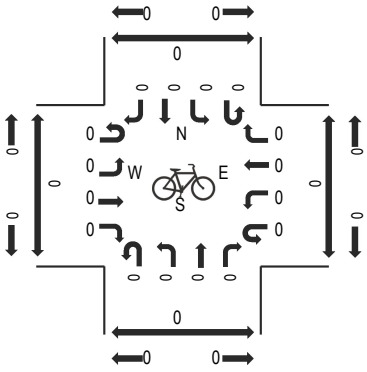
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 UNION RD & SAN JUAN HOLLISTER RD PM
Date: Thursday, October 2, 2025
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

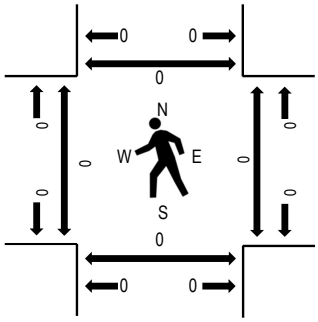
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SAN JUAN HOLLISTER RD Eastbound				SAN JUAN HOLLISTER RD Westbound				UNION RD Northbound				UNION RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	4	0	0	0	1	0	0	0	1	99	0	0	0	158	2	265	1,142	0	0	0	0
4:15 PM	0	4	1	0	0	2	0	0	0	0	127	2	0	1	136	3	276	1,116	0	0	0	0
4:30 PM	0	2	0	0	0	0	0	1	0	1	143	0	0	1	150	4	302	1,077	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	2	94	1	0	0	199	2	299	992	0	0	0	0
5:00 PM	0	1	0	0	0	1	0	0	0	0	96	3	0	0	135	3	239	927	0	0	0	0
5:15 PM	0	2	0	0	0	3	1	0	0	0	85	3	0	0	140	3	237		0	0	0	0
5:30 PM	0	2	0	0	0	3	1	3	0	0	72	0	0	1	132	3	217		0	0	0	0
5:45 PM	0	2	0	1	0	1	0	0	0	1	61	1	0	1	164	2	234		0	0	0	0

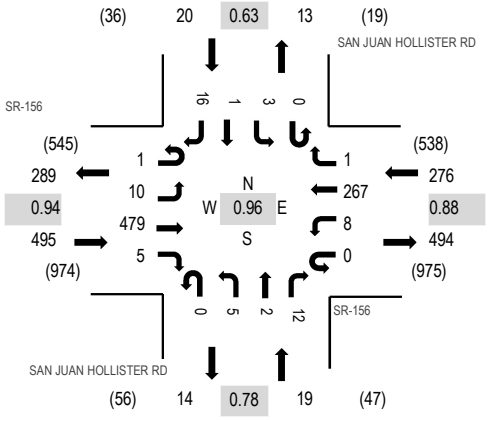
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	2	0	0	0	2	3	8
Lights	0	10	1	0	0	3	0	1	0	4	456	3	0	2	637	8	1,125
Mediums	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	9
Total	0	11	1	0	0	3	0	1	0	4	463	3	0	2	643	11	1,142

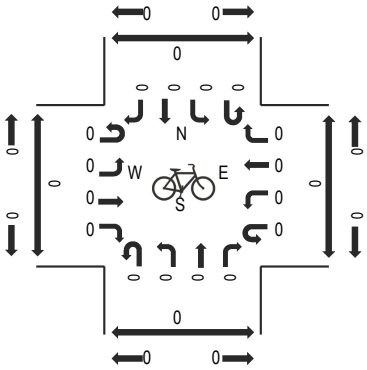
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 SAN JUAN HOLLISTER RD & SR-156 PM
Date: Thursday, October 2, 2025
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

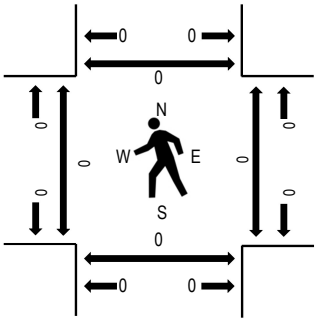
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR-156 Eastbound				SR-156 Westbound				SAN JUAN HOLLISTER RD Northbound				SAN JUAN HOLLISTER RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	4	117	1	0	3	71	1	0	1	0	5	0	1	0	7	211	810	0	0	0	0
4:15 PM	0	3	128	1	0	1	60	0	0	2	0	4	0	0	0	4	203	792	0	0	0	0
4:30 PM	1	2	120	1	0	2	79	0	0	0	2	1	0	1	1	1	211	802	0	0	0	0
4:45 PM	0	1	114	2	0	2	57	0	0	2	0	2	0	1	0	4	185	804	0	0	0	0
5:00 PM	0	2	104	6	0	8	58	0	0	4	0	5	0	0	0	6	193	785	0	0	0	0
5:15 PM	0	0	118	5	0	7	72	0	0	3	0	4	0	2	0	2	213		0	0	0	0
5:30 PM	0	3	124	6	0	7	65	0	0	0	0	5	0	2	0	1	213		0	0	0	0
5:45 PM	0	1	109	1	0	2	43	0	0	1	0	6	0	2	0	1	166		0	0	0	0

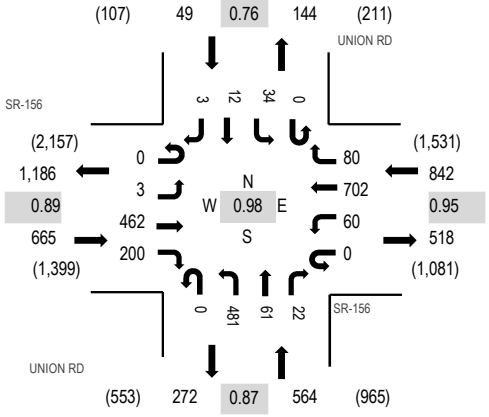
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	1	10	471	5	0	8	260	1	0	5	2	12	0	3	1	16	795
Mediums	0	0	8	0	0	0	7	0	0	0	0	0	0	0	0	0	15
Total	1	10	479	5	0	8	267	1	0	5	2	12	0	3	1	16	810

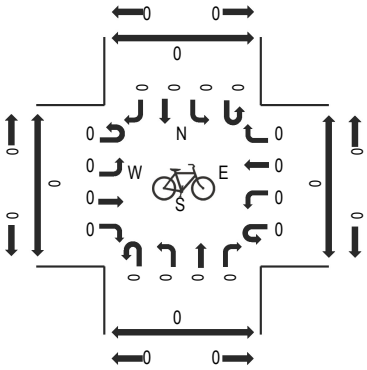
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 UNION RD & SR-156 AM
Date: Thursday, October 2, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

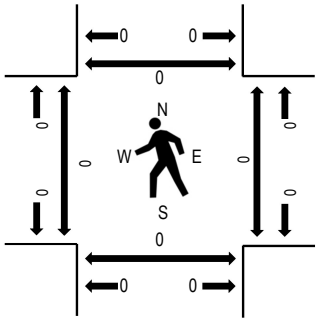
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR-156 Eastbound				SR-156 Westbound				UNION RD Northbound				UNION RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	101	57	0	13	164	18	0	142	17	4	0	11	2	1	530	2,120	0	0	0	0
7:15 AM	0	1	109	46	0	22	178	17	0	127	15	8	0	6	4	1	534	2,069	0	0	0	0
7:30 AM	0	1	128	35	0	12	187	23	0	124	10	7	0	8	4	0	539	2,029	0	0	0	0
7:45 AM	0	1	124	62	0	13	173	22	0	88	19	3	0	9	2	1	517	1,918	0	0	0	0
8:00 AM	0	0	121	44	0	6	156	17	0	115	7	5	0	6	2	0	479	1,882	0	0	0	0
8:15 AM	0	0	144	64	0	6	154	12	0	92	7	1	0	6	8	0	494		0	0	0	0
8:30 AM	0	0	121	56	0	10	134	7	0	71	2	8	0	14	5	0	428		0	0	0	0
8:45 AM	0	2	125	57	0	14	164	9	0	85	4	4	0	8	9	0	481		0	0	0	0

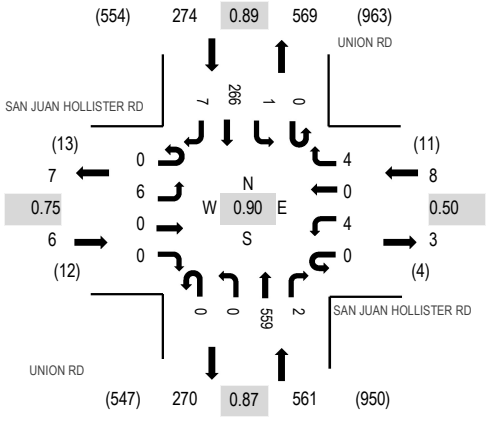
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	44	9	0	2	82	2	0	9	0	1	0	2	1	0	152
Lights	0	2	407	188	0	54	602	77	0	465	61	20	0	30	9	3	1,918
Mediums	0	1	11	3	0	4	18	1	0	7	0	1	0	2	2	0	50
Total	0	3	462	200	0	60	702	80	0	481	61	22	0	34	12	3	2,120

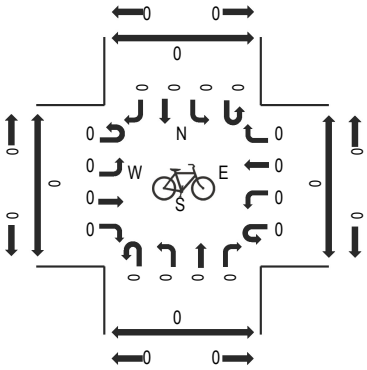
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 UNION RD & SAN JUAN HOLLISTER RD AM
Date: Thursday, October 2, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

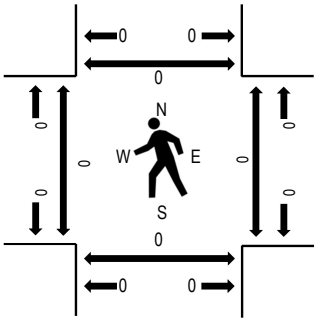
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SAN JUAN HOLLISTER RD Eastbound				SAN JUAN HOLLISTER RD Westbound				UNION RD Northbound				UNION RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	1	0	0	0	0	161	1	0	0	69	3	235	849	0	0	0	0
7:15 AM	0	3	0	0	0	2	0	1	0	0	146	1	0	1	69	1	224	790	0	0	0	0
7:30 AM	0	1	0	0	0	1	0	3	0	0	144	0	0	0	52	1	202	741	0	0	0	0
7:45 AM	0	2	0	0	0	0	0	0	0	0	108	0	0	0	76	2	188	695	0	0	0	0
8:00 AM	0	3	0	0	0	0	0	1	0	0	120	0	0	0	52	0	176	678	0	0	0	0
8:15 AM	0	0	0	1	0	1	0	0	0	0	97	0	0	0	73	3	175		0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	83	0	0	0	73	0	156		0	0	0	0
8:45 AM	0	1	0	1	0	1	0	0	0	0	89	0	0	1	75	3	171		0	0	0	0

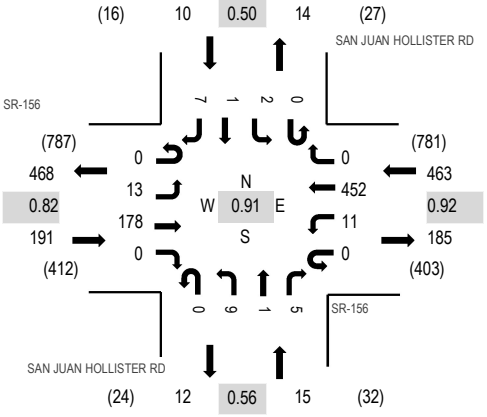
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	9	0	0	0	10	2	22
Lights	0	5	0	0	0	4	0	4	0	0	542	2	0	0	248	5	810
Mediums	0	0	0	0	0	0	0	0	0	0	8	0	0	1	8	0	17
Total	0	6	0	0	0	4	0	4	0	0	559	2	0	1	266	7	849

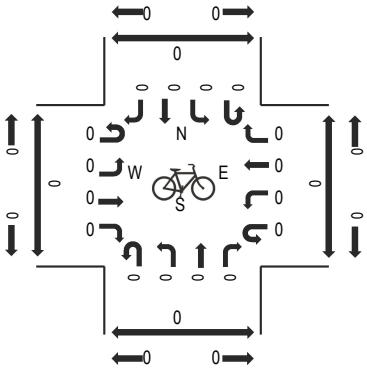
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 SAN JUAN HOLLISTER RD & SR-156 AM
Date: Thursday, October 2, 2025
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

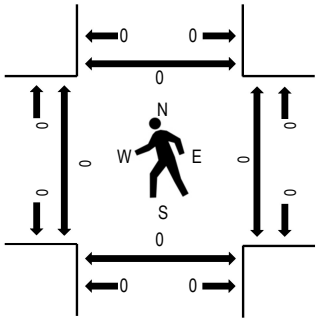
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR-156 Eastbound				SR-156 Westbound				SAN JUAN HOLLISTER RD Northbound				SAN JUAN HOLLISTER RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	5	36	0	0	5	106	0	0	3	0	2	0	0	0	1	158	679	0	0	0	0
7:15 AM	0	3	34	0	0	2	124	0	0	1	1	1	0	2	1	2	171	669	0	0	0	0
7:30 AM	0	2	61	0	0	3	113	0	0	5	0	1	0	0	0	2	187	634	0	0	0	0
7:45 AM	0	3	47	0	0	1	109	0	0	0	0	1	0	0	0	2	163	596	0	0	0	0
8:00 AM	0	3	45	0	0	3	88	0	0	3	0	5	0	0	0	1	148	562	0	0	0	0
8:15 AM	0	2	52	2	0	3	76	0	0	1	0	0	0	0	0	0	136		0	0	0	0
8:30 AM	0	7	60	1	0	0	76	0	0	1	0	1	0	1	0	2	149		0	0	0	0
8:45 AM	0	0	49	0	0	3	68	1	0	3	0	3	0	2	0	0	129		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	3	0	0	2	0	0	0	1	0	0	8
Lights	0	13	172	0	0	11	445	0	0	7	0	5	0	1	1	7	662
Mediums	0	0	4	0	0	0	4	0	0	0	1	0	0	0	0	0	9
Total	0	13	178	0	0	11	452	0	0	9	1	5	0	2	1	7	679

Appendix B

Peak-Hour Traffic Volumes

1 4
Intersection Name: Union Road and SR 156
Peak Hour: AM
Jurisdiction: Caltrans
Count Date 10/02/25

	North Approach				East Approach				South Approach				West Approach				Int.
Scenario:	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	Total
Existing Conditions	**3**	**45**	**64**	**112**	**67**	**609**	**31**	**707**	**100**	**31**	**342**	**473**	**580**	**895**	**3**	**1,478**	**2,770**
Proposed Project Trips	0	0	0	0	0	0	0	0	0	0	2	2	0	9	0	9	11
Existing Plus Project Conditions	**3**	**45**	**64**	**112**	**67**	**609**	**31**	**707**	**100**	**31**	**344**	**475**	**580**	**904**	**3**	**1,487**	**2,781**

2 7
Intersection Name: Union Road and San Juan Hollister Road
Peak Hour: AM
Jurisdiction: County
Count Date 10/02/25

	North Approach				East Approach				South Approach				West Approach				Int.
Scenario:	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	Total
Existing Conditions	**11**	**643**	**2**	**656**	**1**	**0**	**3**	**4**	**3**	**463**	**4**	**470**	**0**	**1**	**11**	**12**	**1,142**
Proposed Project Trips	0	0	0	0	2	0	1	3	3	0	0	3	0	0	0	0	6
Existing Plus Project Conditions	**11**	**643**	**2**	**656**	**3**	**0**	**4**	**7**	**6**	**463**	**4**	**473**	**0**	**1**	**11**	**12**	**1,148**

3 16
Intersection Name: San Juan Hollister Road and SR 156
Peak Hour: AM
Jurisdiction: Caltrans
Count Date 10/02/25

	North Approach				East Approach				South Approach				West Approach				Int.
Scenario:	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	Total
Existing Conditions	**16**	**1**	**3**	**20**	**1**	**267**	**8**	**276**	**12**	**2**	**5**	**19**	**5**	**479**	**11**	**495**	**810**
Proposed Project Trips	0	0	0	0	0	0	11	11	1	0	2	3	18	0	0	18	32
Existing Plus Project Conditions	**16**	**1**	**3**	**20**	**1**	**267**	**19**	**287**	**13**	**2**	**7**	**22**	**23**	**479**	**11**	**513**	**842**

4	14
Intersection Name:	San Juan Hollister Road and Project Dwy
Peak Hour:	AM
Jurisdiction:	County
Count Date	10/02/25

Scenario:	North Approach				East Approach				South Approach				West Approach				Int.
	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	Total
Existing Conditions	**0**	**14**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**19**	**0**	**0**	**0**	**0**	**33**
Proposed Project Trips	0	0	29	29	3	0	3	6	3	0	0	3	0	0	0	0	38
Existing Plus Project Conditions	**0**	**14**	**29**	**43**	**3**	**0**	**3**	**6**	**3**	**19**	**0**	**22**	**0**	**0**	**0**	**0**	**71**

1 4
Intersection Name: Union Road and SR 156
Peak Hour: PM
Jurisdiction: Caltrans
Count Date 10/02/25

	North Approach				East Approach				South Approach				West Approach				Int.
Scenario:	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	Total
Existing Conditions	**3**	**12**	**34**	**49**	**80**	**702**	**60**	**842**	**22**	**61**	**481**	**564**	**200**	**462**	**3**	**665**	**2,120**
Proposed Project Trips	0	0	0	0	0	0	0	0	0	0	6	6	0	2	0	2	8
Existing Plus Project Conditions	**3**	**12**	**34**	**49**	**80**	**702**	**60**	**842**	**22**	**61**	**487**	**570**	**200**	**464**	**3**	**667**	**2,128**

2 7
Intersection Name: Union Road and San Juan Hollister Road
Peak Hour: PM
Jurisdiction: County
Count Date 10/02/25

	North Approach				East Approach				South Approach				West Approach				Int.
Scenario:	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	Total
Existing Conditions	**7**	**266**	**1**	**274**	**4**	**0**	**4**	**8**	**2**	**559**	**0**	**561**	**0**	**0**	**6**	**6**	**849**
Proposed Project Trips	0	0	0	0	6	0	2	8	1	0	0	1	0	0	0	0	9
Existing Plus Project Conditions	**7**	**266**	**1**	**274**	**10**	**0**	**6**	**16**	**3**	**559**	**0**	**562**	**0**	**0**	**6**	**6**	**858**

3 16
Intersection Name: San Juan Hollister Road and SR 156
Peak Hour: PM
Jurisdiction: Caltrans
Count Date 10/02/25

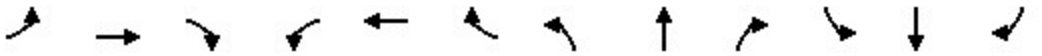
	North Approach				East Approach				South Approach				West Approach				Int.
Scenario:	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	Total
Existing Conditions	**7**	**1**	**2**	**10**	**0**	**452**	**11**	**463**	**5**	**1**	**9**	**15**	**0**	**178**	**13**	**191**	**679**
Proposed Project Trips	0	0	0	0	0	0	1	1	7	0	6	13	5	0	0	5	19
Existing Plus Project Conditions	**7**	**1**	**2**	**10**	**0**	**452**	**12**	**464**	**12**	**1**	**15**	**28**	**5**	**178**	**13**	**196**	**698**

4	14
Intersection Name:	San Juan Hollister Road and Project Dwy
Peak Hour:	PM
Jurisdiction:	County
Count Date	10/02/25

Scenario:	North Approach				East Approach				South Approach				West Approach				Int.
	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	RT	TH	LT	Total	Total
Existing Conditions	**0**	**12**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**15**	**0**	**0**	**0**	**0**	**27**
Proposed Project Trips	0	0	5	5	13	0	8	21	1	0	0	1	0	0	0	0	27
Existing Plus Project Conditions	**0**	**12**	**5**	**17**	**13**	**0**	**8**	**21**	**1**	**15**	**0**	**16**	**0**	**0**	**0**	**0**	**54**

Appendix C

Level of Service



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	895	580	31	609	67	342	31	100	64	45	3
Future Volume (veh/h)	3	895	580	31	609	67	342	31	100	64	45	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1752	1752	1752	1870	1870	1870	1811	1811	1811
Adj Flow Rate, veh/h	3	1006	652	33	641	71	393	36	115	84	59	4
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.87	0.87	0.87	0.76	0.76	0.76
Percent Heavy Veh, %	8	8	8	10	10	10	2	2	2	6	6	6
Cap, veh/h	7	1141	717	48	1204	537	476	771	654	108	565	38
Arrive On Green	0.00	0.34	0.34	0.03	0.36	0.36	0.14	0.41	0.41	0.06	0.34	0.34
Sat Flow, veh/h	1697	3385	1510	1668	3328	1485	3456	1870	1585	1725	1677	114
Grp Volume(v), veh/h	3	1006	652	33	641	71	393	36	115	84	0	63
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1668	1664	1485	1728	1870	1585	1725	0	1791
Q Serve(g_s), s	0.2	31.6	38.0	2.2	17.2	3.6	12.5	1.3	5.2	5.4	0.0	2.7
Cycle Q Clear(g_c), s	0.2	31.6	38.0	2.2	17.2	3.6	12.5	1.3	5.2	5.4	0.0	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	7	1141	717	48	1204	537	476	771	654	108	0	603
V/C Ratio(X)	0.44	0.88	0.91	0.69	0.53	0.13	0.83	0.05	0.18	0.78	0.00	0.10
Avail Cap(c_a), veh/h	376	1141	717	370	1204	537	766	771	654	382	0	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.0	35.3	27.4	54.3	28.5	24.1	47.3	19.8	21.0	52.1	0.0	25.7
Incr Delay (d2), s/veh	39.8	8.3	15.7	16.4	0.5	0.1	4.0	0.1	0.6	11.6	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	14.1	18.7	1.1	6.9	1.3	5.6	0.6	2.0	2.7	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	95.8	43.6	43.0	70.7	28.9	24.2	51.3	20.0	21.6	63.7	0.0	26.0
LnGrp LOS	F	D	D	E	C	C	D	B	C	E		C
Approach Vol, veh/h		1661			745			544			147	
Approach Delay, s/veh		43.5			30.3			42.9			47.5	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	51.0	7.7	42.5	20.0	42.5	4.9	45.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.0	38.0	25.0	38.0	25.0	38.0	25.0	38.0
Max Q Clear Time (g_c+I1), s	7.4	7.2	4.2	40.0	14.5	4.7	2.2	19.2
Green Ext Time (p_c), s	0.2	0.6	0.0	0.0	1.1	0.3	0.0	4.5

Intersection Summary	
HCM 7th Control Delay, s/veh	40.4
HCM 7th LOS	D

Notes

User approved changes to right turn type.

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	1	0	3	0	1	4	463	3	2	643	11
Future Vol, veh/h	11	1	0	3	0	1	4	463	3	2	643	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	50	50	50	87	87	87	89	89	89
Heavy Vehicles, %	17	17	17	0	0	0	2	2	2	4	4	4
Mvmt Flow	15	1	0	6	0	2	5	532	3	2	722	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	955	1278	729	1271	1282	268	735	0	0	536	0	0
Stage 1	733	733	-	543	543	-	-	-	-	-	-	-
Stage 2	222	545	-	728	739	-	-	-	-	-	-	-
Critical Hdwy	7.005	6.755	6.455	6.75	6.5	7.1	4.13	-	-	5.36	-	-
Critical Hdwy Stg 1	6.355	5.755	-	7.3	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.955	5.755	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.8115	4.1615	3.4615	3.65	4	3.9	2.219	-	-	3.138	-	-
Pot Cap-1 Maneuver	234	151	392	162	167	627	868	-	-	647	-	-
Stage 1	372	397	-	426	523	-	-	-	-	-	-	-
Stage 2	690	488	-	406	427	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	231	149	392	159	165	627	868	-	-	647	-	-
Mov Cap-2 Maneuver	231	149	-	159	165	-	-	-	-	-	-	-
Stage 1	370	395	-	424	520	-	-	-	-	-	-	-
Stage 2	684	485	-	403	424	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	22.61	24.24	0.13	0.03
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	45	-	-	220	195	5	-	-
HCM Lane V/C Ratio	0.005	-	-	0.073	0.041	0.003	-	-
HCM Ctrl Dly (s/v)	9.2	0.1	-	22.6	24.2	10.6	0	-
HCM Lane LOS	A	A	-	C	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	19	0	0	14
Future Vol, veh/h	0	0	19	0	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	21	0	0	15

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	36	21	0	0	21	0
Stage 1	21	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	977	1057	-	-	1595	-
Stage 1	1002	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	977	1057	-	-	1595	-
Mov Cap-2 Maneuver	977	-	-	-	-	-
Stage 1	1002	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1595	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

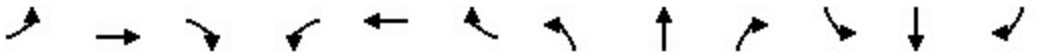
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	479	5	8	267	1	5	2	12	3	1	16
Future Vol, veh/h	11	479	5	8	267	1	5	2	12	3	1	16
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	0	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	92	92	92	56	56	56	50	50	50
Heavy Vehicles, %	1	1	1	1	1	1	13	13	13	10	10	10
Mvmt Flow	13	584	6	9	290	1	9	4	21	6	2	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	291	0	0	590	0	0	923	923	587	921	925	291
Stage 1	-	-	-	-	-	-	614	614	-	308	308	-
Stage 2	-	-	-	-	-	-	309	309	-	613	617	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.23	6.63	6.33	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.63	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.63	-	6.2	5.6	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.617	4.117	3.417	3.59	4.09	3.39
Pot Cap-1 Maneuver	1276	-	-	990	-	-	239	259	489	243	261	730
Stage 1	-	-	-	-	-	-	461	466	-	685	646	-
Stage 2	-	-	-	-	-	-	679	640	-	466	469	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1276	-	-	990	-	-	223	254	489	225	256	730
Mov Cap-2 Maneuver	-	-	-	-	-	-	223	254	-	225	256	-
Stage 1	-	-	-	-	-	-	456	461	-	679	640	-
Stage 2	-	-	-	-	-	-	641	635	-	438	464	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.17	0.25	16.52	12.34
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	346	1276	-	-	990	-	-	232	730
HCM Lane V/C Ratio	0.098	0.011	-	-	0.009	-	-	0.035	0.044
HCM Ctrl Dly (s/v)	16.5	7.9	-	-	8.7	-	-	21.1	10.2
HCM Lane LOS	C	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	462	200	60	702	80	481	61	22	34	12	3
Future Volume (veh/h)	3	462	200	60	702	80	481	61	22	34	12	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1707	1707	1707	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	3	519	225	64	747	85	594	75	27	35	12	3
Peak Hour Factor	0.89	0.89	0.89	0.94	0.94	0.94	0.81	0.81	0.81	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	13	13	13	1	1	1	2	2	2
Cap, veh/h	7	809	665	81	899	401	679	981	831	54	513	128
Arrive On Green	0.00	0.23	0.23	0.05	0.28	0.28	0.20	0.52	0.52	0.03	0.36	0.36
Sat Flow, veh/h	1753	3497	1560	1626	3244	1447	3483	1885	1598	1781	1444	361
Grp Volume(v), veh/h	3	519	225	64	747	85	594	75	27	35	0	15
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1626	1622	1447	1742	1885	1598	1781	0	1805
Q Serve(g_s), s	0.2	14.3	10.3	4.2	23.1	4.8	17.7	2.1	0.9	2.1	0.0	0.6
Cycle Q Clear(g_c), s	0.2	14.3	10.3	4.2	23.1	4.8	17.7	2.1	0.9	2.1	0.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	7	809	665	81	899	401	679	981	831	54	0	642
V/C Ratio(X)	0.43	0.64	0.34	0.79	0.83	0.21	0.87	0.08	0.03	0.65	0.00	0.02
Avail Cap(c_a), veh/h	410	1243	859	380	1153	514	814	981	831	416	0	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.1	37.1	20.6	50.2	36.3	29.7	41.8	12.8	12.5	51.3	0.0	22.4
Incr Delay (d2), s/veh	36.6	0.9	0.3	15.3	4.2	0.3	9.1	0.2	0.1	12.4	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.2	3.8	2.0	9.5	1.7	8.4	0.9	0.3	1.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	89.8	38.0	20.9	65.6	40.4	29.9	50.9	13.0	12.6	63.7	0.0	22.5
LnGrp LOS	F	D	C	E	D	C	D	B	B	E		C
Approach Vol, veh/h		747			896			696			50	
Approach Delay, s/veh		33.0			41.2			45.3			51.3	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	60.1	9.8	29.2	25.4	42.5	4.9	34.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.0	38.0	25.0	38.0	25.0	38.0	25.0	38.0
Max Q Clear Time (g_c+I1), s	4.1	4.1	6.2	16.3	19.7	2.6	2.2	25.1
Green Ext Time (p_c), s	0.1	0.5	0.1	4.3	1.2	0.0	0.0	4.5

Intersection Summary	
HCM 7th Control Delay, s/veh	40.1
HCM 7th LOS	D

Notes

User approved changes to right turn type.

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	0	4	0	4	0	559	2	1	266	7
Future Vol, veh/h	6	0	0	4	0	4	0	559	2	1	266	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	46	46	46	82	82	82	82	82	82
Heavy Vehicles, %	8	8	8	0	0	0	0	0	0	1	1	1
Mvmt Flow	10	0	0	9	0	9	0	682	2	1	324	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	604	1015	329	1010	1018	342	333	0	0	684	0	0
Stage 1	331	331	-	683	683	-	-	-	-	-	-	-
Stage 2	273	684	-	327	335	-	-	-	-	-	-	-
Critical Hdwy	6.87	6.62	6.32	6.75	6.5	7.1	4.1	-	-	5.315	-	-
Critical Hdwy Stg 1	6.22	5.62	-	7.3	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.82	5.62	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.726	4.076	3.376	3.65	4	3.9	2.2	-	-	3.1095	-	-
Pot Cap-1 Maneuver	411	230	696	237	239	563	1238	-	-	558	-	-
Stage 1	644	632	-	342	452	-	-	-	-	-	-	-
Stage 2	662	436	-	666	646	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	403	229	696	237	238	563	1238	-	-	558	-	-
Mov Cap-2 Maneuver	403	229	-	237	238	-	-	-	-	-	-	-
Stage 1	642	630	-	342	452	-	-	-	-	-	-	-
Stage 2	651	436	-	664	644	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	14.16	16.4	0	0.04
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1238	-	-	403	333	7	-	-
HCM Lane V/C Ratio	-	-	-	0.025	0.052	0.002	-	-
HCM Ctrl Dly (s/v)	0	-	-	14.2	16.4	11.5	0	-
HCM Lane LOS	A	-	-	B	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	15	0	0	12
Future Vol, veh/h	0	0	15	0	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	16	0	0	13

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	29	16	0	0	16	0
Stage 1	16	-	-	-	-	-
Stage 2	13	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	985	1063	-	-	1601	-
Stage 1	1006	-	-	-	-	-
Stage 2	1010	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	985	1063	-	-	1601	-
Mov Cap-2 Maneuver	985	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	1010	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1601	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

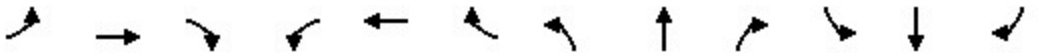
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	178	0	11	452	0	9	1	5	2	1	7
Future Vol, veh/h	13	178	0	11	452	0	9	1	5	2	1	7
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	0	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	88	88	88	78	78	78	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	14	189	0	13	514	0	12	1	6	3	2	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	514	0	0	189	0	0	756	756	189	756	756	514
Stage 1	-	-	-	-	-	-	217	217	-	539	539	-
Stage 2	-	-	-	-	-	-	539	539	-	218	217	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1062	-	-	1397	-	-	327	340	858	327	340	565
Stage 1	-	-	-	-	-	-	790	727	-	530	525	-
Stage 2	-	-	-	-	-	-	530	525	-	789	727	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1062	-	-	1397	-	-	312	332	858	316	332	565
Mov Cap-2 Maneuver	-	-	-	-	-	-	312	332	-	316	332	-
Stage 1	-	-	-	-	-	-	780	718	-	526	521	-
Stage 2	-	-	-	-	-	-	513	521	-	772	718	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.57	0.18	14.51	12.96
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	398	1062	-	-	1397	-	-	321	565
HCM Lane V/C Ratio	0.048	0.013	-	-	0.009	-	-	0.015	0.02
HCM Ctrl Dly (s/v)	14.5	8.4	-	-	7.6	-	-	16.4	11.5
HCM Lane LOS	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	904	580	31	609	67	344	31	100	64	45	3
Future Volume (veh/h)	3	904	580	31	609	67	344	31	100	64	45	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1752	1752	1752	1870	1870	1870	1811	1811	1811
Adj Flow Rate, veh/h	3	1016	652	33	641	71	395	36	115	84	59	4
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.87	0.87	0.87	0.76	0.76	0.76
Percent Heavy Veh, %	8	8	8	10	10	10	2	2	2	6	6	6
Cap, veh/h	7	1140	717	48	1203	536	478	772	654	108	565	38
Arrive On Green	0.00	0.34	0.34	0.03	0.36	0.36	0.14	0.41	0.41	0.06	0.34	0.34
Sat Flow, veh/h	1697	3385	1510	1668	3328	1485	3456	1870	1585	1725	1677	114
Grp Volume(v), veh/h	3	1016	652	33	641	71	395	36	115	84	0	63
Grp Sat Flow(s),veh/h/ln	1697	1692	1510	1668	1664	1485	1728	1870	1585	1725	0	1791
Q Serve(g_s), s	0.2	32.1	38.0	2.2	17.2	3.6	12.5	1.3	5.2	5.4	0.0	2.7
Cycle Q Clear(g_c), s	0.2	32.1	38.0	2.2	17.2	3.6	12.5	1.3	5.2	5.4	0.0	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	7	1140	717	48	1203	536	478	772	654	108	0	603
V/C Ratio(X)	0.44	0.89	0.91	0.69	0.53	0.13	0.83	0.05	0.18	0.78	0.00	0.10
Avail Cap(c_a), veh/h	376	1140	717	370	1203	536	766	772	654	382	0	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.1	35.5	27.4	54.3	28.5	24.2	47.3	19.8	21.0	52.1	0.0	25.7
Incr Delay (d2), s/veh	39.8	9.1	15.6	16.4	0.5	0.1	4.1	0.1	0.6	11.6	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	14.4	18.7	1.1	6.9	1.3	5.7	0.6	2.0	2.7	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	95.9	44.5	42.9	70.8	29.0	24.3	51.4	19.9	21.6	63.7	0.0	26.1
LnGrp LOS	F	D	D	E	C	C	D	B	C	E		C
Approach Vol, veh/h		1671			745			546			147	
Approach Delay, s/veh		44.0			30.4			43.0			47.6	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	51.1	7.7	42.5	20.1	42.5	4.9	45.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.0	38.0	25.0	38.0	25.0	38.0	25.0	38.0
Max Q Clear Time (g_c+I1), s	7.4	7.2	4.2	40.0	14.5	4.7	2.2	19.2
Green Ext Time (p_c), s	0.2	0.6	0.0	0.0	1.1	0.3	0.0	4.5

Intersection Summary	
HCM 7th Control Delay, s/veh	40.7
HCM 7th LOS	D

Notes

User approved changes to right turn type.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	1	0	4	0	3	4	463	6	2	643	11
Future Vol, veh/h	11	1	0	4	0	3	4	463	6	2	643	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	50	50	50	87	87	87	89	89	89
Heavy Vehicles, %	17	17	17	0	0	0	2	2	2	4	4	4
Mvmt Flow	15	1	0	8	0	6	5	532	7	2	722	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	955	1281	729	1272	1284	270	735	0	0	539	0	0
Stage 1	733	733	-	545	545	-	-	-	-	-	-	-
Stage 2	222	548	-	728	739	-	-	-	-	-	-	-
Critical Hdwy	7.005	6.755	6.455	6.75	6.5	7.1	4.13	-	-	5.36	-	-
Critical Hdwy Stg 1	6.355	5.755	-	7.3	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.955	5.755	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.8115	4.1615	3.4615	3.65	4	3.9	2.219	-	-	3.138	-	-
Pot Cap-1 Maneuver	234	150	392	162	166	626	868	-	-	644	-	-
Stage 1	372	397	-	425	522	-	-	-	-	-	-	-
Stage 2	690	486	-	406	427	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	229	148	392	158	164	626	868	-	-	644	-	-
Mov Cap-2 Maneuver	229	148	-	158	164	-	-	-	-	-	-	-
Stage 1	370	395	-	423	519	-	-	-	-	-	-	-
Stage 2	680	483	-	403	424	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	22.73	21.46	0.13	0.03
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	44	-	-	219	233	5	-	-
HCM Lane V/C Ratio	0.005	-	-	0.073	0.06	0.003	-	-
HCM Ctrl Dly (s/v)	9.2	0.1	-	22.7	21.5	10.6	0	-
HCM Lane LOS	A	A	-	C	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	3	19	3	29	14
Future Vol, veh/h	3	3	19	3	29	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	3	21	3	32	15

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	101	22	0	0	24	0
Stage 1	22	-	-	-	-	-
Stage 2	78	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	898	1055	-	-	1591	-
Stage 1	1000	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	880	1055	-	-	1591	-
Mov Cap-2 Maneuver	880	-	-	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	926	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.78	0	4.93
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	960	1214	-
HCM Lane V/C Ratio	-	-	0.007	0.02	-
HCM Ctrl Dly (s/v)	-	-	8.8	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0.1	-

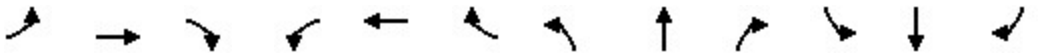
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	479	23	19	267	1	7	2	13	3	1	16
Future Vol, veh/h	11	479	23	19	267	1	7	2	13	3	1	16
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	0	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	92	92	92	56	56	56	50	50	50
Heavy Vehicles, %	1	1	1	1	1	1	13	13	13	10	10	10
Mvmt Flow	13	584	28	21	290	1	13	4	23	6	2	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	291	0	0	612	0	0	958	958	598	945	971	291
Stage 1	-	-	-	-	-	-	625	625	-	332	332	-
Stage 2	-	-	-	-	-	-	333	333	-	613	639	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.23	6.63	6.33	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.63	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.63	-	6.2	5.6	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.617	4.117	3.417	3.59	4.09	3.39
Pot Cap-1 Maneuver	1276	-	-	972	-	-	227	247	482	234	245	730
Stage 1	-	-	-	-	-	-	454	461	-	665	630	-
Stage 2	-	-	-	-	-	-	659	625	-	466	458	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1276	-	-	972	-	-	208	239	482	213	237	730
Mov Cap-2 Maneuver	-	-	-	-	-	-	208	239	-	213	237	-
Stage 1	-	-	-	-	-	-	450	456	-	651	617	-
Stage 2	-	-	-	-	-	-	614	612	-	436	453	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.17	0.58	17.87	12.55
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	319	1276	-	-	972	-	-	218	730
HCM Lane V/C Ratio	0.123	0.011	-	-	0.021	-	-	0.037	0.044
HCM Ctrl Dly (s/v)	17.9	7.9	-	-	8.8	-	-	22.1	10.2
HCM Lane LOS	C	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.1	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	464	200	60	702	80	487	61	22	34	12	3
Future Volume (veh/h)	3	464	200	60	702	80	487	61	22	34	12	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1707	1707	1707	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	3	521	225	64	747	85	601	75	27	35	12	3
Peak Hour Factor	0.89	0.89	0.89	0.94	0.94	0.94	0.81	0.81	0.81	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	13	13	13	1	1	1	2	2	2
Cap, veh/h	7	808	667	81	899	401	685	982	832	54	512	128
Arrive On Green	0.00	0.23	0.23	0.05	0.28	0.28	0.20	0.52	0.52	0.03	0.35	0.35
Sat Flow, veh/h	1753	3497	1560	1626	3244	1447	3483	1885	1598	1781	1444	361
Grp Volume(v), veh/h	3	521	225	64	747	85	601	75	27	35	0	15
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1626	1622	1447	1742	1885	1598	1781	0	1805
Q Serve(g_s), s	0.2	14.4	10.3	4.2	23.2	4.8	18.0	2.1	0.9	2.1	0.0	0.6
Cycle Q Clear(g_c), s	0.2	14.4	10.3	4.2	23.2	4.8	18.0	2.1	0.9	2.1	0.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	7	808	667	81	899	401	685	982	832	54	0	640
V/C Ratio(X)	0.43	0.64	0.34	0.79	0.83	0.21	0.88	0.08	0.03	0.65	0.00	0.02
Avail Cap(c_a), veh/h	409	1239	860	379	1150	513	812	982	832	415	0	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.3	37.2	20.5	50.4	36.4	29.8	41.8	12.8	12.5	51.4	0.0	22.5
Incr Delay (d2), s/veh	36.6	0.9	0.3	15.3	4.2	0.3	9.5	0.2	0.1	12.5	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.2	3.8	2.0	9.6	1.7	8.5	0.9	0.3	1.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	89.9	38.1	20.8	65.7	40.6	30.0	51.3	13.0	12.6	63.9	0.0	22.6
LnGrp LOS	F	D	C	E	D	C	D	B	B	E		C
Approach Vol, veh/h		749			896			703			50	
Approach Delay, s/veh		33.1			41.4			45.7			51.5	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	60.4	9.9	29.3	25.6	42.5	4.9	34.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.0	38.0	25.0	38.0	25.0	38.0	25.0	38.0
Max Q Clear Time (g_c+I1), s	4.1	4.1	6.2	16.4	20.0	2.6	2.2	25.2
Green Ext Time (p_c), s	0.1	0.5	0.1	4.4	1.1	0.0	0.0	4.5

Intersection Summary	
HCM 7th Control Delay, s/veh	40.3
HCM 7th LOS	D

Notes

User approved changes to right turn type.

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	0	6	0	10	0	559	3	1	266	7
Future Vol, veh/h	6	0	0	6	0	10	0	559	3	1	266	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	46	46	46	82	82	82	82	82	82
Heavy Vehicles, %	8	8	8	0	0	0	0	0	0	1	1	1
Mvmt Flow	10	0	0	13	0	22	0	682	4	1	324	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	604	1016	329	1010	1019	343	333	0	0	685	0	0
Stage 1	331	331	-	684	684	-	-	-	-	-	-	-
Stage 2	273	685	-	327	335	-	-	-	-	-	-	-
Critical Hdwy	6.87	6.62	6.32	6.75	6.5	7.1	4.1	-	-	5.315	-	-
Critical Hdwy Stg 1	6.22	5.62	-	7.3	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.82	5.62	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.726	4.076	3.376	3.65	4	3.9	2.2	-	-	3.1095	-	-
Pot Cap-1 Maneuver	411	229	696	237	239	562	1238	-	-	558	-	-
Stage 1	644	632	-	342	452	-	-	-	-	-	-	-
Stage 2	662	436	-	666	646	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	394	229	696	236	238	562	1238	-	-	558	-	-
Mov Cap-2 Maneuver	394	229	-	236	238	-	-	-	-	-	-	-
Stage 1	642	630	-	342	452	-	-	-	-	-	-	-
Stage 2	636	436	-	664	644	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	14.39	15.72	0	0.04
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1238	-	-	394	371	7	-	-
HCM Lane V/C Ratio	-	-	-	0.025	0.094	0.002	-	-
HCM Ctrl Dly (s/v)	0	-	-	14.4	15.7	11.5	0	-
HCM Lane LOS	A	-	-	B	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	13	15	1	5	12
Future Vol, veh/h	8	13	15	1	5	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	14	16	1	5	13

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	41	17	0	0	17	0
Stage 1	17	-	-	-	-	-
Stage 2	24	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	971	1062	-	-	1600	-
Stage 1	1006	-	-	-	-	-
Stage 2	999	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	967	1062	-	-	1600	-
Mov Cap-2 Maneuver	967	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	995	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.6	0	2.13
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1024	529	-
HCM Lane V/C Ratio	-	-	0.022	0.003	-
HCM Ctrl Dly (s/v)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	178	5	12	452	0	15	1	12	2	1	7
Future Vol, veh/h	13	178	5	12	452	0	15	1	12	2	1	7
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	0	-	-	0	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	88	88	88	78	78	78	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	14	189	5	14	514	0	19	1	15	3	2	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	514	0	0	195	0	0	761	761	192	759	763	514
Stage 1	-	-	-	-	-	-	220	220	-	541	541	-
Stage 2	-	-	-	-	-	-	542	541	-	218	222	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1062	-	-	1390	-	-	324	338	855	326	336	565
Stage 1	-	-	-	-	-	-	787	725	-	529	524	-
Stage 2	-	-	-	-	-	-	528	524	-	789	723	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1062	-	-	1390	-	-	309	330	855	311	329	565
Mov Cap-2 Maneuver	-	-	-	-	-	-	309	330	-	311	329	-
Stage 1	-	-	-	-	-	-	777	716	-	524	519	-
Stage 2	-	-	-	-	-	-	511	519	-	764	714	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.56	0.2	14.2	13.01
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	427	1062	-	-	1390	-	-	317	565
HCM Lane V/C Ratio	0.084	0.013	-	-	0.01	-	-	0.015	0.02
HCM Ctrl Dly (s/v)	14.2	8.4	-	-	7.6	-	-	16.5	11.5
HCM Lane LOS	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0	0.1