



## Memorandum

**Date:** March 1, 2024  
**To:** Nick Pappani, Raney Planning & Management  
**From:** Robert Del Rio, T.E., Luis Descanzo  
**Subject:** Trip Generation and Operations Analysis for the Proposed 18590 Skipper Lane Raising Cane's in Morgan Hill, California

Hexagon Transportation Consultants, Inc. has completed a trip generation and operations analysis for the proposed Raising Cane's restaurant located at 18590 Skipper Lane (APN 726-58-001 and -002) in Morgan Hill, California (see Figure 1). The site consists of an undeveloped parcel and is located within the Evergreen Village commercial development. As proposed, the project would consist of a 2,899 s.f. Raising Cane's restaurant with two drive-through lanes. Vehicular access would be provided via an access point along Checkerspot Lane (a private roadway within Evergreen Village). The project also proposes to extend the private street (Street A) which runs along the east project frontage from its current southerly terminus to connect to create a connection to Checkerspot Lane. Access to the project site from Street A will be provided via an existing right-in/right-out driveway along Cochrane Road.

The methodology, results, and recommendations of the analysis are discussed below.

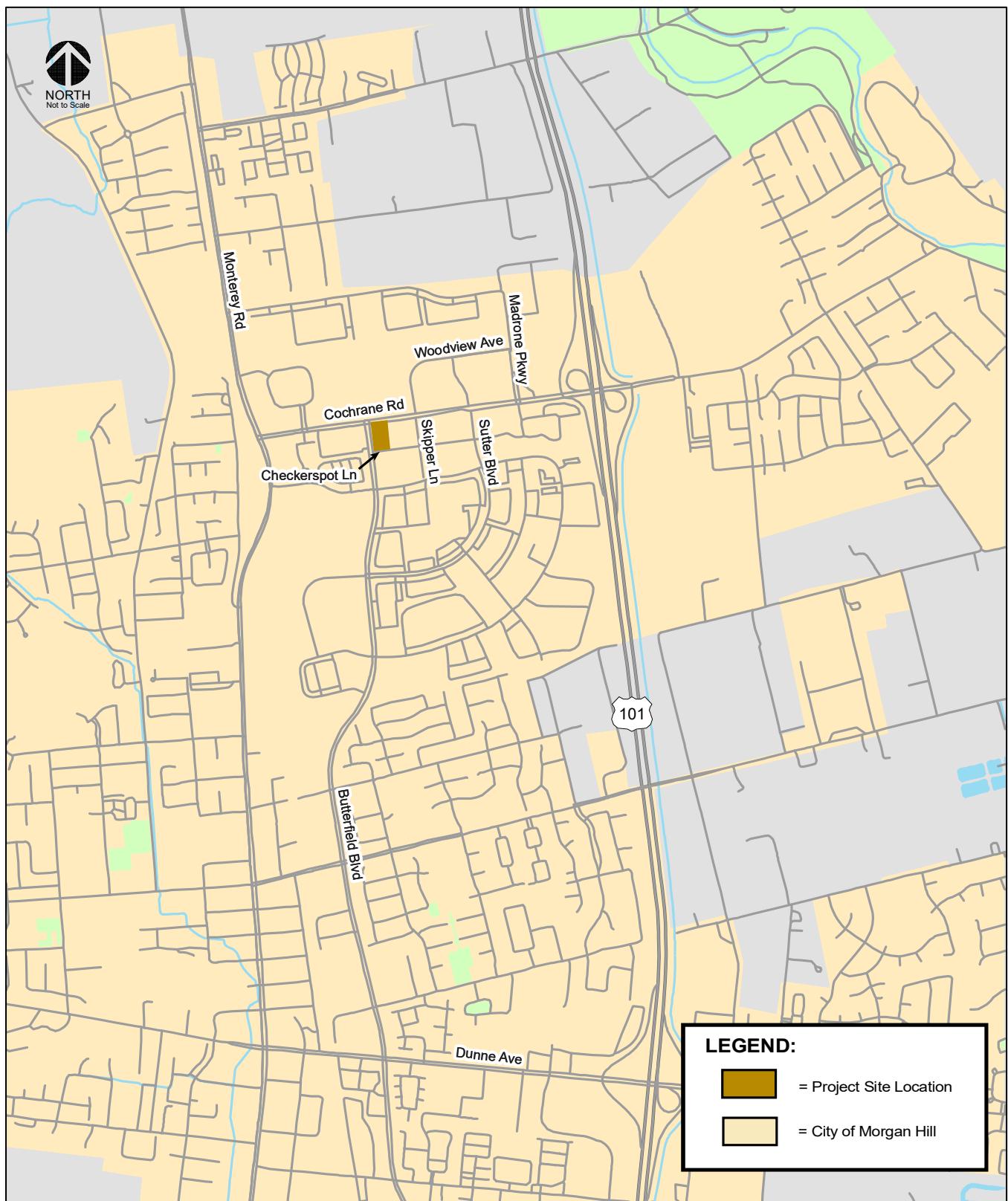
### Scope of Study

The current General Plan, *Morgan Hill 2035 General Plan*, adopted in July 2016 uses Level of Service (LOS) as its primary metric for the evaluation of the projected operation of the City's roadway system. Therefore, this traffic operations analysis which includes a peak hour intersection level of service analysis is included for consistency with the General Plan goals and policies. The traffic operations analysis supplements the California Environmental Quality Act (CEQA) required VMT analysis provided in a separate memorandum. However, the determination of project impacts per CEQA requirements is based solely on the VMT analysis.

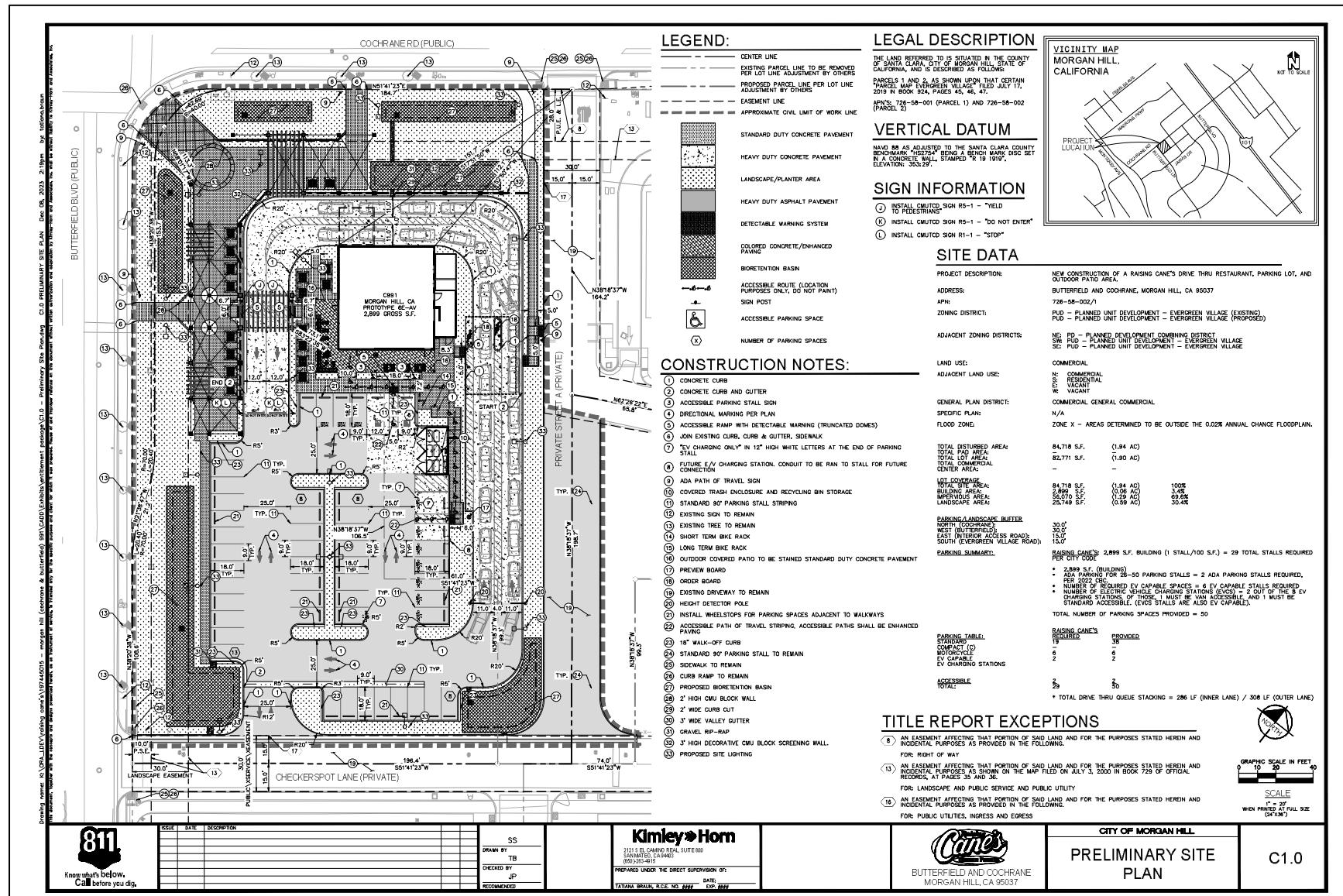
The purpose of the trip generation and operations analysis is to evaluate the magnitude of traffic that would be added to the roadway system due to the proposed project. The analysis consists of an estimation of project trip generation and evaluation peak-hour intersection level of service analysis at intersections in the immediate vicinity of the project site. A review of the project's site access per the proposed site plan also is included. Traffic conditions were evaluated for the scenarios listed below.

**Existing Conditions.** Existing conditions represent the existing peak-hour traffic volumes on the existing roadway network. Existing traffic volumes at the study intersections (except for three intersections) were derived from traffic counts collected in May 2018, to which a 1.5% annual growth factor was applied to represent existing conditions. Additional turning movement counts were conducted at three study intersections (Sutter Boulevard/Cochrane Road, Woodview Avenue/Cochrane Road, Sutter Boulevard/Cochrane Plaza) in March 2023, to account for traffic generated by newly-built commercial uses within the Evergreen Village development. The new counts also account for changes to the roadway network since 2018 as a result of access

**Figure 1**  
**Site Location**



## Figure 2 Site Plan



improvements to Evergreen Village, such as signalization of the Woodview Avenue/Cochrane Road intersection, a new internal drive aisle connection to the Sutter Boulevard/Cochrane Plaza intersection, and new driveways along Jarvis Drive and Butterfield Boulevard.

A comparison of factored volumes and new counts showed that factored volumes along eastbound and westbound Cochrane Road were generally higher than the new counts during the AM and PM peak-hours. It can therefore be assumed that factored volumes are a conservative estimate of 2023 traffic volumes. However, factored volumes at the intersection of Madrone Parkway/Cochrane Road showed 150 fewer vehicles in the eastbound direction during the AM peak-hour compared to the new counts collected at the upstream intersection of Sutter Boulevard/Cochrane Road. Therefore, volumes at the intersections of Madrone Parkway/Cochrane Road, US 101 Southbound Ramps/Cochrane Road, and US 101 Northbound Ramps/Cochrane Road were adjusted by adding 150 vehicles in the eastbound direction during the AM peak-hour.

**Existing Plus Project Conditions.** Existing plus project peak-hour traffic volumes were estimated by adding to the existing traffic volumes the additional traffic that would be generated by the proposed project. Existing plus project conditions were evaluated relative to existing conditions in order to determine the effects of the proposed project on existing traffic conditions.

**Year 2030 Cumulative Conditions.** Year 2030 Cumulative conditions represent future traffic volumes on the existing transportation network. Year 2030 Cumulative conditions include traffic growth projected to occur in the Year 2030 without the proposed project.

**Year 2030 Cumulative with Project Conditions.** Year 2030 Cumulative with Project conditions consists of 2030 Cumulative traffic conditions with the addition of project traffic.

## Project Trip Generation Estimates and Assignment

The restaurant's standard hours of operation will be 9:00 AM to 3:30 AM daily. The site would generate only a minimal number of trips associated with morning shift employees (at most 12 employees) during the AM peak commute hour (7:00 AM to 9:00AM). Therefore, the operations analysis is based only on the magnitude of traffic entering and exiting the site during the PM peak commute hour (4:00 PM to 6:00 PM).

Through empirical research, data have been collected that indicate the amount of traffic that can be expected to be generated by common land uses. Project trip generation was estimated by applying to the size and use of the development the appropriate trip generation rates. The average trip generation rates for Fast-Food Restaurant with Drive-Through Window (Land Use 934) as published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition* (2021) were applied to the proposed project size of 2,899 square feet. Based on the trip generation rates and the project size, it is estimated that, prior to any trip reductions, the proposed development would generate 1,355 daily trips and 96 trips (50 inbound and 46 outbound) during the PM peak-hour.

Fast-food restaurants with drive-through windows attract a substantial number of pass-by trips, which are trips made by drivers who already pass by the project site on an adjacent street in route to another destination, such as work to home. In contrast, primary (non-pass-by) trips are new trips made for the sole purpose of visiting the project site. Thus, pass-by trips are not considered new trips that are generated by the project site. However, the attraction of pass-by trips does result in a reassignment of existing through traffic (i.e. along Cochrane Road, Butterfield Boulevard and Sutter Boulevard) at intersections immediately adjacent to the project site. A 50 percent pass-by reduction was assumed for the estimated daily and PM peak-hour trips. After subtracting pass-by trips, the project is expected to generate 677 primary vehicle trips per day, with 48 primary vehicle trips (25 inbound and 23 outbound) in the PM peak hour. Trip generation estimates for the proposed project are shown in Table 1.

**Table 1**  
**Trip Generation Summary**

Land Use	Size (sf)	Daily		PM Peak-Hour			Total
		Rate	Trips	Rate	In	Out	
<b>Proposed Project</b>							
Fast-Food Restaurant with Drive-Through Window	2,899	467.48	1,355	33.03	50	46	96
<i>Pass-by Reduction (50%)<sup>1</sup></i>			-678		-25	-23	-48
<b>Net Project Trips</b>			<b>677</b>		<b>25</b>	<b>23</b>	<b>48</b>
Source: ITE <i>Trip Generation Manual, 11<sup>th</sup> Edition</i> 2021.							
Notes:							
<sup>1</sup> Pass-by trip reduction percentage is assumed to be 50% of daily and PM peak-hour trips.							

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 PM peak hour commute patterns, the location of the project access point, freeway access points, and the locations of complimentary land uses. The peak-hour project trips associated with the proposed project were added to the transportation network in accordance with the distribution pattern. The project trip distribution pattern and assignment of project trips at the study intersections under existing plus project and cumulative plus project conditions are shown on Figure 3.

### **Year 2030 Cumulative Conditions Project Trip Generation Estimates**

Year 2030 Cumulative traffic volumes were developed based on traffic forecasts produced for the City of Morgan Hill 2035 General Plan using the City's Traffic Demand Forecasting (TDF) model. The Year 2035 General Plan traffic forecasts include land use growth and transportation improvements associated with buildup of the City's General Plan.

The 2035 General Plan forecasts also include trips associated with the adopted General Plan land uses for the project site. Therefore, the trips associated with the adopted General Plan land uses for the project site were removed to develop Year 2030 Cumulative no project traffic volumes. The GP land uses for Evergreen Village (which includes the proposed project site) consists of approximately 86,000 s.f. of retail uses, 8,000 s.f. of service uses, and 63,000 s.f. of office uses. The project would develop 2,899 s.f. of the proposed 8,000 s.f. of service uses within Evergreen Village.

The Year 2030 Cumulative no project traffic volumes were then estimated using a growth method that involved adding a proportion (15 Years or 75%) of the 2035 projected growth, with removal of the trips associated with the adopted General Plan land uses for the project site (i.e. the project trip generation), to existing traffic counts at each of the study intersections.

### **Intersection Level of Service Analysis**

Traffic conditions at the following study intersections were analyzed for the weekday PM peak hour of traffic (4:00 PM to 6:00 PM period):

1. Monterey Road and Cochrane Road
2. Butterfield Boulevard and Cochrane Road
3. Woodview Avenue/Skipper Lane and Cochrane Road
4. Sutter Boulevard and Cochrane Road
5. Madrone Parkway/Cochrane Plaza and Cochrane Road
6. US 101 Southbound Ramps and Cochrane Road
7. US 101 Northbound Ramps and Cochrane Road
8. Sutter Boulevard and Cochrane Plaza/Checkerspot Lane

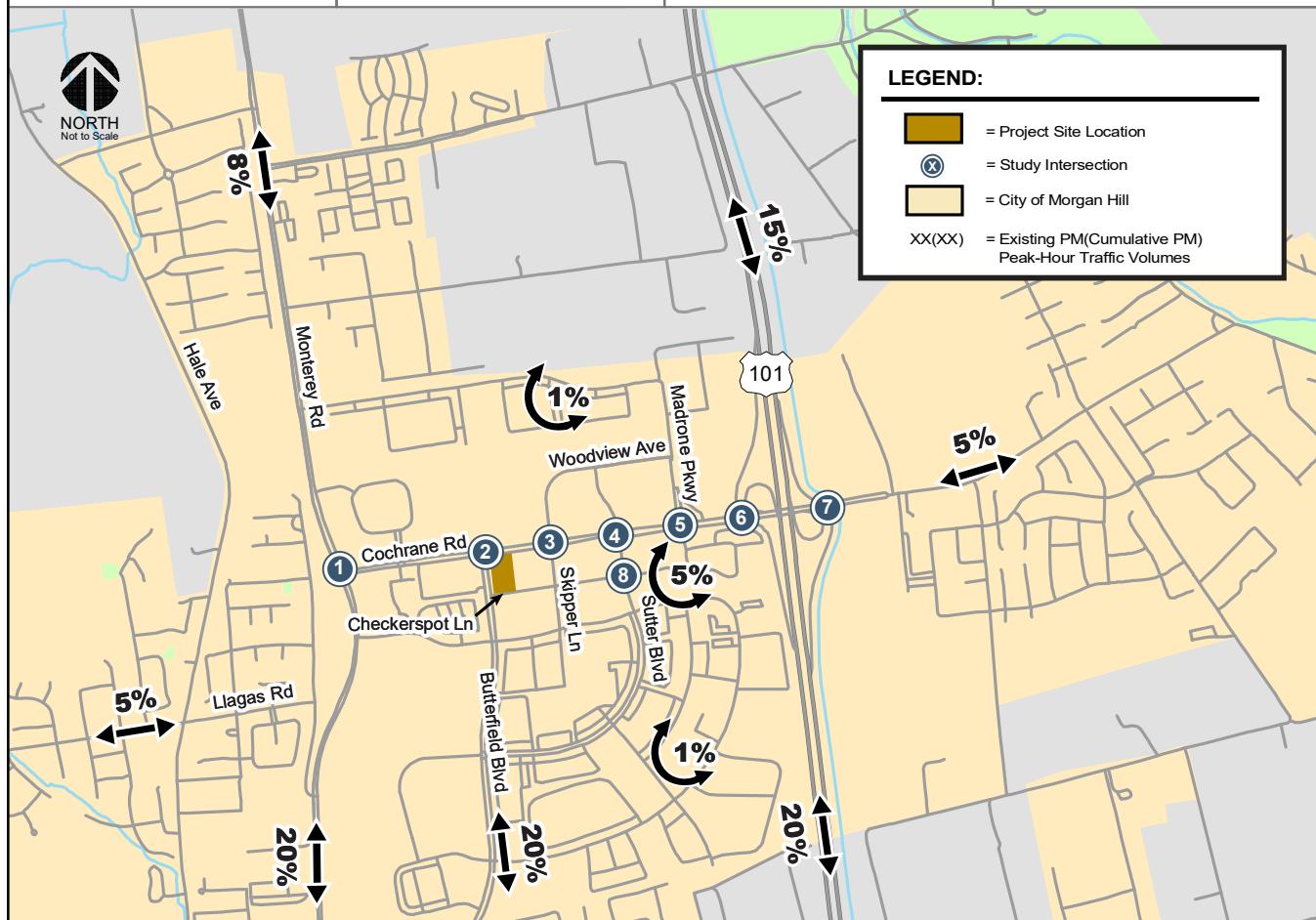
Other intersections in the project area were not studied because the addition of project trips will be minimal, less than 10 peak hour trips per lane.

### **Signalized Intersection Analysis**

Signalized study intersections are subject to the City of Morgan Hill's level of service standards. The City of Morgan Hill's level of service methodology is TRAFFIX, which is based on the 2000 *Highway Capacity Manual* (HCM) method for signalized intersections. TRAFFIX evaluates signalized intersections operations based on average delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersection level of service methodology, the City of Morgan Hill methodology employs the CMP defaults values for the analysis parameters, which include adjusted

**Figure 3**  
**Project Trip Distribution and Project Trip Assignment**

1	2	3	4	
Cochrane Rd Monterey Rd	Cochrane Rd Butterfield Blvd	Cochrane Rd Skipper Ln	Cochrane Rd Woodview Ave	
2(2) 10(10) 11(11) →	6(6) 3(3) 13(13) → 18(18) ← 7(7) →	9(9) 23(24) 11(12) →	11(12) →	14(15) 3(3) →
5	6	7	8	
Cochrane Rd Madrone Pkwy Cochrane Plaza	Cochrane Rd US 101 SB Ramps	Cochrane Rd US 101 NB Ramps	Checkerspot Ln Sutter Blvd Cochrane Plaza	
11(11) 8(8) 0(1) → 0(1) ←	6(6) 5(5) → 4(4) ←	1(1) → 5(5) ←	3(3) → 1(0) ← 3(3) →	



saturation flow rates to reflect conditions in Santa Clara County. All intersections within the City of Morgan Hill are required to meet the City's LOS standard of LOS D, with the exception of the following:

- **LOS F** for Downtown intersections and segments including at Main/Monterey, along Monterey Road between Main and Fifth Street, and along Depot Street at First through Fifth Street;
- **LOS E** for the following intersections and freeway zones:
  - Main Avenue and Del Monte Avenue
  - Main Avenue and Depot Street
  - Dunne Avenue and Del Monte Avenue
  - Dunne Avenue and Monterey Avenue
  - Dunne Avenue and Church Street
  - Dunne Avenue and Depot Street
  - Cochrane Road and Monterey Road
  - Tenant Avenue and Monterey Road
  - Tenant Avenue and Butterfield Boulevard
  - Cochrane Road Freeway Zone: from Madrone Parkway/Cochrane Plaza to Cochrane Road/DePaul Drive
  - Dunne Avenue Freeway Zone: from Walnut Grove Drive/East Dunne Avenue to Condit Road/East Dunne Avenue
  - Tenant Avenue Freeway Zone: from Butterfield Boulevard/Tenant Avenue to Condit Road/Tenant Avenue

According to the City of Morgan Hill level of service guidelines, a development is said to create a significant adverse effect on traffic conditions at a signalized intersection if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS D or LOS E as identified above) under no project conditions to an unacceptable level (LOS E or F) under project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS E or F as identified above) under no project conditions and the addition of project trips causes the average critical delay to increase by four (4) or more seconds *and* the volume-to-capacity ratio (V/C) to increase by 0.01.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 0.01 or more.

### Unsignalized Intersection Analysis

Unsignalized intersections within the City of Morgan Hill have a minimum operating level of LOS D. According to the City of Morgan Hill level of service guidelines, a development is said to have a significant adverse impact on traffic conditions at an unsignalized intersection if for either peak hour the addition of project traffic causes the worst approach delay to degrade to LOS E or F *and* the traffic volumes at the intersection are sufficiently high to satisfy the peak hour volume warrant.

It should be noted that the intersection of Sutter Boulevard and Cochrane Plaza/Checkerspot Lane will be improved as part of the approved Chick-Fil-A development located at 18599 Sutter Boulevard. As proposed, the median gap along Sutter Boulevard will be closed, thereby restricting left-turns and through movements from the east and west approaches. A median gap will continue to allow northbound left-turns and southbound left-turns. This improvement is assumed to be completed under Cumulative conditions. As a result, project trips to/from the Cochrane Plaza commercial center will need to utilize Cochrane Road instead of Cochrane Plaza/Checkerspot Lane.

## Level of Service Results

The results of the intersection level of service analysis show that all study intersections currently operate at an acceptable LOS D or better conditions under existing conditions, and the addition of project traffic would not result in the degradation of the study intersections' levels of service during the PM peak hour under existing plus project conditions. In addition, the unsignalized study intersection of Sutter Boulevard and Cochrane Plaza is projected to have traffic volumes that fall below the thresholds that warrant signalization under existing plus project conditions.

Under Year 2030 Cumulative conditions, all signalized study intersections would continue to operate at an acceptable level of service, and the addition of project traffic would not result in the degradation of the study intersections' levels of service during the PM peak hour. 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.

## Intersection Queueing Analysis

The analysis of intersection level of service was supplemented with an analysis of intersection operations for selected intersections where the project would add a significant number of left-turning vehicles. The operations analysis is based on vehicle queuing for high demand left-turn movements at intersections. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$P(x=n) = \frac{\lambda^n e^{-\lambda}}{n!}$$

Where:

$P(x=n)$  = probability of "n" vehicles in queue per lane

n = number of vehicles in the queue per lane

$\lambda$  = Average number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95<sup>th</sup> percentile maximum number of queued vehicles per cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. This analysis thus provides a basis for estimating future left-turn storage requirements at intersections. The 95<sup>th</sup> percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Likewise, a queue length larger than the 95<sup>th</sup> percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn storage pocket designs based on the 95<sup>th</sup> percentile queue length would ensure that storage space would be exceeded only 5 percent of the time. The 95<sup>th</sup> percentile queue length is also known as the "design queue length".

The vehicle queue estimates and a tabulated summary of the findings are provided in Table 3. The queueing analysis shows that all high-demand movements would continue to have sufficient queueing storage space with the addition of project traffic.

**Table 2**  
**Intersection Level of Service Summary**

Int. #	Intersection	Existing				Existing				Existing Plus Project				Year 2030 without Project				Year 2030 with Project								
		Int. Control		LOS Std	Peak Hour	Count Date	Warrant Met?		Delay <sup>1</sup>	LOS	Warrant Met?		Delay <sup>1</sup>	LOS	Incr. In Crit.	Incr. In V/C	Warrant Met?		Delay <sup>1</sup>	LOS	Warrant Met?		Delay <sup>1</sup>	LOS	Incr. In Crit.	Incr. In Crit. V/C
		Warrant Met?	Delay <sup>1</sup>	LOS	Incr. In Crit.	Incr. In Crit. V/C	Warrant Met?	Delay <sup>1</sup>	LOS	Incr. In Crit.	Incr. In Crit. V/C	Warrant Met?	Delay <sup>1</sup>	LOS	Incr. In Crit.	Incr. In Crit. V/C	Warrant Met?	Delay <sup>1</sup>	LOS	Incr. In Crit.	Incr. In Crit. V/C	Warrant Met?	Delay <sup>1</sup>	LOS	Incr. In Crit.	Incr. In Crit. V/C
1	Monterey Road and Cochrane Road	Signal	E	PM	05/08/18	--	26.5	C	--	26.7	C	1.1	0.037	--	44.8	D	--	45.2	D	0.6	0.002					
2	Butterfield Boulevard and Cochrane Road	Signal	D	PM	05/08/18	--	12.1	B	--	12.2	B	0.2	-0.001	--	15.2	B	--	15.4	B	0.2	-0.001					
3	Woodview Avenue/Skipper Lane and Cochrane Road	Signal	D	PM	03/07/23	--	17.0	B	--	17.1	B	0.0	-0.003	--	16.8	B	--	16.9	B	0.0	-0.003					
4	Sutter Boulevard and Cochrane Road	Signal	D	PM	03/07/23	--	17.7	B	--	17.7	B	-0.1	0.001	--	19.9	B	--	19.9	B	0.0	0.004					
5	Madrone Parkway/Cochrane Plaza and Cochrane Road	Signal	E	PM	05/08/18	--	32.1	C	--	32.0	C	0.0	0.002	--	33.5	C	--	33.2	C	-0.6	0.016					
6	US 101 Southbound Ramps and Cochrane Road	Signal	E	PM	05/08/18	--	17.2	B	--	17.2	B	0.1	0.003	--	26.4	C	--	26.6	C	0.4	0.003					
7	US 101 Northbound Ramps and Cochrane Road	Signal	E	PM	05/08/18	--	11.5	B	--	11.5	B	0.0	0.002	--	12.4	B	--	12.5	B	0.1	0.002					
8	Sutter Boulevard and Cochrane Plaza/Checkerspot Lane	TWSC	D	PM	03/07/23	No	22.2	C	No	22.3	C	N/A	N/A										Right-in/Right-out access only <sup>2</sup>			

**Table 3**  
Intersection Queueing Summary

Measurement	Butterfield Boulevard and Cochrane Road	Woodview Avenue/Skipper Lane and Cochrane Road	Sutter Boulevard and Cochrane Plaza/ Checkerspot Lane
	Northbound Left PM	Westbound Left PM	Eastbound PM
<b>Existing Conditions</b>			
Cycle Length/Control Delay (sec) <sup>1</sup>	70	75	13.4
Lanes	2	1	1
Volume (vph)	148	33	35
Volume (vphpl )	74	33	35
95 <sup>th</sup> %. Queue (veh/ln.)	4	2	1
95 <sup>th</sup> %. Queue (ft./ln) <sup>2</sup>	100	50	25
Storage (ft./ ln.)	230	150	50
Adequate (Y/N)	YES	YES	YES
<b>Existing Plus Project Conditions</b>			
Cycle Length/Control Delay (sec) <sup>1</sup>	70	75	13.2
Lanes	2	1	1
Volume (vph)	166	56	39
Volume (vphpl )	83	56	39
95 <sup>th</sup> %. Queue (veh/ln.)	4	3	1
95 <sup>th</sup> %. Queue (ft./ln) <sup>2</sup>	100	75	25
Storage (ft./ ln.)	230	150	50
Adequate (Y/N)	YES	YES	YES
<b>Notes:</b>			
<sup>1</sup> Cycle length for signalized intersections and control delay for stop-controlled intersections.			
<sup>2</sup> Assumes 25 feet per vehicle queued			

## Site Access

The evaluation of site access is based on the preliminary site plan dated December 8, 2023 and prepared by Kimley-Horn, shown on Figure 2. Site access was evaluated to determine the adequacy of the site's access points 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.

Vehicular access to the project site would be provided via an access point along Checkerspot Lane, a private roadway which runs east-west through the Evergreen Village development. Driveways are located at the west end (right-in/right-out at Butterfield Boulevard) and east end (full access at Sutter Boulevard) of Checkerspot Lane.

Additionally, there is an existing right-in/right-out driveway along Cochrane Road that provides access to a private street ("Private Street A") at the northeast corner of the project site. The project proposes to extend the private street from its current terminus south along the eastern project frontage to Checkerspot Lane. The street extension would be used by project trips to and from eastbound Cochrane Road.

Skipper Lane provides access to Cochrane Road at its north end (full access at Cochrane Road) and south end (full access at Jarvis Drive). Skipper Lane will be used primarily by inbound trips from westbound Cochrane Road.

Based on the project trip assignment, it is anticipated that the Cochrane Road/Woodview/Skipper Lane intersection, Street A driveway along Cochrane, and Checkerspot driveway along Butterfield Boulevard would serve the majority of project traffic. Few trips are anticipated to use driveways along Jarvis Drive and Sutter Boulevard. Project trips at the Evergreen Village access points are shown on Figure 4.

## Driveway Operations

### Cochrane Road and Skipper Lane Driveway

As shown in the level of service analysis and queueing analysis, the Cochrane Road/Skipper Lane intersection is not anticipated to experience operational issues.

### Cochrane Road and Private Street A Driveway

The Cochrane Road and Private Street A driveway provides right-in and right-out access only due to an existing median along Cochrane Road. Therefore, the driveway is not anticipated to experience operational issues.

### Butterfield Boulevard and Checkerspot Lane Driveway

The Butterfield Boulevard and Checkerspot Lane driveway provides right-in and right-out access only due to an existing median along Butterfield Boulevard. Therefore, the driveway is not anticipated to experience operational issues.

### Checkerspot Lane Site Access Point

The site access point along Checkerspot Lane would be located approximately 75 feet east of Butterfield Boulevard. As described in the Drive-Through Operations discussion below, spillover of drive-thru queues is not anticipated during normal operations. Therefore, no inbound queues are anticipated at the site access point during normal operations.

**Figure 4**  
Project Trips at Evergreen Village Driveways



## Driveway Design

The City's Design Standards specify a minimum driveway width of 16 feet and a maximum driveway width of 36 feet for commercial uses. The proposed 25-foot wide two-way access point along Checkerspot Lane would fall within the acceptable range of standard driveway widths. However, the access point is along a private roadway and is not subject to the City's standard driveway requirements.

## Drive-Through Operations

The proposed drive-through is comprised of two lanes, with each lane having its own ordering board. During non-peak periods, customers will merge into a single lane as they proceed past the ordering boards towards the pay and pick-up window. During peak demand periods, customers will remain in two-lane configuration as staff members are deployed to deliver food to customers in the outside lane. When needed, the outside lane also could be used as a by-pass lane to prioritize customers with smaller orders through the drive-through sequence.

Each lane is shown to be 12 feet wide and will have their own entrance and exit points. The lanes will be separated by pavement markings. The site plan shows a maximum capacity for approximately 14 vehicles per lane, assuming 20 feet per car and full utilization of each lane between the pick-up window and lane entrance.

### Conformance with City Requirements for Drive-Through Facilities

As proposed, the drive-through lanes will meet the City's standard requirements for drive-through facilities (Morgan Hill Code of Ordinances, Chapter 18.92.040).

- Drive-through lanes for fast food restaurants shall have a capacity for at least eight vehicles, at 20 feet per vehicle.

The site plan shows storage space for approximately 14 vehicles per lane (28 vehicles total), assuming 20 feet per car. Thus, the proposed capacity would exceed minimum requirements.

- Drive-through lanes shall be separate from the circulation lanes necessary for entering and exiting the property and providing access to parking.

The drive-through lanes are separate from the drive aisles serving the project's surface parking lot. Drive-through operations would not interfere with ingress and egress of vehicles to/from the project site.

- Pedestrian access routes shall not cross a drive-through lane within the minimum stacking space distance (8 vehicles).

As shown on the site plan, a pedestrian walkway would be located just before the order boards across both drive-through lanes, approximately 6 car-lengths (for a total capacity of 12 vehicles) back from the pick-up window. Thus, the location of the proposed pedestrian access route would meet minimum requirements, assuming that both lanes are utilized between the drive-through window and order boards.

- Vehicular entrance or exit to a drive-through establishment shall be setback from the nearest public street intersection.

The existing driveway at Butterfield Boulevard/Checkerspot Lane is located approximately 330 feet south of Cochrane Road and 460 feet north of Jarvis Drive. This meets the required separation of at least 115 feet for roadways with a posted speed limit of 45 mph without a median opening.

## **Queueing Observations**

Vehicle queueing data was sourced from the *Traffic Assessment for the Raising Cane's Restaurant at 1420 Travis Boulevard in Fairfield, CA* (Kimley-Horn, September 21, 2022). The study collected drive-through queueing observations and counts at three Raising Cane's locations in northern California which feature dual order boards and drive-through lanes, in a configuration similar to the proposed project:

- Vacaville: 160 Nut Tree Parkway (August 2022)
- Elk Grove: 9164 E Stockton Boulevard (August/September 2022)
- Manteca: 1311 E Yosemite Avenue (August 2022)

Kimley-Horn collected between 11:00 AM to 10:00 PM on a typical weekday and Saturday. Across all locations surveyed, the maximum queue observed during the weekday was a total of 23 vehicles across two drive-through lanes, while the maximum queue observed during Saturday was 25 vehicles. Thus, the proposed drive-through with a total capacity for up to 28 vehicles is expected to have adequate capacity to accommodate maximum expected queues during peak periods.

Based on the observed drive-through queues, it is unlikely that queues would exceed the planned drive-through capacity and queues are not expected to spill over onto Checkerspot Lane or Butterfield Boulevard. However, the restaurant should develop a drive-through queue management plan that can be implemented during abnormally high demand periods to ensure that circulation within the site parking lot and on adjacent drive aisles would not be negatively affected by drive-through operations.

A preliminary operations plan dated April 21, 2021 indicates the proposed restaurant would utilize the following traffic management solutions as needed:

- Implementing cones/signage/striping in the parking lot when sufficient.
- Deploying Crew members to the parking lot with handheld devices to take orders and direct traffic.
- Hiring off-duty police officers to direct traffic when needed.

**Recommendation:** The proposed drive-through is expected to have adequate capacity to accommodate the expected queues during peak periods. Drive-through queues are not expected to spill over onto Checkerspot Lane or Butterfield Boulevard. However, staff members should be trained to monitor drive-through queues and implement traffic control measures during abnormally high demand periods. Traffic control measures should prevent drive-through queues from inhibiting circulation within the project parking lot and access of adjacent properties within Evergreen Village.

## **Parking**

### **Vehicular Parking**

According to the City of Morgan Hill Zoning Regulations (Table 18.72-2), fast-food restaurants are required to provide on-site vehicular parking at a rate of 1 space per 100 s.f. for establishments with more than 12 seats. Therefore, the proposed 2,899 s.f. fast-food restaurant would require a total of 29 vehicular parking spaces. Per the site plan, the project proposes a total of 50 on-site parking spaces. Therefore, vehicle parking as proposed by the project will meet the off-street parking requirement for the site.

Additionally, the California Building Code (Table 11B-208.2) requires 2 accessible parking spaces to be provided within parking facilities containing a total of 26 to 50 parking spaces. The proposed 2 accessible parking spaces would meet this requirement.

## Bicycle Parking

According to the City of Morgan Hill Zoning Regulations (Table 18.72-7), non-residential uses are required to provide on-site bicycle parking as specified below:

- Short-term spaces – 10% of required automobile spaces
- Long-term spaces – 1 per 20 required automobile spaces for uses 10,000 s.f. or greater

Based on these requirements, the project will be required to provide a total of 3 short-term bicycle parking spaces. The site plan shows one bike locker and one bike rack (for up to 2 bikes) located between the restaurant building and trash enclosure. One additional bike rack should be provided to meet City bicycle parking requirements for short-term parking spaces.

## Transit, Pedestrian, and Bicycle Facility Evaluation

### Transit Facilities

The project site is served by VTA bus routes that run along Cochrane Road and Monterey Road.

- Rapid Route 568 (Gilroy Transit Center to San Jose Diridon Transit Center) serves bus stops at the intersection of Monterey Road and Cochrane Road, approximately 1/4-mile walking distance from the project site.
- Express Route 121 (Gilroy/Morgan Hill to Lockheed Martin) serves bus stops at the intersection of Cochrane Road and Sutter Boulevard, approximately 1/4-mile walking distance from the project site.
- Local Route 87 (Morgan Hill Civic Center to Burnett Avenue) serves bus stops at the intersection of Cochrane Road and Butterfield Boulevard, less than 500 feet walking distance from the project site.

The transit ridership demands of the proposed project can be accommodated by the existing transit facilities.

### Pedestrian Facilities

In the vicinity of the project site, there are existing sidewalks along most developed parcels. Sidewalks along roadways within Evergreen Village are currently missing along undeveloped parcels but will be constructed with their development. There are existing 5-foot wide sidewalks along the Cochrane Road and Butterfield Boulevard project frontages. The site plan shows multiple pedestrian connections between the frontage sidewalks and on-site walkways. On-site walkways that cross drive-through lanes are shown to have accessible ramps with detectable warning surfaces. No sidewalk is proposed along the Checkerspot Lane project frontage, however, there is an existing sidewalk along the south side of Checkerspot Lane that connects with other parcels within Evergreen Village.

Crosswalks with protected crossing phases are provided along the east and south approaches of the Butterfield Boulevard/Cochrane Road intersection. Curb ramps are provided at the southwest and southeast corners, however only the southeast corner (adjacent to the project) is ADA-compliant. A crosswalk across Checkerspot Lane is provided at its intersection with Butterfield Boulevard and ADA-compliant ramps are provided at both ends of the crosswalk. At the intersection of Butterfield Boulevard/Jarvis Road, only north-south crosswalks are provided along the east and west approaches. The nearest east-west crossing across Butterfield Boulevard south of the project site is located at Butterfield Boulevard/Sutter Boulevard, approximately 1/4-mile to the south of the project site.

Overall, the proposed sidewalks and curb ramps create an accessible network of pedestrian pathways to/from the project site and surrounding uses. Continuous pedestrian routes would be provided

between the project site and bus stops along Cochrane Road. However, pedestrian access to areas west of the project site would not be fully accessible due to a non-ADA compliant curb ramp at the Butterfield Boulevard/Cochrane Road intersection. The curb ramp located at the southwest corner of the intersection cannot serve as part of an accessible route due to the missing facilities which are not the responsibility of the proposed project.

## **Bicycle Facilities**

In the project vicinity, there are bike lanes located along Butterfield Boulevard and Cochrane Road. Pedestrian walkways will provide a continuous route between frontage bike lanes and on-site bicycle parking. The demand generated by the proposed project could be accommodated by the existing bicycle facilities in the vicinity of the project site. Additionally, the project as proposed will not conflict with any existing or planned bicycle facilities.

**18590 Skipper Lane Raising Cane's  
Trip Generation and Operations Analysis  
Technical Appendices**

March 1, 2024

**Appendix A**  
**Turning Movement**  
**Counts**

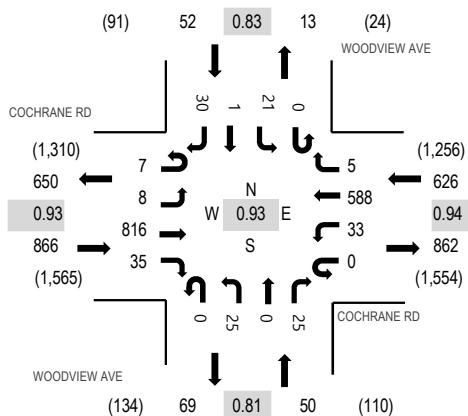
**Location:** 1 WOODVIEW AVE & COCHRANE RD PM

**Date:** Tuesday, March 7, 2023

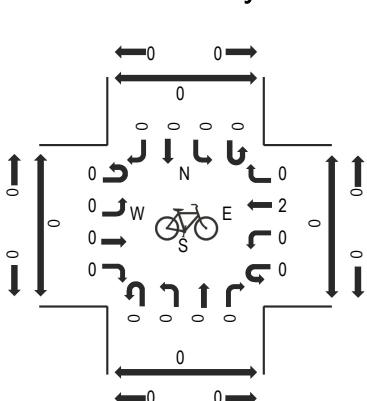
**Peak Hour:** 04:30 PM - 05:30 PM

**Peak 15-Minutes:** 05:00 PM - 05:15 PM

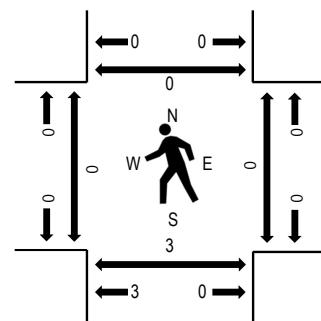
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	COCHRANE RD				COCHRANE RD				WOODVIEW AVE				WOODVIEW AVE				Rolling Hour	Pedestrian Crossings
	Eastbound		Westbound		Northbound		Southbound		Total		West	East	South	North				
4:00 PM	9	1	201	10	0	6	161	2	0	5	1	11	0	1	3	10	421	1,565
4:15 PM	2	4	168	5	0	6	129	2	0	9	0	4	0	7	0	7	343	1,573
4:30 PM	3	2	220	8	0	9	150	2	0	4	0	11	0	3	0	6	418	1,594
4:45 PM	3	4	199	8	0	12	131	0	0	7	0	3	0	7	0	9	383	1,503
5:00 PM	0	0	221	9	0	9	161	1	0	7	0	8	0	9	0	4	429	1,457
5:15 PM	1	2	176	10	0	3	146	2	0	7	0	3	0	2	1	11	364	0
5:30 PM	1	0	137	7	0	7	155	0	0	7	0	7	0	2	1	3	327	0
5:45 PM	3	0	145	6	0	13	149	0	0	8	1	7	0	2	1	2	337	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	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lights	6	8	807	35	0	32	581	5	0	24	0	24	0	21	1	30	1,574
Mediums	0	0	6	0	0	1	7	0	0	1	0	1	0	0	0	0	16
Total	7	8	816	35	0	33	588	5	0	25	0	25	0	21	1	30	1,594

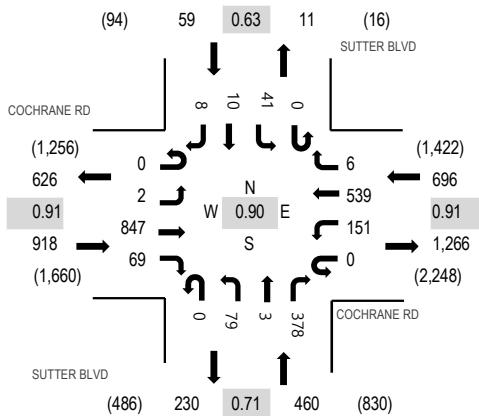
Location: 2 SUTTER BLVD & COCHRANE RD PM

Date: Tuesday, March 7, 2023

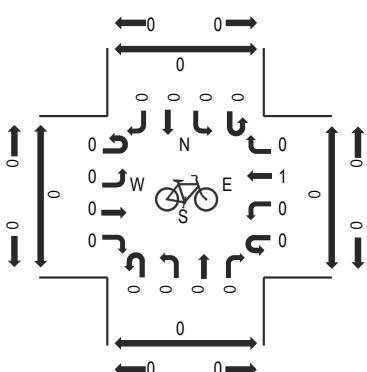
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 04:30 PM - 04:45 PM

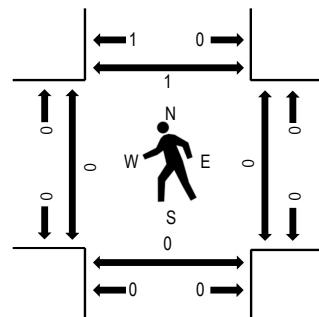
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	COCHRANE RD				COCHRANE RD				SUTTER BLVD				SUTTER BLVD				Rolling Hour	Pedestrian Crossings				
	Eastbound		Westbound		Northbound		Southbound		Total		West	East	South		North	West		East	South	North		
4:00 PM	0	0	206	14	0	43	144	1	0	24	1	99	0	10	3	1	546	2,092	0	0	0	1
4:15 PM	4	0	168	16	1	39	113	2	0	19	1	74	0	4	3	1	445	2,129	0	0	0	0
4:30 PM	0	0	219	13	0	42	133	2	0	23	1	145	0	6	3	5	592	2,133	0	0	0	0
4:45 PM	0	1	212	23	0	43	127	2	0	15	1	71	0	10	3	1	509	1,975	0	0	0	1
5:00 PM	0	1	230	21	0	31	147	1	0	22	1	105	0	20	2	2	583	1,914	0	0	0	0
5:15 PM	0	0	186	12	0	35	132	1	0	19	0	57	0	5	2	0	449		0	0	0	0
5:30 PM	0	0	155	13	0	39	144	0	0	16	0	59	0	5	1	2	434		0	0	0	2
5:45 PM	0	0	143	23	1	61	138	0	0	23	0	54	0	3	1	1	448		0	0	0	1

### 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	4	0	0	0	0	0	0	0	0	1	0	0	0	0	5
Lights	0	2	838	69	0	151	532	6	0	78	3	373	0	40	9	8	2,109
Mediums	0	0	5	0	0	0	7	0	0	1	0	4	0	1	1	0	19
Total	0	2	847	69	0	151	539	6	0	79	3	378	0	41	10	8	2,133

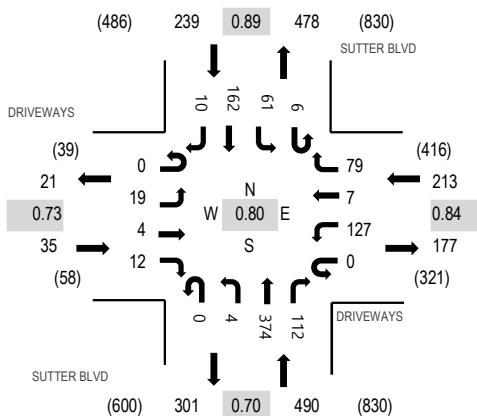
Location: 3 SUTTER BLVD & DRIVEWAYS PM

Date: Tuesday, March 7, 2023

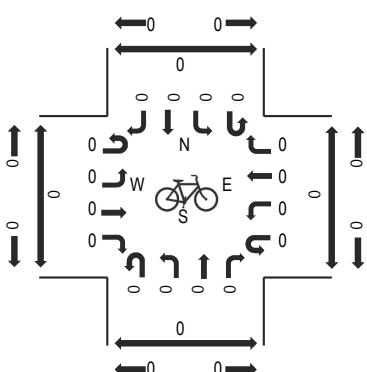
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:30 PM - 04:45 PM

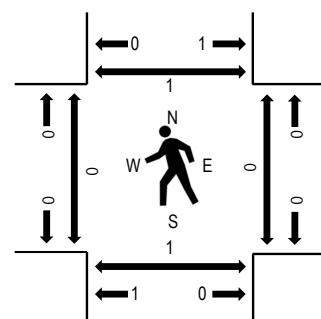
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	DRIVEWAYS				DRIVEWAYS				SUTTER BLVD				SUTTER BLVD				Rolling Hour	Pedestrian Crossings				
	Eastbound		Westbound		Northbound		Southbound		U-Turn		Left		Thru		Right			Total	West	East	South	North
4:00 PM	0	3	1	2	0	19	1	26	0	0	95	22	0	11	47	2	229	951	0	1	0	0
4:15 PM	0	8	0	1	0	34	2	17	0	0	69	19	0	14	40	4	208	977	0	0	0	0
4:30 PM	0	5	1	4	0	37	2	26	0	1	136	37	2	9	42	5	307	963	0	0	0	0
4:45 PM	0	1	1	2	0	26	2	17	0	0	66	23	3	18	47	1	207	831	0	0	1	1
5:00 PM	0	5	2	5	0	30	1	19	0	3	103	33	1	20	33	0	255	839	0	0	0	0
5:15 PM	0	1	0	3	0	38	2	18	0	0	56	27	1	13	31	4	194		0	0	0	0
5:30 PM	0	4	1	2	0	28	0	17	0	1	54	15	0	13	37	3	175		0	2	0	0
5:45 PM	0	1	0	5	0	28	4	22	0	0	51	19	3	22	59	1	215		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	2	0	0	0	2	0	4
Lights	0	19	4	12	0	127	7	79	0	4	366	112	6	61	158	10	965
Mediums	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	0	8
Total	0	19	4	12	0	127	7	79	0	4	374	112	6	61	162	10	977

## **Appendix B**

### **Volumes Summary**

Intersection Number: 1  
 Traffix Node Number: 101  
 Intersection Name: Monterey Road and Cochrane Road  
 Peak Hour: PM  
 Count Date: 5/8/18

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
<b>Counts</b>	111	783	1074	180	50	243	198	157	36	24	77	26	2,959
<b>Existing Conditions (counts adjusted to 2023 conditions)</b>	120	844	1158	194	54	262	214	170	39	26	83	29	3,193
Project Trips (Full Access Butterfield/Cochrane Plaza)	0	0	2	2	0	10	11	0	0	0	0	0	25
<b>Existing Plus Project</b>	120	844	1160	196	54	272	225	170	39	26	83	29	3,218
2015 Model	1	629	813	621	2	227	155	130	1	2	3	1	2,585
2030 without Project Model	1	794	1037	917	2	326	185	204	1	2	3	1	3,473
Chick-Fil-A	0	0	4	4	0	12	13	0	0	0	0	0	33
<b>2030 Cumulative without Project</b>	120	1009	1386	494	54	373	257	244	39	26	83	29	4,114
Project Trips (Limited Access Butterfield/Cochrane Plaza)	0	0	2	2	0	10	11	0	0	0	0	0	25
<b>2030 Cumulative with Project</b>	120	1009	1388	496	54	383	268	244	39	26	83	29	4,139

Intersection Number: 2  
 Traffix Node Number: 103  
 Intersection Name: Butterfield Boulevard and Cochrane Road  
 Peak Hour: PM  
 Count Date: 5/8/18

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
<b>Counts</b>	0	0	0	0	402	347	183	0	137	594	781	0	2,444
<b>Existing Conditions (counts adjusted to 2023 conditions)</b>	0	0	0	0	434	374	198	0	148	640	842	0	2,636
Project Trips (Full Access Butterfield/Cochrane Plaza)	0	0	0	0	-6	-3	7	0	18	0	13	0	29
<b>Existing Plus Project</b>	0	0	0	0	428	371	205	0	166	640	855	0	2,665
2015 Model	0	0	0	0	488	414	247	0	375	456	521	0	2,501
2030 without Project Model	0	0	0	0	693	564	335	0	566	698	547	0	3,403
Chick-Fil-A	0	0	0	0	16	-6	0	0	0	0	17	0	27
<b>2030 Cumulative without Project</b>	0	0	0	0	655	518	286	0	339	882	885	0	3,565
Project Trips (Limited Access Butterfield/Cochrane Plaza)	0	0	0	0	-6	-3	7	0	18	0	13	0	29
<b>2030 Cumulative with Project</b>	0	0	0	0	649	515	293	0	357	882	898	0	3,594

Intersection Number: 3  
 Traffix Node Number: 104  
 Intersection Name: Woodview Avenue/Evergreen Village and Cochrane Road  
 Peak Hour: PM  
 Count Date: 3/7/23

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
<b>Counts</b>	30	1	21	5	588	33	25	0	25	35	816	15	1,594
<b>Existing Conditions (counts)</b>	30	1	21	5	588	33	25	0	25	35	816	15	1,594
Project Trips (Full Access Butterfield/Cochrane Plaza)	0	0	0	0	-9	23	0	0	0	0	11	0	25
<b>Existing Plus Project</b>	30	1	21	5	579	56	25	0	25	35	827	15	1,619
2015 Model	0	0	0	0	902	0	0	0	0	813	0	0	1,715
2030 without Project Model	0	0	0	0	1257	0	0	0	0	920	0	0	2,177
Chick-Fil-A	0	0	0	0	-18	0	0	0	28	0	17	0	27
<b>2030 Cumulative without Project</b>	30	1	21	5	925	33	25	0	53	142	833	15	2,083
Project Trips (Limited Access Butterfield/Cochrane Plaza)	0	0	0	0	-9	24	0	0	0	0	12	0	27
<b>2030 Cumulative with Project</b>	30	1	21	5	916	57	25	0	53	142	845	15	2,110

Intersection Number: 4  
 Traffix Node Number: 105  
 Intersection Name: Sutter Boulevard and Cochrane Road  
 Peak Hour: PM  
 Count Date: 3/7/23

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Counts	8	10	41	6	539	151	378	3	79	69	847	2	2,133
Existing Conditions (counts adjusted to 2023 conditions)	8	10	41	6	539	151	378	3	79	69	847	2	2,133
Project Trips (Full Access Butterfield/Cochrane Plaza)	0	0	0	0	14	-3	-3	0	0	0	11	0	19
Existing Plus Project	8	10	41	6	553	148	375	3	79	69	858	2	2,152
2015 Model	26	2	33	10	652	149	273	2	165	104	698	11	2,125
2030 without Project Model	34	3	32	11	926	209	372	3	192	114	799	13	2,708
Chick-Fil-A	0	0	0	0	-18	41	38	0	0	0	-20	0	41
2030 Cumulative without Project	16	11	41	7	795	252	515	4	106	79	928	4	2,758
Project Trips (Limited Access Butterfield/Cochrane Plaza)	0	0	0	0	15	-3	-3	0	0	0	12	0	21
2030 Cumulative with Project	16	11	41	7	810	249	512	4	106	79	940	4	2,779

Intersection Number: 5  
 Traffix Node Number: 106  
 Intersection Name: Madrone Parkway/Cochrane Plaza and Cochrane Road  
 Peak Hour: PM  
 Count Date: 5/8/18

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Counts	69	35	428	196	627	237	94	30	36	22	1212	114	3,100
Existing Conditions (counts adjusted to 2023 conditions)	75	38	462	212	676	256	102	33	39	24	1306	123	3,346
Project Trips (Full Access Butterfield/Cochrane Plaza)	0	0	0	0	11	0	0	0	0	0	8	0	19
Existing Plus Project	75	38	462	212	687	256	102	33	39	24	1314	123	3,365
2015 Model	97	7	270	110	714	117	229	7	0	0	946	59	2,556
2030 without Project Model	125	6	404	142	1022	121	216	6	0	0	1130	74	3,246
Chick-Fil-A	0	0	0	0	23	0	0	0	0	0	18	0	41
2030 Cumulative without Project	103	38	596	244	1007	260	102	33	39	24	1508	138	4,092
Project Trips (Limited Access Butterfield/Cochrane Plaza)	0	0	0	0	11	0	0	0	1	1	8	0	21
2030 Cumulative with Project	103	38	596	244	1018	260	102	33	40	25	1516	138	4,113

Intersection Number: 6  
 Traffix Node Number: 107  
 Intersection Name: US 101 Southbound Ramps and Cochrane Road  
 Peak Hour: PM  
 Count Date: 5/8/18

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Counts	510	1	300	157	635	0	0	0	0	741	1046	0	3,390
Existing Conditions (counts)	550	2	324	170	685	0	0	0	0	799	1127	0	3,657
Project Trips (Full Access Butterfield/Cochrane Plaza)	5	0	0	0	6	0	0	0	0	5	4	0	20
Existing Plus Project	555	2	324	170	691	0	0	0	0	804	1131	0	3,677
2015 Model	403	0	369	271	537	0	0	0	0	492	953	0	3,025
2030 without Project Model	491	0	563	266	794	0	0	0	0	445	1305	0	3,864
Chick-Fil-A	10	0	0	0	13	0	0	0	0	10	9	0	42
2030 Cumulative without Project	648	2	518	170	955	0	0	0	0	809	1488	0	4,590
Project Trips (Limited Access Butterfield/Cochrane Plaza)	5	0	0	0	6	0	0	0	0	5	4	0	20
2030 Cumulative with Project	653	2	518	170	961	0	0	0	0	814	1492	0	4,610

Intersection Number: 7  
 Traffix Node Number: 108  
 Intersection Name: US 101 Northbound Ramps and Cochrane Road  
 Peak Hour: PM  
 Count Date: 5/8/18

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Counts	0	0	0	208	499	0	230	0	315	0	832	0	2,084
Existing Conditions (counts)	0	0	0	225	538	0	248	0	340	0	897	0	2,248
Project Trips (Full Access Butterfield/Cochrane Plaza)	0	0	0	0	1	0	0	0	5	0	1	0	7
Existing Plus Project	0	0	0	225	539	0	248	0	345	0	898	0	2,255
2015 Model	0	0	0	208	563	0	219	0	245	0	877	0	2,112
2030 without Project Model	0	0	0	325	803	0	301	0	257	0	1341	0	3,027
Chick-Fil-A	0	0	0	0	3	0	0	0	10	0	2	0	15
2030 Cumulative without Project	0	0	0	342	781	0	330	0	362	0	1363	0	3,178
Project Trips (Limited Access Butterfield/Cochrane Plaza)	0	0	0	0	1	0	0	0	5	0	1	0	7
2030 Cumulative with Project	0	0	0	342	782	0	330	0	367	0	1364	0	3,185

Intersection Number: 8  
 Traffix Node Number: 902  
 Intersection Name: Sutter Boulevard and Cochrane Plaza/Checkerspot Lane  
 Peak Hour: PM  
 Count Date: 3/7/23

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Counts	10	162	67	79	7	127	112	374	4	12	4	19	977
Existing Conditions (counts) adjusted to 2023 conditions)	10	162	67	79	7	127	112	374	4	12	4	19	977
Project Trips (Full Access Butterfield/Cochrane Plaza)	0	-3	0	0	1	0	0	-3	0	3	1	0	-1
Existing Plus Project	10	159	67	79	8	127	112	371	4	15	5	19	976
2015 Model	0	255	0	0	0	0	0	440	0	0	0	0	695
2030 without Project Model	0	326	0	0	0	0	0	567	0	0	0	0	893
Chick-Fil-A	47	-6	0	0	0	0	0	-7	0	22	0	0	56
Adjustment due to Planned Median		-67		-7	-127			-4		-4	-19		-228
2030 Cumulative without Project	57	227	0	79	0	0	112	494	0	34	0	0	1,003
Project Trips (Limited Access Butterfield/Cochrane Plaza)	0	-3	0	0	0	0	0	-3	0	3	0	0	-3
2030 Cumulative with Project	57	224	0	79	0	0	112	491	0	37	0	0	1,000

**Appendix C**  
**Intersection Vehicle**  
**Queue Analysis**

## Sutter/Cochrane

NBL

PM

## Existing Conditions

Avg. Queue Per Lane in Veh=

1.4

Percentile =

95%

4

## Sutter/Cochrane

NBL

PM

## Existing Plus Project Conditions

Avg. Queue Per Lane in Veh=

1.6

Percentile =

95%

4

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.2466	0.2466	0
0.3452	0.5918	1
0.2417	0.8335	2
0.1128	0.9463	3
0.0395	0.9857	4
0.0111	0.9968	5
0.0026	0.9994	6
0.0005	0.9999	7
0.0001	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.2019	0.2019	0
0.3230	0.5249	1
0.2584	0.7834	2
0.1378	0.9212	3
0.0551	0.9763	4
0.0176	0.9940	5
0.0047	0.9987	6
0.0011	0.9997	7
0.0002	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

## Sutter/CochranePlaza

EB

PM

## Existing Conditions

Avg. Queue Per Lane in Veh=

0.1

Percentile =

95%

1

## Sutter/CochranePlaza

EB

PM

## Existing Plus Project Conditions

Avg. Queue Per Lane in Veh=

0.1

Percentile =

95%

1

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.9048	0.9048	0
0.0905	0.9953	1
0.0045	0.9998	2
0.0002	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
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0.0000	1.0000	25
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0.0000	1.0000	39
0.0000	1.0000	40
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0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.9048	0.9048	0
0.0905	0.9953	1
0.0045	0.9998	2
0.0002	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
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0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Sutter/Cochrane

WBL

PM

Existing Conditions

Avg. Queue Per Lane in Veh=

0.7

Percentile =

95%

2

Sutter/Cochrane

WBL

PM

Existing Plus Project Conditions

Avg. Queue Per Lane in Veh=

1.2

Percentile =

95%

3

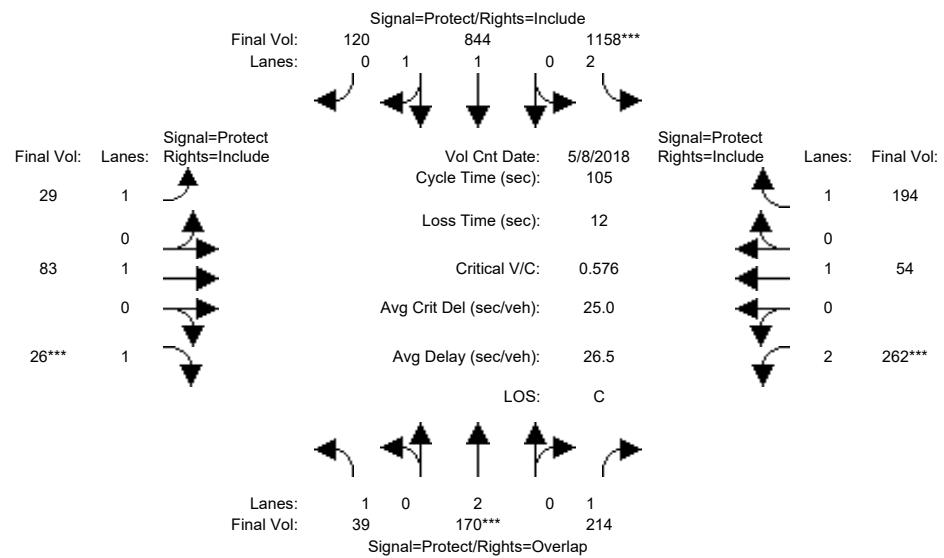
Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.4966	0.4966	0
0.3476	0.8442	1
0.1217	0.9659	2
0.0284	0.9942	3
0.0050	0.9992	4
0.0007	0.9999	5
0.0001	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
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0.0000	1.0000	26
0.0000	1.0000	27
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0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.3012	0.3012	0
0.3614	0.6626	1
0.2169	0.8795	2
0.0867	0.9662	3
0.0260	0.9923	4
0.0062	0.9985	5
0.0012	0.9997	6
0.0002	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
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0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
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0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
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0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

**Appendix D**  
**Level of Service**  
**Analysis**

City of Morgan Hill  
Raising Cane's at 18590 Skipper LnLevel Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

## Intersection #101: Monterey Road and Cochrane Road



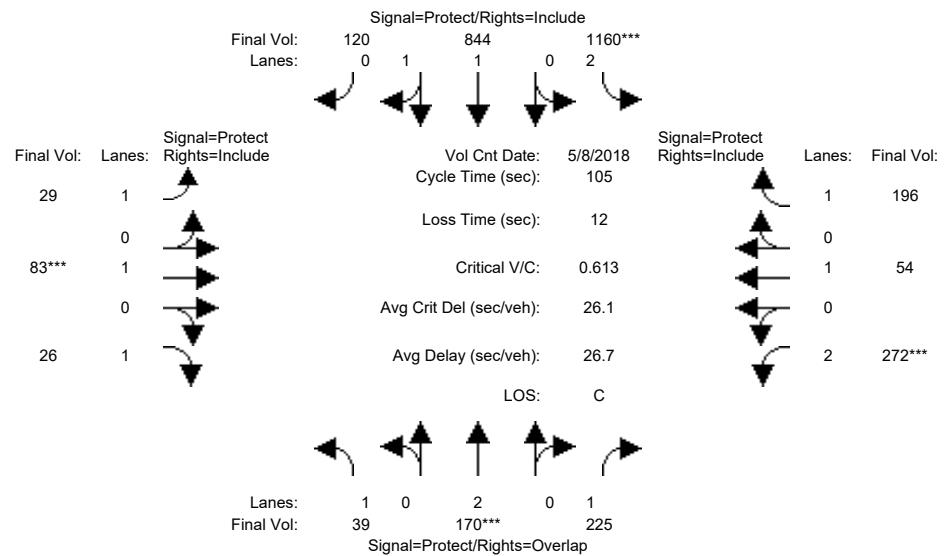
Street Name: Monterey Road Cochrane Road															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7 10		10 7		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 8 May 2018 <<															
Base Vol:	39	170	214	1158	844	120	29	83	26	262	54	194			
Growth 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			
Initial Bse:	39	170	214	1158	844	120	29	83	26	262	54	194			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	39	170	214	1158	844	120	29	83	26	262	54	194			
User 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			
PHF 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			
PHF Volume:	39	170	214	1158	844	120	29	83	26	262	54	194			
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	39	170	214	1158	844	120	29	83	26	262	54	194			
PCE 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			
MLF 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			
FinalVolume:	39	170	214	1158	844	120	29	83	26	262	54	194			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92			
Lanes:	1.00	2.00	1.00	2.00	1.74	0.26	1.00	1.00	1.00	2.00	1.00	1.00			
Final Sat.:	1750	3800	1750	3150	3239	461	1750	1900	1750	3150	1900	1750			
Capacity Analysis Module:															
Vol/Sat:	0.02	0.04	0.12	0.37	0.26	0.26	0.02	0.04	0.01	0.08	0.03	0.11			
Crit Moves:	****		****		****		****		****		****				
Green Time:	14.2	10.0	23.5	59.5	55.4	55.4	8.8	10.0	10.0	13.5	14.7	14.7			
Volume/Cap:	0.17	0.47	0.55	0.65	0.49	0.49	0.20	0.46	0.16	0.65	0.20	0.79			
Delay/Veh:	40.5	46.0	37.7	16.4	16.1	16.1	45.5	46.8	44.1	47.2	40.4	60.0			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	40.5	46.0	37.7	16.4	16.1	16.1	45.5	46.8	44.1	47.2	40.4	60.0			
LOS by Move:	D	D	D	B	B	B	D	D	D	D	D	E			
HCM2kAvgQ:	1	3	7	15	10	10	1	3	1	5	1	7			

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing Plus Project PM

## Intersection #101: Monterey Road and Cochrane Road



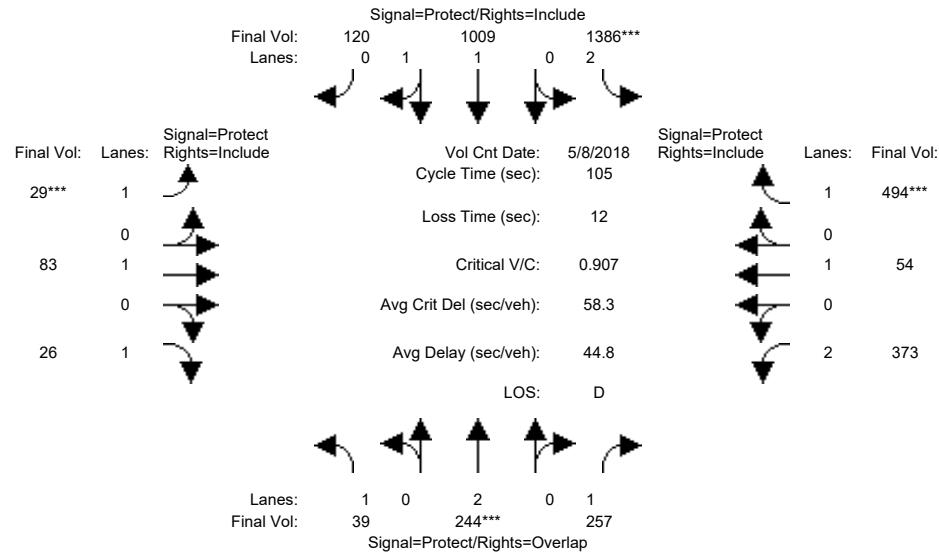
Street Name: Monterey Road Cochrane Road																
Approach:	North Bound			South Bound			East Bound			West Bound						
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Min. Green:		7	10	10	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Volume Module: >> Count Date: 8 May 2018 <<																
Base Vol:		39	170	214	1158	844	120	29	83	26	262	54	194			
Growth 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			
Initial Bse:		39	170	214	1158	844	120	29	83	26	262	54	194			
Added Vol:		0	0	11	2	0	0	0	0	0	10	0	2			
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:		39	170	225	1160	844	120	29	83	26	272	54	196			
User 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			
PHF 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			
PHF Volume:		39	170	225	1160	844	120	29	83	26	272	54	196			
Reduc Vol:		0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:		39	170	225	1160	844	120	29	83	26	272	54	196			
PCE 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			
MLF 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			
FinalVolume:		39	170	225	1160	844	120	29	83	26	272	54	196			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Saturation Flow Module:																
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:		0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00				
Lanes:		1.00	2.00	1.00	2.00	1.74	0.26	1.00	1.00	1.00	2.00	1.00				
Final Sat.:		1750	3800	1750	3150	3239	461	1750	1900	1750	3150	1900				
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Capacity Analysis Module:																
Vol/Sat:		0.02	0.04	0.13	0.37	0.26	0.26	0.02	0.04	0.01	0.09	0.03	0.11			
Crit Moves:		****	****	****	****	****	****	****	****	****	****	****	****			
Green Time:		14.1	10.0	23.9	59.1	55.0	55.0	8.9	10.0	10.0	13.9	15.0	15.0			
Volume/Cap:		0.17	0.47	0.57	0.65	0.50	0.50	0.20	0.46	0.16	0.65	0.20	0.79			
Delay/Veh:		40.6	46.0	37.9	16.7	16.3	16.3	45.4	46.8	44.1	47.0	40.1	58.6			
User DelAdj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:		40.6	46.0	37.9	16.7	16.3	16.3	45.4	46.8	44.1	47.0	40.1	58.6			
LOS by Move:		D	D	D	B	B	B	D	D	D	D	D	E			
HCM2kAvgQ:		1	3	8	15	10	10	1	3	1	5	1	7			

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative without Project PM

Intersection #101: Monterey Road and Cochrane Road



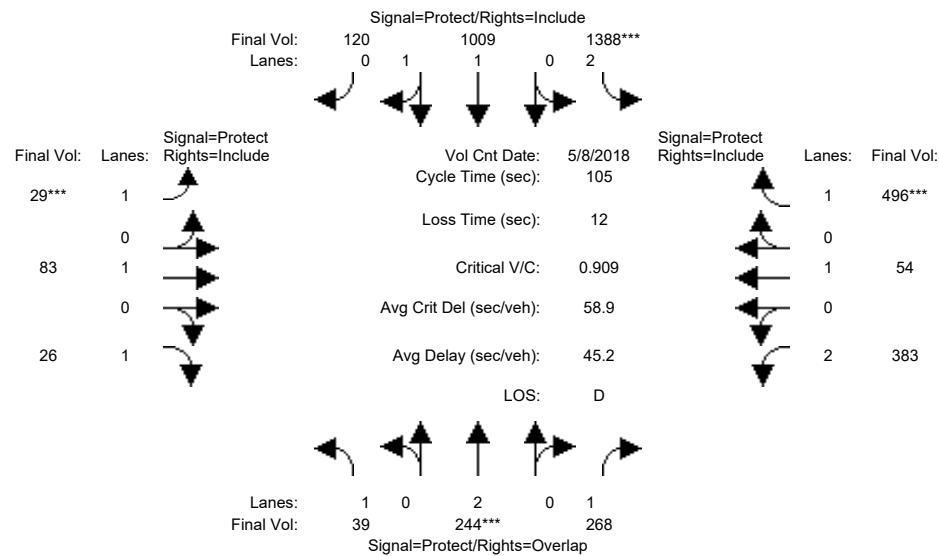
Street Name: Monterey Road Cochrane Road														
Approach:	North Bound			South Bound			East Bound			West Bound				
	L	-	T	-	R	L	-	T	-	R	L	-	T	-
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Min. Green:	7 10		10 7		10 10		7 10		10 10		7 10		10 10	
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0	
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Volume Module: >> Count Date: 8 May 2018 <<														
Base Vol:	39	244	257	1386	1009	120	29	83	26	373	54	494		
Growth 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		
Initial Bse:	39	244	257	1386	1009	120	29	83	26	373	54	494		
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	39	244	257	1386	1009	120	29	83	26	373	54	494		
User 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		
PHF 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		
PHF Volume:	39	244	257	1386	1009	120	29	83	26	373	54	494		
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	39	244	257	1386	1009	120	29	83	26	373	54	494		
PCE 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		
MLF 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		
FinalVolume:	39	244	257	1386	1009	120	29	83	26	373	54	494		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Saturation Flow Module:														
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92		
Lanes:	1.00	2.00	1.00	2.00	1.78	0.22	1.00	1.00	1.00	2.00	1.00	1.00		
Final Sat.:	1750	3800	1750	3150	3306	393	1750	1900	1750	3150	1900	1750		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Capacity Analysis Module:														
Vol/Sat:	0.02	0.06	0.15	0.44	0.31	0.31	0.02	0.04	0.01	0.12	0.03	0.28		
Crit Moves:	****		****		****		****		****		****			
Green Time:	10.1	10.0	30.3	46.3	46.2	46.2	7.0	16.4	16.4	20.3	29.7	29.7		
Volume/Cap:	0.23	0.67	0.51	1.00	0.69	0.69	0.25	0.28	0.10	0.61	0.10	1.00		
Delay/Veh:	44.6	50.9	32.0	52.9	25.0	25.0	47.6	39.6	38.1	40.5	27.9	77.5		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	44.6	50.9	32.0	52.9	25.0	25.0	47.6	39.6	38.1	40.5	27.9	77.5		
LOS by Move:	D	D	C	D	C	C	D	D	D	D	C	E		
HCM2kAvgQ:	1	5	8	29	14	14	1	3	1	7	1	21		

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative with Project PM

Intersection #101: Monterey Road and Cochrane Road



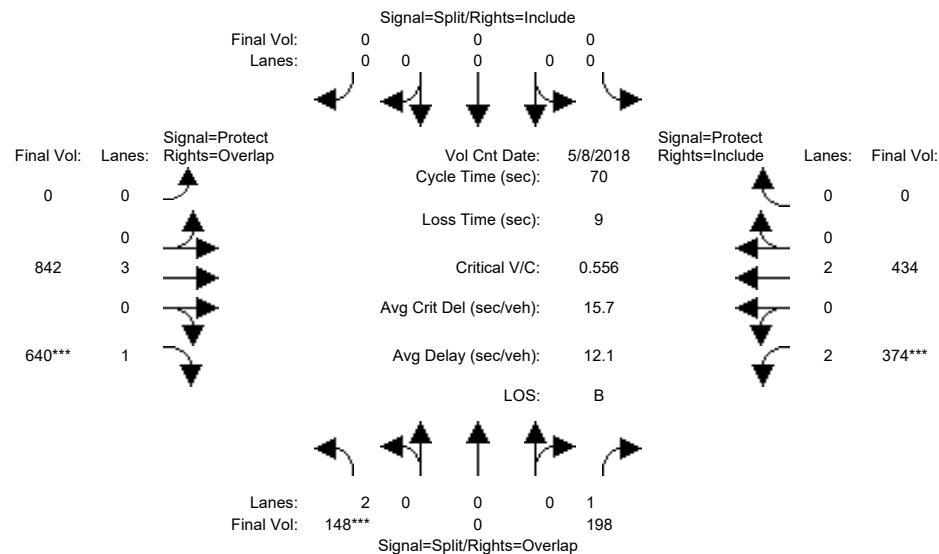
Street Name: Monterey Road Cochrane Road												
Approach:	North Bound			South Bound			East Bound			West Bound		
	Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Volume Module: >> Count Date: 8 May 2018 <<												
Base Vol:	39	244	257	1386	1009	120	29	83	26	373	54	494
Growth 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
Initial Bse:	39	244	257	1386	1009	120	29	83	26	373	54	494
Added Vol:	0	0	11	2	0	0	0	0	0	10	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	244	268	1388	1009	120	29	83	26	383	54	496
User 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
PHF 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
PHF Volume:	39	244	268	1388	1009	120	29	83	26	383	54	496
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	244	268	1388	1009	120	29	83	26	383	54	496
PCE 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
MLF 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
FinalVolume:	39	244	268	1388	1009	120	29	83	26	383	54	496
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.83	0.98	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	1.78	0.22	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3306	393	1750	1900	1750	3150	1900	1750
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.15	0.44	0.31	0.31	0.02	0.04	0.01	0.12	0.03	0.28
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	10.1	10.0	30.6	46.3	46.2	46.2	7.0	16.1	16.1	20.6	29.7	29.7
Volume/Cap:	0.23	0.67	0.53	1.00	0.69	0.69	0.25	0.28	0.10	0.62	0.10	1.00
Delay/Veh:	44.6	50.9	32.1	53.6	25.0	25.0	47.6	39.9	38.3	40.5	27.8	78.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.6	50.9	32.1	53.6	25.0	25.0	47.6	39.9	38.3	40.5	27.8	78.1
LOS by Move:	D	D	C	D	C	C	D	D	D	D	C	E
HCM2kAvgQ:	1	5	8	29	14	14	1	3	1	7	1	21

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing PM

## Intersection #103: Butterfield Boulevard and Cochrane Road



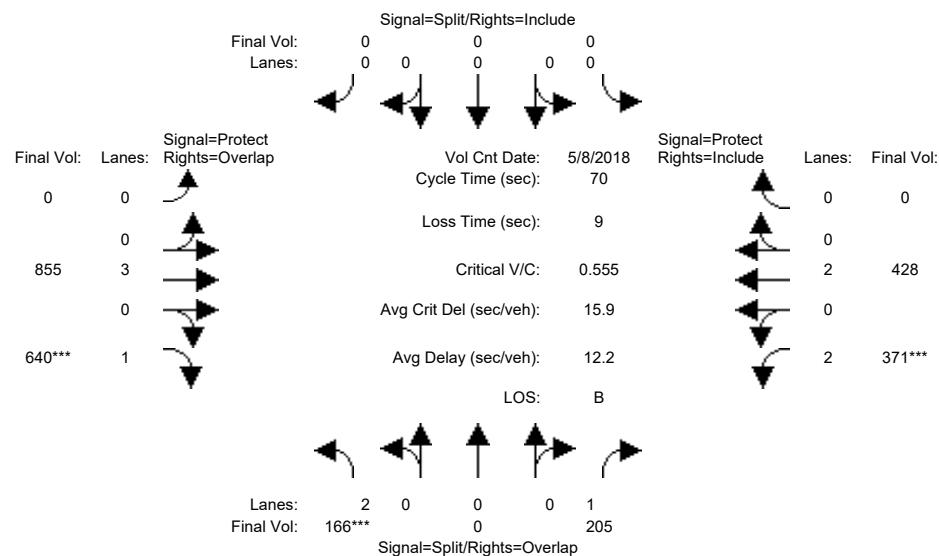
Street Name: Butterfield Boulevard Cochrane Road															
Approach:	North Bound			South Bound			East Bound			West Bound					
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Min. Green:		10	0	10	0	0	0	0	10	10	7	10	0		
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Volume Module: >> Count Date: 8 May 2018 <<															
Base Vol:		148	0	198	0	0	0	0	842	640	374	434	0		
Growth 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		
Initial Bse:		148	0	198	0	0	0	0	842	640	374	434	0		
Added Vol:		0	0	0	0	0	0	0	0	0	0	0	0		
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:		148	0	198	0	0	0	0	842	640	374	434	0		
User 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		
PHF 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		
PHF Volume:		148	0	198	0	0	0	0	842	640	374	434	0		
Reduc Vol:		0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:		148	0	198	0	0	0	0	842	640	374	434	0		
PCE 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		
MLF 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		
FinalVolume:		148	0	198	0	0	0	0	842	640	374	434	0		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Saturation Flow Module:															
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:		0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92		
Lanes:		2.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	2.00	2.00	0.00		
Final Sat.:		3150	0	1750	0	0	0	0	5700	1750	3150	3800	0		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Capacity Analysis Module:															
Vol/Sat:		0.05	0.00	0.11	0.00	0.00	0.00	0.00	0.15	0.37	0.12	0.11	0.00		
Crit Moves:		****							****	****					
Green Time:		10.0	0.0	27.7	0.0	0.0	0.0	0.0	33.3	43.3	17.7	51.0	0.0		
Volume/Cap:		0.33	0.00	0.29	0.00	0.00	0.00	0.00	0.31	0.59	0.47	0.16	0.00		
Delay/Veh:		27.4	0.0	14.6	0.0	0.0	0.0	0.0	11.4	8.9	22.6	2.9	0.0		
User DelAdj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:		27.4	0.0	14.6	0.0	0.0	0.0	0.0	11.4	8.9	22.6	2.9	0.0		
LOS by Move:		C	A	B	A	A	A	A	B	A	C	A	A		
HCM2kAvgQ:		2	0	3	0	0	0	0	4	9	4	1	0		

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing Plus Project PM

## Intersection #103: Butterfield Boulevard and Cochrane Road



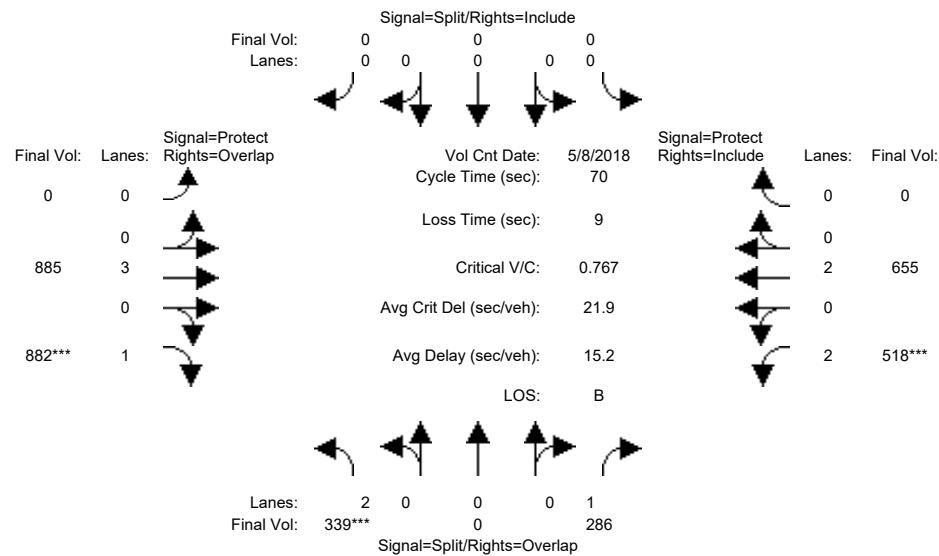
Street Name: Butterfield Boulevard Cochrane Road														
Approach:	North Bound			South Bound			East Bound			West Bound				
	L	-	T	-	R	L	-	T	-	R	L	-	T	-
Min. Green:	10	0	10	0	0	0	0	0	10	10	7	10	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 May 2018 <<														
Base Vol:	148	0	198	0	0	0	0	0	842	640	374	434	0	0
Growth 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	1.00	1.00
Initial Bse:	148	0	198	0	0	0	0	0	842	640	374	434	0	0
Added Vol:	18	0	7	0	0	0	0	0	13	0	-3	-6	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	166	0	205	0	0	0	0	0	855	640	371	428	0	0
User 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	1.00	1.00
PHF 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	1.00	1.00
PHF Volume:	166	0	205	0	0	0	0	0	855	640	371	428	0	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	0	205	0	0	0	0	0	855	640	371	428	0	0
PCE 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	1.00	1.00
MLF 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	1.00	1.00
FinalVolume:	166	0	205	0	0	0	0	0	855	640	371	428	0	0
Saturation Flow Module:														
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92		
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	3.00	1.00	2.00	2.00	0.00	
Final Sat.:	3150	0	1750	0	0	0	0	0	5700	1750	3150	3800	0	
Capacity Analysis Module:														
Vol/Sat:	0.05	0.00	0.12	0.00	0.00	0.00	0.00	0.15	0.37	0.12	0.11	0.00		
Crit Moves:	****								****	****				
Green Time:	10.0	0.0	27.6	0.0	0.0	0.0	0.0	33.4	43.4	17.6	51.0	0.0		
Volume/Cap:	0.37	0.00	0.30	0.00	0.00	0.00	0.00	0.31	0.59	0.47	0.15	0.00		
Delay/Veh:	27.7	0.0	14.8	0.0	0.0	0.0	0.0	11.3	8.9	22.6	2.9	0.0		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	27.7	0.0	14.8	0.0	0.0	0.0	0.0	11.3	8.9	22.6	2.9	0.0		
LOS by Move:	C	A	B	A	A	A	A	B	A	C	A	A		
HCM2kAvgQ:	2	0	3	0	0	0	0	4	9	4	1	0		

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative without Project PM

Intersection #103: Butterfield Boulevard and Cochrane Road



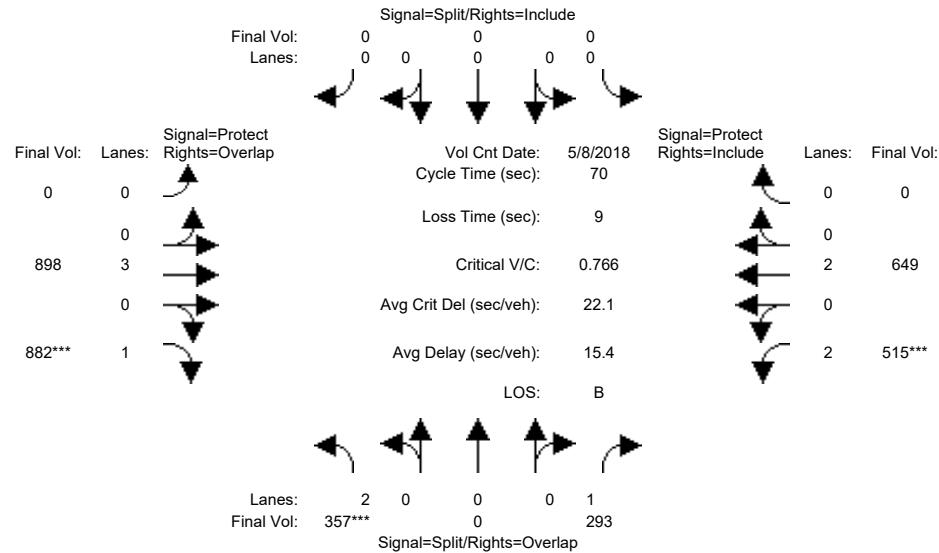
Street Name: Butterfield Boulevard Cochrane Road														
Approach:	North Bound			South Bound			East Bound			West Bound				
	L	-	T	-	R	L	-	T	-	R	L	-	T	-
Min. Green:	10 0		10 0		0 0		0 0		10 10		7 10		0 0	
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0	
Volume Module: >> Count Date: 8 May 2018 <<														
Base Vol:	339	0	286	0	0	0	0	885	882	518	655	0		
Growth 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		
Initial Bse:	339	0	286	0	0	0	0	885	882	518	655	0		
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	339	0	286	0	0	0	0	885	882	518	655	0		
User 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		
PHF 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		
PHF Volume:	339	0	286	0	0	0	0	885	882	518	655	0		
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	339	0	286	0	0	0	0	885	882	518	655	0		
PCE 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		
MLF 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		
FinalVolume:	339	0	286	0	0	0	0	885	882	518	655	0		
Saturation Flow Module:														
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92		
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00	1.00	2.00	2.00	0.00		
Final Sat.:	3150	0	1750	0	0	0	0	5700	1750	3150	3800	0		
Capacity Analysis Module:														
Vol/Sat:	0.11	0.00	0.16	0.00	0.00	0.00	0.00	0.16	0.50	0.16	0.17	0.00		
Crit Moves:	****													
Green Time:	10.0	0.0	26.0	0.0	0.0	0.0	0.0	35.0	45.0	16.0	51.0	0.0		
Volume/Cap:	0.75	0.00	0.44	0.00	0.00	0.00	0.00	0.31	0.78	0.72	0.24	0.00		
Delay/Veh:	35.9	0.0	17.0	0.0	0.0	0.0	0.0	10.4	12.6	28.6	3.2	0.0		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	35.9	0.0	17.0	0.0	0.0	0.0	0.0	10.4	12.6	28.6	3.2	0.0		
LOS by Move:	D	A	B	A	A	A	A	B	B	C	A	A		
HCM2kAvgQ:	6	0	5	0	0	0	0	4	15	6	2	0		

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative with Project PM

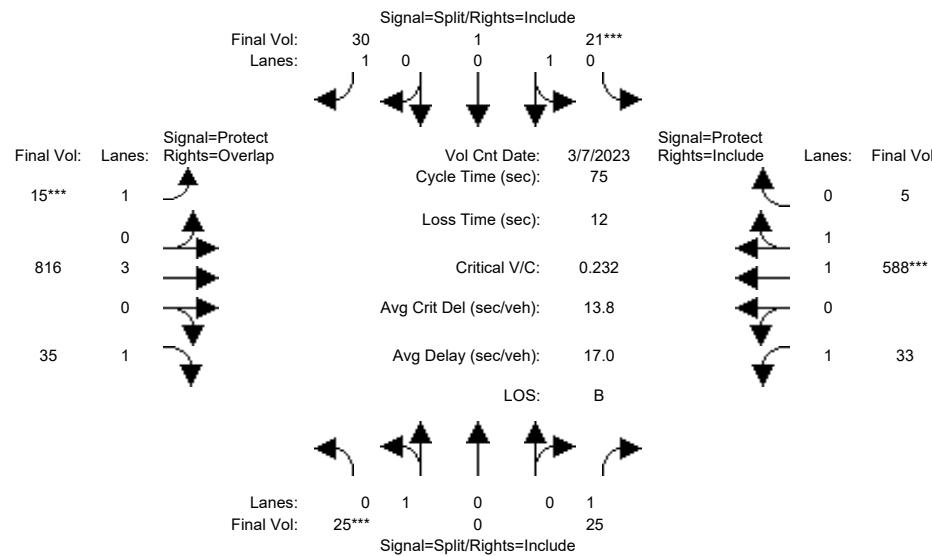
### Intersection #103: Butterfield Boulevard and Cochrane Road



Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper LnLevel Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

## Intersection #104: Woodview Avenue/Evergreen Village and Cochrane Road



Street Name: Woodview Avenue/Evergreen Village

Cochrane Road

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: &gt;&gt; Count Date: 7 Mar 2023 &lt;&lt;

Base Vol:	25	0	25	21	1	30	15	816	35	33	588	5
Growth 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
Initial Bse:	25	0	25	21	1	30	15	816	35	33	588	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	0	25	21	1	30	15	816	35	33	588	5
User 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
PHF 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
PHF Volume:	25	0	25	21	1	30	15	816	35	33	588	5
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	0	25	21	1	30	15	816	35	33	588	5
PCE 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
MLF 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
FinalVolume:	25	0	25	21	1	30	15	816	35	33	588	5

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.95	0.05	1.00	1.00	3.00	1.00	1.00	1.98	0.02
Final Sat.:	1800	0	1750	1718	82	1750	1750	5700	1750	1750	3669	31

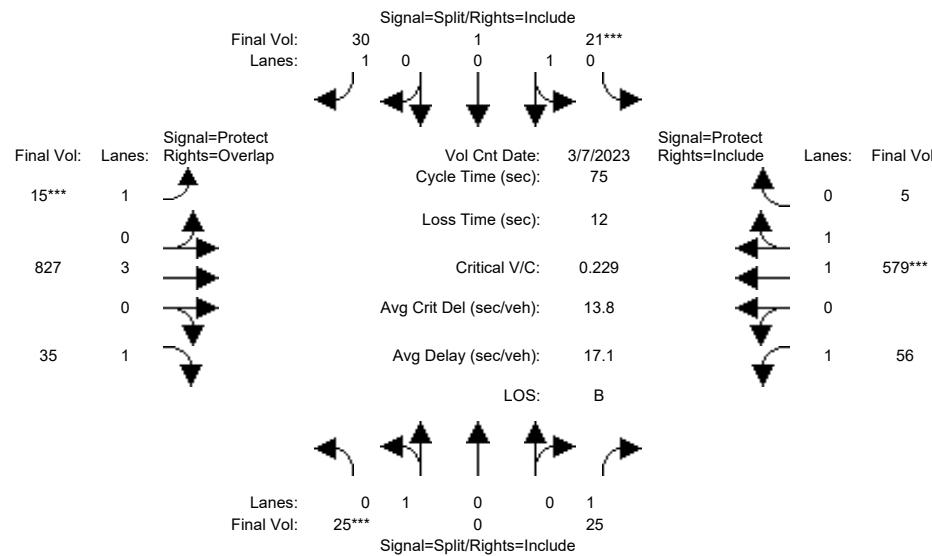
Capacity Analysis Module:

Vol/Sat:	0.01	0.00	0.01	0.01	0.01	0.02	0.01	0.14	0.02	0.02	0.16	0.16
Crit Moves:	****		****		****		****		****		****	
Green Time:	10.0	0.0	10.0	10.0	10.0	10.0	7.0	26.0	36.0	17.0	36.0	36.0
Volume/Cap:	0.10	0.00	0.11	0.09	0.09	0.13	0.09	0.41	0.04	0.08	0.33	0.33
Delay/Veh:	28.8	0.0	28.8	28.7	28.7	28.9	31.3	18.8	10.4	23.0	12.2	12.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.8	0.0	28.8	28.7	28.7	28.9	31.3	18.8	10.4	23.0	12.2	12.2
LOS by Move:	C	A	C	C	C	C	C	B	B	C	B	B
HCM2kAvgQ:	1	0	1	1	1	1	0	5	0	1	4	4

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper LnLevel Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing Plus Project PM

## Intersection #104: Woodview Avenue/Evergreen Village and Cochrane Road



Street Name: Woodview Avenue/Evergreen Village

Cochrane Road

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: &gt;&gt; Count Date: 7 Mar 2023 &lt;&lt;

Base Vol:	25	0	25	21	1	30	15	816	35	33	588	5
Growth 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
Initial Bse:	25	0	25	21	1	30	15	816	35	33	588	5
Added Vol:	0	0	0	0	0	0	0	11	0	23	-9	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	0	25	21	1	30	15	827	35	56	579	5
User 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
PHF 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
PHF Volume:	25	0	25	21	1	30	15	827	35	56	579	5
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	0	25	21	1	30	15	827	35	56	579	5
PCE 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
MLF 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
FinalVolume:	25	0	25	21	1	30	15	827	35	56	579	5

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.95	0.05	1.00	1.00	3.00	1.00	1.00	1.98	0.02
Final Sat.:	1800	0	1750	1718	82	1750	1750	5700	1750	1750	3668	32

Capacity Analysis Module:

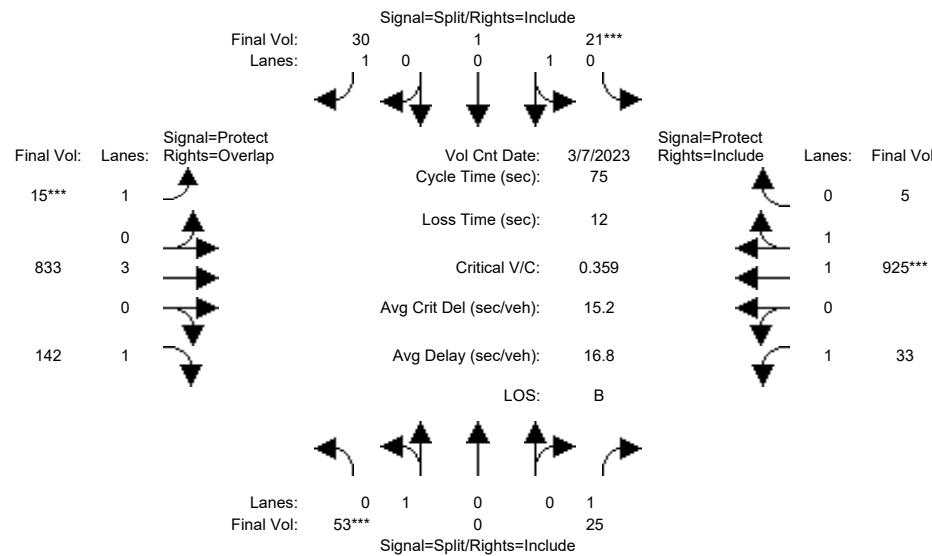
Vol/Sat:	0.01	0.00	0.01	0.01	0.01	0.02	0.01	0.15	0.02	0.03	0.16	0.16
Crit Moves:	****		****		****		****		****		****	
Green Time:	10.0	0.0	10.0	10.0	10.0	10.0	7.0	26.2	36.2	16.8	36.0	36.0
Volume/Cap:	0.10	0.00	0.11	0.09	0.09	0.13	0.09	0.42	0.04	0.14	0.33	0.33
Delay/Veh:	28.8	0.0	28.8	28.7	28.7	28.9	31.3	18.7	10.3	23.5	12.1	12.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.8	0.0	28.8	28.7	28.7	28.9	31.3	18.7	10.3	23.5	12.1	12.1
LOS by Move:	C	A	C	C	C	C	C	B	B	C	B	B
HCM2kAvgQ:	1	0	1	1	1	1	0	5	0	1	4	4

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative without Project PM

Intersection #104: Woodview Avenue/Evergreen Village and Cochrane Road



Street Name: Woodview Avenue/Evergreen Village

Cochrane Road

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 7 Mar 2023 <<

Base Vol:	53	0	25	21	1	30	15	833	142	33	925	5
Growth 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
Initial Bse:	53	0	25	21	1	30	15	833	142	33	925	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	0	25	21	1	30	15	833	142	33	925	5
User 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
PHF 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
PHF Volume:	53	0	25	21	1	30	15	833	142	33	925	5
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	0	25	21	1	30	15	833	142	33	925	5
PCE 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
MLF 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
FinalVolume:	53	0	25	21	1	30	15	833	142	33	925	5

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	1.00	0.00	1.00	0.95	0.05	1.00	1.00	3.00	1.00	1.00	1.99	0.01
Final Sat.:	1800	0	1750	1718	82	1750	1750	5700	1750	1750	3680	20

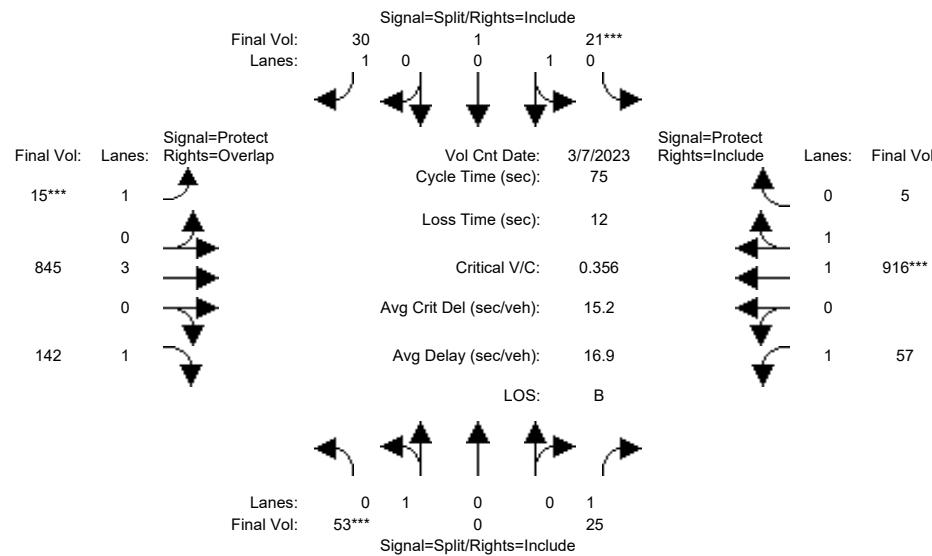
Capacity Analysis Module:

Vol/Sat:	0.03	0.00	0.01	0.01	0.01	0.02	0.01	0.15	0.08	0.02	0.25	0.25
Crit Moves:	****		****		****		****		****		****	
Green Time:	10.0	0.0	10.0	10.0	10.0	10.0	7.0	26.2	36.2	16.8	36.0	36.0
Volume/Cap:	0.22	0.00	0.11	0.09	0.09	0.13	0.09	0.42	0.17	0.08	0.52	0.52
Delay/Veh:	29.5	0.0	28.8	28.7	28.7	28.9	31.3	18.7	11.0	23.1	13.8	13.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.5	0.0	28.8	28.7	28.7	28.9	31.3	18.7	11.0	23.1	13.8	13.8
LOS by Move:	C	A	C	C	C	C	C	B	B	C	B	B
HCM2kAvgQ:	1	0	1	1	1	1	0	5	2	1	7	7

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper LnLevel Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative with Project PM

## Intersection #104: Woodview Avenue/Evergreen Village and Cochrane Road



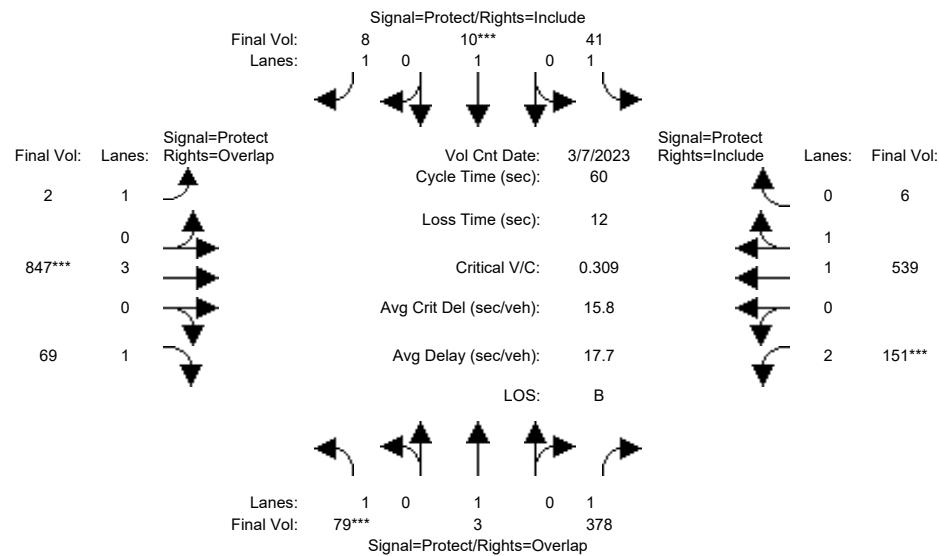
Street Name: Woodview Avenue/Evergreen Village												Cochrane Road													
Approach: North Bound				South Bound				East Bound				West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R										
----- -----																									
Min. Green:	10	10	10	10	10	10	10	7	10	10	7	10	10	7	10	10	10	10	10	10	10	10	10		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
----- -----																									
Volume Module: >> Count Date: 7 Mar 2023 <<																									
Base Vol:	53	0	25	21	1	30	15	833	142	33	925	5													
Growth 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													
Initial Bse:	53	0	25	21	1	30	15	833	142	33	925	5													
Added Vol:	0	0	0	0	0	0	0	0	0	24	-9	0													
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0													
Initial Fut:	53	0	25	21	1	30	15	845	142	57	916	5													
User 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													
PHF 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													
PHF Volume:	53	0	25	21	1	30	15	845	142	57	916	5													
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0													
Reduced Vol:	53	0	25	21	1	30	15	845	142	57	916	5													
PCE 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													
MLF 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													
FinalVolume:	53	0	25	21	1	30	15	845	142	57	916	5													
----- -----																									
Saturation Flow Module:																									
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900													
Adjustment:	0.95	0.95	0.92	0.95	0.95	0.92	0.92	1.00	0.92	0.92	0.97	0.95													
Lanes:	1.00	0.00	1.00	0.95	0.05	1.00	1.00	3.00	1.00	1.00	1.99	0.01													
Final Sat.:	1800	0	1750	1718	82	1750	1750	5700	1750	1750	3680	20													
----- -----																									
Capacity Analysis Module:																									
Vol/Sat:	0.03	0.00	0.01	0.01	0.01	0.02	0.01	0.15	0.08	0.03	0.25	0.25													
Crit Moves:	****		****		****		****		****		****														
Green Time:	10.0	0.0	10.0	10.0	10.0	10.0	7.0	26.4	36.4	16.6	36.0	36.0													
Volume/Cap:	0.22	0.00	0.11	0.09	0.09	0.13	0.09	0.42	0.17	0.15	0.52	0.52													
Delay/Veh:	29.5	0.0	28.8	28.7	28.7	28.9	31.3	18.6	10.9	23.7	13.8	13.8													
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00													
AdjDel/Veh:	29.5	0.0	28.8	28.7	28.7	28.9	31.3	18.6	10.9	23.7	13.8	13.8													
LOS by Move:	C	A	C	C	C	C	C	B	B	C	B	B													
HCM2kAvgQ:	1	0	1	1	1	1	0	5	2	1	7	7													

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #105: Sutter Boulevard and Cochrane Road



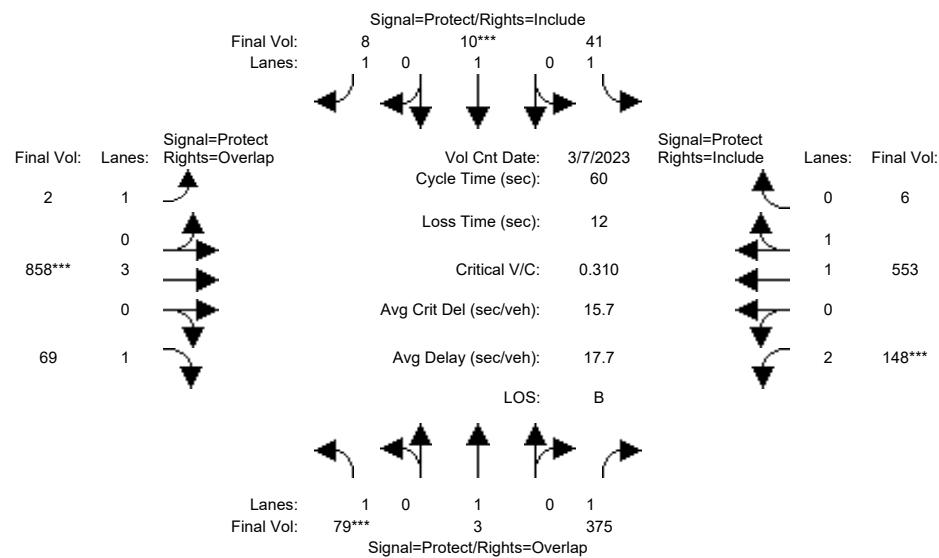
Street Name: Sutter Boulevard Cochrane Road														
Approach:	North Bound			South Bound			East Bound			West Bound				
	L	-	T	-	R	L	-	T	-	R	L	-	T	-
Min. Green:	7 10		10 7		10 10		10 7		10 10		10 7		10 10	
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0	
Volume Module: >> Count Date: 7 Mar 2023 <<														
Base Vol:	79	3	378	41	10	8	2	847	69	151	539	6		
Growth 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		
Initial Bse:	79	3	378	41	10	8	2	847	69	151	539	6		
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	79	3	378	41	10	8	2	847	69	151	539	6		
User 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		
PHF 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		
PHF Volume:	79	3	378	41	10	8	2	847	69	151	539	6		
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	79	3	378	41	10	8	2	847	69	151	539	6		
PCE 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		
MLF 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		
FinalVolume:	79	3	378	41	10	8	2	847	69	151	539	6		
Saturation Flow Module:														
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.97	0.95		
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.00	1.98	0.02		
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	5700	1750	3150	3659	41		
Capacity Analysis Module:														
Vol/Sat:	0.05	0.00	0.22	0.02	0.01	0.00	0.00	0.15	0.04	0.05	0.15	0.15		
Crit Moves:	****			****			****			****				
Green Time:	7.1	10.1	17.6	7.0	10.0	10.0	12.7	23.4	30.5	7.5	18.2	18.2		
Volume/Cap:	0.38	0.01	0.74	0.20	0.03	0.03	0.01	0.38	0.08	0.38	0.49	0.49		
Delay/Veh:	25.6	20.8	24.6	24.5	21.0	21.0	18.7	13.2	7.6	24.7	17.4	17.4		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	25.6	20.8	24.6	24.5	21.0	21.0	18.7	13.2	7.6	24.7	17.4	17.4		
LOS by Move:	C	C	C	C	C	C	B	B	A	C	B	B		
HCM2kAvgQ:	2	0	9	1	0	0	0	4	1	2	4	4		

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing Plus Project PM

## Intersection #105: Sutter Boulevard and Cochrane Road



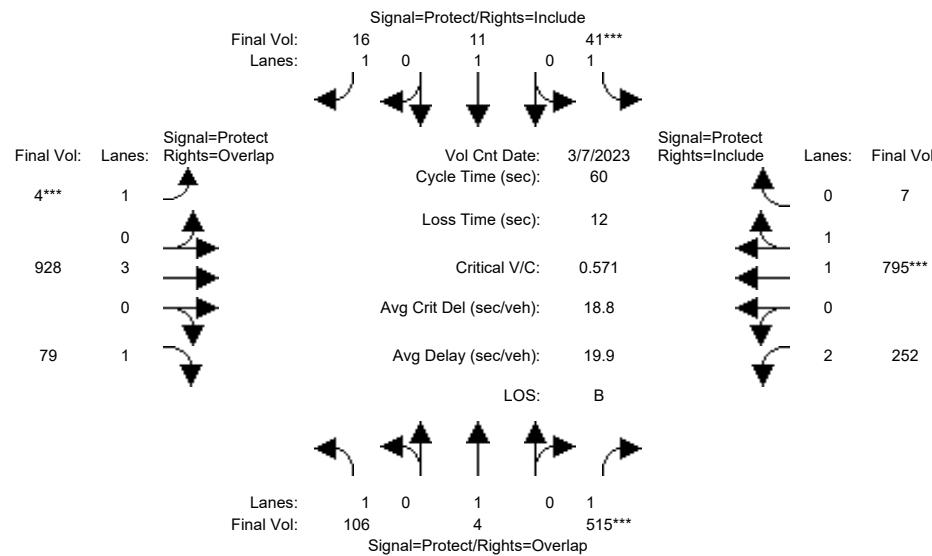
Street Name: Sutter Boulevard Cochrane Road												
Approach:	North Bound			South Bound			East Bound			West Bound		
	Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Volume Module: >> Count Date: 7 Mar 2023 <<												
Base Vol:	79	3	378	41	10	8	2	847	69	151	539	6
Growth 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
Initial Bse:	79	3	378	41	10	8	2	847	69	151	539	6
Added Vol:	0	0	-3	0	0	0	0	11	0	-3	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	79	3	375	41	10	8	2	858	69	148	553	6
User 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
PHF 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
PHF Volume:	79	3	375	41	10	8	2	858	69	148	553	6
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	3	375	41	10	8	2	858	69	148	553	6
PCE 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
MLF 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
FinalVolume:	79	3	375	41	10	8	2	858	69	148	553	6
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.97	0.95
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.00	1.98	0.02	
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	5700	1750	3150	3660	40
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.21	0.02	0.01	0.00	0.00	0.15	0.04	0.05	0.15	0.15
Crit Moves:	****			****			****		****			
Green Time:	7.1	10.1	17.4	7.0	10.0	10.0	12.7	23.6	30.6	7.4	18.2	18.2
Volume/Cap:	0.38	0.01	0.74	0.20	0.03	0.03	0.01	0.38	0.08	0.38	0.50	0.50
Delay/Veh:	25.6	20.8	24.9	24.4	21.0	21.0	18.6	13.1	7.5	24.9	17.5	17.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.6	20.8	24.9	24.4	21.0	21.0	18.6	13.1	7.5	24.9	17.5	17.5
LOS by Move:	C	C	C	C	C	C	B	B	A	C	B	B
HCM2kAvgQ:	2	0	9	1	0	0	0	4	1	1	4	4

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative without Project PM

Intersection #105: Sutter Boulevard and Cochrane Road

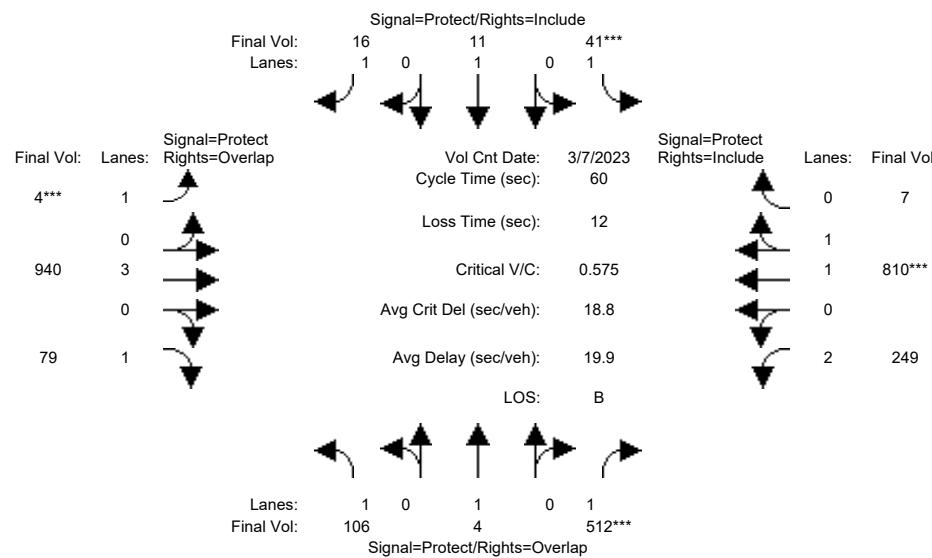


Street Name: Sutter Boulevard Cochrane Road												
Approach:	North Bound			South Bound			East Bound			West Bound		
	Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Volume Module: >> Count Date: 7 Mar 2023 <<												
Base Vol:	106	4	515	41	11	16	4	928	79	252	795	7
Growth 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
Initial Bse:	106	4	515	41	11	16	4	928	79	252	795	7
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	106	4	515	41	11	16	4	928	79	252	795	7
User 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
PHF 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
PHF Volume:	106	4	515	41	11	16	4	928	79	252	795	7
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	4	515	41	11	16	4	928	79	252	795	7
PCE 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
MLF 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
FinalVolume:	106	4	515	41	11	16	4	928	79	252	795	7
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.97	0.95
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.00	1.98	0.02
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	5700	1750	3150	3668	32
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.29	0.02	0.01	0.01	0.00	0.16	0.05	0.08	0.22	0.22
Crit Moves:	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Green Time:	9.2	15.3	25.9	7.0	13.1	13.1	7.0	15.1	24.3	10.6	18.7	18.7
Volume/Cap:	0.40	0.01	0.68	0.20	0.03	0.04	0.02	0.65	0.11	0.45	0.70	0.70
Delay/Veh:	23.9	16.7	16.3	24.5	18.4	18.5	23.5	21.1	11.2	22.7	20.0	20.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.9	16.7	16.3	24.5	18.4	18.5	23.5	21.1	11.2	22.7	20.0	20.0
LOS by Move:	C	B	B	C	B	B	C	C	B	C	C	C
HCM2kAvgQ:	2	0	10	1	0	0	0	5	1	2	7	7

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper LnLevel Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative with Project PM

## Intersection #105: Sutter Boulevard and Cochrane Road



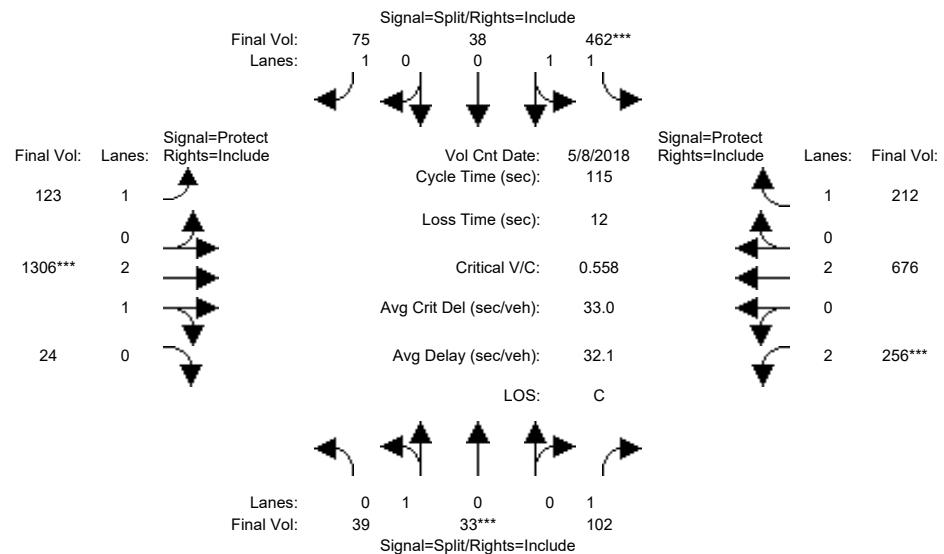
Street Name: Sutter Boulevard Cochrane Road												
Approach:	North Bound			South Bound			East Bound			West Bound		
	Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Volume Module: >> Count Date: 7 Mar 2023 <<												
Base Vol:	106	4	515	41	11	16	4	928	79	252	795	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	106	4	515	41	11	16	4	928	79	252	795	
Added Vol:	0	0	-3	0	0	0	0	12	0	-3	15	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	106	4	512	41	11	16	4	940	79	249	810	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	106	4	512	41	11	16	4	940	79	249	810	
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	106	4	512	41	11	16	4	940	79	249	810	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	106	4	512	41	11	16	4	940	79	249	810	
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.97	
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	2.00	1.98	
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	5700	1750	3150	3668	
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.29	0.02	0.01	0.01	0.00	0.16	0.05	0.08	0.22	
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	9.1	15.1	25.8	7.0	13.0	13.0	7.0	15.2	24.3	10.7	18.9	
Volume/Cap:	0.40	0.01	0.68	0.20	0.03	0.04	0.02	0.65	0.11	0.44	0.70	
Delay/Veh:	24.0	16.9	16.4	24.5	18.6	18.6	23.5	21.0	11.2	22.6	20.0	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	24.0	16.9	16.4	24.5	18.6	18.6	23.5	21.0	11.2	22.6	20.0	
LOS by Move:	C	B	B	C	B	B	C	C	B	C	B	
HCM2kAvgQ:	2	0	9	1	0	0	0	5	1	2	7	

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing PM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



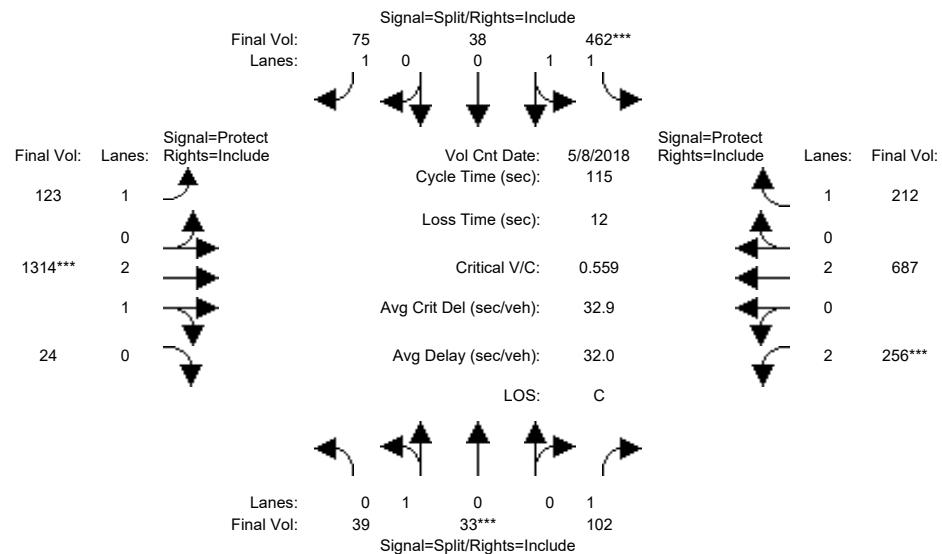
Street Name: Madrone Parkway/Cochrane Plaza												Cochrane Road												
Approach: North Bound				South Bound				East Bound				West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R									
----- -----																								
Min. Green:	10	10	10	10	10	10	10	7	10	10	7	10	10	7	10	10	10	10	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
----- -----																								
Volume Module: >> Count Date: 8 May 2018 <<	39	33	102	462	38	75	123	1306	24	256	676	212												
Base Vol:	39	33	102	462	38	75	123	1306	24	256	676	212												
Growth 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												
Initial Bse:	39	33	102	462	38	75	123	1306	24	256	676	212												
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0												
Initial Fut:	39	33	102	462	38	75	123	1306	24	256	676	212												
User 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												
PHF 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												
PHF Volume:	39	33	102	462	38	75	123	1306	24	256	676	212												
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
Reduced Vol:	39	33	102	462	38	75	123	1306	24	256	676	212												
PCE 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												
MLF 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												
FinalVolume:	39	33	102	462	38	75	123	1306	24	256	676	212												
----- -----																								
Saturation Flow Module:																								
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900												
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92												
Lanes:	0.54	0.46	1.00	1.85	0.15	1.00	1.00	2.94	0.06	2.00	2.00	1.00												
Final Sat.:	975	825	1750	3280	270	1750	1750	5499	101	3150	3800	1750												
Capacity Analysis Module:																								
Vol/Sat:	0.04	0.04	0.06	0.14	0.14	0.04	0.07	0.24	0.24	0.08	0.18	0.12												
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****												
Green Time:	12.0	12.0	12.0	27.9	27.9	27.9	17.9	47.0	47.0	16.1	45.2	45.2												
Volume/Cap:	0.38	0.38	0.56	0.58	0.58	0.18	0.45	0.58	0.58	0.58	0.58	0.45	0.31											
Delay/Veh:	49.3	49.3	52.8	39.4	39.4	34.7	45.3	26.7	26.7	48.3	26.0	24.3												
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
AdjDel/Veh:	49.3	49.3	52.8	39.4	39.4	34.7	45.3	26.7	26.7	48.3	26.0	24.3												
LOS by Move:	D	D	D	D	D	C	D	C	C	D	C	C												
HCM2kAvgQ:	3	3	5	9	9	2	4	12	12	5	8	5												

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing Plus Project PM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



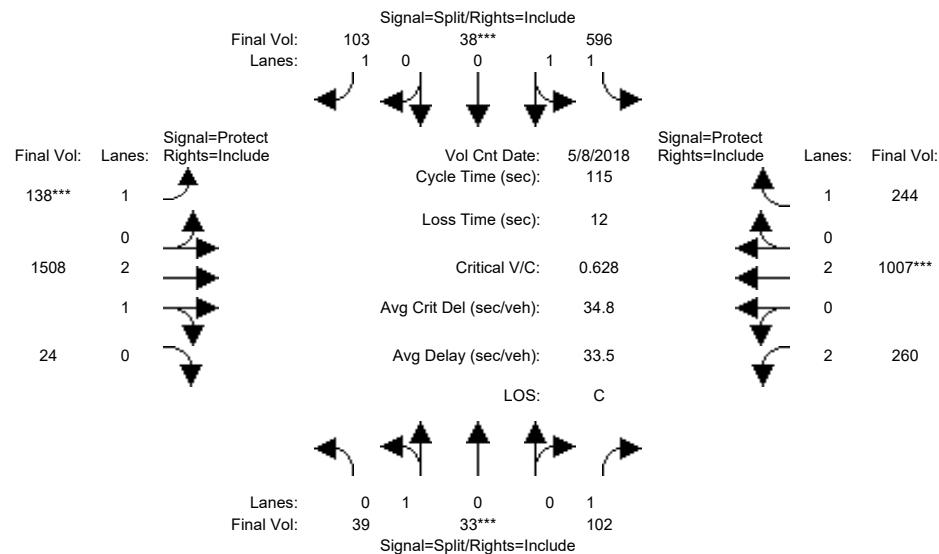
Street Name: Madrone Parkway/Cochrane Plaza												Cochrane Road												
Approach: North Bound				South Bound				East Bound				West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R									
----- -----																								
Min. Green:	10	10	10	10	10	10	10	7	10	10	7	10	10	7	10	10	10	10	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
----- -----																								
Volume Module: >> Count Date: 8 May 2018 <<	39	33	102	462	38	75	123	1306	24	256	676	212												
Base Vol:	39	33	102	462	38	75	123	1306	24	256	676	212												
Growth 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												
Initial Bse:	39	33	102	462	38	75	123	1306	24	256	676	212												
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0												
Initial Fut:	39	33	102	462	38	75	123	1314	24	256	687	212												
User 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												
PHF 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												
PHF Volume:	39	33	102	462	38	75	123	1314	24	256	687	212												
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
Reduced Vol:	39	33	102	462	38	75	123	1314	24	256	687	212												
PCE 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												
MLF 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												
FinalVolume:	39	33	102	462	38	75	123	1314	24	256	687	212												
----- -----																								
Saturation Flow Module:																								
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900												
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92												
Lanes:	0.54	0.46	1.00	1.85	0.15	1.00	1.00	2.94	0.06	2.00	2.00	1.00												
Final Sat.:	975	825	1750	3280	270	1750	1750	5499	100	3150	3800	1750												
----- -----																								
Capacity Analysis Module:																								
Vol/Sat:	0.04	0.04	0.06	0.14	0.14	0.04	0.07	0.24	0.24	0.08	0.18	0.12												
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****												
Green Time:	12.0	12.0	12.0	27.8	27.8	27.8	17.7	47.2	47.2	16.0	45.5	45.5												
Volume/Cap:	0.38	0.38	0.56	0.58	0.58	0.18	0.46	0.58	0.58	0.58	0.58	0.46	0.31											
Delay/Veh:	49.4	49.4	52.9	39.5	39.5	34.7	45.5	26.7	26.7	48.3	25.8	24.1												
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
AdjDel/Veh:	49.4	49.4	52.9	39.5	39.5	34.7	45.5	26.7	26.7	48.3	25.8	24.1												
LOS by Move:	D	D	D	D	D	C	D	C	C	D	C	C												
HCM2kAvgQ:	3	3	5	9	9	2	4	12	12	5	9	5												

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative without Project PM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road



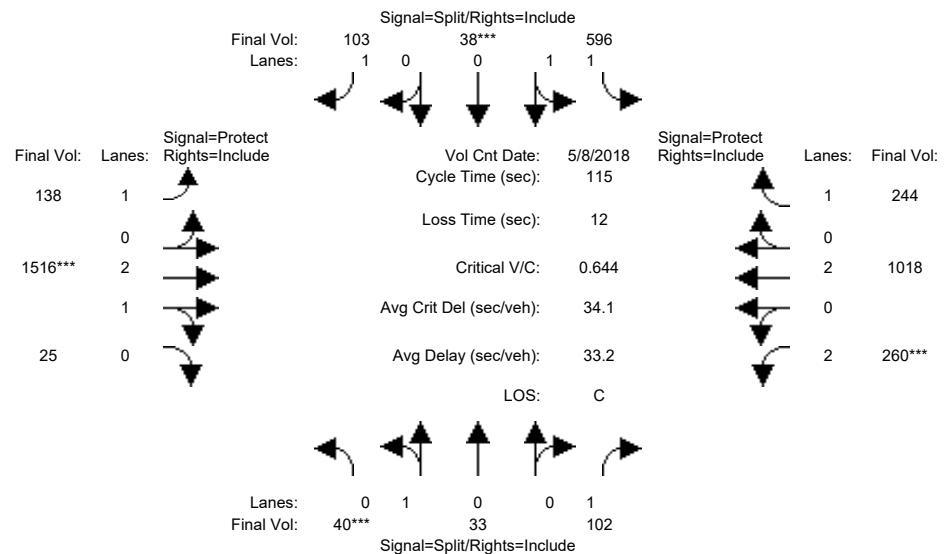
Street Name: Madrone Parkway/Cochrane Plaza												Cochrane Road												
Approach: North Bound				South Bound				East Bound				West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R									
----- -----																								
Min. Green:	10	10	10	10	10	10	10	7	10	10	7	10	10	7	10	10	10	10	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
----- -----																								
Volume Module: >> Count Date: 8 May 2018 <<																								
Base Vol:	39	33	102	596	38	103	138	1508	24	260	1007	244												
Growth 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												
Initial Bse:	39	33	102	596	38	103	138	1508	24	260	1007	244												
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0												
Initial Fut:	39	33	102	596	38	103	138	1508	24	260	1007	244												
User 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												
PHF 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												
PHF Volume:	39	33	102	596	38	103	138	1508	24	260	1007	244												
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
Reduced Vol:	39	33	102	596	38	103	138	1508	24	260	1007	244												
PCE 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												
MLF 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												
FinalVolume:	39	33	102	596	38	103	138	1508	24	260	1007	244												
----- -----																								
Saturation Flow Module:																								
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900												
Adjustment:	0.95	0.95	0.92	0.93	0.95	0.92	0.92	0.98	0.95	0.83	1.00	0.92												
Lanes:	0.54	0.46	1.00	1.88	0.12	1.00	1.00	2.95	0.05	2.00	2.00	1.00												
Final Sat.:	975	825	1750	3337	213	1750	1750	5512	88	3150	3800	1750												
----- -----																								
Capacity Analysis Module:																								
Vol/Sat:	0.04	0.04	0.06	0.18	0.18	0.06	0.08	0.27	0.27	0.08	0.27	0.14												
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****												
Green Time:	10.7	10.7	10.7	31.6	31.6	31.6	13.9	46.7	46.7	14.1	46.8	46.8												
Volume/Cap:	0.43	0.43	0.63	0.65	0.65	0.21	0.65	0.67	0.67	0.67	0.65	0.34												
Delay/Veh:	51.1	51.1	57.9	38.4	38.4	32.4	55.2	28.7	28.7	52.9	28.5	23.8												
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
AdjDel/Veh:	51.1	51.1	57.9	38.4	38.4	32.4	55.2	28.7	28.7	52.9	28.5	23.8												
LOS by Move:	D	D	E	D	D	C	E	C	C	D	C	C												
HCM2kAvgQ:	3	3	5	11	11	3	5	15	15	5	14	6												

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative with Project PM

Intersection #106: Madrone Parkway/Cochrane Plaza and Cochrane Road

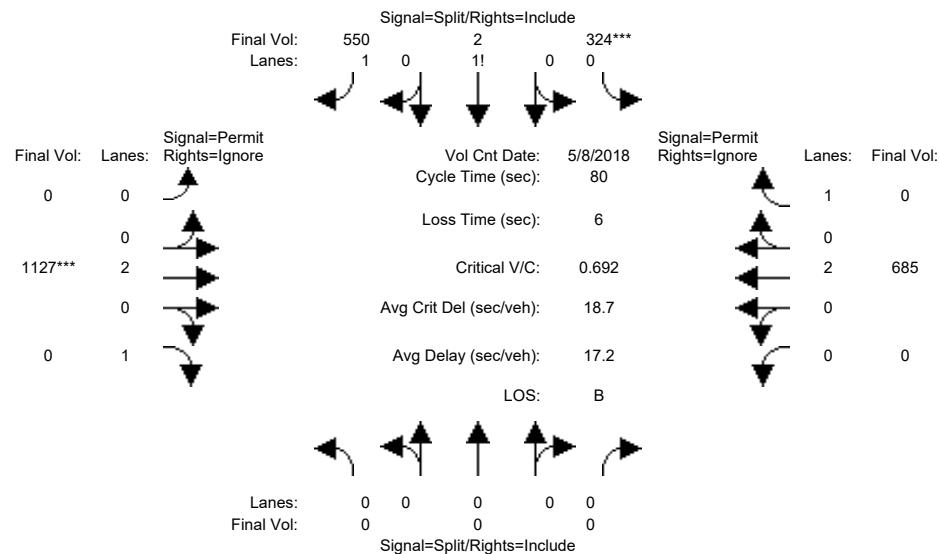


Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing PM

## Intersection #107: US 101 Southbound Ramps and Cochrane Road



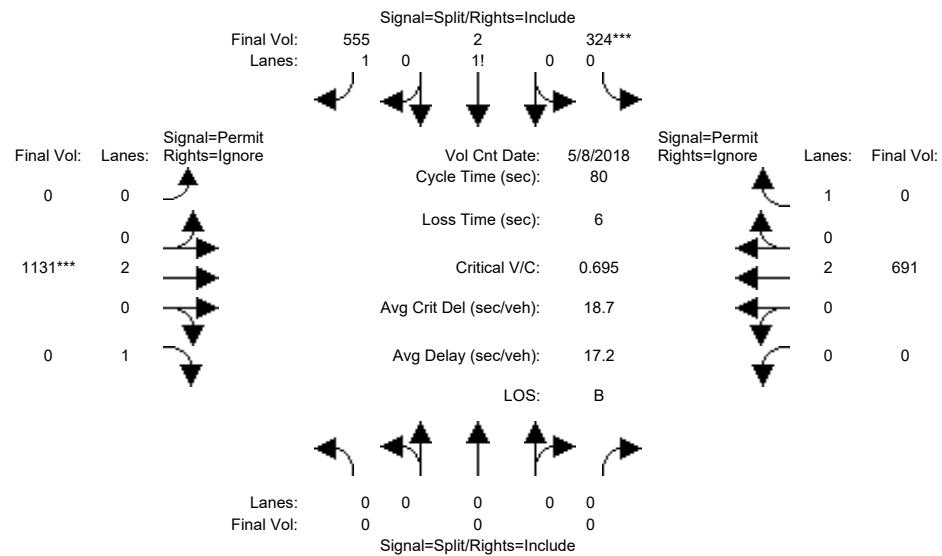
Street Name: US 101 Southbound Ramps Cochrane Road																
Approach:	North Bound			South Bound			East Bound			West Bound						
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----				
Min. Green:	0	0	0	10	0	10	0	10	10	0	10	10	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----				
Volume Module: >> Count Date: 8 May 2018 <<												----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----				
Base Vol:	0	0	0	324	2	550	0	1127	799	0	685	170	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Growth 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	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Initial Bse:	0	0	0	324	2	550	0	1127	799	0	685	170	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Initial Fut:	0	0	0	324	2	550	0	1127	799	0	685	170	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
PHF Volume:	0	0	0	324	2	550	0	1127	0	0	685	0	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Reduced Vol:	0	0	0	324	2	550	0	1127	0	0	685	0	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
FinalVolume:	0	0	0	324	2	550	0	1127	0	0	685	0	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----				
Saturation Flow Module:												----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----				
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Adjustment:	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Lanes:	0.00	0.00	0.00	0.54	0.01	1.45	0.00	2.00	1.00	0.00	2.00	1.00	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Final Sat.:	0	0	0	943	6	2551	0	3800	1750	0	3800	1750	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----												----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----				
Capacity Analysis Module:												----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----				
Vol/Sat:	0.00	0.00	0.00	0.34	0.34	0.22	0.00	0.30	0.00	0.00	0.18	0.00	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Crit Moves:	*****											----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----				
Green Time:	0.0	0.0	0.0	39.7	39.7	39.7	0.0	34.3	0.0	0.0	34.3	0.0	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Volume/Cap:	0.00	0.00	0.00	0.69	0.69	0.43	0.00	0.69	0.00	0.00	0.42	0.00	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
Delay/Veh:	0.0	0.0	0.0	17.1	17.1	13.1	0.0	19.9	0.0	0.0	16.1	0.0	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
AdjDel/Veh:	0.0	0.0	0.0	17.1	17.1	13.1	0.0	19.9	0.0	0.0	16.1	0.0	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
LOS by Move:	A	A	A	B	B	B	A	B	A	A	B	A	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			
HCM2kAvgQ:	0	0	0	13	13	7	0	11	0	0	6	0	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----			

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing Plus Project PM

## Intersection #107: US 101 Southbound Ramps and Cochrane Road



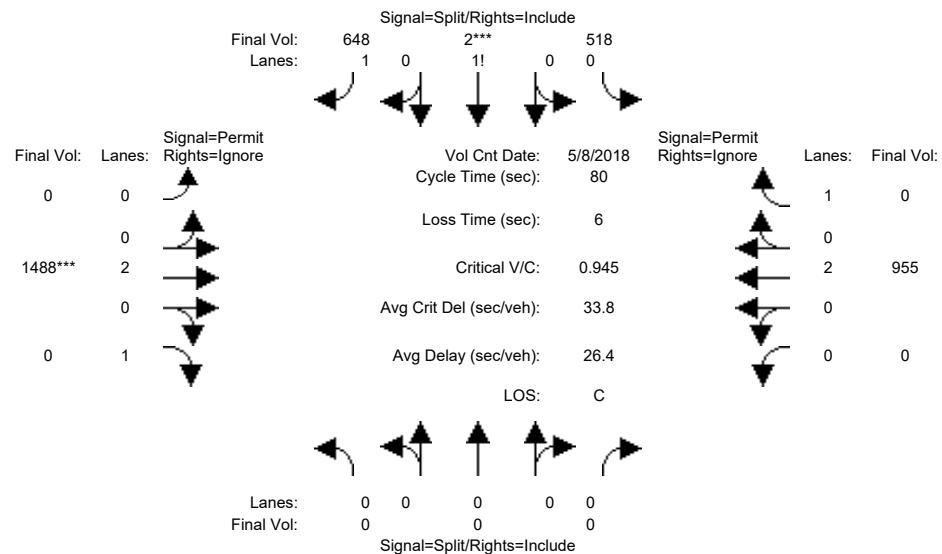
Street Name: US 101 Southbound Ramps Cochrane Road																
Approach:	North Bound			South Bound			East Bound			West Bound						
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Min. Green:		0	0	0	10	0	10	0	10	10	0	10	10	0	10	10
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Volume Module: >> Count Date: 8 May 2018 <<																
Base Vol:		0	0	0	324	2	550	0	1127	799	0	685	170			
Growth 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			
Initial Bse:		0	0	0	324	2	550	0	1127	799	0	685	170			
Added Vol:		0	0	0	0	0	5	0	4	5	0	6	0			
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:		0	0	0	324	2	555	0	1131	804	0	691	170			
User Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
PHF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
PHF Volume:		0	0	0	324	2	555	0	1131	0	0	691	0			
Reduc Vol:		0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:		0	0	0	324	2	555	0	1131	0	0	691	0			
PCE Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
MLF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
FinalVolume:		0	0	0	324	2	555	0	1131	0	0	691	0			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Saturation Flow Module:																
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:		0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00				
Lanes:		0.00	0.00	0.00	0.53	0.01	1.46	0.00	2.00	1.00	0.00	2.00				
Final Sat.:		0	0	0	940	6	2555	0	3800	1750	0	3800				
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Capacity Analysis Module:																
Vol/Sat:		0.00	0.00	0.00	0.34	0.34	0.22	0.00	0.30	0.00	0.00	0.18	0.00			
Crit Moves:		*****				*****										
Green Time:		0.0	0.0	0.0	39.7	39.7	39.7	0.0	34.3	0.0	0.0	34.3	0.0			
Volume/Cap:		0.00	0.00	0.00	0.69	0.69	0.44	0.00	0.69	0.00	0.00	0.42	0.00			
Delay/Veh:		0.0	0.0	0.0	17.2	17.2	13.1	0.0	19.9	0.0	0.0	16.1	0.0			
User DelAdj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:		0.0	0.0	0.0	17.2	17.2	13.1	0.0	19.9	0.0	0.0	16.1	0.0			
LOS by Move:		A	A	A	B	B	B	A	B	A	A	B	A			
HCM2kAvgQ:		0	0	0	13	13	7	0	11	0	0	6	0			

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Year 2030 Cumulative without Project PM

## Intersection #107: US 101 Southbound Ramps and Cochrane Road

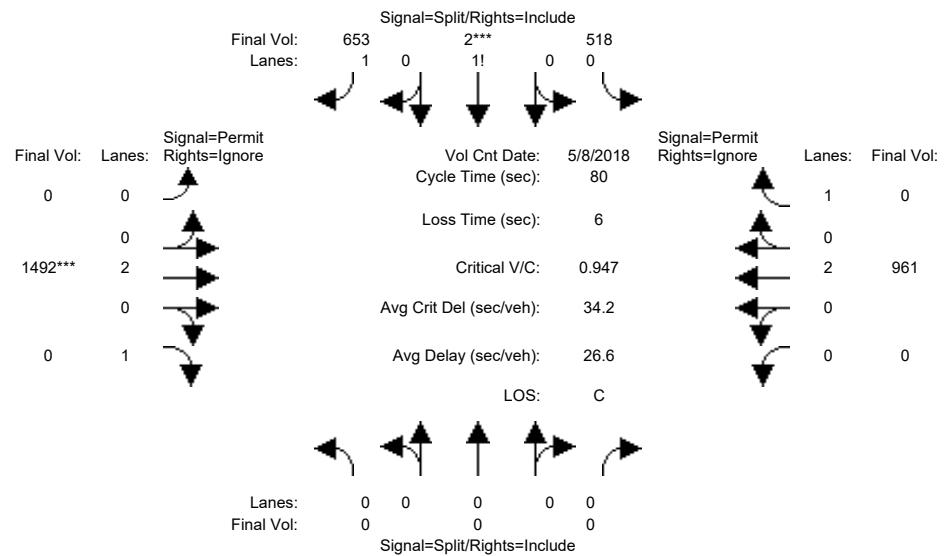


Street Name: US 101 Southbound Ramps Cochrane Road																
Approach:	North Bound			South Bound			East Bound			West Bound						
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Min. Green:		0	0	0	10	0	10	0	10	10	0	10	10	0	10	10
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Volume Module: >> Count Date: 8 May 2018 <<																
Base Vol:		0	0	0	518	2	648	0	1488	809	0	955	170			
Growth 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			
Initial Bse:		0	0	0	518	2	648	0	1488	809	0	955	170			
Added Vol:		0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:		0	0	0	518	2	648	0	1488	809	0	955	170			
User Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
PHF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
PHF Volume:		0	0	0	518	2	648	0	1488	0	0	955	0			
Reduc Vol:		0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:		0	0	0	518	2	648	0	1488	0	0	955	0			
PCE Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
MLF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
FinalVolume:		0	0	0	518	2	648	0	1488	0	0	955	0			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Saturation Flow Module:																
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:		0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00				
Lanes:		0.00	0.00	0.00	0.61	0.01	1.38	0.00	2.00	1.00	0.00	2.00				
Final Sat.:		0	0	0	1074	4	2422	0	3800	1750	0	3800				
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Capacity Analysis Module:																
Vol/Sat:		0.00	0.00	0.00	0.48	0.48	0.27	0.00	0.39	0.00	0.00	0.25	0.00			
Crit Moves:		*****						*****								
Green Time:		0.0	0.0	0.0	40.8	40.8	40.8	0.0	33.2	0.0	0.0	33.2	0.0			
Volume/Cap:		0.00	0.00	0.00	0.94	0.94	0.52	0.00	0.94	0.00	0.00	0.61	0.00			
Delay/Veh:		0.0	0.0	0.0	32.9	32.9	13.3	0.0	34.5	0.0	0.0	19.0	0.0			
User DelAdj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:		0.0	0.0	0.0	32.9	32.9	13.3	0.0	34.5	0.0	0.0	19.0	0.0			
LOS by Move:		A	A	A	C	C	B	A	C	A	A	B	A			
HCM2kAvgQ:		0	0	0	27	27	9	0	20	0	0	9	0			

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper LnLevel Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative with Project PM

## Intersection #107: US 101 Southbound Ramps and Cochrane Road



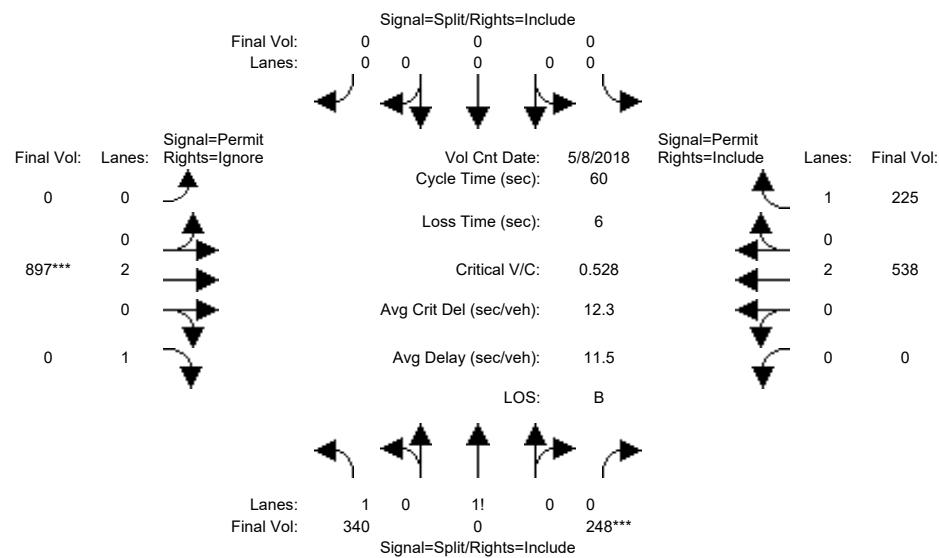
Street Name: US 101 Southbound Ramps						Cochrane Road										
Approach:	North Bound			South Bound			East Bound			West Bound						
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Min. Green:		0	0	0	10	0	10	0	10	10	0	10	10	0	10	10
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Volume Module: >> Count Date: 8 May 2018 <<																
Base Vol:		0	0	0	518	2	648	0	1488	809	0	955	170			
Growth 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			
Initial Bse:		0	0	0	518	2	648	0	1488	809	0	955	170			
Added Vol:		0	0	0	0	0	5	0	4	5	0	6	0			
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:		0	0	0	518	2	653	0	1492	814	0	961	170			
User Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
PHF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
PHF Volume:		0	0	0	518	2	653	0	1492	0	0	961	0			
Reduc Vol:		0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:		0	0	0	518	2	653	0	1492	0	0	961	0			
PCE Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
MLF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
FinalVolume:		0	0	0	518	2	653	0	1492	0	0	961	0			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Saturation Flow Module:																
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:		0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92			
Lanes:		0.00	0.00	0.00	0.61	0.01	1.38	0.00	2.00	1.00	0.00	2.00	1.00			
Final Sat.:		0	0	0	1071	4	2425	0	3800	1750	0	3800	1750			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Capacity Analysis Module:																
Vol/Sat:		0.00	0.00	0.00	0.48	0.48	0.27	0.00	0.39	0.00	0.00	0.25	0.00			
Crit Moves:		*****						*****								
Green Time:		0.0	0.0	0.0	40.8	40.8	40.8	0.0	33.2	0.0	0.0	33.2	0.0			
Volume/Cap:		0.00	0.00	0.00	0.95	0.95	0.53	0.00	0.95	0.00	0.00	0.61	0.00			
Delay/Veh:		0.0	0.0	0.0	33.3	33.3	13.4	0.0	35.0	0.0	0.0	19.1	0.0			
User DelAdj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:		0.0	0.0	0.0	33.3	33.3	13.4	0.0	35.0	0.0	0.0	19.1	0.0			
LOS by Move:		A	A	A	C	C	B	A	C	A	A	B	A			
HCM2kAvgQ:		0	0	0	27	27	9	0	20	0	0	9	0			

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing PM

## Intersection #108: US 101 Northbound Ramps and Cochrane Road



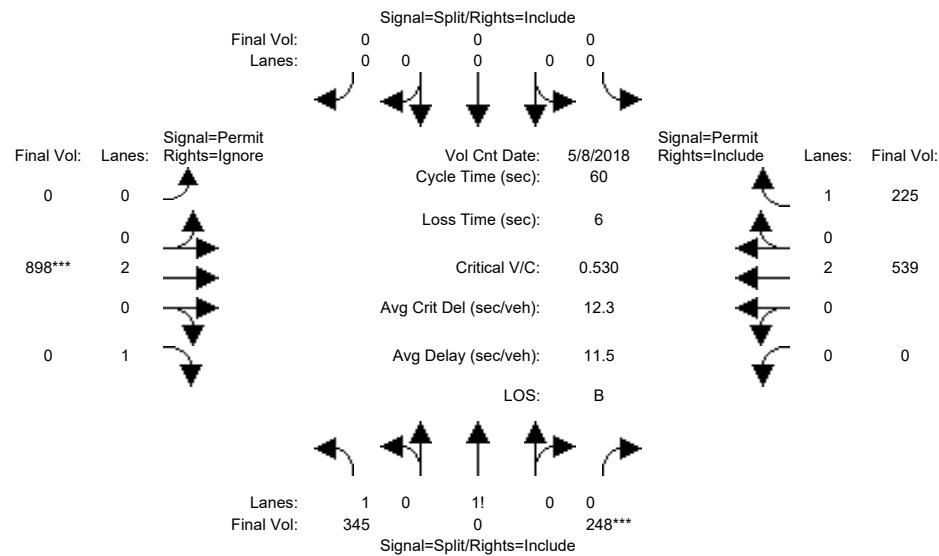
Street Name: US 101 Northbound Ramps Cochrane Road																
Approach:	North Bound			South Bound			East Bound			West Bound						
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Min. Green:		10	0	10	0	0	0	0	10	10	0	10	10	0	10	10
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Volume Module: >> Count Date: 8 May 2018 <<																
Base Vol:	340	0	248	0	0	0	0	0	897	0	0	0	538	225		
Growth 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	1.00	1.00		
Initial Bse:	340	0	248	0	0	0	0	0	897	0	0	0	538	225		
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	340	0	248	0	0	0	0	0	897	0	0	0	538	225		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		
PHF Volume:	340	0	248	0	0	0	0	0	897	0	0	0	538	225		
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	340	0	248	0	0	0	0	0	897	0	0	0	538	225		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00		
FinalVolume:	340	0	248	0	0	0	0	0	897	0	0	0	538	225		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900					
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00					
Lanes:	1.41	0.00	0.59	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00					
Final Sat.:	2462	0	1038	0	0	0	0	3800	1750	0	3800					
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Capacity Analysis Module:																
Vol/Sat:	0.14	0.00	0.24	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.14					
Crit Moves:	*****						*****									
Green Time:	27.2	0.0	27.2	0.0	0.0	0.0	0.0	26.8	0.0	0.0	26.8					
Volume/Cap:	0.31	0.00	0.53	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.32					
Delay/Veh:	10.5	0.0	12.3	0.0	0.0	0.0	0.0	12.3	0.0	0.0	10.8					
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
AdjDel/Veh:	10.5	0.0	12.3	0.0	0.0	0.0	0.0	12.3	0.0	0.0	10.8					
LOS by Move:	B	A	B	A	A	A	A	B	A	A	B					
HCM2kAvgQ:	3	0	7	0	0	0	0	7	0	0	3					

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing Plus Project PM

## Intersection #108: US 101 Northbound Ramps and Cochrane Road



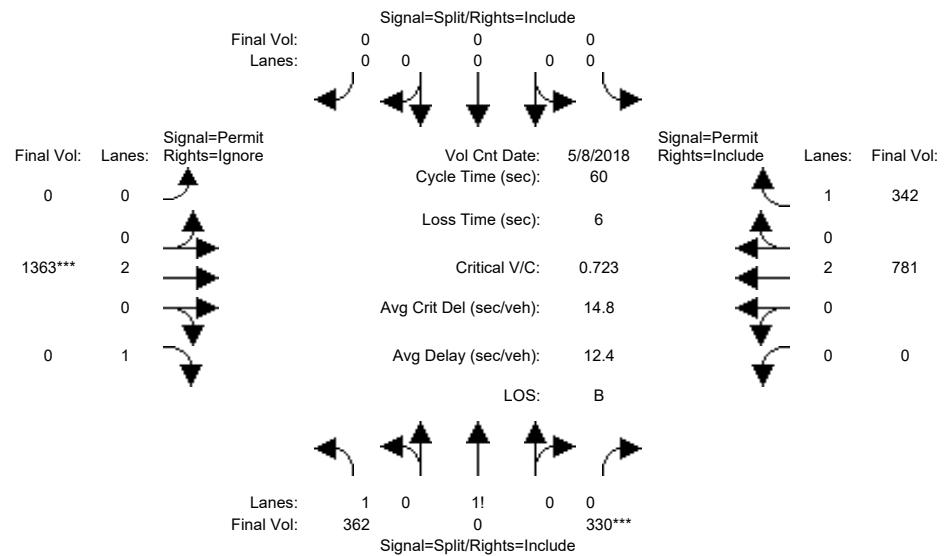
Street Name: US 101 Northbound Ramps Cochrane Road																
Approach:	North Bound			South Bound			East Bound			West Bound						
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Min. Green:		10	0	10	0	0	0	0	10	10	0	10	10	0	10	10
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Volume Module: >> Count Date: 8 May 2018 <<																
Base Vol:	340	0	248	0	0	0	0	897	0	0	538	225				
Growth 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				
Initial Bse:	340	0	248	0	0	0	0	897	0	0	538	225				
Added Vol:	5	0	0	0	0	0	0	1	0	0	1	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	345	0	248	0	0	0	0	898	0	0	539	225				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	345	0	248	0	0	0	0	898	0	0	539	225				
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	345	0	248	0	0	0	0	898	0	0	539	225				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	345	0	248	0	0	0	0	898	0	0	539	225				
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92				
Lanes:	1.41	0.00	0.59	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00				
Final Sat.:	2468	0	1032	0	0	0	0	3800	1750	0	3800	1750				
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----																
Capacity Analysis Module:																
Vol/Sat:	0.14	0.00	0.24	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.14	0.13				
Crit Moves:	*****						*****									
Green Time:	27.2	0.0	27.2	0.0	0.0	0.0	0.0	26.8	0.0	0.0	26.8	26.8				
Volume/Cap:	0.31	0.00	0.53	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.32	0.29				
Delay/Veh:	10.5	0.0	12.3	0.0	0.0	0.0	0.0	12.4	0.0	0.0	10.8	10.8				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	10.5	0.0	12.3	0.0	0.0	0.0	0.0	12.4	0.0	0.0	10.8	10.8				
LOS by Move:	B	A	B	A	A	A	A	B	A	A	B	B				
HCM2kAvgQ:	3	0	7	0	0	0	0	7	0	0	3	3				

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Year 2030 Cumulative without Project PM

## Intersection #108: US 101 Northbound Ramps and Cochrane Road

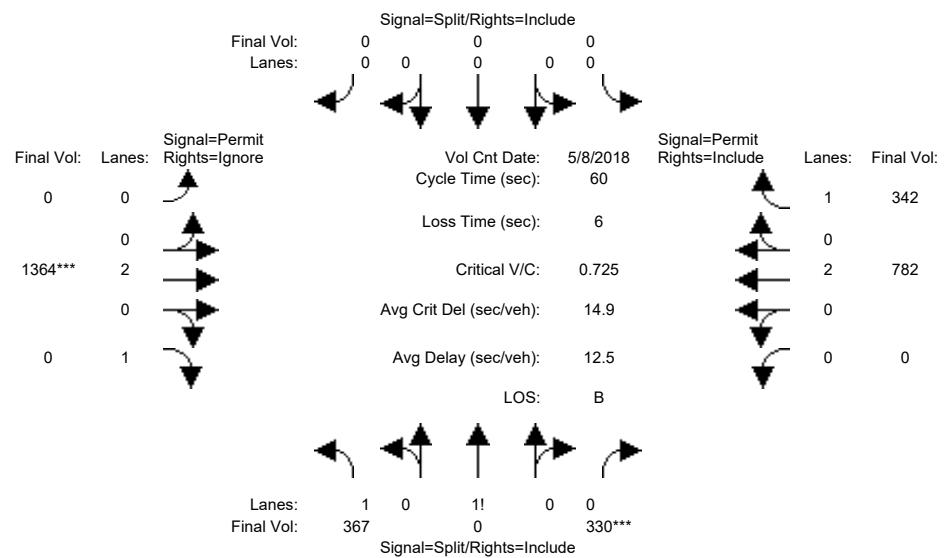


Street Name: US 101 Northbound Ramps Cochrane Road															
Approach:	North Bound			South Bound			East Bound			West Bound					
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-
Min. Green:		10	0	10	0	0	0	0	10	10	0	10	10	10	
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 8 May 2018 <<															
Base Vol:		362	0	330	0	0	0	0	1363	0	0	781	342		
Growth 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		
Initial Bse:		362	0	330	0	0	0	0	1363	0	0	781	342		
Added Vol:		0	0	0	0	0	0	0	0	0	0	0	0		
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:		362	0	330	0	0	0	0	1363	0	0	781	342		
User Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00		
PHF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00		
PHF Volume:		362	0	330	0	0	0	0	1363	0	0	781	342		
Reduc Vol:		0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:		362	0	330	0	0	0	0	1363	0	0	781	342		
PCE Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00		
MLF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00		
FinalVolume:		362	0	330	0	0	0	0	1363	0	0	781	342		
Saturation Flow Module:															
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:		0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00			
Lanes:		1.35	0.00	0.65	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00			
Final Sat.:		2370	0	1130	0	0	0	0	3800	1750	0	3800			
Capacity Analysis Module:															
Vol/Sat:		0.15	0.00	0.29	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.21			
Crit Moves:		*****						*****							
Green Time:		24.2	0.0	24.2	0.0	0.0	0.0	0.0	29.8	0.0	0.0	29.8			
Volume/Cap:		0.38	0.00	0.72	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.41			
Delay/Veh:		12.7	0.0	17.8	0.0	0.0	0.0	0.0	13.3	0.0	0.0	9.7			
User DelAdj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:		12.7	0.0	17.8	0.0	0.0	0.0	0.0	13.3	0.0	0.0	9.7			
LOS by Move:		B	A	B	A	A	A	A	B	A	A	A			
HCM2kAvgQ:		4	0	10	0	0	0	0	11	0	0	5			

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper LnLevel Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Year 2030 Cumulative with Project PM

## Intersection #108: US 101 Northbound Ramps and Cochrane Road



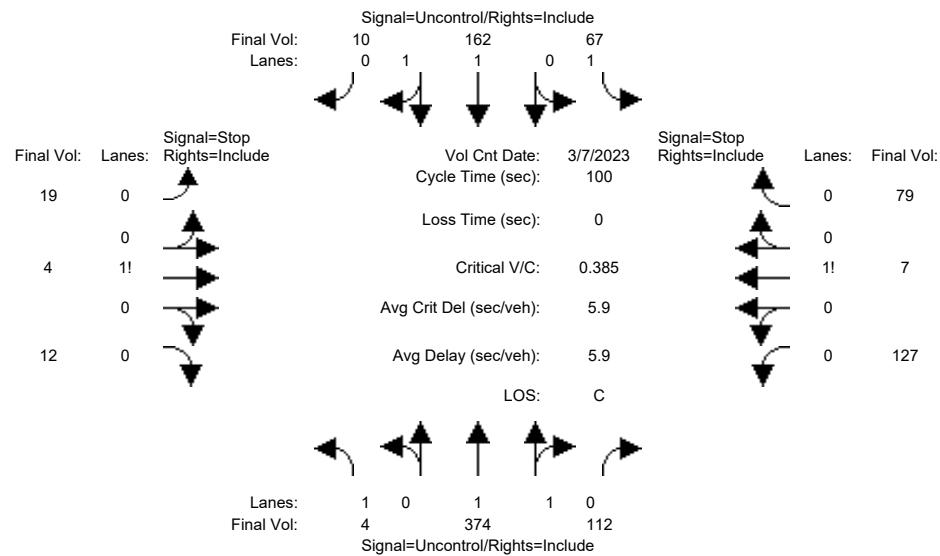
Street Name: US 101 Northbound Ramps Cochrane Road															
Approach:	North Bound			South Bound			East Bound			West Bound					
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Min. Green: 10 0 10 0 0 0 0 0 10 10 0 10 10															
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0															
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Volume Module: >> Count Date: 8 May 2018 <<															
Base Vol: 362 0 330 0 0 0 0 0 1363 0 0 0 781 342															
Growth 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 1.00 1.00 1.00															
Initial Bse: 362 0 330 0 0 0 0 0 1363 0 0 0 781 342															
Added Vol: 5 0 0 0 0 0 0 0 1 0 0 1 0 1 0															
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0															
Initial Fut: 367 0 330 0 0 0 0 0 1364 0 0 0 782 342															
User 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 1.00 1.00 1.00															
PHF 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 1.00 1.00 1.00															
PHF Volume: 367 0 330 0 0 0 0 0 1364 0 0 0 782 342															
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0															
Reduced Vol: 367 0 330 0 0 0 0 0 1364 0 0 0 782 342															
PCE 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 1.00 1.00 1.00															
MLF 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 1.00 1.00 1.00															
FinalVolume: 367 0 330 0 0 0 0 0 1364 0 0 0 782 342															
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Saturation Flow Module:															
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900															
Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92															
Lanes: 1.36 0.00 0.64 0.00 0.00 0.00 0.00 2.00 1.00 0.00 2.00 1.00															
Final Sat.: 2375 0 1125 0 0 0 0 0 3800 1750 0 3800 1750															
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Capacity Analysis Module:															
Vol/Sat: 0.15 0.00 0.29 0.00 0.00 0.00 0.00 0.36 0.00 0.00 0.21 0.20															
Crit Moves: ****															
Green Time: 24.3 0.0 24.3 0.0 0.0 0.0 0.0 29.7 0.0 0.0 29.7 29.7															
Volume/Cap: 0.38 0.00 0.72 0.00 0.00 0.00 0.00 0.72 0.00 0.00 0.42 0.39															
Delay/Veh: 12.7 0.0 17.8 0.0 0.0 0.0 0.0 13.4 0.0 0.0 9.8 9.8															
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00															
AdjDel/Veh: 12.7 0.0 17.8 0.0 0.0 0.0 0.0 13.4 0.0 0.0 9.8 9.8															
LOS by Move: B A B A A A A B A A A A															
HCM2kAvgQ: 4 0 10 0 0 0 0 11 0 0 5 5															

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
Raising Cane's at 18590 Skipper Ln

Level Of Service Computation Report  
2000 HCM Unsigned (Future Volume Alternative)  
Existing PM

Intersection #902: Sutter Boulevard and Cochrane Plaza \*



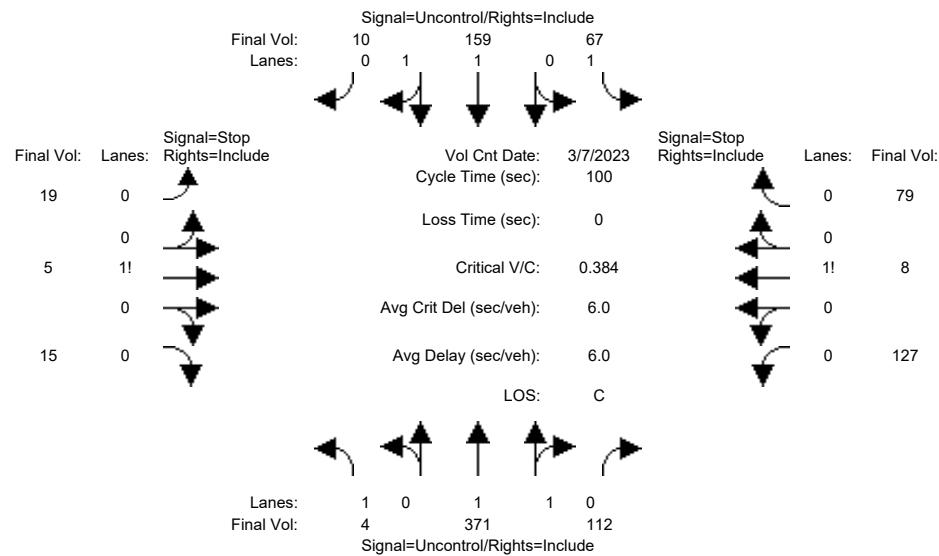
Street Name:	Sutter Boulevard						Cochrane Plaza								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Volume Module: >> Count Date: 7 Mar 2023 <<															
Base Vol:	4	374	112	67	162	10	19	4	12	127	7	79			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	4	374	112	67	162	10	19	4	12	127	7	79			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	4	374	112	67	162	10	19	4	12	127	7	79			
User 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			
PHF 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			
PHF Volume:	4	374	112	67	162	10	19	4	12	127	7	79			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	4	374	112	67	162	10	19	4	12	127	7	79			
Critical Gap Module:															
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9			
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3			
Capacity Module:															
Cnflict Vol:	172	xxxx	xxxxx	486	xxxx	xxxxx	500	795	86	655	744	243			
Potent Cap.:	1417	xxxx	xxxxx	1087	xxxx	xxxxx	459	323	962	355	345	764			
Move Cap.:	1417	xxxx	xxxxx	1087	xxxx	xxxxx	385	302	962	330	323	764			
Volume/Cap.:	0.00	xxxx	xxxx	0.06	xxxx	xxxx	0.05	0.01	0.01	0.38	0.02	0.10			
Level Of Service Module:															
2Way95thQ:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	7.5	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*			
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT					
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	466	xxxxx	xxxx	418	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0.2	xxxxx	xxxxx	2.8	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	13.4	xxxxx	xxxxx	22.2	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	B	*	*	C	*			
ApproachDel:	xxxxxx			xxxxxx			13.4			22.2					
ApproachLOS:	*			*			*	B			C	*			

Note: Queue reported is the number of cars per lane.

City of Morgan Hill  
 Raising Cane's at 18590 Skipper Ln

 Level Of Service Computation Report  
 2000 HCM Unsignalized (Future Volume Alternative)  
 Existing Plus Project PM

## Intersection #902: Sutter Boulevard and Cochrane Plaza \*



Street Name: Sutter Boulevard Cochrane Plaza

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|-----|-----|-----|

Volume Module: >> Count Date: 7 Mar 2023 <<

Base Vol:	4	374	112	67	162	10	19	4	12	127	7	79
Growth 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
Initial Bse:	4	374	112	67	162	10	19	4	12	127	7	79
Added Vol:	0	-3	0	0	-3	0	0	1	3	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	371	112	67	159	10	19	5	15	127	8	79
User 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
PHF 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
PHF Volume:	4	371	112	67	159	10	19	5	15	127	8	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	4	371	112	67	159	10	19	5	15	127	8	79

-----|-----|-----|-----|-----|-----|-----|-----|

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

-----|-----|-----|-----|-----|-----|-----|-----|

Capacity Module:

Cnflict Vol:	169	xxxx	xxxxxx	483	xxxx	xxxxxx	496	789	85	651	738	242
Potent Cap.:	1421	xxxx	xxxxxx	1090	xxxx	xxxxxx	462	325	964	358	348	766
Move Cap.:	1421	xxxx	xxxxxx	1090	xxxx	xxxxxx	386	304	964	331	326	766
Volume/Cap:	0.00	xxxx	xxxx	0.06	xxxx	xxxx	0.05	0.02	0.02	0.38	0.02	0.10

-----|-----|-----|-----|-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.2	xxxx	xxxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	7.5	xxxx	xxxxxx	8.5	xxxx	xxxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	481	xxxxxx	xxxx	418	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	0.3	xxxxxx	xxxx	2.8	xxxxxx
Shrd ConDel:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	13.2	xxxxxx	xxxx	22.3	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	C	*
ApproachDel:	xxxxxx		xxxxxx					13.2			22.3	
ApproachLOS:	*		*					B			C	

Note: Queue reported is the number of cars per lane.

**Appendix E**  
**Queuing Analysis**  
**Data**

**To:** Raising Cane's c/o Brandon Layman

**From:** Stephen Dillon, EIT  
Matt Weir, P.E.

**Re:** **Traffic Assessment**  
Raising Cane's – 1420 Travis Blvd, Fairfield, CA

**Date:** September 21, 2022

Per your request, we have prepared this traffic assessment for the proposed Raising Cane's restaurant to be located at 1420 Travis Boulevard in Fairfield, California (see **Exhibit 1**). The following are discussions of the project, trip generation, site circulation evaluation, drive-thru queuing analysis, and our conclusions.

### Project Description

The project site is located on the north side of Travis Boulevard, within the Solano Town Center retail development in Fairfield, California. The project site is currently an underutilized surface parking lot bounded by Travis Boulevard on the south, and access/drive aisles on the three other sides. Raising Cane's proposes to redevelop the site into a 3,331-square foot Raising Cane's drive-thru restaurant building with associated on-site parking and drive-thru facilities. Access to the site will be provided via two driveways, one each along the northern and eastern access/drive aisle frontages.

### Trip Generation

Trip generation for the Project was determined based on average rates from Institute of Transportation Engineer's (ITE) publication, Trip Generation, 11th Edition. ITE Land Use Code 934 Fast-food with Drive-Thru Window was used to estimate project trip generation. In addition, pass-by reduction percentages from Trip Generation Handbook, 3rd Edition were assumed. It should be noted that Trip Generation Handbook does not include pass-by reduction for daily trips, therefore an average of AM and PM peak hours were assumed.

**Table 1** presents the overall trip generation for the proposed project. The proposed project will generate 740 daily trips, with 74 trips in the AM peak hour and 50 trips in the PM peak hour. It should be noted that Raising Cane's is not open during the AM peak hour and will likely generate fewer trips than shown in **Table 1**.

**Table 1: Project Trip Generation**

ITE Land Use Code	Description	Unit		Daily Rate	AM Peak			PM Peak		
					Rate	%In	%Out	Rate	%In	%Out
934	Fast-food with Drive-Thru Window	1,000	SF	467.48	44.61	51%	49%	33.03	52%	48%
ITE Land Use Code	Description	Size	Units	Daily Trips	AM Peak			PM Peak		
					Total	In	Out	Total	In	Out
934	Fast-food with Drive-Thru Window	3.331	KSF	1,557	149	76	73	110	57	53
Pass-by Reduction (Daily: 53%, AM: 50%, PM: 55%) <sup>1</sup>				-817	-75	-38	-37	-60	-31	-29
<b>Total Generated Trips</b>				<b>740</b>	<b>74</b>	<b>38</b>	<b>36</b>	<b>50</b>	<b>26</b>	<b>24</b>

Source: ITE *Trip Generation*, 11th Edition

<sup>1</sup>ITE Trip Generation Handbook, 3rd Edition does not include pass-by reduction for daily trips, therefore an average of the AM and PM peak hours were assumed.

## Vehicle Miles Traveled (VMT) Screening

As of July 1, 2020, the State of California has fully adopted a change in the California Environmental Quality Act (CEQA) significant impact methodology for transportation impacts to use vehicle miles traveled (VMT) as opposed to level of service (LOS) via State Bill 743 (SB 743). To address this change, the City of Fairfield developed and adopted the *Fairfield Guidelines for Project VMT Screening Transportation Analysis*, dated December 2020.

A project may be exempt from performing CEQA analysis if the project meets at least one screening criteria based on:

- Small or Infill Projects
- Local Serving Retail
- Proximity to Transit
- Project Location Screening
- Affordable Housing Projects

Results of the VMT Screening are summarized in **Table 2**. Based on the current Project information given for this analysis, the Project satisfies the Local Serving Retail criterion, therefore a presumption of less than significance can be made and no additional VMT analysis is required. Detailed evaluation for each criterion is discussed in the following sections.

**Table 2: VMT Screening Summary**

VMT Screening Criteria	Criterion Met?
Small or Infill Projects	No
Local Serving Retail	<b>Yes</b>
Proximity to Transit	N/A
Project Location Screening	N/A
Affordable Housing Projects	N/A

### Small Project

Small projects are defined as projects that generate fewer than 110 average daily trips. An average of 110 average daily trips roughly equates to:

- 11 single family residential units
- 15 – 32 multifamily residential units
- 6,800 – 9,750 square feet of office

As shown in **Table 1**, the project is estimated to generate more than 110 average daily trips and does not meet this criterion.

### Local Serving Retail

Local serving retail consists of commercial uses of 50,000 square feet or less. The Project would be considered local serving retail since it is a restaurant use with less than 50,000 square feet and satisfies this criterion.

## Proximity to Transit

Residential or office projects within one-half mile of an existing major transit station or stop along an existing high-quality transit corridor can be presumed to have a less than significant transportation impact. This criterion is not applicable for the Project since there are no residential or office components.

## Project Location Screening

Residential or office projects located in areas with low VMT and that incorporate similar features will typically also generate similar low VMT. This criterion is not applicable for the Project since there are no residential or office components.

## Affordable Housing

Residential projects consisting of 100% affordable units may be presumed to have less than significant impacts and require no further VMT analysis. This criterion is not applicable for the Project since there are no residential components.

## **Site Access and Circulation**

### Vehicle

As depicted in **Exhibit 1**, vehicles may access the site from Travis Boulevard from the two existing Solano Town Center driveways east and west of the Project site. The eastern driveway is unsignalized and right-in-right-out (RIRO), while the western driveway is a full access signalized intersection. Once off of Travis Boulevard, vehicles may access the site through the Project site driveways located on the north and east side of the site.

Once within the site, vehicles may park along the northern section of the site or enter the drive-thru at the northwest corner of the restaurant. The site also has *KEEP CLEAR* striping to prevent any potential drive-thru queuing from blocking the northern entrance and the trash closure area.

### Emergency Vehicles and Delivery Trucks

Site circulation for emergency vehicles and delivery trucks were evaluated. **Exhibit 2** depicts emergency access for the site. To accommodate emergency access, the Project is proposing fire access lane painted curbs along the Project frontage. **Exhibit 3** depicts truck turning for delivery trucks. Overall delivery trucks are able to maneuver through the site, however, trucks making a left into the site from the northern driveway may encroach over the centerline. It is recommended that deliveries are scheduled to minimum potential conflicts.

### Pedestrian

As depicted in **Exhibit 1**, pedestrians from Travis Boulevard may travel along an accessible pathway that begins at the northwest corner of Travis Boulevard and the eastern Solano Town Center driveway. Pedestrians from the Solano Town Center may utilize the existing pedestrian crossing located just east of the northern project driveway and follow the pedestrian striping through the parking area to the building.

### Bicycle

Bicyclists may utilize the Class III bicycle lanes along Travis Boulevard. Bicyclists may also utilize the Fairfield Linear Park Trail which intersects with the south side of Travis Boulevard, just east of the Project site. Bicyclists using the trail may head west and cross Travis Boulevard at the signalized intersection west of the Project.

The Project will provide a short-term and long-term bicycle parking. There will be one bicycle rack located east of the restaurant building for up to three short-term bicycle parking. In addition, there is one long-term bicycle locker located on the northwest corner of the building, south of the trash enclosure.

## **Parking**

Section 25.34 of the City's Municipal Code presents requirements related to off-street parking and was used to review the parking for the Project. The Project will provide a total of 17 spaces which includes 3 spaces dedicated for mobile pickup, 2 electric vehicle (EV) charging spaces, and 2 accessible spaces.

**Table 3** summarizes the parking requirements for the project. Based on Table 25-17 of the City's Municipal Code, restaurant with counter services must provide 1 space per 80 square feet of dining area. The Project is providing 17 spaces, which satisfies City's requirement.

**Table 3 – Vehicle Parking Requirements**

Land Use	Amount	Requirement	Parking Spaces
Restaurant, Counter	1,163 SF	1 space per 80 square feet dining area	15
Proposed Parking Spaces			17
Surplus (+) / Deficient (-)			+2

## **Drive-Thru**

The opening to the drive-thru lanes is located at the northwest corner of the project site and wraps around the building in a counter-clockwise direction. The drive-thru provides two entry lanes and two order boards, which allows Raising Cane's to take orders from two customers at the same time. During off-peak periods the two lanes can merge into a single lane prior to the pay and pick-up window. Consistent with other sites' operations, an employee will be stationed at the outer lane to take orders and payment during peak periods. Vehicles in the outer lane when ordering are then directed to remain queued in the outer lane when waiting for their order which is brought to their car by restaurant staff.

As depicted in **Exhibit 1**, conservatively assuming 25-feet per vehicle (inclusive of typical passenger vehicles and reasonable spacing), the total queuing capacity provided is approximately:

- Outer lane (between pick-up window and lane entrance): 10-11 vehicles
- Inner lane (between pick-up window and lane entrance): 8-9 vehicles

In summary, the project site provides drive-thru storage for 18-20 vehicles.

## **Drive-Thru Queuing Analysis**

A drive-thru queuing analysis was conducted to determine if the anticipated drive-thru queue exceeds the available storage length and, therefore has the potential to adversely affect traffic operations of near-by access/drive aisles and land uses. The queuing analysis evaluated empirical data collected at three (3) existing Raising Cane's sites and calculations based on Institute of Transportation Engineers' (ITE) queuing methodology.

## Pre-COVID-19 Empirical Queueing Data Collection and Observations

Drive-thru queueing observations and counts were collected at the following existing Raising Cane's sites prior to the COVID-19 pandemic:

- **Laguna Hills:** northeast corner of El Toro Road and Avenida De La Carlota (October 2017)
- **Orange:** 2249 North Tustin Street (August 2018)
- **Riverside:** 11066 Magnolia Avenue (March 2019)

These sites were selected for queueing data collection because of their characteristics similar to the Proposed Project (e.g., located adjacent to development or within a larger commercial center). It should be noted that these locations have a single order board which is less efficient compared to the Proposed Project which has dual order boards. This operational aspect is discussed in detail later in this memorandum.

This data was collected prior to the global economic disruption created by the COVID-19 pandemic. The drive-thru activity was observed during the following times on a weekday and Saturday:

- Laguna Hills & Riverside Sites
  - 11:00 AM – 2:00 PM (lunch)
  - 4:00 PM – 7:00 PM (commute peak hour/dinner)
- Orange Site
  - 12:00 PM – 2:30 PM (lunch)
  - 7:00 PM – 9:30 PM (dinner)

The observed weekday lunch and dinner peak operations are summarized in **Table 4**. Saturday lunch and dinner peak operations are summarized in **Table 5**. Data collection summary tables are provided in **Attachment A**.

**Table 4 – Weekday Lunch and Dinner Peak Queueing Summary (pre-COVID)**

Site Location	Weekday Lunch Peak		Weekday Dinner Peak			
	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)
Laguna Hills	12:15 PM-12:30 PM	<b>9</b>	<b>15</b>	6:45 PM-7:00 PM	<b>13</b>	<b>14</b>
Orange	12:45 PM-1:00 PM	<b>10</b>	<b>16</b>	7:15 PM-7:30 PM	<b>12</b>	<b>14</b>
Riverside	12:30 PM-12:45 PM	8	12	6:00 PM-6:15 PM	7	11

All site locations have a single order board which is less efficient compared to sites with dual order boards, like the proposed project.

Queues that exceed drive-thru queueing capacity are **bolded**. Queueing capacity at each location are:

Laguna Hills = 170 feet (7-8 vehicles)  
 Orange = 180 feet (7-8 vehicles)  
 Riverside = 325 feet (13-14 vehicles)

Table 5 – Saturday Lunch and Dinner Peak Queuing Summary (pre-COVID)

Site Location	Saturday Lunch Peak			Saturday Dinner Peak		
	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)
Laguna Hills	1:00 PM-1:15 PM	8	<b>14</b>	6:15 PM-6:30 PM	<b>9</b>	<b>13</b>
Orange	1:00 PM-1:15 PM	<b>11</b>	<b>13</b>	8:45 PM-9:00 PM	<b>15</b>	<b>17</b>
Riverside	1:30 PM-1:45 PM	10	12	6:45 PM-7:00 PM	8	11

All site locations have a single order board which is less efficient compared to sites with dual order boards, like the proposed project.  
 Queues that exceed drive-thru queuing capacity are **bolded**. Queuing capacity at each location are:  
 Laguna Hills = 170 feet (7-8 vehicles)  
 Orange = 180 feet (7-8 vehicles)  
 Riverside= 325 feet (13-14 vehicles)

During the peak periods, the average queue length ranged from 7- to 15-vehicles and the maximum queue ranged from 11- to 17-vehicles. This level of queuing is noted as being accommodated by the Proposed Project's 18-20 vehicle queuing capacity.

#### During-COVID Empirical Queuing Data Collection and Observations

Drive-thru queuing observations and counts were collected at the following existing Raising Cane's sites during the COVID-19 pandemic:

- **Huntington Beach**: 101142 Adams Avenue
- **Orange**<sup>\*</sup> : 2249 North Tustin Street
- **Foothill Ranch**: 26782 Portola Parkway

\* Same site that was included under "pre-COVID" conditions. The site was modified to have 2 drive-thru lanes and 2 order boards prior to the collection of the "during-COVID" data.

These additional sites (Huntington Beach and Foothill Ranch) were selected for queuing data collection because of their characteristics similar to the Proposed Project (e.g., located adjacent to development or within a larger commercial center). As noted above, all three of these sites have dual drive-thru and order board configurations.

Similar to the "pre-COVID" data collection, drive-thru queuing observations and counts were collected at these locations. This supplemental data was collected during the time period recognized as being affected by the disruption caused by the COVID-19 pandemic. Accordingly, the drive-thru activity was observed during the following times on a weekday and Saturday:

- 11:00 AM – 2:00 PM (lunch)
- 4:00 PM – 7:00 PM (commute peak hour/dinner)

Weekday lunch and dinner peak operations are summarized in **Table 6**. Saturday lunch and dinner peak operations are summarized in **Table 7**. Data collection summary tables are provided in **Attachment B**.

Table 6 – Weekday Lunch and Dinner Peak Queuing Summary (during-COVID-19)

Site Location	Weekday Lunch Peak			Weekday Dinner Peak		
	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)
Huntington Beach	12:15 PM-12:30 PM	9	14	5:30 PM-5:45PM	14	18
Orange	12:45 PM-1:00 PM	10	12	6:45 PM-7:45 PM	15	16
Foothill Ranch	1:30 PM-1:45 PM	8	11	6:30 PM-6:45 PM	15	21

All three sites have dual order boards, similar to the proposed project.  
 Queues that exceed drive-thru queuing capacity are **bolded**. Queuing capacity at each location are:  
 Huntington Beach = 505 feet (20-23 vehicles)  
 Orange = 180 feet (7-8 vehicles)  
 Foothill Ranch = 385 feet (15-16 vehicles)

Table 7 – Saturday Lunch and Dinner Peak Queuing Summary (during-COVID-19)

Site Location	Saturday Lunch Peak			Saturday Dinner Peak		
	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)
Huntington Beach	12:45 PM-1:00 PM	14	18	6:45 PM-7:00 PM	15	19
Orange	1:45 PM-2:00 PM	16	19	6:00 PM-6:15 PM	23	25
Foothill Ranch	1:15 PM-1:30 PM	20	23	5:15 PM-5:30 PM	20	23

All three sites have dual order boards, similar to the proposed project.  
 Queues that exceed drive-thru queuing capacity are **bolded**. Queuing capacity at each location are:  
 Huntington Beach = 505 feet (20-23 vehicles)  
 Orange = 180 feet (7-8 vehicles)  
 Foothill Ranch = 385 feet (15-16 vehicles)

During the peak periods, average queue length ranged from 8- to 23-vehicles (compared to 7-15 vehicles pre-COVID) and the maximum queue ranged from 11- to 25-vehicles (compared to 11-17 vehicles pre-COVID).

It is important to note that, outside of the defined drive-thru lanes, the Proposed Project site would be able to accommodate an additional 5-vehicles on-site for additional drive-thru queuing capacity before spilling into the adjacent drive aisles. Nevertheless, while the COVID-19 pandemic has resulted in increased drive-thru queuing due to the restriction of indoor dining and modified customer preferences, it should be noted that these current conditions are certainly not typical and, in fact, have already begun to revert back to their pre-COVID-19 conditions. Under the more typical conditions, if there is a back-up of vehicles in the drive-thru lane, a portion of the customers have been observed to elect to park and go into the building rather than join the standing drive-thru queue. Accordingly, as conditions normalize, it is recommended that Raising Cane's coordinate with City staff to monitor the peak operating conditions.

## Post-COVID-19 Empirical Queueing Data Collection and Observations

Drive-thru queueing observations and counts were collected at the following existing northern California Raising Cane's sites after the ongoing effects of COVID-19 pandemic are assumed to have stabilized:

- **Vacaville:** 160 Nut Tree Parkway (August 2022)
- **Elk Grove:** 9164 E Stockton Boulevard (August/September 2022)
- **Manteca:** 1311 E Yosemite Avenue (August 2022)

These sites were selected for queueing data collection because of their characteristics similar to the Proposed Project (e.g., located adjacent to development or within a larger commercial center, located in northern California, located proximate to a major highway). Each selected location features a dual order board configuration similar to the Proposed Project. This operational aspect is discussed in detail later in this memorandum.

This data was collected after the global economic disruption created by the COVID-19 pandemic is widely accepted as having stabilized. The drive-thru activity was observed from 11 AM to 10 PM on a typical weekday and Saturday to comprehensively capture maximum queueing at each site. The data was subsequently broken into traditional lunch and commute/dinner period observation windows as follows:

- 11:00 AM – 2:00 PM (lunch)
- 4:00 PM – 7:00 PM (commute peak hour/dinner)

The observed weekday lunch and dinner peak operations are summarized in **Table 8**. Saturday lunch and dinner peak operations are summarized in **Table 9**. Data collection summary tables are provided in **Attachment C**.

**Table 8 - Weekday Lunch and Dinner Peak Queueing Summary (post-COVID-19)**

Site Location	Weekday Lunch Peak			Weekday Dinner Peak			Maximum Observed Queue (vehicle)
	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	
Vacaville	12:30 PM-12:45 PM	14	17	6:15 PM-6:30PM	12	17	22
Elk Grove	12:00 PM-12:15 PM	10	14	4:30 PM-4:45 PM	15	18	23
Manteca	12:30 PM-12:45 PM	12	16	6:15 PM-6:30 PM	13	17	17

All three sites have dual order boards, similar to the proposed project.  
 Queues that exceed drive-thru queueing capacity are **bolded**. Queueing capacity at each location are:  
 Vacaville = 510 feet (21-23 vehicles)  
 Elk Grove = 750 feet (30-33 vehicles)  
 Manteca = 360 feet (19-21 vehicles)

**Table 9 - Saturday Lunch and Dinner Peak Queueing Summary (post-COVID-19)**

Site Location	Saturday Lunch Peak			Saturday Dinner Peak			Maximum Observed Queue (vehicle)
	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	
Vacaville	1:15 PM-1:30 PM	16	22	6:30 PM-6:45 PM	18	20	22
Elk Grove	1:15 PM-1:30 PM	5	11	4:00 PM-4:15 PM	17	18	19
Manteca	1:45 PM-2:00 PM	18	21	5:30 PM-5:45 PM	13	22	25

All three sites have dual order boards, similar to the proposed project.  
 Queues that exceed drive-thru queuing capacity are **bolded**. Queuing capacity at each location are:  
 Vacaville = 510 feet (21-23 vehicles)  
 Elk Grove = 750 feet (30-33 vehicles)  
 Manteca = 360 feet (19-21 vehicles)

During the peak periods, average queue length ranged from 5- to 18-vehicles and the maximum queue ranged from 11- to 22-vehicles. The maximum observed queue from all data collected on both weekday and weekend periods was 25 vehicles. The observed levels of queuing are noted as being almost entirely accommodated by the Proposed Project's 18-20 vehicle queuing capacity. Should demand exceed capacity, the Proposed Project will implement the Traffic Management Plan outlined in **Attachment D**.

#### Drive-thru Queue Length Calculation

To supplement the empirical data collected at the existing Raising Cane's restaurants in Laguna Hills, Orange, and Riverside (all of which have a single drive-thru lane), the anticipated drive-thru queuing was also analyzed using queuing analysis formulas contained in the *Transportation Planning Handbook, 3<sup>rd</sup> Edition*, published by ITE.

As specified by the applicant, Raising Cane's typical, non-peak total drive-thru (order board to pick-up) service time is 150-seconds. However, during peak periods, the desired efficiency is measured at the pick-up window with an order/vehicle processing every 35- to 40-seconds. Assuming the more conservative (longer) peak processing time of 40 seconds and applying the ITE queuing formulas, the analysis indicates that the average queue length is estimated to be 9 vehicles, and the probability that the queue would be exactly 20 vehicles would be 1.34-percent. The probability of exceeding 20 vehicles during peak drive-thru conditions is estimated to be 13.19-percent. The queuing calculation worksheet and formulas are provided as **Attachment E**.

The ITE queuing analysis assumes a single-lane drive-thru for a more conservative approach. The occurrence of the drive-thru queue extending beyond the opening of the drive-thru lane is expected to be an infrequent occurrence, and of short duration. The use of dual, side-by-side drive-thru lanes with dual order boards significantly improves the service rate and reduces the number of vehicles queuing in the drive-thru, as described in the following section.

#### Side-by-Side Drive-Thru (dual order boards) Operational Features

While regular customers who are familiar with Raising Cane's menu choices typically would complete the order part of the process in less than the average time, infrequent or new customers are more likely to dwell at the order board before making their choices, thereby slowing down the process for everyone behind them. As a result, the order board is the most significant bottleneck in the drive-thru process.

The side-by-side ordering configuration, as proposed by Raising Cane's including this proposed site in Fairfield, would provide two lanes with a separate order board for each lane. This doubling of ordering capacity will increase the number of customers processed through the order board portion of the drive-thru and has been shown to "keep the line moving" even if one customer takes longer than average to order (allowing the restaurant to continue to take and complete orders from the other order lane). Furthermore, it is reasonable to expect that the next customer to arrive at the drive-thru entrance will naturally choose the empty lane or the shorter line, so that one customer who takes a longer time to order at one order board can be by-passed, thereby not holding up the entire drive-thru line.

With the added efficiency of having two order boards and the ability to by-pass customers taking longer than average to order at the other order board, the service rate increase, compared to a single drive-thru lane as more orders can be processed. Under these favorable conditions, the cooks receive the orders at a more efficient rate which allows them to continue cooking the food, rather than waiting for a slower customer to finish ordering. Because of added efficiency in the cooking area, the efficiency at the pick-up window also increases compared to a single drive-thru lane because the food is processed by the cooking area at a more efficient rate. The proposed dual pay and pick-up stations also improve the service rate under peak drive-thru conditions as they service more drive-thru vehicles than a single pick-up area of the drive-thru.

The Fairfield site will include additional features that will improve efficiency. The site will have enhanced kitchen features and additional fryers compared to the Laguna Hills, Orange, and Riverside sites. These kitchen features are designed to increase cooking efficiency and decrease time needed to prepare orders. As mentioned previously, during peak periods staff will be deployed to take orders and payment on mobile tablets. This enhancement will allow Raising Cane's to take more orders and payments since staff can walk along the queue line.

## Conclusions

The Project is proposing a 3,331 square foot Raising Cane's on the north side of Travis Boulevard, within the Solano Town Center retail development in Fairfield, California. The proposed project will generate 740 daily trips, with 74 trips in the AM peak hour and 50 trips in the PM peak hour. It should be noted that Raising Cane's is not open during the AM peak hour and will likely generate fewer trips in the AM peak hour.

A vehicle miles traveled VMT) screening analysis was conducted and found that the Project satisfies the Local Serving Retail criterion, therefore a presumption of less than significance can be made and no additional VMT analysis is required.

The site circulation evaluation found that the project would provide adequate site access and circulation. It should be noted that delivery trucks making a left turn into the site from the northern driveway may encroach over the centerline and is recommended that deliveries are scheduled outside operation hours as to minimize potential conflicts. The Project will provide 17 vehicle parking spaces which exceed the required 15 spaces.

The proposed Raising Cane's drive-thru would provide drive-thru queuing capacity for 18-20 vehicles from the beginning of the drive-thru lanes to the pick-up window. This capacity is easily expanded to 25 total queued vehicles by accounting for available on-site space. Based on the drive-thru queuing data collection and analysis contained herein, the maximum number of queued vehicles is anticipated to be 25-vehicles. As such, the site is considered to have adequate drive-thru queuing capacity to accommodate the anticipated demand.

## Attachments

**Exhibit 1** – Proposed Project Site Plan

**Exhibit 2** – Emergency Access Exhibit

**Exhibit 3** – Delivery Truck-Turn Exhibit

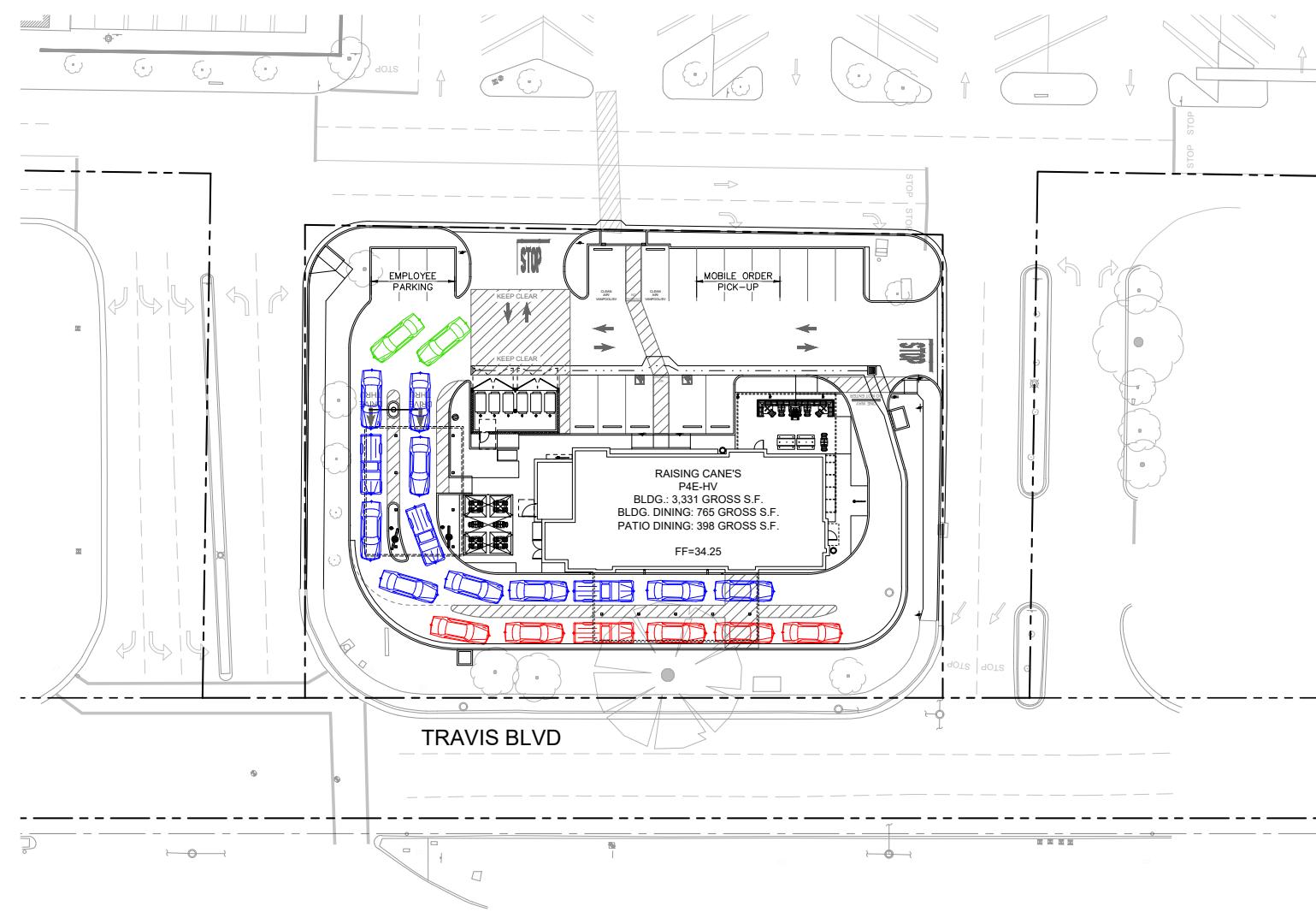
**Attachment A** – Sample Sites’ Drive-Thru Queue Data (pre-COVID)

**Attachment B** – Sample Sites’ Drive-Thru Queue Data (during COVID)

**Attachment C** – Sample Sites’ Drive-Thru Queue Data (post-COVID)

**Attachment D** – Traffic Management Plan

**Attachment E** – Queuing Calculations



LEGEND

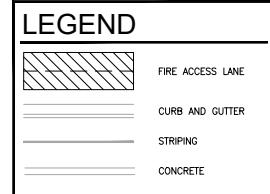
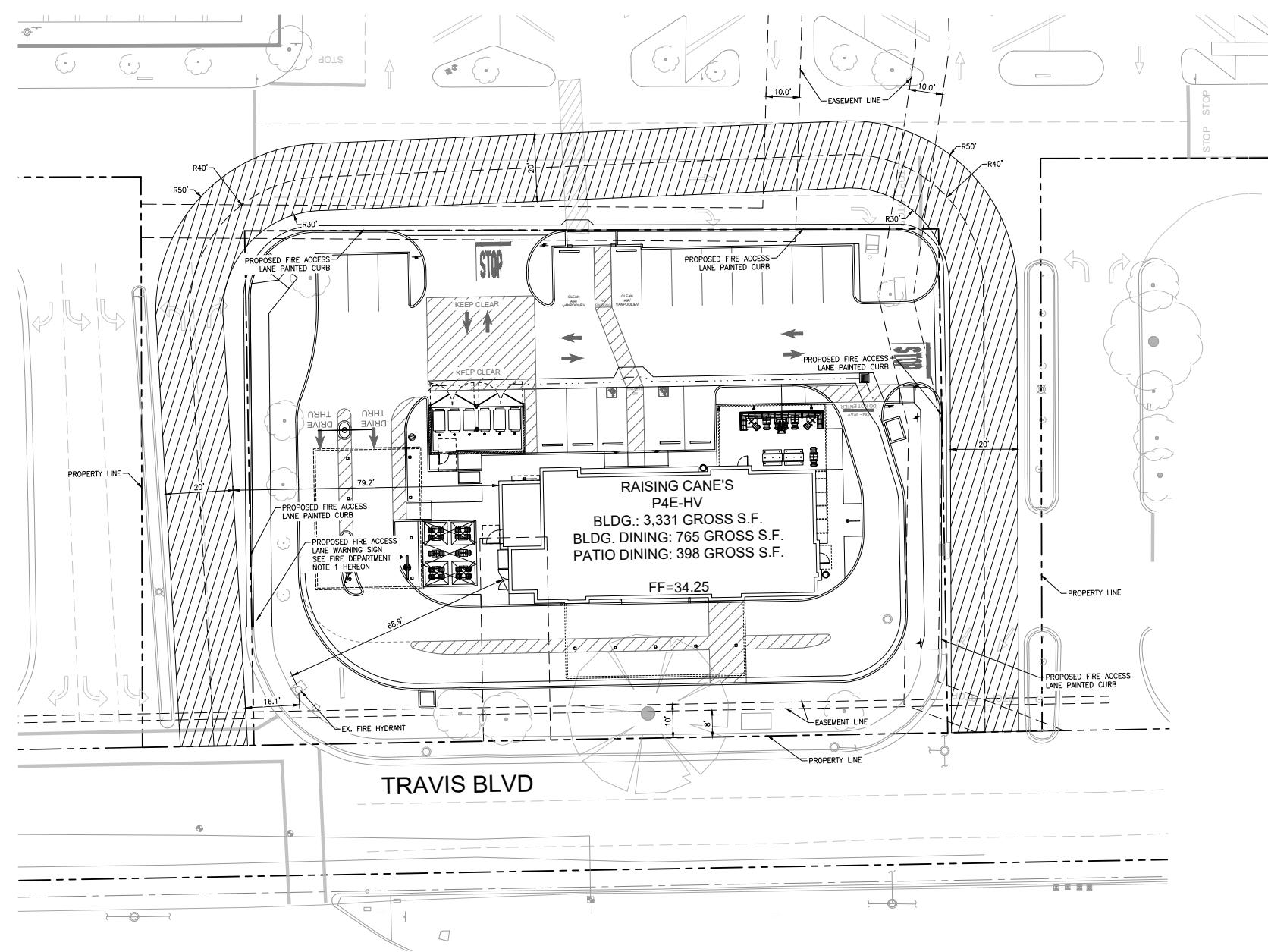
- 12 CARS
- 6 CARS
- 2 CARS
- 20 CARS



NOT TO SCALE

Site Plan Source: Kimley-Horn, July 2022

Exhibit 1  
Proposed Project Site Plan



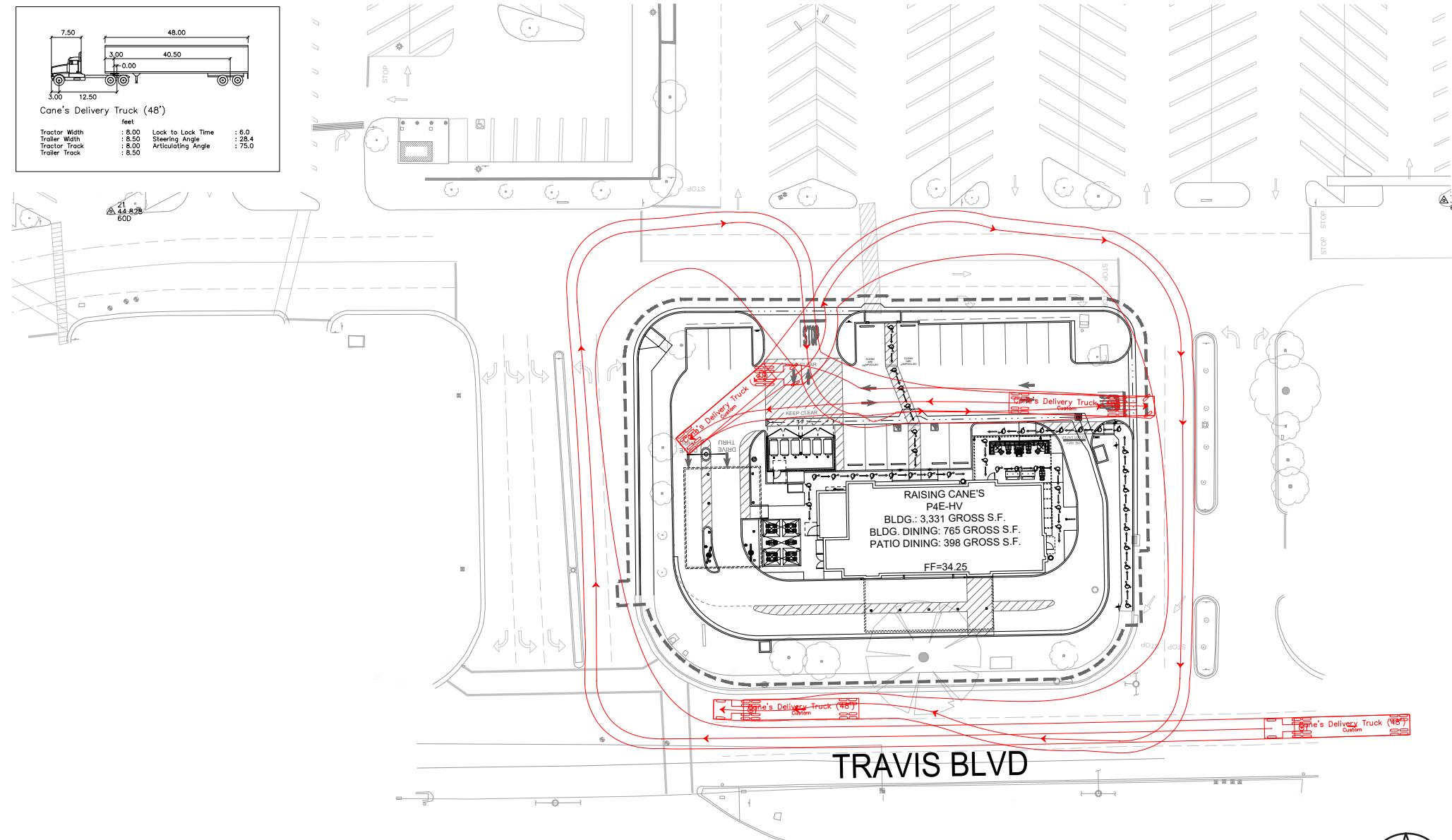
### FIRE DEPARTMENT NOTES

1. PROVIDE SIGN(S) (12"X18" MINIMUM), LETTERS SHALL BE RED ON A WHITE BACKGROUND AND SHALL BE STENCILED WITH WHITE PAINT ON A DURABLE MATERIAL, AND SHALL BE MOUNTED ON A PERMANENT POST THAT IS HIGHLY VISIBLE AND APPROXIMATELY 6' IN HEIGHT. SIGNS SHALL BE POSTED IMMEDIATELY ADJACENT TO THE MARKED FIRE LANE, OR AT THE MAIN VEHICULAR ACCESS POINTS TO THE PROPERTY. IF THE PROPERTY IS LOCATED IN A HIGH-VISIBILITY AREA, A SIGN MAY BE REQUIRED DUE TO VISIBILITY AND LOCATION OF FIRE LANES UPON THE DESIGNATION OF THE AUTHORITY HAVING JURISDICTION. (CHAPTER 8, SECTION 8.1 CITY CALIFORNIA FIRE CODE (C.F.C.), SECTION 503, CALIFORNIA VEHICLE CODE, SECTIONS 21458 (a) AND 22500.1)
2. ALL CURBING OR DRIVEWAY SURFACES ALONG A DESIGNATED FIRE LANE SHALL BE PAINTED NOT LESS THAN 6" IN WIDTH. EVERY THREE FEET THE WORDING "NO PARKING - FIRE LANE" SHALL BE STENCILED WITH WHITE OR APPROVED REFLECTIVE PAINT. STENCILING SHALL BE NO LESS THAN 3" IN HEIGHT. (CHAPTER 8, SECTION 8.1 CITY CALIFORNIA FIRE CODE (C.F.C.), SECTION 503, CALIFORNIA VEHICLE CODE, SECTIONS 21458 (a) AND 22500.1)
3. A FIRE DEPARTMENT ACCESS ROAD SHALL HAVE A MINIMUM STANDARD TURNING RADIUS OF 28 FEET (8.5 M) INSIDE AND A 45-FOOT (14.6 M) OUTSIDE DIAMETER. (2019 CALIFORNIA FIRE CODE, CHAPTER 8, SUBSECTION 503.2.4)



NOT TO SCALE

Site Plan Source: Kimley-Horn, June 2022



NOT TO SCALE

Site Plan Source: Kimley-Horn, June 2022

Exhibit 3  
Delivery Truck Turn Exhibit

**Attachment A**

Sample Sites' Drive-Thru Queue Data (pre-COVID)

**SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION  
RAISING CANE'S - TYPICAL WEEKDAY  
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES**

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %-ile <sup>1</sup> Queue			Peak Queue		
	Laguna Hills	Orange	Riverside	Laguna Hills	Orange	Riverside	Laguna Hills	Orange	Riverside
<b>Lunch</b>									
11:00-11:15 AM	1.5		1.7	2.7		3.0	3		4
11:15-11:30 AM	1.7		3.1	2.0		5.0	3		6
11:30-11:45 AM	2.6		1.1	4.0		2.0	5		2
11:45-12:00 PM	4.1		3.0	7.2		4.0	11		5
12:00-12:15 PM	3.9	5.6	5.4	7.0	7.0	7.0	9	14	8
12:15-12:30 PM	9.0	6.6	4.9	13.0	8.0	7.9	15	13	9
12:30-12:45 PM	10.6	7.0	7.8	12.8	9.0	9.9	13	10	12
12:45-1:00 PM	7.0	9.7	5.6	9.0	13.0	6.9	9	16	7
1:00-1:15 PM	5.2	9.0	5.2	7.0	11.0	7.0	8	13	8
1:15-1:30 PM	5.8	6.6	6.6	8.0	9.0	9.0	10	11	10
1:30-1:45 PM	2.8	3.9	4.5	5.0	5.0	7.0	6	7	9
1:45-2:00 PM	3.5	3.6	5.0	4.5	5.0	6.0	6	6	7
2:00-2:15 PM		3.6			5.0			5	
2:15-2:30 PM		2.9			5.0			6	
Highest Value	10.6	9.7	7.8	13.0	13.0	9.9	15	16	12
<b>Dinner</b>									
4:00-4:15 PM	5.6		3.5	7.0		5.0	8		6
4:15-4:30 PM	6.2		2.0	8.0		3.0	9		4
4:30-4:45 PM	5.9		3.8	7.0		6.0	9		7
4:45-5:00 PM	5.5		6.2	7.0		9.0	9		10
5:00-5:15 PM	5.4		2.2	7.0		4.9	8		6
5:15-5:30 PM	5.8		3.6	7.0		6.0	9		8
5:30-5:45 PM	7.1		5.3	8.0		8.9	10		10
5:45-6:00 PM	10.9		2.7	12.0		4.0	13		6
6:00-6:15 PM	8.6		6.7	10.4		9.0	11		11
6:15-6:30 PM	10.8		6.3	12.0		7.9	13		9
6:30-6:45 PM	11.1		4.5	12.5		6.9	14		8
6:45-7:00 PM	12.8		3.1	14.0		4.0	14		5
7:00-7:15 PM		11.0			12.0			14	
7:15-7:30 PM		11.5			13.0			14	
7:30-7:45 PM		8.6			10.0			12	
7:45-8:00 PM		8.3			10.0			12	
8:00-8:15 PM		9.4			11.0			13	
8:15-8:30 PM		8.5			11.0			12	
8:30-8:45 PM		6.4			9.0			10	
8:45-9:00 PM		5.2			7.0			8	
9:00-9:15 PM		6.4			8.1			10	
9:15-9:30 PM		7.5			9.3			12	
Highest Value	12.8	11.5	6.7	14.0	13.0	9.0	14	14	11

**Notes:** <sup>1</sup>85th percentile = The queue will be less than the queue shown 85% of the time.

**SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION  
RAISING CANE'S - SATURDAY  
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES**

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %-ile <sup>1</sup> Queue			Peak Queue		
	Laguna Hills	Orange	Riverside	Laguna Hills	Orange	Riverside	Laguna Hills	Orange	Riverside
<b>Lunch</b>									
11:00-11:15 AM	3.0		2.3	4.3		5.8	5		6
11:15-11:30 AM	1.8		2.3	3.0		5.8	4		6
11:30-11:45 AM	5.3		4.9	8.0		6.0	12		9
11:45-12:00 PM	7.5		1.9	10.0		3.9	12		5
12:00-12:15 PM	4.7	5.5	8.0	5.0	8.0	10.0	6	9	11
12:15-12:30 PM	4.1	6.8	4.9	5.0	8.7	6.9	6	10	8
12:30-12:45 PM	8.2	5.8	6.7	12.0	7.1	7.9	13	9	9
12:45-1:00 PM	9.3	6.8	7.9	11.0	8.0	9.0	12	9	12
1:00-1:15 PM	7.2	10.4	8.6	9.0	12.0	9.9	14	13	11
1:15-1:30 PM	7.3	9.4	8.1	9.0	12.0	9.9	10	13	12
1:30-1:45 PM	6.9	8.5	9.5	9.0	11.0	10.0	10	13	12
1:45-2:00 PM	7.3	3.9	8.0	8.8	5.4	9.0	10	6	10
2:00-2:15 PM		5.0			7.0			8	
2:15-2:30 PM		6.4			8.0			10	
Highest Value	9.3	10.4	9.5	12.0	12.0	10.0	14	13	12
<b>Dinner</b>									
4:00-4:15 PM	6.2		5.8	8.5		8.9	11		10
4:15-4:30 PM	4.5		7.1	5.1		8.9	6		11
4:30-4:45 PM	2.0		4.9	3.0		6.0	4		9
4:45-5:00 PM	5.2		3.9	6.0		6.0	8		7
5:00-5:15 PM	5.6		4.7	7.0		7.0	9		8
5:15-5:30 PM	10.0		4.2	12.0		5.0	12		6
5:30-5:45 PM	6.1		3.7	7.3		5.0	11		6
5:45-6:00 PM	7.3		2.1	11.3		3.0	13		4
6:00-6:15 PM	8.7		2.9	11.0		6.0	12		7
6:15-6:30 PM	8.6		2.8	11.0		4.8	13		6
6:30-6:45 PM	6.0		7.2	7.3		9.0	10		10
6:45-7:00 PM	4.7		7.8	7.0		9.0	8		11
7:00-7:15 PM		9.2			10.5			13	
7:15-7:30 PM		11.6			13.0			13	
7:30-7:45 PM		10.8			13.0			16	
7:45-8:00 PM		4.2			6.0			11	
8:00-8:15 PM		5.4			8.0			10	
8:15-8:30 PM		8.9			11.0			12	
8:30-8:45 PM		8.8			11.0			13	
8:45-9:00 PM		15.0			17.0			17	
9:00-9:15 PM		12.4			16.0			17	
9:15-9:30 PM		9.3			11.4			15	
Highest Value	10.0	15.0	7.8	12.0	17.0	9.0	13	17	11

**Notes:** <sup>1</sup>85th percentile = The queue will be less than the queue shown 85% of the time.

**Attachment B**

Sample Sites' Drive-Thru Queue Data (during COVID)

**SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION  
RAISING CANE'S - TYPICAL WEEKDAY (DURING COVID)  
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES**

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %-ile <sup>1</sup> Queue			Peak Queue		
	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch
<b>Lunch</b>									
11:00-11:15 AM	3.3	1.7	1.1	4.0	3.0	2.0	8	3	3
11:15-11:30 AM	6.6	3.8	2.3	8.0	5.0	4.0	9	6	5
11:30-11:45 AM	5.0	3.4	4.0	5.5	4.2	4.0	7	7	6
11:45-12:00 PM	2.6	4.4	6.5	4.0	6.0	9.0	4	7	10
12:00-12:15 PM	6.4	5.0	4.3	7.5	7.0	6.0	8	8	7
12:15-12:30 PM	6.5	8.5	7.0	8.0	12.0	8.0	9	14	9
12:30-12:45 PM	4.8	4.9	7.3	8.2	7.2	9.0	9	9	10
12:45-1:00 PM	10.1	3.4	5.3	11.0	5.0	6.0	12	6	7
1:00-1:15 PM	7.0	7.9	4.2	9.0	10.0	10.0	9	11	7
1:15-1:30 PM	2.5	4.1	6.9	5.0	6.0	10.0	5	6	11
1:30-1:45 PM	4.4	5.1	8.3	6.7	7.0	10.0	7	9	11
1:45-2:00 PM	4.8	3.6	2.9	6.0	5.0	4.0	8	6	4
Highest Value	10.1	8.5	8.3	11.0	12.0	10.0	12	14	11
<b>Dinner</b>									
4:00-4:15 PM	1.5	4.8	2.5	2.3	6.0	3.0	3	7	5
4:15-4:30 PM	6.1	2.2	1.8	8.0	3.5	2.0	8	5	3
4:30-4:45 PM	8.0	2.6	2.5	9.3	5.0	4.0	10	6	5
4:45-5:00 PM	7.0	6.7	2.8	9.3	8.0	4.0	10	10	5
5:00-5:15 PM	6.0	4.7	3.5	7.0	6.2	5.0	8	7	5
5:15-5:30 PM	10.3	7.9	5.0	11.1	11.3	6.9	12	14	8
5:30-5:45 PM	9.4	14.1	10.7	11.0	16.2	14.9	11	18	16
5:45-6:00 PM	2.0	8.9	15.1	3.3	11.0	16.9	4	12	17
6:00-6:15 PM	7.8	8.0	15.8	10.8	11.0	17.0	12	12	19
6:15-6:30 PM	9.9	7.8	15.7	11.4	10.2	17.0	15	13	17
6:30-6:45 PM	13.2	10.5	15.5	14.3	12.0	18.0	15	14	21
6:45-7:00 PM	14.5	10.9	6.9	15.3	13.0	8.9	16	14	11
Highest Value	14.5	14.1	15.8	15.3	16.2	18.0	16	18	21

**Notes:** <sup>1</sup>85th percentile = The queue will be less than the queue shown 85% of the time.

**SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION  
RAISING CANE'S - SATURDAY (DURING COVID)  
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES**

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %ile <sup>1</sup> Queue			Peak Queue		
	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch	Orange	Huntington Beach	Foothill Ranch
<b>Lunch</b>									
11:00-11:15 AM	3.3	0.9	2.3	4.0	1.1	3.9	4	2	4
11:15-11:30 AM	5.0	2.6	4.9	7.0	3.0	8.0	7	4	8
11:30-11:45 AM	2.1	1.8	8.7	3.0	3.6	11.0	4	4	12
11:45-12:00 PM	4.6	5.1	7.7	5.2	8.0	8.0	7	9	10
12:00-12:15 PM	7.7	9.2	11.5	9.0	10.0	14.0	10	10	15
12:15-12:30 PM	8.3	8.5	12.4	9.0	10.0	14.9	11	11	16
12:30-12:45 PM	6.9	5.4	12.8	8.0	6.6	14.0	8	9	15
12:45-1:00 PM	9.4	13.6	14.8	11.3	16.8	16.9	14	18	18
1:00-1:15 PM	13.8	13.7	16.1	16.7	16.0	20.0	18	16	19
1:15-1:30 PM	17.5	9.7	19.6	18.0	11.0	22.0	18	12	23
1:30-1:45 PM	15.3	7.2	15.5	17.1	8.0	16.9	18	9	19
1:45-2:00 PM	16.3	7.7	16.1	19.0	10.0	18.0	19	11	19
Highest Value	17.5	13.7	19.6	19.0	16.8	22.0	19	18	23
<b>Dinner</b>									
4:00-4:15 PM	14.7	7.3	2.7	17.8	10.0	4.0	20	11	6
4:15-4:30 PM	20.5	3.3	6.1	20.9	4.0	7.0	21	5	8
4:30-4:45 PM	18.7	2.6	7.5	19.0	4.0	9.0	19	7	10
4:45-5:00 PM	21.3	4.1	9.6	21.7	5.0	11.0	22	6	12
5:00-5:15 PM	21.0	6.4	14.3	22.8	9.3	17.0	24	10	18
5:15-5:30 PM	23.3	6.5	20.3	24.1	9.0	21.9	25	10	23
5:30-5:45 PM	23.0	10.6	16.4	23.7	13.0	19.9	24	15	20
5:45-6:00 PM	20.8	6.3	15.9	22.1	8.5	17.0	23	11	19
6:00-6:15 PM	23.3	7.5	15.1	24.4	11.0	17.9	25	12	19
6:15-6:30 PM	21.5	9.8	16.5	21.9	12.2	17.9	22	15	18
6:30-6:45 PM	21.3	14.4	16.5	21.7	16.0	18.0	22	18	18
6:45-7:00 PM	21.8	15.3	17.0	22.6	17.0	18.0	23	19	18
Highest Value	23.3	15.3	20.3	24.4	17.0	21.9	25	19	23

**Notes:** <sup>1</sup>85th percentile = The queue will be less than the queue shown 85% of the time.

**Attachment C**

Sample Sites' Drive-Thru Queue Data (post-COVID)

**SUMMARY OF DRIVE-THROUGH QUEUEING DATA COLLECTION**  
**RAISING CANE'S - TYPICAL WEEKDAY (POST COVID)**  
**AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES**

Time Period	Number of Drive-through Vehicles in the Queue									
	Average Queue			85th %-ile <sup>1</sup> Queue			Peak Queue			
	Vacaville	Elk Grove	Manteca	Vacaville	Elk Grove	Manteca	Vacaville	Elk Grove	Manteca	
<b>Lunch</b>										
11:00-11:15 AM	5.7	2.8	1.4	7	4.0	3.0	10	6	3	
11:15-11:30 AM	4.3	1.9	3.5	7.0	4.0	6.0	7	5	7	
11:30-11:45 AM	6.9	2.7	1.9	9.0	4.0	2.9	10	5	4	
11:45-12:00 PM	7.9	2.6	4.3	9.0	3.9	8.0	10	5	11	
12:00-12:15 PM	9.1	10.1	11.8	10.0	13.0	12.9	10	14	14	
12:15-12:30 PM	9.8	6.3	5.9	11.0	10.0	9.0	13	13	10	
12:30-12:45 PM	14.5	4.4	12.1	15.0	6.0	15.9	17	8	16	
12:45-1:00 PM	8.2	5.3	10.9	10.0	6.0	12.0	12	8	13	
1:00-1:15 PM	6.5	5.2	5.3	9.9	7.9	8.0	11	8	8	
1:15-1:30 PM	7.2	5.0	5.1	9.0	6.0	7.0	11	7	8	
1:30-1:45 PM	6.9	7.2	4.2	9.9	8.0	8.0	11	9	9	
1:45-2:00 PM	4.5	11.0	3.1	5.9	12.0	3.9	7	13	6	
Highest Value	14.5	11.0	12.1	15.0	13.0	15.9	17	14	16	
<b>Dinner</b>										
4:00-4:15 PM	4.5	12.7	3.7	7.9	13.9	5.0	8	14	6	
4:15-4:30 PM	7.3	12.1	4.7	8.0	13.9	5.9	10	15	9	
4:30-4:45 PM	8.5	15.4	8.3	11.0	16.9	9.0	12	18	10	
4:45-5:00 PM	7.8	14.3	5.1	10.0	16.9	7.0	10	18	9	
5:00-5:15 PM	5.9	9.9	8.3	7.0	12.9	11.0	8	13	13	
5:15-5:30 PM	5.5	5.7	10.6	8.9	7.9	12.0	9	8	14	
5:30-5:45 PM	4.1	4.5	3.6	5.9	6.0	7.0	7	8	8	
5:45-1:00 PM	7.6	4.2	3.9	9.9	6.0	6.9	10	6	9	
6:00-6:15 PM	11.9	5.5	6.3	15.0	7.0	8.9	16	7	9	
6:15-6:30 PM	12.1	10.7	12.7	13.9	15.0	15.0	17	16	17	
6:30-6:45 PM	13.3	12.5	11.3	15.0	13.0	13.0	16	14	14	
6:45-7:00 PM	6.9	14.7	11.6	8.0	16.0	13.9	9	17	15	
Highest Value	13.3	15.4	12.7	15.0	16.9	15.0	17	18	17	

Notes: <sup>1</sup>85th percentile = The queue will be less than the queue shown 85% of the time.

**SUMMARY OF DRIVE-THROUGH QUEUEING DATA COLLECTION  
RAISING CANE'S - SATURDAY (POST COVID)  
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES**

Time Period	Number of Drive-through Vehicles in the Queue								
	Average Queue			85th %-ile <sup>1</sup> Queue			Peak Queue		
	Vacaville	Elk Grove	Manteca	Vacaville	Elk Grove	Manteca	Vacaville	Elk Grove	Manteca
<b>Lunch</b>									
11:00-11:15 AM	3.1	2.1	4.3	0	4.8	6.0	4	5	7
11:15-11:30 AM	4.9	3.3	3.0	7.0	4.0	4.0	8	4	5
11:30-11:45 AM	7.1	6.9	3.1	9.0	8.0	5.0	10	9	8
11:45-12:00 PM	10.0	1.9	4.9	11.0	2.9	6.0	12	4	7
12:00-12:15 PM	7.0	1.9	5.8	9.9	2.9	7.9	11	4	9
12:15-12:30 PM	3.4	2.1	7.7	4.9	3.0	9.0	6	4	10
12:30-12:45 PM	4.0	1.4	11.7	6.0	2.0	13.9	7	3	16
12:45-1:00 PM	9.1	3.1	11.1	11.9	5.0	13.0	15	5	14
1:00-1:15 PM	12.3	3.5	13.3	14.9	4.9	17.0	16	5	19
1:15-1:30 PM	15.5	5.0	13.9	20.6	7.0	17.0	22	11	18
1:30-1:45 PM	15.5	5.3	17.7	17.0	7.9	19.0	19	9	20
1:45-2:00 PM	11.4	7.4	17.7	13.9	9.0	19.9	15	10	21
Highest Value	15.5	7.4	17.7	20.6	9.0	19.9	22	11	21
<b>Dinner</b>									
4:00-4:15 PM	14.6	16.5	16.8	15.0	17.9	17.0	16	18	18
4:15-4:30 PM	11.5	13.2	12.3	12.9	15.0	14.0	14	16	15
4:30-4:45 PM	14.0	8.6	12.2	15.0	10.9	13.9	16	12	14
4:45-5:00 PM	10.0	6.9	11.6	13.9	7.9	14.0	14	8	15
5:00-5:15 PM	5.0	2.5	11.3	6.0	3.9	15.9	9	5	17
5:15-5:30 PM	11.5	1.1	16.1	13.9	2.0	17.0	16	2	18
5:30-5:45 PM	15.9	1.7	13.1	17.0	3.9	20.0	17	4	22
5:45-1:00 PM	14.9	2.9	4.8	16.0	4.8	6.0	16	5	7
6:00-6:15 PM	14.0	2.7	8.8	15.9	4.9	12.0	18	6	12
6:15-6:30 PM	12.1	5.6	12.7	14.0	7.0	13.9	15	8	15
6:30-6:45 PM	18.1	4.2	13.9	19.0	7.0	15.0	20	8	16
6:45-7:00 PM	17.7	5.2	14.7	18.9	7.8	16.0	20	9	18
Highest Value	18.1	16.5	16.8	19.0	17.9	20.0	20	18	22

Notes: <sup>1</sup>85th percentile = The queue will be less than the queue shown 85% of the time.

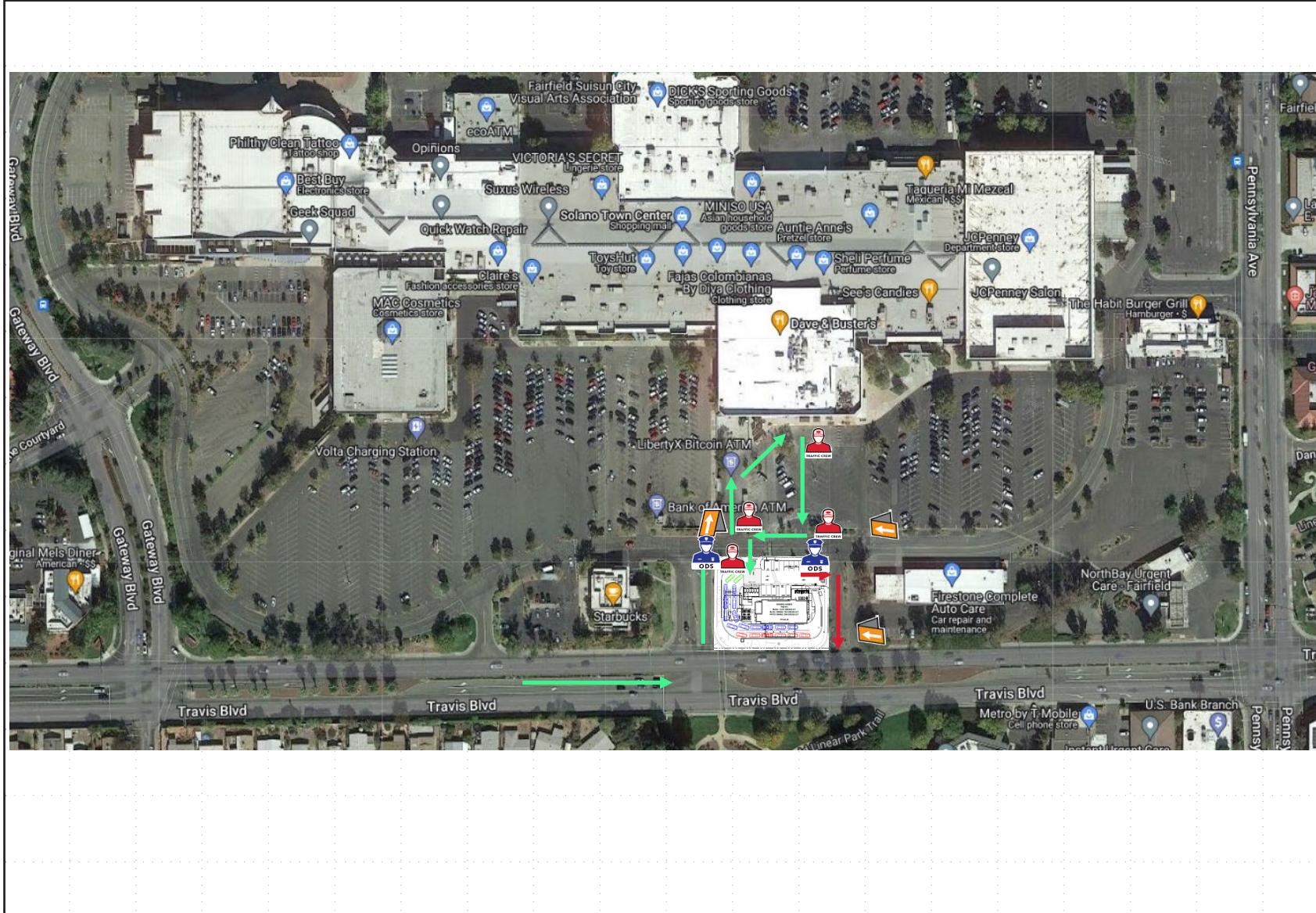
**Attachment D**

Traffic Management Plan



RESTAURANT DRIVETHRU AND PARKING FLOW  
C721 Fairfield, CA  
NRO Date:





### ADDITIONAL SUPPORT NEEDS

- Goal is to keep one point of entry from Travis Blvd and one exit onto Travis Blvd.
- Entering west bound traffic will be directed to main entrance on west side of building and keep traffic exiting drive-thru to closest curb cut on east side of building.
- Because there are other cross access points from other mall entrances, directional signage and traffic control crew/off duty officers will direct traffic to queuing points.

### FLOW INDICATORS

#### TRAFFIC DIRECTION

- Drive Thru 
- Counter 
- Exit 

#### CAR COUNTS

25 

100 

#### DIRECTIONAL SIGNAGE



#### TRAFFIC CONTROL

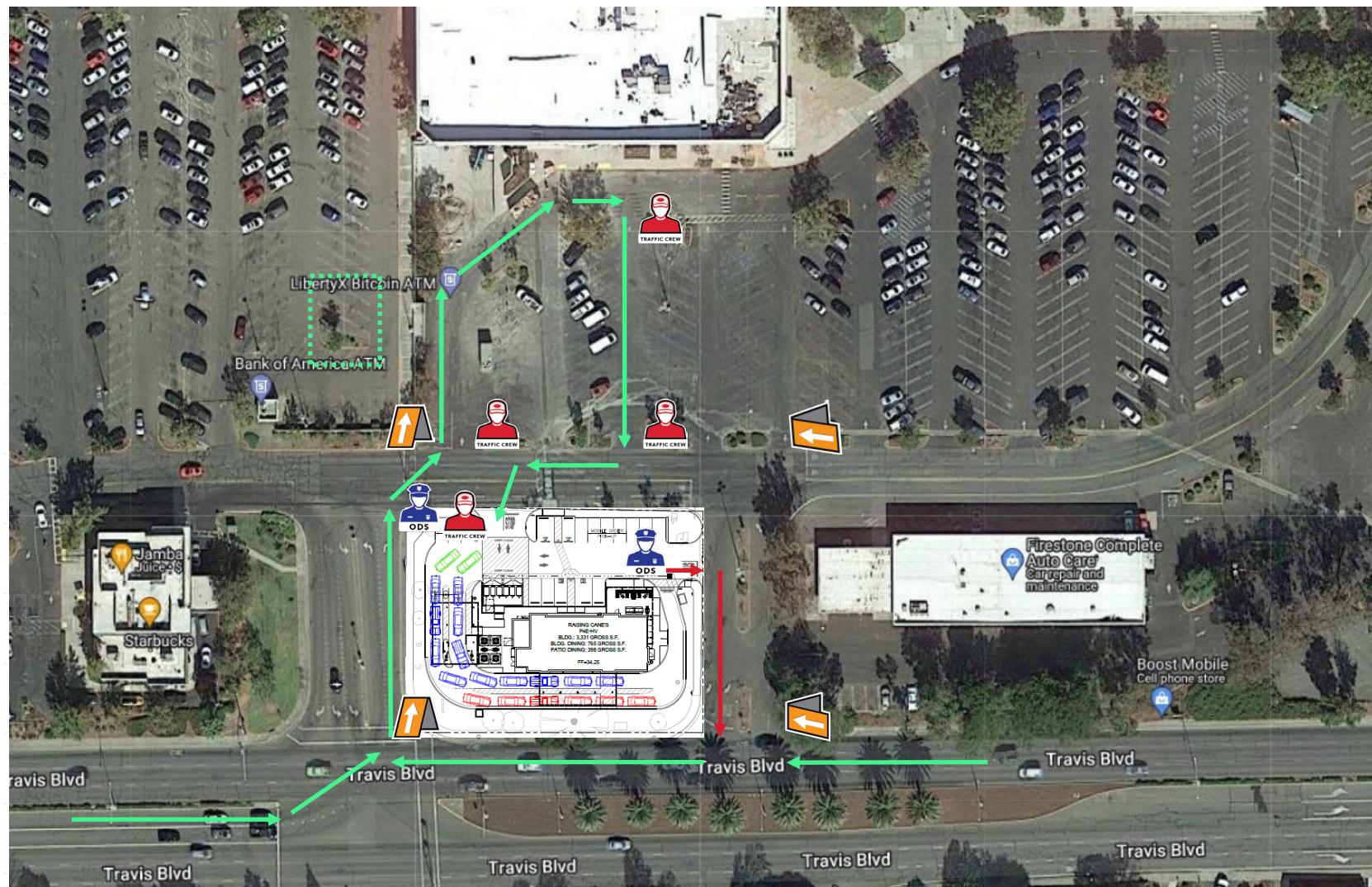


#### TENT LOCATIONS



#### OTHER DETAILS





#### ADDITIONAL SUPPORT NEEDS

- Goal is to keep one point of entry from Travis Blvd and one exit onto Travis Blvd.
- Entering west bound traffic will be directed to main entrance on west side of building and keep traffic exiting drive-thru to closest curb cut on east side of building.
- Because there are other cross access points from other mall entrances, directional signage and traffic control crew/off duty officers will direct traffic to queuing points.

#### FLOW INDICATORS

##### TRAFFIC DIRECTION

- Drive Thru 
- Counter 
- Exit 

##### CAR COUNTS

##### DIRECTIONAL SIGNAGE



##### TRAFFIC CONTROL



##### TENT LOCATIONS



##### OTHER DETAILS



**Attachment E**

Queuing Calculations

## DRIVE-THROUGH QUEUING ANALYSIS

**Project:** Raising Cane's Restaurant  
**Location:** 1420 Travis Blvd, Fairfield, CA

### INPUT VALUES

Variable	Description	Value
A =	average number of vehicle arrivals per hour <sup>1</sup>	79
S =	service rate, number of vehicles per hour	87
I =	traffic intensity, utilization factor = A/S	0.91
Q =	queue capacity (vehicles)	20

### FORMULAS

Average Length of Queue

$$\text{Avg } Q = A^2 / S(S-A) = I^2 / 1-I \quad 8.97$$

Probability of Q Number of Vehicles in Queue

$$P(Q) = (I)^Q (1-I) \quad 1.34\%$$

Probability of Queue Exceeding Q Vehicles

$$\sum_{Q=0}^{Q=a} P(Q) \geq 0.95 \quad 13.19\%$$

<sup>1</sup> For a worst-case analysis, the peak arrival rate observed at the Orange Raising Cane's site is used here.

Source: Institute of Transportation Engineers (ITE)  
Transportation Planning Handbook, 3rd Edition